

Generational Change in Agriculture – What Do Hungarian Farmers Say?

*Barriers, Supporting Factors, and Generational Differences in
the Farm Succession*

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the Context of Farm Succession*

Doctoral dissertation

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1. Introduction

The lack of generational renewal in agriculture poses a serious challenge worldwide, as an ageing farming population combined with the limited engagement of younger generations threatens the long-term sustainability of food production, the viability of rural communities, and the stability of the global food supply. In Europe—and particularly in Hungary—this issue is especially pronounced: according to the 2023 Agricultural Census, more than half of farm managers are over 60 years old, while the share of young farm holders under 40 barely exceeds ten percent (HCSO, 2023). This indicates that a significant proportion of farms will soon face the necessity of succession, while the pool of potential successors remains limited.

International scholarship has identified numerous barriers to farm transfer, including difficulties in accessing land and capital, youth outmigration, low profitability, high administrative burdens, and deficiencies in intra-family communication and role allocation. At the same time, a growing body of research highlights the importance of supportive factors such as strong family cohesion, educational and knowledge-transfer processes, and targeted policy programmes (e.g., the Young Farmers Scheme under the CAP). In this light, succession is not merely an individual or family decision but rather a complex phenomenon at the intersection of wider social, economic, and institutional processes.

Although recent years have seen an increasing number of studies on the obstacles and enablers of farm succession, comprehensive empirical analysis of the Hungarian case is still lacking. Few studies have explored how the factors identified in international literature manifest themselves in the local context and to what extent. Likewise, there is a shortage of comparative analyses that combine qualitative methods (interviews, thematic analysis) with quantitative approaches (survey research, statistical tests) and examine the role of socio-demographic factors (such as gender, age, and education) in succession decisions. This research gap is particularly relevant given that Hungarian agricultural policy (e.g., the 2021 Farm Transfer Act, CAP 2023–2027) places increasing emphasis on fostering generational renewal, while little empirical evidence exists on the actual mechanisms at play.

The aim of this dissertation is to address these shortcomings. By combining a systematic literature review, interviews, and survey research, it identifies the main barriers and supportive factors influencing farm succession and examines how socio-demographic characteristics shape decision-making processes. The novelty of this study lies in its empirical focus on Hungarian agriculture, its integration of multiple data sources, and its theoretical framing, which combines

the Theory of Family Firms with the socioemotional wealth (SEW) approach. In doing so, the dissertation contributes not only to national policy debates but also to the international literature, offering insights into the dynamics of succession in a country that has so far been underrepresented in comparative studies.

Focusing on Hungary as the empirical case, the research questions of the dissertation are as follows:

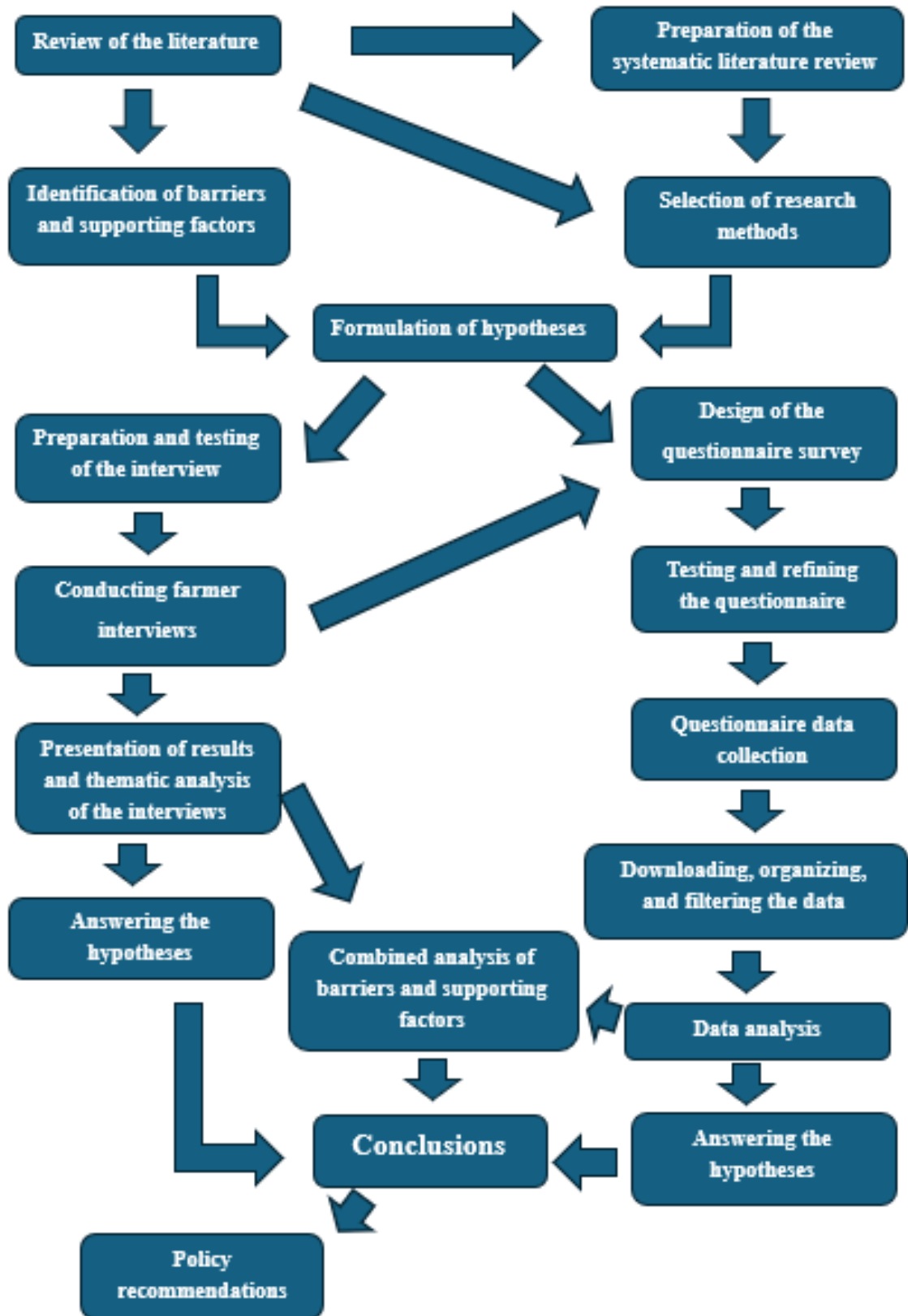
1. What are the most significant barriers to agricultural generational change, and to what extent do they hinder the transfer of farms in practice?
2. Which supportive factors promote successful farm succession, and what concrete role do they play in Hungarian agriculture?
3. How do social-demographic factors, such as gender, age, and education, form attitudes and decisions related to farm transfer?
4. How do family cohesion and involvement in decision-making influence the implementation of the succession process?
5. What role do women play in the succession of family farms, and which obstacles or opportunities determine their participation?

In this way, the dissertation provides not only practical insights for domestic policy design but also a multidimensional, empirically grounded analytical framework that enriches the international literature on agricultural generational renewal.

Figure 1 illustrates the dissertation process. Thesis preparation involved several interrelated research and analytical stages. The initial stage comprised a review of relevant literature, followed by a systematic literature review and selection of research methods. The literature analysis identified both barriers and enabling factors for generational renewal in agriculture, which formed the basis for developing research hypotheses.

Qualitative and quantitative data collection preparations began simultaneously. In the qualitative phase, interview protocols were designed, pilot tested and then used to conduct farmer interviews. Thematic analysis of interview data partially informed the evaluation of the hypotheses. For the quantitative phase, the survey instrument was designed, tested, refined, and administered. The resulting dataset was downloaded, structured, and cleaned. Statistical analysis of these data further supported hypothesis testing.

Figure 1: Flowchart of the research process



Source: Own composition

Qualitative and quantitative findings were integrated through combined analysis of enabling and constraining factors. This approach facilitated comprehensive responses to the research questions and exploration of interconnections among factors. The final stage involved drawing conclusions and formulating policy recommendations, contributing to both academic discourse and practical policymaking.

The structure of the dissertation is organized to align with the research objectives and the sequential application of selected methods. The first chapter presents a literature review that systematically examines both international and Hungarian perspectives on generational renewal in agriculture. This review emphasizes constraining and enabling factors and discusses relevant theoretical frameworks, such as the theory of family firms and the socioemotional wealth approach.

The second major section summarises the research gaps and the scientific contribution of the study, clearly outlining how the dissertation extends existing knowledge. This is followed by the formulation of hypotheses and a methodology chapter, which details the steps of the systematic literature review, including the qualitative procedures (semi-structured interviews and thematic analysis), as well as the quantitative approaches (survey research and statistical analyses).

The main body of the dissertation presents the research findings. It begins with an overview of the international and European context, followed by a detailed analysis of the Hungarian case. This section includes comprehensive presentations of interview and survey results. The Discussion chapter synthesizes empirical findings with the literature and addresses each research question, emphasizing the relationships between constraining and enabling factors.

The dissertation concludes by presenting key findings and formulating detailed policy recommendations to support generational renewal in Hungarian agriculture. The final section outlines the study's limitations and proposes directions for future research, identifying potential areas for academic investigation and policy development.

2. Literature review

2.1. Global challenge

Agriculture holds fundamental importance for the survival of humanity, as it not only ensures food security but also plays a key role in the economic and social sustainability of rural areas. Although its contribution to global GDP is relatively modest, amounting to only 4.3% in 2022 (FAO, 2022), its role in employment remains substantial. In 2024, approximately 892 million people, or 26.2% of the global workforce, were employed in the agricultural sector (FAO, 2024). This proportion is particularly high in low- and middle-income countries, where agriculture forms the backbone of the economic structure (World Bank, 2020). Thus, the sector is not only significant in terms of economic output, but also in social and employment dimensions, and it plays a pivotal role in addressing global challenges such as food security and mitigating the impacts of climate change (European Commission, 2021; FAO, 2017).

The multifaceted nature of these challenges highlights that agriculture is a vulnerable sector, not only from a production perspective but also in social and environmental terms. The FAO (2017; 2020; 2024) emphasises that agriculture worldwide is confronted with numerous interrelated problems, including climate change and the overuse of natural resources, shifting global demand and market volatility, vulnerabilities in food security, food loss and waste, as well as technological and infrastructural disparities that hinder the spread of innovation in many regions. In addition, increasing attention is being paid to demographic and social transformations such as population growth, urbanisation, rising social inequalities, and the ageing of the farming population combined with the lack of generational renewal—all of which fundamentally shape the sector's future.

Most agricultural holdings worldwide are family-owned (Corsi, 2009). According to the estimates of Lowder et al. (2016), family farmers control approximately 75% of agricultural land. Since European agriculture is predominantly based on family farms, the future of these holdings—which is strongly determined by the outcome of generational renewal—may have direct implications for land use and, more broadly, for the long-term sustainability of agricultural areas (Burton and Fischer, 2015; Demartini et al., 2015).

The succession process is typically male dominated, as women are less frequently identified as potential successors (Wheeler et al., 2020). In addition, the policy environment—such as payments under the Common Agricultural Policy (CAP), as well as land use and inheritance regulations—also strongly influences the opportunities for farm transfer. Certain forms of

support facilitate generational renewal, while other regulations—such as restrictions on land mobility—may hinder it (Corsi, 2009; Leonard et al., 2017).

At the same time, the outmigration of young people from rural areas has serious consequences for both agricultural production and rural society. Youth migration can lead to a decline in cultural capital (Zagata and Sutherland, 2015), particularly when specialised farming knowledge is lost as potential successors choose not to continue agricultural activities (Bertoni and Cavicchioli, 2016). Previous studies have shown that farms without an actual or potential successor are more likely to stagnate or decline even before the retirement of the farmer (Inwood et al., 2013; Wheeler et al., 2020). Furthermore, older farmers tend to be less open to adopting new technologies and sustainable farming systems (McDonald et al., 2015). This situation underlines the importance of involving young farmers, as they play an indispensable role in ensuring that farms can adapt to current climatic, technological, and market challenges.

In agricultural scholarship, the term “young farmer problem” denotes the dominance of older farmers and the limited share of younger ones. However, Zagata and Sutherland (2015) argue that the absence of young farmers does not constitute a problem in all contexts, as the phenomenon is often shaped by broader social and structural factors. These may include difficulties in accessing land ownership, inheritance regulations, or the limited interest of younger generations in agricultural careers. In Hungary, older farmers frequently exhibit high levels of productivity and expertise, which to some extent compensates for the low number of young entrants.

Generational renewal is often hindered by the migration of young people to urban areas, by “deactivation”—that is, the reduction or cessation of agricultural activities (Van der Ploeg, 2010)—and by the differing career preferences of the younger generation (Zagata and Sutherland, 2015).

2.2. The concept and process of farm succession

The transfer of family farms is a complex and long-term process in which farm management is passed from one generation to the next within the family (Lobley et al., 2010). The success of agricultural generational change is strongly influenced by both family and societal factors. International literature highlights that the majority of farms operate as family-based, multi-generational enterprises, where ownership and management are typically handed over to an adult child (Bertoni and Cavicchioli, 2016). In many cases, the preservation of continuity is a

more decisive factor than gender or birth order, as farmers are primarily motivated by the desire to safeguard the family legacy (Sheridan et al., 2021).

The transmission of knowledge and skills plays a pivotal role in the succession process. This encompasses not only the transfer of formal knowledge but also the sharing of tacit knowledge, which is often facilitated through mentoring and hands-on experience. Such learning processes strengthen the successor's confidence and provide a deeper understanding of farm operations (Cush and Macken-Walsh, 2016).

In traditional, family-based farm succession, the retiring farmer passes on not only ownership but also knowledge, skills, and management tasks to the next generation (Lobley et al., 2010). Maintaining family relationships is of paramount importance during this process; therefore, farmers often strive for a fair distribution of assets to prevent conflicts within the family (Leonard et al., 2017).

In practice, succession plans are rarely drawn up in advance (Burton and Fischer, 2015), which is also linked to the cultural expectation that “farmers never retire” (Conway et al., 2017). The absence of intra-family transfer has two major consequences: first, the loss of farm-specific knowledge accumulated within the family; and second, growing uncertainty over the future of farm assets, particularly land. In marginal areas, such land is especially vulnerable to abandonment and the resulting environmental and territorial degradation (Corsi, 2009). In more fertile regions, however, land without a successor is often absorbed by neighbouring farms, leading to larger operational units. Yet it remains uncertain whether the efficiency gains from this consolidation are sufficient to offset the loss of human capital and farm-specific knowledge.

2.3. Theoretical approaches to generation change

The process of generational change in family farms occurs gradually, which Gasson and Errington (1993) describe with the theory of the “succession ladder.” According to this theory, the younger generation first engages in smaller tasks, then gradually takes on greater responsibilities, ultimately leading to the management of the farm. The “succession ladder” not only relates to the transfer of economic roles but also accompanies changes in family relationships.

A central concept in the literature is the “succession effect,” which denotes the significant influence that the designation of a successor exerts on the incumbent's decisions (Lobley et al., 2010; Leonard et al., 2017). The mere identification of a successor can shape strategic choices regarding investment, modernisation, or diversification. By contrast, the “successor effect”

refers to structural transformations introduced by the new generation upon entering farm management (Lobley et al., 2010).

The succession effect may manifest in two forms: passive and active. Passive succession effects are reflected in a heightened sense of security on the part of the incumbent, which facilitates long-term planning and investment. Active effects, on the other hand, arise when the successor is directly involved in farm operations and thereby influences decision-making (Calus and Van Huylenbroeck, 2008). The active presence of a successor frequently motivates the incumbent to adopt new strategies such as technological innovation, diversification, or cooperative arrangements.

Bertolozzi-Caredio et al. (2020) conceptualise agricultural succession as a three-stage process. The first stage is identification, during which farm families recognise the potential suitability of their children for farm transfer. The second stage concerns willingness, reflecting the readiness of the younger generation to assume managerial responsibilities. The third stage is success, referring to whether the successor actually takes over the farm and is capable of maintaining its operation.

Burton and Fischer (2015) describe the succession process in family farms as a socially constructed, endogenous cycle. Within this framework, successor selection, the evolving developmental trajectory of the farm, and the gradual involvement of the next generation are closely interrelated. Through increasing participation, the family, the incumbent, and the successor themselves progressively come to recognise the successor's future role. This recognition often prompts the incumbent farmer to adopt new managerial decisions that prepare the holding for transfer. It is important to note that farmers frequently identify a potential successor in a subjective manner, even if the successor has not explicitly expressed the intention to take over (Burton and Fischer, 2015). Bertolozzi-Caredio et al. (2020) emphasise that in some cases farmers may perceive their child as a potential successor well before the child self-identifies in such terms. Chiswell (2014) distinguishes between a “potential successor”—the individual whom the farmer assumes will take over—and a “prospective successor,” who is actively moving toward assuming managerial responsibility.

To interpret the role of succession in decision-making, Zagata and Sutherland (2015) describe a so-called “triggering change cycle,” consisting of five key steps, which include:

1. Path dependency, when farmers remain on their established course of action

2. Triggering event, which creates the need for change and initiates decision-making
3. Active consideration of alternative options
4. Implementation of decisions
5. Consolidation and evaluation of the chosen approach.

Within this framework, the succession effect functions as the triggering event (Zagata and Sutherland, 2015). The identification of a potential intra-family successor creates a situation in which the farmer begins to consider the transfer and continuity of the farm and consequently becomes more willing to adopt new strategies that might otherwise have been disregarded. By contrast, farmers without an identified successor are more likely to remain on their established trajectory (Step 1: path dependency). Once, however, the necessity of making decisions arises (Step 2), the process of evaluating alternative options begins (Step 3), during which additional attitudinal factors—such as risk perception or perceived behavioural control—also come into play. Thus, the identification of a potential successor serves as the starting point of decision-making, while further individual and external factors mediate between this initial trigger and the eventual outcome (Willock et al., 1999).

Three factors are particularly important in understanding why the presence of a successor stimulates decision-making: changes in risk attitudes, the emergence of new motivations, and family and community expectations.

- Risk attitude: The presence of a successor reduces uncertainty and, in turn, risk aversion. In the absence of a successor, there is little incentive to take riskier decisions that might endanger financial stability or increase workload (Viaggi et al., 2011).
- New motivations: Succession can provide the incumbent farmer with new incentives for change. Beyond profit maximisation, there is often an explicit aim to improve the condition of the farm for the next generation (Bertolozzi-Caredio et al., 2020).
- Family and community expectations: Incumbents often respond to the expectations of the potential successor, the wider family, and the farming community (Duesberg et al., 2017).

According to the literature, certain economic and social characteristics increase the likelihood of successful succession. Some studies indicate that farms with greater capital endowments are more likely to undergo successful transfer (Bertoni and Cavicchioli, 2016; Nuthall and Old, 2017). Other research highlights that specialised farms or those engaged in non-traditional

forms of production also have a higher probability of successful succession (Corsi, 2009). Similarly, the presence of a male successor and a traditional farming family background are positively correlated with successful transfer (Bertoni and Cavicchioli, 2016). Finally, the educational background of the successor is also a decisive factor: agricultural-related education provides an advantage, while a more distant field of study tends to be a disadvantage in the succession process (Glauben et al., 2009).

2.4. Social and emotional dimensions of succession

Intergenerational farm transfer involves three interrelated processes: succession, retirement, and inheritance (Gasson and Errington, 1993). Farm transfer is often fraught with conflict. Tensions may arise even when an heir is clearly designated, as the older generation is often reluctant to relinquish decision-making authority, while the younger generation may criticise the farming practices of their predecessors (Conway et al., 2017). At the same time, the presence of an heir strongly shapes the future trajectory of the farm, since parents frequently expand or diversify production to provide additional sources of income for the next generation (Inwood et al., 2013).

The emotional factors shaping older farmers' decisions are often overlooked, which helps explain why the process of farm transfer so frequently breaks down (Conway et al., 2017). A clear example is Ireland's Early Retirement Scheme, which required participating farmers to cease farming altogether. The programme ultimately failed because it ignored the farmers' deep emotional attachment to their farms: many experienced retirements as the loss of identity, social status, and personal authority. Similar difficulties have undermined other initiatives as well, such as tax incentives or Joint Farming Ventures (JFVs). While such structures can be useful, they often fail to recognise that farmers' attachment to the land is fundamental, making it difficult for them to relinquish partial or full control over farms they may have managed for 40 or 50 years (Ingram and Kirwan, 2011).

However, succession can face numerous difficulties. The emotional attachment to land and the farming lifestyle often hinders the decision to transfer, as farming is an integral part of the farmers' identity and life purpose (Nuthall and Old, 2017; Bertolozzi-Caredio et al., 2020; Schlessner et al., 2021). This is also related to the lack of communication between generations, which often relies on unwritten expectations and can lead to misunderstandings (Bertolozzi-Caredio et al., 2020). Family conflicts—especially those related to the distribution of assets or

the presence of multiple potential heirs—can also pose significant obstacles (Schlesser et al., 2021).

Land, the farmhouse, and livestock carry symbolic meaning across generations, so succession is not merely a rational transaction but also a deeply emotional process. For this reason, understanding the farmer–farm attachment is essential to addressing the challenges of intergenerational transfer in a more sensitive and effective way. (Duesberg et al., 2017)

When the incumbent farmer perceives succession as a realistic prospect, new attitudes emerge and decision-making adjusts accordingly (Lobley, 2010). Yet the precise mechanisms through which the existence of a successor influences the incumbent’s choices remain poorly understood, as few empirical models directly examine the impact of succession on decision-making.

Nevertheless, there are factors that can facilitate the process of generational change. For instance, the farm's efforts to expand or intensify can accelerate the transfer, as increasing risks and responsibilities necessitate more conscious planning (Mishra et al., 2008; Rodriguez Lizano et al., 2022). This suggests that the developmental trajectory and succession are closely linked: investment and growth intentions shape the dynamics of transfer not only at an economic level but also at family and societal levels.

Ongoing dialogue with the potential successor can also directly shape decision-making, as the successor gradually assumes a greater role in farm operations (Gasson and Errington, 1993). Nevertheless, most decisions remain in the hands of the incumbent, which may lead to conflicts—particularly if the latter is unwilling to step back (Riley, 2016; Conway et al., 2017).

Morais et al. (2017) note that self-management is one of the main things that motivates young people. It means being able to make their own decisions, reach financial independence, and secure healthy food. Succession choices are not only shaped by these personal drivers, but also by family and social ties—parents, siblings, relatives, friends, and cooperatives all play a role. Plana-Farran and Gallizo (2021) add that having both hands-on and formal training in farm management, together with a strong emotional link to family heritage, can be just as important in encouraging young people to take over the farm.

At the same time, several studies agree that young farmers tend to display a more entrepreneurial outlook (Vesala and Vesala, 2010; McDonald et al., 2015). They are more likely to diversify their activities (Grubbström et al., 2014; Suess-Reyes and Fuetsch, 2016) and to

adopt ecologically sustainable farming practices (Bertoni et al., 2011; Suess-Reyes and Fuetsch, 2016).

These findings are particularly relevant in Hungary, where family farm restructuring followed the political transition. For the older generation, farming has often constituted both a livelihood and a cultural identity, complicating the transfer of control. In contrast, younger generations introduce a business-oriented perspective, generating new opportunities and potential tensions within established family structures.

The literature is divided on the consequences of low succession rates. Some authors argue that in more productive regions, the acquisition of farms without successors strengthens economies of scale (Chiswell and Lobley, 2015). Others caution, however, that in marginal areas the absence of succession may lead to land abandonment, the loss of farm-specific knowledge, and, in turn, environmental and territorial degradation (Corsi, 2009; Viaggi et al., 2011; Demartini et al., 2015).

A comprehensive understanding of agricultural succession requires analysis beyond economic rationality. Recent literature recognises that the operation and succession of family farms are embedded in social norms, cultural values, and family relationships (Conway et al., 2020; Nuthall and Old, 2017; Plana-Farran and Gallizo, 2021). Succession is not solely a technical or financial transaction; it is also shaped by personal and emotional factors, including the quality of family relationships, the desire to maintain family identity, and commitment to established ways of life.

2.5. Integrative frameworks

According to Perrachón (2018), the foundation of succession lies in the Generational Integration Process (GIP), which refers to the capacity of different generations to cooperate with the aim of transferring the farm. When this process is successful, the likelihood of having a successor increases. The main elements of the GIP are as follows:

- Communication: Clear and mutual expression of intentions regarding farm transfer. Transparent communication enhances the likelihood of a successful handover (Dyck et al., 2002).
- Decision-making: Involving the successor in managerial decisions. Failure to do so reduces the future leader's managerial capacity and jeopardises continuity (Lobley et al., 2010).

- Remuneration: Financial recognition of the work performed. The absence of remuneration hinders the formal integration of the successor (Morais et al., 2017).
- Educational support: Provision of formal training, which can create synergies with innovation and facilitate succession (Plana-Farran and Gallizo, 2021).
- Land use: Allocation of an independent parcel to the successor, providing a practical learning environment (Duesberg et al., 2017).
- Planning: Preparation of a prior succession plan, with the designation of a potential successor as the first step (Sheridan et al., 2021).

These GIP elements influence the likelihood of transferring family farms through a complex network of interrelationships, and they generate diverse motivations either for continuing or abandoning farming.

This study builds on two interrelated theoretical frameworks: the concept of socioemotional wealth (SEW) (Conway et al., 2020; Plana-Farran and Gallizo, 2021) and the Theory of Family Firms (TFF). SEW highlights how non-financial goals, such as emotional attachment or family control, affect strategic decision-making in family farms (Berrone et al., 2012; Gómez-Mejía et al., 2007). The TFF framework, in turn, helps to analyse the differing attitudes and values across generations (Astrachan et al., 2014; Chrisman et al., 2005). Combining these perspectives enables a multidimensional analysis of succession in Hungarian agriculture, considering the specific challenges of an ageing sector (Maró et al., 2024; Swain and Hamza, 2023). Together, these frameworks provide a comprehensive understanding of the motivations, barriers, and social embeddedness of generational renewal in Hungarian family farming.

The Theory of Family Firms looks at how family ownership and control influence the way businesses operate, make decisions, and plan for the long term. Family businesses often focus less on financial outcomes alone and more on preserving values that can be passed from one generation to the next (Garner and De la O Campos, 2014). Because the family's role as owner is so central, it shapes the culture of the business, its governance, and even its openness to innovation and risk-taking (Astrachan et al., 2014; Chrisman et al., 2005; Manzano-García et al., 2023). While strong family involvement can build commitment and cohesion, too much control—or nepotism—can hold back professional management and sometimes stand in the way of a smooth succession (Chrisman et al., 2005; Chrisman and Holt, 2016; Miller and Le Breton-Miller, 2006).

Having the family actively engaged makes succession planning more valuable, since planning is one of the keyways to preserve what is called socioemotional wealth (SEW) (Berrone et al., 2012; Chrisman and Holt, 2016; Gómez-Mejía et al., 2007). Treating succession as a strategic choice helps keep family control and identity intact. SEW explains family business decisions not just in financial terms but also in light of emotional ties and identity. In many cases, the driving force is not profiting maximisation, but the wish to protect family influence, traditions, and social standing (Berrone et al., 2012; Chrisman and Holt, 2016). This is why family businesses sometimes lean towards conservative or risk-averse choices and may pass up growth opportunities if these are seen as a threat to family values or authority.

The main dimensions of SEW include family control and influence, emotional bonds, protection of family identity, maintaining social relationships, and ensuring dynastic succession (Swab et al., 2020).

2.6. Barriers and supporting factors of generational renewal in the agriculture

The factors hindering generational change are manifold, and the literature identifies numerous dimensions, ranging from lack of motivation to family and social factors to structural and market constraints. Below, I review the most frequently mentioned obstacles that directly or indirectly influence the younger generation's decision to remain in agriculture and the process of farm succession.

Generational renewal in agriculture is shaped by a wide range of barriers—motivational, familial, social, structural, and market-related—that influence whether young people remain in farming and determine the long-term sustainability of farm succession.

A key issue raised across the literature is the lack of motivation among young people, driven by several interconnected factors. Farming is often associated with physically demanding work and difficult conditions, while in public perception it is sometimes dismissed as “dirty work” (Lorenzen and Lorenzen, 2011). Added to this is the reality that earnings in agriculture are typically lower than in many other sectors, which reduces its attractiveness (Kondo, 2021; Bosselmann, 2012). Many young people also leave rural areas for education and do not return to their family farms after completing their studies (Farrell et al., 2021). On the positive side, recent studies highlight that modern technologies—such as drones, milking robots, precision tractors, and digital farm management tools—can make agriculture more innovative and appealing to younger generations (Guerra, 2018; Heider et al., 2021; Farrell et al., 2021;

Chiswell, 2018; Karttunen et al., 2016; Widiyanti et al., 2018; Yang, 2013; St. Aisyah et al., 2020). Emotional and family bonds also remain powerful motivators that can encourage young people to continue the family business (Brandth and Overrein, 2013; Plana-Farran and Gallizo, 2021; Csizmadý et al., 2021).

Outmigration to urban areas is another pressing challenge. Many rural regions are losing their younger population, as cities are seen to offer better wages, improved working conditions, and broader career opportunities. The heavy workload and low social prestige of farming only add to the sense that agriculture is less attractive. Yet research also shows that targeted support—such as financial assistance, better access to land, and opportunities for income diversification—can encourage young people to stay in rural areas and contribute to the renewal of the sector (White, 2020).

Education plays an ambivalent role. Higher levels of education often increase the chances of young farmers applying for investment support and starting their own businesses (Popa and Turek Rahoveanu, 2021; Popescu, 2019; Farrell et al., 2019). It also tends to raise farm productivity and management quality (Gapuz and Gapuz, 2013; Elahi et al., 2022; Osterhoudt, 2018; Seck et al., 2005; Ariyo and Mortimore, 2012). At the same time, more education can open doors to careers outside agriculture, making it more likely that young people leave the sector altogether (Chiswell and Lobley, 2018). Beyond formal training, the transmission of tacit, experience-based knowledge is equally important, as it preserves local traditions and cultural values that sustain farming communities (Csizmadý et al., 2021).

Administrative burden is another barrier consistently identified in European contexts (Pechrová et al., 2018; Pechrová and Simpach, 2018, 2020; Simpach, 2017). Extensive paperwork, combined with the sector's relatively low profitability, reduces its appeal compared to other industries (Steward, 2007; Downey et al., 2016, 2017; Jansuwan and Zander, 2021). For older farmers, uncertainties about pensions complicate decisions around retirement and succession, often leading to family tensions (Downey et al., 2016, 2017). Young farmers also tend to have weaker bargaining positions in markets, limiting their opportunities (Mariwah et al., 2019; Nainggolan et al., 2020; Popa and Turek Rahoveanu, 2021; White, 2020). In this context, income diversification strategies—such as agrotourism—are frequently recommended to strengthen resilience and improve livelihoods (Galluzzo, 2016; Nemenyi and Rosser, 2010; Popa and Turek Rahoveanu, 2021; Voronina, 2018; Lorenzen and Lorenzen, 2011).

Finally, land access remains one of the most critical constraints. Rising land prices, strict regulations, and strong market competition across the EU significantly limit young farmers' opportunities (Conway et al., 2020; Ramos, 2005; de Haan et al., 2020; Yamashita and Morisawa, 2020). Inheritance-driven land fragmentation and administrative hurdles add further difficulties (Heider et al., 2018). Beyond economic considerations, land also carries deep social and emotional meaning, making families reluctant to sell and further restricting land mobility (Nemenyi and Rosser, 2010).

There is broad consensus in the literature that generational renewal in agriculture cannot be achieved without appropriate policy and financial incentives. While the effectiveness of measures varies across countries and regions, research consistently highlights the importance of subsidies, pension system development, and the promotion of innovation as key factors in engaging and retaining young farmers. The following section summarizes the most important findings from international studies.

In Romania, subsidies were tied to specific sectors, such as vegetable production. Although these supports were vital, they failed in halting the decline in the number of young farmers (Buliga-Stefanescu and Necula, 2018). At the same time, Galluzzo (2016) and Marcu (2014) demonstrated that subsidies supported income diversification, particularly in agrotourism. In Greece, programs for young farmers were evaluated as effective tools for strengthening regional farms, fostering job creation, and supporting rural prosperity (Gkatsikos et al., 2022).

In Ireland, Farrell et al. (2021) emphasize that policy should specifically target young people who are willing to return to farming after education or employment. Tailored support could increase return intentions and the likelihood of generational renewal. In Portugal, prospects are more favourable, as the new generation of farmers is more educated and more open to innovation (Guerra, 2018). In Austria, Korzenszky (2019) proposed the option of farm transfer outside the family, which would simultaneously safeguard the life's work of older farmers and facilitate the entry of young people into the sector. In Latvia, despite subsidies, the age structure of farm managers has worsened, and land consolidation has intensified. According to Nipers and Pilvere (2020), however, the situation would likely be even less favourable without such support.

In the Czech Republic, entry barriers are primarily related to land scarcity, financial constraints, and heavy administrative burdens. Although a range of measures seek to mitigate these barriers,

experience shows that financial incentives alone are insufficient, particularly when it comes to rejuvenating livestock farming (Simpachová Pechrová et al., 2018).

In Asia, social and economic factors strongly shape the prospects for generational renewal. In Indonesia, the number of family members plays a decisive role in succession decisions, while the position of young coffee producers could be strengthened through participation in associations and better coordination between production and marketing (Firman et al., 2019; Nainggolan et al., 2020). In Thailand, higher pensions could incentivize older farmers to hand over their farms, while also improving living standards in retirement (Jansuwan and Zander, 2021). In Bali, support structures exist for distributing labour within family farms and organizing seasonal workers (Lorenzen and Lorenzen, 2011). At the same time, Shokeid's (1990) research in the Atlas Mountains reveals that conflicts over access to communal resources can hinder young people's entry into agriculture.

In African contexts, studies emphasize that without financial and institutional support, young farmers cannot sustain agricultural production. In Malawi, the low level of sustainable agricultural intensification is primarily due to insufficient financial support for young farmers and poor access to credit (Lindsjö et al., 2021). In Ghana, strengthening farmers' associations and cooperatives could improve the bargaining power of young people and thereby contribute to the economic renewal of rural areas (Mariwah et al., 2019).

Overall, the literature agrees that financial support and policy programs for young farmers are indispensable for advancing generational renewal. Such measures not only alleviate challenges related to land access and profitability but also encourage income diversification and increase the willingness of the older generation to retire. Although outcomes differ across countries, international evidence demonstrates that providing financial and institutional support to young farmers is a prerequisite for the long-term sustainability of agriculture and the survival of rural communities.

2.7. Generational Theory and Farm Succession

The process of intergenerational renewal in agriculture extends beyond financial and legal aspects, encompassing social and cultural elements. The social environment, together with economic conditions from each period, determines how people in each generation will behave and make decisions about their work and personal lives. The distinct ways each generation approaches life determine their decisions about farm succession, their reasons for transferring farms, and their willingness to stay in agricultural work.

The study of generational theory enables researchers to understand how different age groups interact with one another. McCrindle and Wolfinger (2018) explain that people from different generations develop their values and behaviours based on their unique historical and cultural backgrounds. The succession of farms from one generation to the next faces challenges due to the distinct ways each generation approaches life. The succession process becomes more complex yet more rewarding because farmers from diverse backgrounds bring their individual perspectives and approaches to the table.

The post-war period, during which Baby Boomers (born 1946–1964) grew up, brought them stability as they experienced the economic growth of the post-war boom. The values of Baby Boomers include loyalty, financial security, hard work, and respect for institutional authority (McCrindle and Wolfinger, 2018). The conservative nature of their perspective makes them maintain strong ties to established social conventions. The research by Rudolph et al. (2020) shows that this generation demonstrates a strong commitment to their work and accepts organizational structures. Their historical knowledge, combined with their life experiences, continues to bring significant value to the table, despite disagreements with younger generations over certain values.

The social and economic transformations of Generation X (1965–1979) led them to develop independent thinking and practical approaches to work and life (McCrindle and Wolfinger, 2018). Members of this generation doubt institutional power because they prefer to manage their lives independently (McCrindle and Wolfinger, 2018). The generation demonstrates flexibility and digital openness, which enables them to connect the traditional and modern technological worlds (Rudolph et al., 2020).

The members of Generation Y (also known as Millennials, born between 1980 and 1994) choose to express themselves through experiences and flexible work arrangements instead of material possessions (McCrindle and Wolfinger, 2018). The members of this generation seek meaningful work that supports their personal development and social causes (Rudolph et al., 2020). Members of this generation welcome innovation and technology, while seeking feedback, flexible work options, and team-based environments (Tirocchi, 2024). The digital orientation of Generation Z aligns with Millennials, even though they hold different views about workplace commitment and organizational structure.

The members of Generation Z, born between 1995 and 2010, have grown up with digital technology from the outset. The members of this generation value their freedom to use

technology, diversity, and inclusion, and they strongly support sustainable practices and ethical purchasing (McCrindle and Wolfinger, 2018). Members of this generation think on a global scale, process information rapidly, and communicate directly with others. The new generation shows no patience for traditional organizational structures (Dwidienawati et al., 2025). Members of this generation maintain an online presence throughout their lives, handling multiple tasks simultaneously and choosing brands that align with their ethical values (D'Acunto et al., 2025). The digital behaviours of this generation create communication challenges with traditional farmers, but they share digital experiences with Millennials.

The process of succession requires more than just asset and land transfer, as it also involves passing down core values, work methods, and performance expectations. The differences in values between generations create challenges, but they also bring beneficial elements to the table. The proper management of these generational interactions leads to farming systems that become more sustainable and resilient.

2.8. Country-specific background: Hungarian agriculture

2.8.1. Institutional legacies and cooperation in Hungarian agriculture

The current patterns of cooperation in Hungarian agriculture are connected to the institutional legacy of the socialist period (1948-1989). From the late 1940s onwards, land reforms and the process of collectivisation carried out between 1948 and 1961 dismantled family-based farming and private land ownership. Farmers were forced to join collective farms through political pressure and administrative coercion, rather than voluntary, trust-based cooperation (Kalmár, 1992; Oros, 2002). As a result, socialist-type cooperatives were established as compulsory institutions, which undermined individual property and the autonomy of individual decision-making.

The literature emphasises that collectivisation had structural economic consequences and profound social and psychological effects. For many farmers, collective farming became associated with loss, vulnerability, and permanent state control, which weakened interpersonal trust and reduced the social acceptance of voluntary cooperation (Romány, 2002; Oros, 2002). These experiences persisted beyond the socialist period and shaped post-transition attitudes towards cooperation.

Following the political and economic transition, the rapid dissolution of collective farms led to a highly fragmented farm structure, while the emergence of market-based cooperation was constrained by low levels of trust and limited cooperative experience (Molnár and Farkasné

Fekete, 2003; Kapronczai, 2003). Comparative studies of post-socialist countries similarly show that forced collectivisation has had long-lasting negative effects on attitudes toward cooperation and the stability of horizontal cooperation (Kitschelt, 1999; Swinnen and Vranken, 2010). This suggests that the relatively low propensity for cooperation in Hungarian agriculture cannot be explained solely by economic rationality but is deeply rooted in historical and institutional path dependencies.

Hungary's accession to the European Union in 2004 represented a major institutional turning point for the agricultural sector, while simultaneously reinforcing several pre-existing structural weaknesses. Pre- and post-accession studies have highlighted that Hungarian agriculture lagged behind the EU average in terms of organisation, technological level, and competitiveness, while a fragmented and dual farm structure constrained adaptive capacity (Kapronczai et al., 2005; Udovecz, 2007). Integration into the single market intensified competitive pressures, accelerating differentiation among farms and fostering consolidation, as larger and better-capitalised holdings were able to adjust more effectively to the new institutional and market conditions (Popp et al., 2007; Popp et al., 2018).

The adoption of the Common Agricultural Policy fundamentally reshaped income structures in Hungarian agriculture and increased concentration within the sector. Decoupled, primarily cultivated area-based payments played a significant role in stabilising farm incomes and reducing market risks; however, access to these supports and the capacity to translate them into productive investments were largely concentrated among larger farms. Evidence from the 2004–2017 period indicates that agricultural investments, technological upgrading, and production value increasingly accumulated within these holdings, while smaller, capital-constrained farms often remained on lower-productivity trajectories (Popp et al., 2018). The joint strengthening of consolidation and concentration processes thus reinforced the dual structure of Hungarian agriculture, suggesting that EU accession primarily affected income stability and financing conditions, while deeper structural and organisational adjustment remained only partial.

2.8.2. Generational renewal in Hungarian agriculture within the framework of the Common Agricultural Policy

In Hungary, support for generational renewal in agriculture has been gradually developed and institutionalised within the framework of the Common Agricultural Policy (CAP) following the country's accession to the European Union. In the 2004–2006 period, the first years of programming after EU accession, support for young farmers primarily took the form of start-

up aid linked to rural development measures, aimed at encouraging entry into agriculture and facilitating the establishment of new farms (European Commission, 2009).

During the 2007–2013 programming period, support for young farmers was a dedicated measure within national rural development programmes, in line with EU rural development policy objectives aimed at improving the unfavourable age structure of farm managers and promoting the entry of new generations into agriculture (European Commission, 2013). In this period, policy instruments mainly focused on strengthening newly established farms and supporting the transition to farm management, while indirectly supportive structural measures also played a role. Subsequent evaluations by the European Court of Auditors highlighted that the effectiveness of young farmer support varied considerably across Member States, and that in many cases the targeting of support did not lead to genuine generational renewal (European Court of Auditors, 2017).

In the 2014–2020 CAP period, support for generational renewal adopted a more comprehensive approach, as measures for young farmers were no longer confined to the rural development pillar but were complemented by additional income support within the system of direct payments. This dual approach reflected the policy recognition that farm succession is not a one-off investment decision, but rather a prolonged transitional process in which income stability during the start-up phase plays a crucial role (European Commission, 2021). At the same time, assessments by the European Court of Auditors noted that the impact of these measures depended heavily on the quality of national implementation and on the extent to which policy instruments addressed structural entry barriers (European Court of Auditors, 2017).

In the transitional period between 2020 and 2022, the support logic of the 2014–2020 programming cycle continued unchanged, ensuring continuity between funding periods while the European Union and the Member States prepared for the introduction of the CAP Strategic Plans for 2023–2027 (European Commission, 2021; European Commission, 2023a).

In the 2023–2027 period, with the introduction of the Hungarian CAP Strategic Plan, support for generational renewal became an explicit policy priority. Within this framework, Hungary supports young agricultural producers through a combination of income support linked to direct payments and targeted rural development interventions (European Commission, 2023a). In addition, a dedicated generational renewal support scheme, specifically aimed at facilitating farm transfer and succession, has been introduced in this period, seeking to encourage the entry

of young farmers and to promote more structured intergenerational farm transfer processes (Ministry of Agriculture, 2024b).

2.8.3. Hungarian agriculture nowadays

Hungarian agriculture continues to play a significant role in the economic and social functioning of rural areas; however, it has been undergoing long-term structural transformation. According to data from the Hungarian Central Statistical Office (HCSO), approximately 241,000 agricultural holdings operated in Hungary in 2020, indicating a highly fragmented farm structure. Based on the 2023 agricultural statistical data collection, the number of agricultural holdings declined to 196,000 by 1 June 2023, representing a nearly 19% decrease over the three years. At the same time, the average farm size increased, indicating structural consolidation and concentration alongside the decline in the number of farms (HCSO, 2023a).

Hungary's utilised agricultural area exceeds 5 million hectares, accounting for a substantial share of the country's total land area and encompassing arable land, grasslands, orchards, and other cultivated areas (HCSO, 2024a). The production structure is still characterised by the dominance of crop production, particularly arable crops, while the relative importance of livestock production has been declining over the longer term. According to the agricultural accounts, the production value of crop farming exceeded that of livestock production in 2024, signalling a further shift in the structure of Hungarian agriculture (HCSO, 2024b).

In terms of economic weight, agriculture plays a moderate but non-negligible role in the Hungarian economy. Data indicate that agriculture, forestry, and fishing accounted for approximately 3.5% of gross value added in 2024, reflecting the sector's continued relevance within the national economy (HCSO, 2024c).

2.9. Research gaps and contributions

A review of current research on agricultural generational change shows that many questions remain open. Passing farms from one generation to another involves not just economics or law, but also people, families, and communities. However, earlier studies are often fragmented. Many focus on short time frames, small datasets, or English-language sources only. As a result, we still do not have a complete picture, especially for Europe and Hungary.

We also know little about how decisions are made during succession. For instance, does having a successor influence a farmer's choice to invest in technology, diversify income, or modernize? These questions are rarely explored. The same goes for the impact of gender, age, and education.

In post-socialist countries, there remains a limited understanding of how these social and demographic factors influence succession. Most studies employ either qualitative or quantitative methods alone, rather than combining them for a more comprehensive view. Key topics, such as how young farmers' willingness to innovate relates to successful succession or how gender inequalities affect the process, are often overlooked. Finally, research tends to examine factors that help or hinder succession separately, without considering which are most important or how they interact with one another.

The Hungarian case study offers distinctive value because it is situated in a post-socialist context. The agricultural sector underwent significant changes through collectivization and the post-transition period, resulting in a farming structure comprising family farms, corporate holdings, and cooperatives. The succession process remains influenced by past agricultural systems, as older farmers recall state-controlled farming, while younger farmers must contend with problems stemming from land fragmentation, complex regulations, and property restitution. Moreover, family farms in Hungary play a strong social and identity-based role, not only an economic one—an aspect rarely addressed in international studies, which focus mainly on efficiency and policy incentives.

This dissertation addresses these gaps by reviewing international research from 1990 to 2022 and providing a structured summary of current knowledge. It combines qualitative interviews with farmers' stories and a quantitative survey of 249 participants to measure the importance of different factors in practice. The use of mixed methods—interviews, surveys, and statistical models—allows for complex, system-level, and agriculture-specific conclusions that go beyond the scope of earlier fragmented studies. The study also examines how young farmers perceive investment and modernization, as well as the specific challenges and opportunities that women face in succession. Using factor analysis and regression models, it identifies key patterns among supportive and hindering factors and assesses their importance. The research contributes to theory and provides clear evidence about why generational change in Hungarian agriculture is complex and vital for rural communities.

In summary, this dissertation contributes to the literature on agricultural generational change in three ways. First, it offers a methodological contribution by systematically integrating qualitative and quantitative approaches, combining in-depth interviews, a large-scale survey, factor analysis, and regression modelling within a coherent mixed-methods framework. This integrative research design enables a more comprehensive and nuanced understanding of succession processes than studies relying on a single methodological approach. Second, from

an empirical perspective, the dissertation provides novel evidence from Hungarian agriculture, a post-socialist context that remains underrepresented in international research. By analysing farmers' lived experiences, decision-making processes, and succession intentions, the study highlights the central role of family relations, emotional attachment, gender dynamics, and identity-based factors alongside economic considerations. Third, by situating the Hungarian findings within an international context, the research contributes to the reinterpretation of existing theoretical frameworks on agricultural generational change.

2.10. Summary of the literature review

Table 1 provides a structured overview of the main theoretical approaches to farm succession and generational change in agriculture, highlighting the diversity of conceptual perspectives and their key insights. By systematising the core assumptions and findings of the literature, the table offers a coherent framework for understanding the multidimensional nature of generational change.

Table 1.: Main theoretical approaches to farm succession and generation change

Theoretical approach	Key authors	Focus	Main findings related to succession
Succession ladder	Gasson and Errington (1993); Lobley et al. (2010)	Gradual transfer of roles, responsibilities, and control within family farms	Farm succession is a long-term, stepwise process rather than a single event; early involvement of successors increases continuity and investment willingness
Succession effect / Successor effect	Lobley et al. (2010); Leonard et al. (2017)	Influence of successor identification on incumbent farmers' decisions	The mere presence of a potential successor shapes strategic decisions, including investment, modernization, and diversification
Socioemotional Wealth (SEW)	Gómez-Mejía et al. (2007); Berrone et al. (2012)	Non-financial goals such as family identity, emotional attachment, and control	Family farms often prioritize emotional and identity-based goals over short-term profit maximization in succession decisions

Theory of Family Firms (TFF)	Chrisman et al. (2005); Astrachan et al. (2014)	Family ownership, governance, and intergenerational control	Family involvement influences strategic behaviour, risk attitudes, long-term planning, and succession outcomes
Generational Integration Process (GIP)	Gasson and Errington (1993); Perrachón (2018)	Cooperation and interaction between generations	Successful farm transfer depends on communication, joint decision-making, remuneration, education, and prior planning
Triggering change framework	Zagata and Sutherland (2015)	Change as a reaction to triggering events	Succession acts as a key trigger that can break path dependency and initiate strategic and organizational change
Generational theory	McCrindle and Wolfinger (2018); Rudolph et al. (2020)	Differences in values, attitudes, and work culture across generations	Generational differences shape approaches to work, innovation, risk-taking, and expectations related to succession
Entrepreneurial orientation of young farmers	Vesala and Vesala (2010); Suess-Reyes and Fuetsch (2016)	Innovation, diversification, and sustainability	Younger farmers tend to be more open to innovation, diversification, and sustainability-oriented practices
Institutional and policy context	Burton and Fischer (2015); Conway et al. (2020)	Role of regulation, policy instruments, and institutional settings	Administrative burdens, land regulation, and policy design significantly affect succession and generational renewal

Source: Own composition based on the literature review

The literature reviewed in this chapter demonstrates that generational change in agriculture is a complex, multidimensional process situated at the intersection of economic, social, and family-related factors. International research consistently emphasises that farm succession should not be understood as a single decision or event, but rather as a long-term, gradual process in which the early identification, involvement, and preparation of a potential successor are decisive.

Economic conditions, such as farm profitability, capital endowment, and access to land, constitute important framework conditions for succession, yet they are insufficient on their own to explain either successful or unsuccessful generational transfer.

A substantial body of the literature highlights the central importance of family and emotional dimensions, including family cohesion, identity, emotional attachment to the farm, and the quality of intergenerational communication and cooperation. Many studies show that succession decisions are frequently guided by the desire to preserve family heritage and continuity rather than by strict profit-maximising logic. At the same time, findings on the influence of gender, age, and educational background remain inconsistent, suggesting that these factors operate in a strongly context-dependent manner, shaped by institutional, cultural, and social environments.

From a methodological perspective, the literature is characterised by fragmented approaches, with most studies relying on either qualitative or quantitative methods in isolation. Relatively few contributions integrate family narratives, decision-making processes, and statistically measurable variables within a single analytical framework. Empirical evidence from post-socialist countries, including Hungary, remains particularly limited, despite the fact that historical legacies, land ownership structures, and institutional settings in these contexts substantially influence the dynamics of generational change. In countries such as Hungary, forced collectivisation, disrupted property relations, and long-lasting deficits of trust and cooperation have shaped farm structures and family-level decision-making processes, while European Union accession and the adoption of the Common Agricultural Policy have primarily stabilised farm incomes without fully overcoming underlying structural constraints.

Overall, the literature review indicates the need for an integrated research approach that captures the structural, family-related, and individual decision-making dimensions of agricultural succession simultaneously, while remaining sensitive to historically embedded institutional contexts. These insights provide the conceptual foundation for the research questions and hypotheses formulated in the following chapter, which build on the reviewed literature while addressing its identified limitations through a mixed-methods empirical design.

3. Hypotheses

To answer the main questions in this dissertation, I combined qualitative and quantitative methods to capture the complexity of the topic. The qualitative research explored personal

experiences, family relationships, and how interviewees understood the succession process. The quantitative study included more farmers and measured the effects of key factors. First, I will present the hypotheses from the qualitative analysis, then the propositions from the quantitative study. Together, these methods offer a clearer view of the many sides of generational change in agriculture.

3.1. Hypotheses for qualitative analysis

The aim of the qualitative analysis was to gain a deeper understanding of how generational change unfolds in agriculture and to identify the factors that shape farmers' decisions, motivations, and the challenges they face. Through semi-structured interviews, participants shared their own experiences and perspectives, offering a personal view of both the difficulties and opportunities involved in farm transfers. The findings revealed clear generational differences, the importance of family relationships, and the weight of structural and administrative barriers—all of which play a decisive role in shaping outcomes. The next section introduces the hypotheses that emerged from this qualitative research.

The literature consistently shows that young people born into family farms demonstrate stronger commitment to agricultural succession compared to those entering from outside the sector. The 'succession ladder' concept hypothesizes farm transfer as a gradual process in which responsibility is increasingly delegated across generations (Gasson and Errington, 1993). Importantly, even the early identification of a potential heir has measurable effects on managerial and investment decisions, a dynamic often referred to as the successor effect (Leonard et al., 2017; Lobley et al., 2010). Beyond structural considerations, the continuity of family heritage and identity frequently emerges as a decisive factor in succession, sometimes outweighing gender or birth order in determining who becomes the following farm holder (Sheridan et al., 2021). Furthermore, succession decisions are embedded in family narratives and cultural legacies, suggesting that the symbolic meaning of continuity is at least as influential as economic rationality (Suess-Reyes and Fuetsch, 2016; Zagata and Sutherland, 2015).

H1. Young farmers born into agricultural families are more likely to assume family farm leadership than those who enter the sector later in life in Hungary.

The literature suggests that farm succession is not merely an economic transaction but also a process rooted in identity, lifestyle, and intergenerational values (Fischer and Burton, 2014; Murtagh et al., 2023; Nuthall and Old, 2017). Moreover, autonomy, independence, and family ties are fundamental motivational drivers determining the willingness of younger generations

to continue farming (Morais et al., 2017). Beyond economic incentives, succession is thus often framed as a social and cultural process, where the continuity of heritage and the preservation of rural traditions play a central role (Riley, 2016). Studies have also shown that motivations such as self-realization, a strong sense of belonging to family and land, and attachment to rural life can outweigh purely financial considerations (Fischer and Burton, 2014; Mishra et al., 2010).

H2. In Hungary, farmers' motivations for farm continuation go beyond financial aspects, reflecting family values, self-fulfilment, and the rural lifestyle.

The literature emphasizes that bureaucracy and regulatory frameworks represent significant obstacles to the successful intergenerational transfer of farms (Conway et al., 2016; Ingram and Kirwan, 2011). The lack of structured succession planning and the cultural reluctance to retire intensify these challenges, reinforcing the difficulties of timely and effective farm transfer (Burton and Fischer, 2015; Suess-Reyes and Fuetsch, 2016).

These obstacles are not merely technical but reflect broader governance issues in agricultural policy that create uncertainty for current and prospective farmers (Burton and Fischer, 2015). Studies also show that excessive bureaucracy disproportionately affects smaller family farms, with limited administrative capacity, thereby exacerbating inequalities in succession opportunities (Lobley et al., 2010; Zagata and Sutherland, 2015).

H3. In Hungary, administrative burdens constitute a significant barrier to successful generational renewal in family farming.

Younger agricultural generations are often characterized by greater openness to innovation, diversification, and sustainability-oriented practices, whereas older generations tend to adopt more conservative approaches (Suess-Reyes and Fuetsch, 2016; Vesala and Vesala, 2010). However, innovation should not be interpreted solely as an age-dependent phenomenon; rather, it reflects attitudes, skills, and competencies that transcend generational boundaries. Previous studies highlight that the successful renewal of family farms depends on combining the entrepreneurial orientation of younger successors with the experiential knowledge and prudence of the older generation (Chiswell, 2018; Rodriguez-Lizano et al., 2022). Thus, intergenerational cooperation appears to be the critical mechanism for achieving continuity and modernization in family farming.

H4. Generational differences in family farming are primarily expressed in attitudes towards innovation, risk-taking, and work culture, with successful succession in Hungary relying on the integration of perspectives from both generations.

The literature emphasizes that farm succession typically unfolds in three stages: (1) the identification of a potential successor, (2) the assessment of their willingness and commitment, and (3) the eventual transfer of ownership and managerial control (Bertolozzi-Caredio et al., 2020). The early active involvement of the successor has been shown to stimulate the adoption of new strategies and managerial innovations (Calus and Van Huylenbroeck, 2008). Successful transitions, however, depend not only on structural arrangements but also on relational dynamics. Trust, clear communication, and the gradual integration of the successor into decision-making processes are identified as prerequisites for a smooth transfer (Dyck et al., 2002;). In addition, intergenerational succession requires the older generation's willingness to disengage from daily operational control emotionally, a challenge frequently noted in family business studies (Fischer and Burton, 2014; Lobley et al., 2010).

H5. Successful farm succession is a gradual, multi-year process built on trust, the clarification of ownership structures, and the emotional disengagement of the older generation, within the Hungarian context.

International literature often highlights the limited interest of younger generations in agricultural careers and their tendency to leave rural areas (May et al., 2019; Zagata and Sutherland, 2015). More recent studies further confirm these concerns. For example, Ayyıldız et al. (2025) show that while family land ownership and access to income sources increase the likelihood of remaining in agriculture, higher education levels and urban employment opportunities are strong pull factors driving young people away from farming. Similarly, Girdziute et al. (2022) emphasize that although a rural upbringing and agricultural family background foster a stronger willingness to work in the sector, low income, heavy physical workload, and unclear career prospects often discourage long-term engagement. Consentino et al. (2023) also find that while some young people perceive agriculture as a viable career option, especially when raised in farm households, concerns about income stability, quality of life, and access to services remain critical barriers. This body of literature suggests that structural and socio-economic challenges continue to undermine the attractiveness of farming careers among youth, contributing to persistent succession difficulties in family farming.

H6. In Hungary, young people are less motivated to pursue farming as a long-term career when they perceive low-income prospects and limited career opportunities in agriculture, particularly in comparison with alternative non-agricultural career paths that offer greater income stability and better working conditions.

3.2. Hypotheses for quantitative analysis

The purpose of the quantitative analysis is to examine the key determinants of generational change in agriculture in a measurable form. The online survey enabled the involvement of a broader farming population and allowed for the investigation of variables such as family participation, decision-making control, financial performance, educational background, and the role of gender in discussions about farm succession. The formulation of hypotheses was grounded both in the existing literature and in the qualitative findings, so that the two approaches complement each other and together contribute to a more comprehensive understanding of the succession process.

In family firms, ownership, management, and control are often shared among family members (Manzano-García et al., 2023), and strategic decisions are shaped by economic considerations and non-financial goals such as family identity and continuity. According to SEW theory, maintaining family control and emotional bonds with the business are primary motivational factors behind long-term planning (Berrone et al., 2012; Chrisman and Holt, 2016). High levels of family involvement are thus strongly associated with a higher likelihood of succession planning, as this process safeguards transgenerational control and identity (Swab et al., 2020). In particular, the presence of family labour on the farm reinforces operational efficiency and intergenerational cohesion, which strengthens the emotional attachment necessary for successful generational transition (Gómez-Mejía et al., 2007). These dynamics are especially relevant in countries such as Hungary, where emotional ties to land and family business remain deeply rooted across generations (Swain and Hamza, 2023).

Moreover, decision-makers protect financial returns and sustain family influence and identity (Conway et al., 2020; Plana-Farran and Gallizo, 2021). Those with control are empowered to align with family values. Family members in decision-making roles have greater autonomy and are more likely to feel they own the future of the company. This role creates opportunities to address strategic issues, such as succession (Chrisman and Holt, 2016). Participation in decision-making also means a transformation of the agent-principal relationship, where the

individual actor can act in his own interest and in line with family values (Astrachan et al., 2014).

Based on SEW theory, close family relationships help to preserve non-material values such as family identity and transgenerational traditions (Berrone et al., 2012; Chrisman and Holt, 2016). For family members involved in the operation of the farm, generational change is not only a business decision, but an emotionally motivated process - in which the role of family cohesion is particularly emphasized (Plana-Farran and Gallizo, 2021). Family support influences agricultural career choices and discourses about the future of the farm. An environment where family members actively encourage conversations about succession increases the likelihood that these processes will occur in a structured and forward-looking manner (Conway et al., 2020). This is particularly present in family farms, where the emotional dimension and personal relationships are integral part of decision-making. Thus, childhood attachment to agriculture strengthens belongingness and succession intentions (Firman et al., 2023; Jansuwan and Zander, 2021).

H7. In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present.

Furthermore, the literature shows a positive correlation between farm financial performance or net profitability and the likelihood of engaging in farm succession planning. Financially stable farms tend to have the incentive and capacity to initiate succession discussions while underperforming farms often delay such conversations due to uncertainty or lack of assets (Akintayo and Makinde, 2025; Mishra et al., 2010; Nipers and Pilvere, 2020).

H8. In Hungary, higher farm-level financial performance, as measured by Standard Gross Margin, increases the likelihood of engaging in discussions about generational change.

Gender roles in the agricultural sector are driven by social expectations, particularly in the case of family farms where traditional patriarchal divisions of labour and values are dominant (Brandth and Haugen, 2010; Brandth and Overrein, 2013; Chiswell, 2018). The literature suggests that male heirs are more often directly involved in farm processes and are more likely to be viewed by parents as the natural successors (Brandth and Haugen, 2010; Chiswell and Loble, 2018). As a result, female family members are often excluded from decision-making and succession discussions, even if they have strong emotional ties to the farm and regularly

work on it (Borda et al., 2023; Lobley et al., 2010). The underrepresentation of female heirs is due to formal legal and economic barriers, and family members often perceive them as less competent or legitimate heirs (Brandth and Haugen, 2010; Brandth and Overrein, 2013). This may be particularly pronounced in post-socialist countries, where traditional gender roles have been re-enforced after the economic transition (Swain and Hamza, 2023). But a growing body of literature suggests that female successors can also become strategic actors if they receive appropriate institutional support and recognition (Conway et al., 2020; Coopmans et al., 2020).

H9. Within the Hungarian context, male successors are more frequently entrusted with traditional agricultural tasks, reflecting societal expectations, and are therefore more likely to report succession discussions due to their higher influence in family succession processes.

Moreover, regarding sociodemographic attributes, literature indicates that farmers with agricultural education or higher qualifications engage more with farm succession and generational change conversations. Education enhances awareness of long-term planning, succession risks, and institutional frameworks that support generational renewal (Conway et al., 2021; Sroka et al., 2019). Thus, educated farmers are also more likely to participate in formal succession programs and knowledge-sharing activities

H10. Hungarian farmers holding higher agricultural qualifications are more likely to speak about generation change.

Finally, older farmers, are more talkative in discussing farm succession than their younger counterparts. The generational differences are based on perceived social responsibility, life experience, and attitudes toward continuity in farming. Younger generations, while concerned about succession, are less inclined to initiate succession planning conversations, often due to uncertainty, perceived inequality, or feeling disempowered (Borda et al., 2023; Conway et al., 2021; Sroka et al., 2019).

H11. Older generation farmers (Baby Boomers) are more likely to speak about generation change than younger ones in Hungary.

3.3 Summary of the hypotheses

The Table 2 summarizes the research questions and corresponding hypotheses, clarifying the dissertation's logical framework. Each research question is linked to hypotheses that convert thematic issues into testable statements. This structure maintains alignment among the theoretical background, empirical analysis, and interpretation of findings.

Table 2.: Research questions and their corresponding hypotheses

Research Question 1: What are the most significant barriers to agricultural generational change, and to what extent do they hinder the transfer of farms in practice?	H3. In Hungary, administrative burdens constitute a significant barrier to successful generational renewal in family farming.
	H6. In Hungary, young people are less motivated to pursue farming as a long-term career when they perceive low-income prospects and limited career opportunities in agriculture, particularly in comparison with alternative non-agricultural career paths that offer greater income stability, better working conditions.
Research Question 2: Which supportive factors promote successful farm succession, and what concrete role do they play in Hungarian agriculture?	H2. In Hungary, farmers' motivations for farm continuation go beyond financial aspects, reflecting family values, self-fulfilment, and the rural lifestyle.
	H5. Successful farm succession is a gradual, multi-year process built on trust, the clarification of ownership structures, and the emotional disengagement of the older generation, within the Hungarian context.
	H7. In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present.
Research Question 3: How do social-demographic factors—such as gender, age, and education—form attitudes and decisions related to farm transfer?	H1. Young farmers born into agricultural families are more likely to assume family farm leadership than those who enter the sector later in life in Hungary.
	H4. Generational differences in family farming are mainly expressed in attitudes towards innovation, risk-taking, and work culture, with successful succession relying on the integration of perspectives from both generations in Hungary.

	H10: Hungarian farmers holding higher agricultural qualifications are more likely to speak about generation change.
	H11. Older generation farmers (Baby Boomers) are more likely to speak about generation change than younger ones in Hungary.
Research Question 4: How do family cohesion and involvement in decision-making influence the implementation of the succession process?	H7 In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present.
	H8. In Hungary, higher farm-level financial performance, as measured by Standard Gross Margin, increases the likelihood of engaging in discussions about generational change.
Research Question 5: What role do women play in the succession of family farms, and which obstacles or opportunities determine their participation?	H9. Within the Hungarian context, male successors are more frequently entrusted with traditional agricultural tasks, reflecting societal expectations, and are therefore more likely to report succession discussions due to their higher influence in family succession processes.

Source: Own composition

The first research question focuses on the barriers to generational change, with particular attention to structural and motivational constraints that directly hinder farm transfer in practice. The related hypotheses examine the role of administrative burdens and declining motivation among younger generations, highlighting how the institutional environment and limited income prospects reduce the attractiveness of farming as a long-term career.

The second research question addresses the factors that support successful farm succession and explores the role of non-economic and family-related mechanisms in maintaining farm continuity. The corresponding hypotheses emphasise the complexity of farmers' motivations, the importance of trust-based and gradual transfer processes, and the role of active family involvement and support in facilitating succession.

The third research question examines how socio-demographic characteristics—such as family background, generational affiliation, and educational attainment—shape attitudes and decisions regarding farm transfers. The hypotheses linked to this question allow for an assessment of how generational differences, agricultural qualifications, and age influence thinking about succession and communication regarding farm transfer.

The fourth research question centres on family cohesion and participation in decision-making. The associated hypotheses test whether active involvement of family members, decision-making autonomy, and farm-level financial performance increase the likelihood of discussing generational change and succession planning.

Finally, the fifth research question focuses explicitly on gender roles and investigates how traditional divisions of labour and societal expectations influence women's participation in family farm succession processes.

The hypotheses formulated in this chapter organise the key factors identified in the literature review into a coherent analytical framework and establish a clear link between the research questions, the applied theoretical approaches, and the empirical investigation. The distinction between qualitative and quantitative hypotheses does not imply separation but rather complementary levels of analysis: while the qualitative component provides an in-depth, exploratory understanding of family dynamics and social contexts, the quantitative analysis enables the statistical testing and broader assessment of the identified relationships. Together, these hypotheses form the foundation of the methodological approach presented in the following chapter, which details the data collection procedures and analytical techniques employed in the dissertation.

4. Methodology

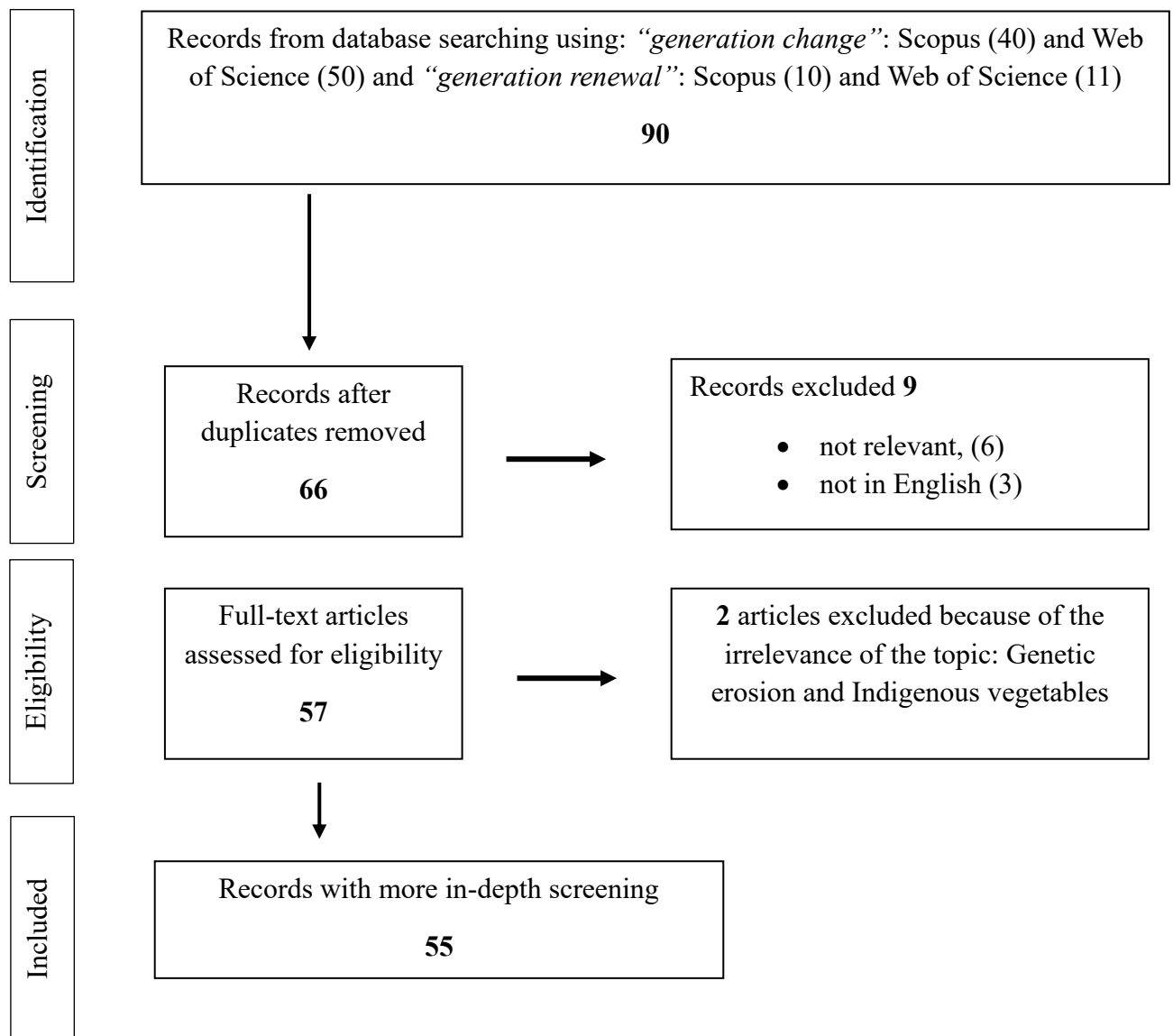
The methodological structure of my research is based on a mixed methodology, exploratory-explanatory design, which allows me to capture the complex phenomenon of generational change on multiple levels, reinforcing each other. The essence of the exploratory-explanatory mixed methodology design is that I first identify the relevant phenomena and correlations using qualitative methods, then examine and explain them using quantitative tools on a broader sample. This approach allows the deeper understanding gained in the qualitative phase and the generalizable results of the quantitative phase to complement each other in answering the research questions (Creswell and Plano Clark, 2018).

First, I conducted a systematic literature review (following PRISMA logic) to identify relevant conceptual frameworks and variables, then deepened my understanding with semi-structured in-depth interviews, with a particular focus on family dynamics, motivations, and barriers. I processed the interviews using reflexive thematic analysis, inductive coding, and validation based on researcher consensus. Based on the qualitative results and the literature review, I developed an online questionnaire that used Likert scale items to measure barriers and facilitators, as well as the likelihood of discussing business succession. In the quantitative analysis, I used probit models to examine the effects of family involvement, decision-making autonomy, financial performance, and generational affiliation, checking model fit with standard diagnostics. Accordingly, this chapter presents the systematic literature review procedure, the steps of the interviews and thematic analysis, the questionnaire sample and variables, and then the models and evaluation procedures used, also touching on the limitations of sampling and online data collection.

4.1 Methodology of systematic literature review

To realise a comprehensive review of the generational change in the agriculture sector, an extended search was conducted using the following online database: Web of Science (2022a, 2022b) and Scopus (2022a, 2022b) for the selected period from 1990 to 2022. For the phrase ‘generation change’, there is a more sophisticated term: ‘generation renewal’. Due to that repetition, two search were performed in both databases with the two different terms. Initially, the combination of keywords ‘generation change’ and ‘young farmer’ (search string: TITLE-ABS-KEY (generation and change) AND TITLE-ABS-KEY (young AND farmer) were used, and the search had to appear in the title, keywords, or abstract of the sources. Moreover, the other phrase ‘generation renewal’ was also researched, as previously, however, one word was changed. Thus, the search string was the following: TITLE-ABS-KEY (generation AND renewal) AND TITLE-ABS-KEY (young AND farmer). The authors concentrated only on scientific journals, economic literature, and materials written only in English were selected. The research was restricted to materials published between 1990 and 2022.

Figure 2.: The literature selection process following the PRISMA guidelines



Source: Own composition, Borda et al., 2023

The first initial search (using ‘generation change’) obtained 90 entries, plus the second phase (‘generation renewal’) resulted in 22 entries. Of 90, 48 articles were duplicates and 6 were double duplicated (appeared in 2 Scopus and 2 Web of Science research); thus, these articles appeared in both databases (Web of Science and Scopus) and in the case of both keywords used. Following this process, 66 articles were analysed in terms of theme and accessibility. To ensure that only relevant articles were included in the final analysis, the authors performed an independent selection but then met to discuss the approval of potential conflicting articles. Nine articles were dropped from the data because their full articles were not written in English (only the abstract was available in English), and some of them were not relevant for our research. After the first, deeper screening, 2 articles were excluded due to the irrelevant topic (dealing

with indigenous vegetables and genetic erosion). After all, there are a total of 55 articles on the topic for the final analysis.

4.2. Methodology for the analysis of interviews

4.2.1. Interviews

According to Horváth and Mitev (2015), qualitative research is unique in that, unlike quantitative approaches, it examines the research topic in a subjective and in-depth manner. Although it is not suitable for generalisation and statistical conclusions due to its small sample size, it effectively supports a deeper understanding of phenomena and the establishment of a trusting, direct relationship between the researcher and the interviewee. There are several forms of interviews within qualitative research: Fossey et al. (2010) distinguish between fully structured, unstructured, and semi-structured interviews. Based on this typology, in-depth interviews are primarily suitable for exploring in detail the attitudes, motivations, and experiences related to the phenomena under investigation. Its distinctive feature is that it provides a flexible framework, allowing the interview to adapt to the subject's responses and offering the opportunity to introduce new, relevant topics (Kvale, 1996). One of the most common forms of in-depth interviews is the semi-structured interview, which lies between fully structured and completely open interviews. It is based on a pre-developed set of thematic questions, which ensures comparability between different interviews, while at the same time allowing for flexibility in the order and exact wording of the questions, thus allowing for the openness and flexibility characteristic of qualitative research (Bryman, 2016). This method combines control and freedom, making it particularly suitable for examining complex social, economic, and cultural phenomena (Creswell, 2016). In the Hungarian context, Neulinger and Mitev (2017) emphasizes that in-depth interviews and their semi-structured variants are among the fundamental methodological tools of marketing and social science research, as they can be used to uncover deeper connections and layers of meaning that cannot be accessed using quantitative, questionnaire-based methods.

The interviews were conducted in person and online between April 16 and June 25, 2024. I sought out interviewees from my personal circle of acquaintances, an agricultural student organization (Agribusiness Club), and, with the help of Instagram, agricultural entrepreneurs and influencers who were willing to participate in the conversation. The oldest interviewee was 62 years old, while the youngest was 21. Five women and 14 men were interviewed. The number of interviewees was 19 because we wanted to hear the opinions of one farmer from

each county. During the interviews, it was important to build trust in order to get honest answers. Only the first names of the interviewees were used so that they cannot be identified. Furthermore, they trusted me because I am a farmer myself, so they saw me as a colleague.

In terms of age groups, I interviewed 11 members of Generation Z, 4 members of Generation Y, 2 members of Generation X, and 2 baby boomers. Looking at the agricultural sector, the range is very wide here as well. I managed to reach everyone from small primary producers to large farmers with thousands of hectares. Furthermore, in terms of the type of agriculture, I was also able to draw on a wide range of sources, as I spoke with different types of livestock farmers, arable crop farmers, small and large vegetable growers, foresters, food processors, and mixed farms.

The questionnaire was preceded by research work. A systematic review of the literature identified the factors that hinder and support generational change in agriculture. Our research sought to answer the question of how each of these hindering and supporting factors affects farmers. It was also important for us to find out what their attitudes were towards generational change. Furthermore, it was important for us to see how individual farmers viewed their own situation within a given context compared to conditions elsewhere in the country. Therefore, they were asked to rate the given hindering factor on a Likert scale from 1 to 5, to what extent the given factor hinders them personally or their own family, and to what extent the given problem hinders other farmers nationwide. Supporting factors also had to be assessed to determine how much each factor would help in their own case of generational change. It was also necessary to determine the extent to which the given factor could help farmers nationwide.

After the questionnaire was drafted, it was important to test it. The questions were discussed with several farmers and experts before the final questionnaire was created. Then the interviews were recorded.

4.2.2. Structure of the interview

The interview consisted of five main sections, which aimed to explore personal background, economic characteristics, the process of generational change, and factors hindering and supporting the transfer. The interviews lasted an average of one hour, but there were farmers with whom I spoke for only 45 minutes, and others with whom the interview lasted more than 1.5 hours.

The first part focused on the personal and demographic characteristics of the interviewee. The questions concerned age, gender, marital status, number of siblings and children, household

composition, and educational attainment, with a special focus on whether the person had agricultural qualifications (e.g., technical college, degree). It was also important to find out when they started working in agriculture, what experiences they had as children, and when they started their own farming career.

The second section contained a brief description of the farm. The questions explored who the owners were, how old they were, and who the interviewee farmed with (e.g., parents, spouse, children, or siblings). It also went into detail about how long the family had been involved in agriculture, exactly which sector they were active in (livestock farming, fruit growing, vegetable growing, arable farming), how much land they farm, and what form of organization the farm operates under (e.g., family farm, sole proprietorship, limited liability company). It also examined whether they engage in other activities, such as services, contract work, or trade, and whether they have loans or have won any grants.

The third part focused on the issue of generational change. The interviews touched on which family members had previously run the farm, how the previous transfer had taken place, and what had motivated the current farmer to take over the farm. Particular emphasis was placed on the difficulties the respondents had experienced in the process, the aspects they considered important, and how they envisioned the future transfer. The question of what a successful farm transfer would mean to them was also raised, as well as how family members are involved in day-to-day tasks (e.g., sales, data recording, grant applications, keeping a farm log, input procurement, physical work), and how they see the differences between young and older farmers, for example in terms of innovation skills or willingness to cooperate.

The fourth section of the questionnaire measured obstacles. A five-point Likert scale was used for the assessment, on which respondents had to quantify the extent to which each factor hinders farm transfer and day-to-day farming. The scale was coded as follows: 1 = no obstacle at all, 2 = minor obstacle, 3 = neutral (neither an obstacle nor a non-obstacle), 4 = minor obstacle, 5 = major obstacle. The variables included economic factors (e.g., difficult access to arable land, high capital requirements for investments, labour shortages, low incomes and pensions, administrative burdens), structural factors (e.g., weak bargaining position of new entrants, labour-intensive nature of agriculture), environmental (e.g., climate change), and market risk factors (e.g., inflation, low grain prices, high input costs). In addition, social and family dimensions also emerged, such as limited educational opportunities, the migration of young people to cities, lack of motivation, unfavourable working conditions, changing parental

attitudes (faster pace of life, less time for children), and difficulties in settling accounts within the family (inheritance, distribution of assets).

The fifth unit followed the same methodological logic in assessing the supporting factors. Respondents were again asked to rate on a five-point Likert scale the extent to which each factor contributes to economic transfer (1 = does not contribute at all, 5 = contributes fully). The variables examined included support for young people to acquire land, financial incentives (income diversification, farm development), various forms of support (farm transfer grants, young farmer grants, additional support for young farmers), and access to preferential loans. In addition, I measured the quality of agricultural education, the promotion of digitization and modernization, the impact of reducing administrative and tax burdens, the importance of sustainable farming practices (organic production, short supply chains), and opportunities for cooperation and alliances among young farmers.

Overall, the questionnaire combined a qualitative and quantitative approach: while the open-ended questions provided narrative data, the Likert scale items allowed for the recording of uniformly codable, quantifiable information suitable for personal and national comparative analyses.

4.2.3. Likert scale

Social science research relies heavily on the Likert scale as a fundamental measurement tool, particularly when studying attitudes, opinions, and value judgments. By offering a graded response system rather than simple yes–no answers, it allows participants to express the intensity of their feelings toward specific issues. This provides researchers with a richer and more precise understanding of the phenomena under investigation (Likert, 1932). The scale is also quick to complete and easy to interpret, which encourages participation and improves the reliability of the data collected (Joshi et al., 2015). Because the responses are quantifiable, they can be used not only for descriptive statistics but also for examining relationships between variables, through measures such as averages, standard deviations, and correlations (Jamieson, 2004). Its flexibility further enhances its value, as it can be adapted to capture a wide range of dimensions—including satisfaction, frequency, agreement, and importance—which explains its broad application across empirical studies. Combining ease of use, adaptability, and reliability, the Likert scale remains an especially valuable instrument for research that integrates both qualitative and quantitative methods. (Joshi et al., 2015)

4.2.4. Thematic analysis

To process the qualitative interview material, I used thematic analysis, which is one of the most used qualitative methods in social science research. The purpose of thematic analysis is to identify and interpret recurring patterns of meaning, i.e., themes, in texts in a structured way (Nowell et al., 2017).

According to Boyatzis, "A theme is a pattern found in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon." (Boyatzis, 1998, p. 4). The method is particularly suitable for answering research questions that aim to gain a deeper understanding of social experiences, beliefs, attitudes, and narratives—in this case, exploring the individual and structural dimensions of generational change in agriculture.

In the thematic analysis, I followed Braun and Clarke's (2006) classic step-by-step approach. This approach describes six consecutive phases:

1. Familiarization with the data – rereading interview transcripts, taking notes, recording first impressions.
2. Generating initial codes – assigning codes to the content of relevant text passages.
3. Searching for themes – logically organizing codes, developing initial themes.
4. Reviewing themes – checking the internal coherence of the themes and their relationship to the data.
5. Defining and naming themes – precisely defining and describing the content of the themes.
6. Producing the report – a narrative summary that presents the individual themes and their meaning, supported by quotations.

Before formulating the research questions, I conducted a thorough review of the literature to establish a suitable foundation for the research. The research questions and the literature review sensitized the researcher to certain directions, so the analysis was not entirely independent of theory. Reflexive thematic analysis enabled the researcher not only to identify themes but also to actively participate in their construction as an interpreter (Braun and Clarke, 2019).

The advantage of this method is that it is flexible, transparent, and capable of exploring complex social realities in a narrative way (Braun, V., and Clarke, V., 2006). This made it possible to reveal both the individual life paths and structural conditions that appeared in the experiences

of the farmers participating in the research. The research results thus revealed not only frequently recurring themes, but also their social context and layers of meaning.

To ensure the reliability of the qualitative analysis, we used several strategies. The coding was not carried out by a single researcher; instead, several people independently reviewed the interview texts. The coding decisions were then compared, and the final categories were developed through consensus discussions. This peer review helped reduce subjective bias. We also used methodological triangulation, i.e., we compared the qualitative results from the interviews with the quantitative data from the questionnaire survey, which allowed for the confirmation of recurring patterns from multiple sources. We also emphasized reflexivity: as a researcher, I have agricultural experience myself, so I was constantly aware of my own role and assumptions to avoid distorting the interpretation. Finally, we supported the presented themes with rich quotes and detailed examples in the thematic analysis, which gives the reader the opportunity to follow the interpretation process for themselves.

In this study, a descriptive-phenomenological method was applied to capture participants' experiences as authentically as possible from their own perspectives. Instead of interpreting the phenomenon—here, experiences and decision-making processes related to parenthood—through a predefined theoretical lens, this approach aims to reflect the reality as participants lived it. The goal is not to impose meaning but to provide an accurate, undistorted description of those experiences. Following an inductive logic, I began with the interview data and gradually identified meaningful patterns and themes. The strength of the inductive approach lies in its openness: rather than starting from fixed theories, conclusions emerge from the empirical material itself. This makes the knowledge generated closely tied to participants' realities, offering insights that are both relevant and grounded in lived experience.

To support this process, I employed the technique of “bracketing,” which involves consciously setting aside prior assumptions, professional background, and personal beliefs about the topic. By doing so, the analysis could remain guided primarily by participants' perspectives (Tufford and Newman, 2012).

The coding was carried out collaboratively by three researchers. Each was involved in reviewing the data, and regular discussions helped align interpretations with the study's objectives. Where differences arose in coding decisions, they were addressed through dialogue and resolved by consensus.

4.3. Surveys data analysis

4.3.1. Methodology for analysing questionnaires

I conducted an online questionnaire survey among Hungarian farmers on generational change and the farm transfer process, which took place between March 1 and May 31, 2025. The questionnaire was created in the Qualtrics system. A total of 453 responses were received; however, many respondents did not answer all the questions. If respondents did not complete the questionnaire and left it halfway through, the system closed it after a while and submitted the answers. After sorting and cleaning, finally 249 valid responses were analysed.

The questionnaire was distributed online with the help of various professional agricultural communities (National Chamber of Agriculture, Agroinform, Cool Farmers – a Hungarian Facebook group for farmers with more than 60,000 members –, agricultural influencers, Agribusiness Club, the Facebook group for cattle and pig farmers, and the association of sheep and goat farmers). The questionnaire was distributed to respondents via email lists and social media platforms. Respondents were included based on convenience sampling, i.e., those who received the questionnaire and filled it out.

During the research, I used non-probability sampling, including convenience sampling, which was partly expanded through online communities in a snowball fashion. The strategy aimed to ensure broad reach, but the sample cannot be considered representative of the entire Hungarian farming community. The advantage of online data collection is its speed and cost-effectiveness.

The research has several limitations. First and foremost, the questionnaire was only available online. One significant problem with online data collection is that internet use is significantly lower among older age groups, including older farmers, than among younger people. Seifert et al. (2021) demonstrated, based on European data, that only about 35% of people over the age of 60 use the internet regularly, indicating a significant digital divide. Domestic statistics show similar results: according to the Central Statistical Office (2020), internet use among 65–74-year-olds in Hungary ranged from 52% to 55%, which is approximately 30 percentage points below the national average. This means that older farmers are often underrepresented in online questionnaire surveys, which can skew the sample composition and the study's results. A further problem is that less motivated farmers and those who have had negative experiences may also be overrepresented among the respondents. In addition, the length of the questionnaire, particularly the last section, which asked respondents to rate supporting and hindering factors, may have seemed complicated to many, thereby increasing the dropout rate. Although I tried to

distribute the questionnaire widely throughout the country, the survey as a whole cannot be considered representative.

The questionnaire consisted of a total of twenty-six questions, which can be grouped into four main thematic units: (1) demographic data, (2) economic characteristics, (3) information related to generational change, and (4) assessment of hindering and supporting factors.

The demographic questions examined the personal background of the respondents. These included gender, age, generational affiliation (Generations Z, Y, X, Baby Boomers), level of agricultural education, number of years spent in agriculture, farming generation (first, second, third, fourth or more), and whether they farm as their main or secondary occupation.

The questions relating to the farm sought to reveal its structural and operational characteristics. Here, I examined the legal form of the farm (family farm, sole proprietorship, partnership), ownership structure, standard output (SO), and whether the farm had received rural development support or had any loans. Respondents were also asked to indicate their main activity (crop production, animal husbandry, or specialised sectors) and the geographical location of the farm (region, county). Questions exploring the labour situation related to the involvement of family labour, the number of permanent non-family employees, and the employment of seasonal workers.

Questions related to generational change examined the current situation and future prospects of farm transfer. Respondents were asked to indicate whether they were involved in the process as transferors or transferees, and when the farm transfer was expected to take place. Further questions concerned how many more years the respondents intended to continue farming, whether there had already been discussions within the family about the transfer, how long the transfer of the farm would take under the current circumstances, and how they envisaged the future of the farm after the transfer. In addition, I examined the extent to which young family members were involved in the farm's work and what they considered a successful farm transfer. The questionnaire also asked why respondents chose agriculture as a career, for example, because of family tradition, proximity to nature, or support opportunities.

The fourth part of the questionnaire focused on measuring obstacles. A five-point Likert scale was used for the assessment, which allowed respondents to indicate numerically the extent to which each factor hinders economic transition or day-to-day management. The scale was interpreted as follows: 1 = not at all, 2 = slightly, 3 = neither, 4 = slightly, 5 = completely. The factors examined included difficulty in accessing farmland, high capital requirements for

investments, labour shortages, low incomes and pensions for farmers, and high administrative burdens. Market and structural risks were also considered, including inflation, high input costs, low purchase prices, and the weak bargaining position of new entrants. Social and cultural factors included the migration of young people to cities, lack of motivation, unfavourable working conditions, obstacles arising from parents' attitudes (e.g., not allowing young people to make mistakes, spending little time with them), and difficulties in settling accounts with family members (distribution of assets, inheritance). Finally, I examined excessive attachment to the farm, which can also hinder generational change.

The fifth unit focused on examining factors that facilitate farm transfer. Here, too, a five-point Likert scale was used, which was interpreted as follows: 1 = not helpful at all, 2 = slightly unhelpful, 3 = neither helpful nor unhelpful, 4 = slightly helpful, 5 = completely helpful. The factors examined included support for young people to acquire land, various financial incentives (such as income diversification and economic development), preferential loans, and forms of support, including young farmer grants, farm transfer grants, and additional support for young farmers. In the area of education and knowledge transfer, I focused on enhancing the quality of education and training, promoting digitalization and modernization, offering guidance on farm transfers, and sharing best practices and case studies. In addition, I emphasized the importance of reducing administrative and tax burdens, supporting sustainable forms of farming (e.g., organic production, short supply chains), and encouraging young farmers to join forces and form interest groups.

Table 3 provides an overview and descriptive statistics of the variables used in the analysis. For each variable, the table presents the variable name, a brief description, the type of variable (e.g., dummy, scale), the number of observations (Obs.), the mean value (Mean), the standard deviation (Sd), as well as the minimum (Min) and maximum (Max) values. This information helps to understand the characteristics and distribution of the data used in the empirical analysis.

The research employs probit regression models to investigate the factors influencing generational succession in Hungarian agriculture empirically. This approach is particularly suitable when the dependent variable is dichotomous, in this case, whether the respondent has engaged in discussions about generational change (yes = 1, no = 0). The probit model estimates the probability that a farmer discusses succession based on explanatory variables such as family involvement, decision-making authority, economic performance, and generational affiliation. The use of this method allows for modelling the latent propensity of succession intentions as a

function of observable characteristics, while assuming a normal distribution of the error term (Wooldridge, 2010; Yatchew and Griliches, 1985).

Table 3.: Explanation and descriptive statistics of the variables used, Source: author's composition based on the literature and sample data

Variable name	Description	Type	Obs.	Mean	Sd	Min	Max
Generation_succession_planning	farmers have discussed succession within the family	dummy (1 if yes, 0 otherwise)	249	0.578	0.495	0	1
Family_support	family support to choose a career in agriculture	dummy (1 if family, 0 otherwise)	249	0.755	0.431	0	1
Family_involvement	employs family workforce at the farm	dummy (1 if yes, 0 otherwise)	249	1.116	0.870	0	2
Financial_performance	Standard Gross Margin (SGM) of the farm	levels of standard gross margin (1-6)*	249	3,538	1.462	1	6
Decision_making	participation in decision-making	dummy (1 if yes, 0 otherwise)	249	0.257	0.438	0	1
Age	age of the respondents	scale	249	35.815	13,594	19	76
Gender	gender of the respondents	dummy (1 if men, 0 otherwise)	249	0.582	0.494	0	1
Qualification	highest agricultural qualification	No agricultural qualifications Professional qualification Secondary education Higher education	249	2.956	1.144	1	4
Variables created according to the Generation Theory (McCrindle and Wolfinger, 2018)							
Gen_Z	Generation Z	1 if age is between 16 and 30, 0 otherwise	249	0.486	0.501	0	1
Gen_Y	Generation Y	1 if age is between 31 and 45, 0 otherwise	249	0.289	0.454	0	1
Gen_X	Generation X	1 if age is between 46 and 60, 0 otherwise	249	0.153	0.360	0	1
Baby_Boomers	Baby Boomers Generation	1 if age is higher than 60, 0 otherwise	249	0.072	0.259	0	1

Source: Own composition, Note: *Standard gross margin (SGM) 1-less than €4,000 (app. 1 ha of arable land), 2- €4,000-7,999 (app. 1-5 ha of arable land), 3 - €8,000-14,999 (app. 5-12 ha of arable land), 4- €15,000-99,999 (app. 13-100 ha of arable land), 5-€100,000-499,999 (100-500 ha of arable land), 6- more than €500,000 (> 500 ha of arable land)

Two separate probit models (see Model 1 and Model 2) were constructed. The first focuses on socio-organizational variables linked to the Socioemotional Wealth framework, such as family

labour, financial performance (Standard Gross Margin), and decision-making participation, following similar applications in farm succession literature (e.g., Chrisman and Holt, 2016; Gómez-Mejía et al., 2007). The second model incorporates age-based generational cohorts built on Generation Theory (McCrindle and Wolfinger, 2018) and controls for agricultural education and family support. The econometric models were estimated using maximum likelihood estimation. The goodness-of-fit of the models was evaluated with the help of Hosmer–Lemeshow and Pearson chi-square tests (Hosmer et al., 1997; Paul et al., 2013). Similar modelling strategies have been applied in succession-related research in developed, high value-added and transitional agriculture (Bosselmann, 2012; Mishra et al., 2010). The research combines theoretical frameworks from family business and generational theory with econometric tools to discover the determinants influencing intergenerational transition in Hungarian family farms. Accordingly, to model the empirical background of the economic theory of family firm succession, a probit regression is estimated (Equation 1).

$$\text{Generation_succession} = \beta_0 + \beta_1 \text{Family_support} + \beta_2 \text{Family_involvement} + \beta_3 \text{Financial_performance} + \beta_4 \text{Decision_making} + \beta_5 \text{Age} + \beta_6 \text{Gender} \quad (1)$$

In addition, to capture firm succession at different generation levels, the McCrindle and Wolfinger (2018) Generation theory is applied as a second probit regression is estimated (Equation 2).

$$\text{Generation_succession} = \beta_0 + \beta_1 \text{Qualification} + \beta_2 \text{Family_support} + \beta_3 \text{Gen_Z} + \beta_4 \text{Gen_Y} + \beta_5 \text{Gen_X} \quad (2)$$

To construct the model probability, I assume that (1) Y_i^* = latent (unobserved) propensity to discuss generational change/generation succession, (2) $Y_i = 1$ if $Y_i^* > 0$ (i.e., the respondent has discussed generational change/generation succession), $Y_i = 0$ otherwise. The probit Model 1 is:

$$Y_i^* = \beta_0 + \beta_1 \text{Family_involvement}_i + \beta_2 \text{Family_support}_i + \beta_3 \text{Financial_performance}_i + \beta_4 \text{Decision_making}_i + \beta_5 \text{Age}_i + \beta_6 \text{Gender}_i + \epsilon_i$$

The probit model 2 is:

$$Y_i^* = \beta_0 + \beta_1 \text{Qualification}_i + \beta_2 \text{Family_support}_i + \beta_3 \text{Gen_Z}_i + \beta_4 \text{Gen_Y}_i + \beta_5 \text{Gen_X}_i + \epsilon_i$$

Then the probability model converts to Model 1:

$$\Pr(Y_i = 1) = \Phi(\beta_0 + \beta_1 \text{Family_Support}_i + \beta_2 \text{Family_involvement}_i + \beta_3 \text{Financial_performance}_i + \beta_4 \text{Decision_making}_i + \beta_5 \text{Age}_i + \beta_6 \text{Gender}_i),$$

and Model 2:

$$\Pr(Y_i=1)=\Phi(\beta_0 + \beta_1\text{Qualification}_i + \beta_2\text{Family_support}_i + \beta_3\text{Gen_Z}_i + \beta_4\text{Gen_Y}_i + \beta_5\text{Gen_X}_i)$$

where

Φ is the cumulative distribution function (CDF) of the standard normal distribution.

$\Pr(Y_i=1)$ indicates the probability of occurrence of the dependent variable

β_0 is the constant term

β_1 -6 captures the estimated coefficients for independent variables

4.4. Summary of the methodological approach

The methodological approach applied in this dissertation was designed to enable a rigorous empirical examination of the research questions and hypotheses within the complex context of agricultural generational change. The research process began with a systematic literature review conducted in accordance with the PRISMA guidelines, ensuring transparency and replicability in the selection of relevant studies. Following screening and eligibility assessment, 55 peer-reviewed articles were included in the final literature sample and subjected to detailed analysis.

Based on the literature review, the key barriers hindering and factors supporting agricultural generational change were systematically identified. These factors provided the conceptual foundation for the empirical research and were consistently incorporated into both the qualitative and quantitative phases of the study, ensuring conceptual coherence across the research stages.

Building on the insights from the literature review, the empirical research adopted a mixed-methods approach, deliberately combining qualitative and quantitative methods. In the qualitative phase, 19 semi-structured, in-depth interviews were conducted with farmers. The interview material was analysed using thematic analysis, allowing for the identification of recurring patterns, meanings, and themes related to succession, family dynamics, and decision-making processes. This approach enabled the capture of the subjective interpretations and lived experiences underlying generational change.

The quantitative component consisted of a questionnaire-based survey distributed to agricultural producers, yielding 249 valid responses and providing a robust empirical basis for statistical analysis. The quantitative data were analysed using descriptive statistical techniques

and regression-based methods, enabling the examination of relationships between socio-demographic characteristics, farm attributes, and succession-related attitudes and behaviours.

The mixed-methods framework enhanced the robustness and interpretability of the findings by enabling systematic comparison between qualitative insights and quantitative results. This methodological structure ensured that the analysis addressed the economic, social, and family-related dimensions of agricultural generational change, while the applied data collection and analytical procedures were closely aligned with the specific characteristics of the phenomenon under investigation. In both data collection instruments, respondents were asked to evaluate the identified barriers hindering and factors supporting agricultural generational change using a five-point Likert scale (1–5), enabling the assessment of their perceived importance and impact on the succession process.

Overall, the methodological framework proved suitable for examining the research questions and hypotheses formulated in this dissertation. Building on this methodological foundation, the following chapter presents the results of the empirical analysis, distinguishing—yet interpreting jointly—the findings derived from the qualitative and quantitative components of the research.

5. Results

The aim of the results chapter is to present international and domestic statistics related to generational change and to describe the results of the methods used in the research. Based on a systematic review of the literature, the factors that hinder and support the process of generational change are presented. This is followed by the results of the 19 interviews processed during the thematic analysis, followed by a quantitative analysis of the data from the questionnaire survey. The chapter concludes with a comparison of the factors that support and hinder generational change. Bringing together the different sets of data makes it possible to look at the phenomenon from multiple angles, offering a more nuanced picture and laying the groundwork for testing the hypotheses and engaging in the later discussion.

5.1. Generational change statistics in agriculture in the United States

The US Agricultural Census (USDA, 2024) reported that American farmers reach an average age of 58.1 years, according to 2022 data, which shows a 0.6-year increase from 2017 statistics. The age distribution indicates that farming becomes increasingly attractive to younger individuals who choose to enter this sector. The rising age of farmers aligns with the age-related

patterns observed throughout the entire population. The current data show no substantial evidence of a generational or succession problem affecting US agricultural operations.

Young farmers require ongoing support, as managing family farms presents numerous complex challenges. Young producers face multiple challenges because they lack access to contemporary farming technology and training programs, and the necessary equipment. The 2022 agricultural statistics show that producers under 35 made up 9% of all producers, while family farms operated as 96% of all agricultural businesses. The 2022 data show that new farmers with less than 10 years of experience reached an 11% growth rate, while their average age was 47.1 years.

5.2. Generational change statistics in the European Union's agriculture

One of the defining characteristics of the European Union's agricultural sector is its aging farm management structure, which is clearly supported by Eurostat (2020) data. Figure 3 clearly shows that the age of farm managers is shifting significantly towards older generations, especially when broken down by gender. According to statistics, the largest proportion of farm managers is over 65 years of age, both for men and women, which indicates that generational change is limited. The middle-aged group, aged 45-64, also has a significant share, with the 45-54 age group representing a particularly high proportion of men, indicating that it is often at this stage of life that the role of farm manager is assumed and consolidated. A similar pattern can be observed among women, albeit at a slightly lower rate.

In contrast, the participation of younger generations is extremely low. The number of farm managers under the age of 25 is almost negligible, while the proportion of those aged 25–34 is only a few percent. This trend poses significant long-term sustainability risks, as the low presence of young farmers jeopardizes the sector's renewal and adaptability.

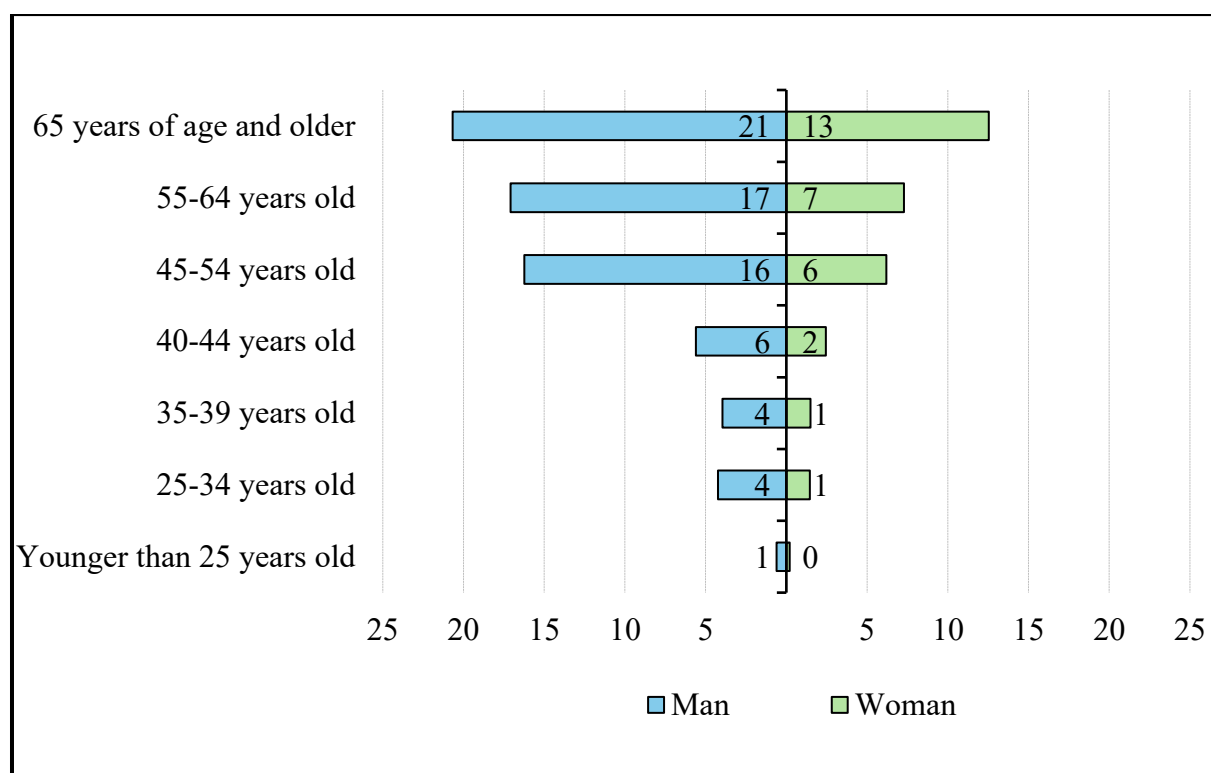
In terms of gender ratios, men generally dominate in all age groups except the oldest category, where the proportion of women is increasing significantly. This phenomenon may be related to inheritance patterns in family farms and the fact that female relatives often take on management roles in agricultural holdings at a later age.

The 2020 agricultural structure surveys indicate that the age distribution of farm managers directly affects the opportunities and challenges associated with intergenerational succession. The European Union identifies Austria as a leader in young farm manager representation, as 23.4% of farm managers in the country are under 40 years old. The proportion of Polish farm managers who are under 40 years old reaches 21.0% which represents twice the EU average at 11.9%. The demographic situation in Hungary presents unfavourable conditions, as farm

managers reach an average age of 57.9 years. Notably, 35% of farmers are over 65 years old, and only 9.9% of managers are under 40 years old, which falls below the EU averages. The farming population in Romania exhibits the most extreme age-related characteristics, with 39.6% of farmers reaching 65 years old, while young managers under 40 make up only about 10% of the total. The demographic situation in Hungary and Romania creates increased pressure on the sustainability of family farms, because these countries lack sufficient institutional support for generational change.

Overall, the Eurostat (2020) data in Figure 3 confirm that one of the most serious structural challenges facing agriculture in the European Union is the aging of the population and the low involvement of younger generations in farm management positions. This justifies the future instruments of the Common Agricultural Policy, paying particular attention to supporting young farmers and encouraging generational change.

Figure 3: Farm managers by age group and gender (percentage of all farm managers, EU, 2020)



Source: Own editing based on the data of Eurostat 2020

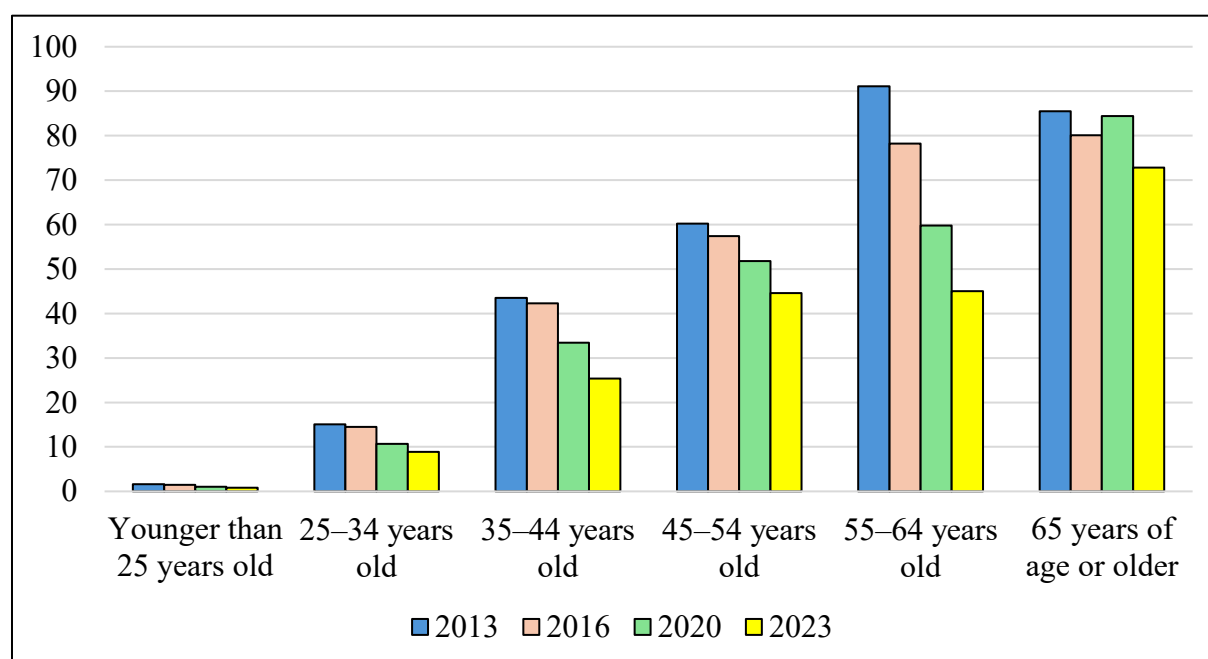
The Common Agricultural Policy (CAP) sets generational renewal as a primary goal for 2023-2027 by providing financial backing to new farmers and streamlining farm succession processes. The EU requires that Member States allocate at least 3% of their direct payments to

this purpose, enabling hundreds of thousands of young farmers to establish their agricultural businesses. The process of generational renewal requires financial support but also demands easier access to land and improved legal frameworks for farm transfers, as well as specialized training programs. The younger farming population faces higher financial risks and market unpredictability because they begin their agricultural ventures with limited experience and increased financial exposure. The EU evaluation process reveals that young farmer support programs differ among nations, primarily benefiting farmers who already work in agriculture due to family connections. The process of supporting generational renewal requires more than just financial incentives, as structural elements, legal frameworks, and social dynamics also significantly influence its success. (European Commission, 2023b)

5.3. Generational change statistics in Hungarian agriculture

The age structure of Hungarian farm managers – similar to most EU member states – presents an unfavourable picture, as the sector continues to experience a strong ageing trend. The average age of farm managers is continuously increasing by 2023, the proportion of managers over 65 years of age exceeded 37%, while the proportion of young farmers under 40 years of age was only around 10%.

Figure 4: Changes in the Number of Farm Managers in Hungary (in thousands)



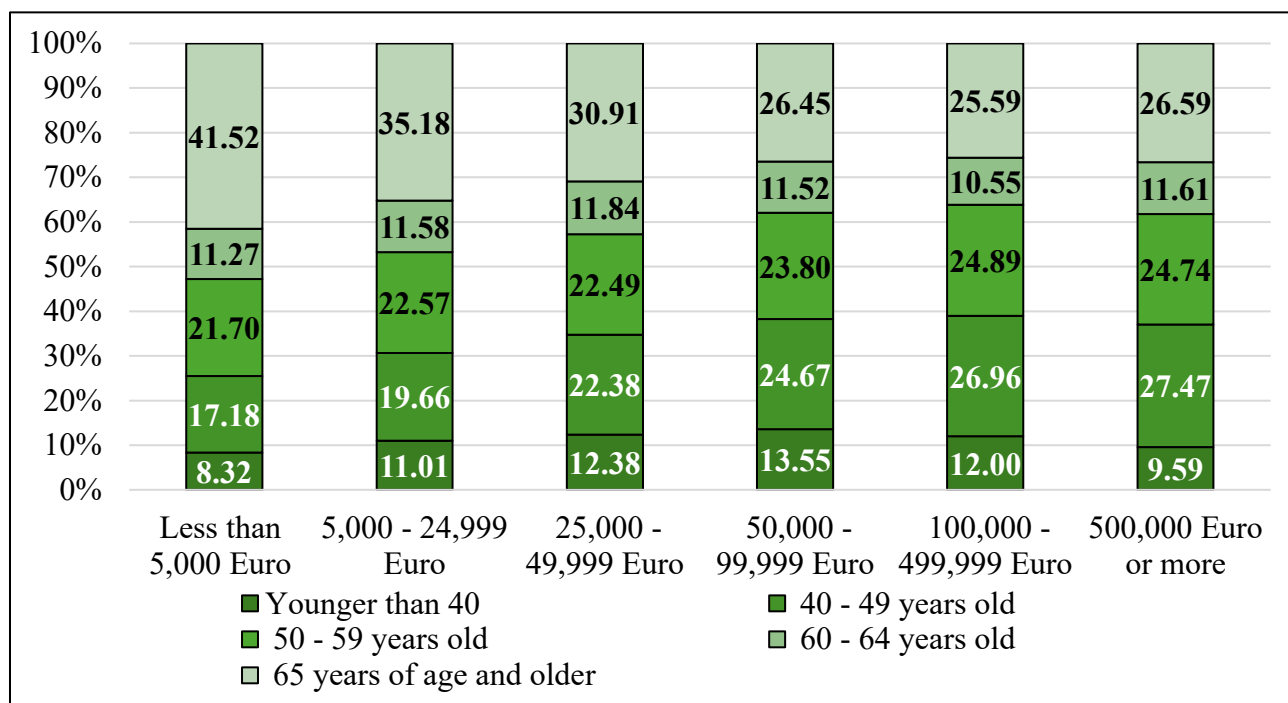
Source: Own editing based on data from the 2023 Agricultural Census of HCSO

Based on Figure 4, which shows the absolute number of farm managers, the participation of the youngest age group, under 25, remained negligible in all years examined, representing only a

fraction of the total population. A slight decrease in trend can be observed among those aged 25–34: while nearly 15,000 people held managerial roles in 2013, their number fell to less than 10,000 by 2023. An even sharper decline can be observed in the 35–44 age group, as the number of this group, which numbered around 50,000 in 2013, fell to less than 30,000 by 2023,

Although the number of farm managers aged 45–54, representing the middle-aged group, was higher (more than 60,000 in 2013), a continuous, albeit more moderate, decrease can be observed for them as well. In the case of those aged 55–64, the decline is already significant: while in 2013, there were more than 90,000 people in this group, by 2023, their number had decreased by about half. In contrast, the number of people over 65 did not decrease; instead, it reached a peak in 2020 and then stabilized at a high level in 2023, at around 75,000 people. The data clearly highlights that the weight of older generations in agricultural management roles is becoming increasingly significant, while the presence of younger generations is continuously weakening. The reasons for this may include the prolongation of active work by older managers, the gradual increase in the retirement age, and entry barriers for young people, which make it more difficult for them to obtain management positions.

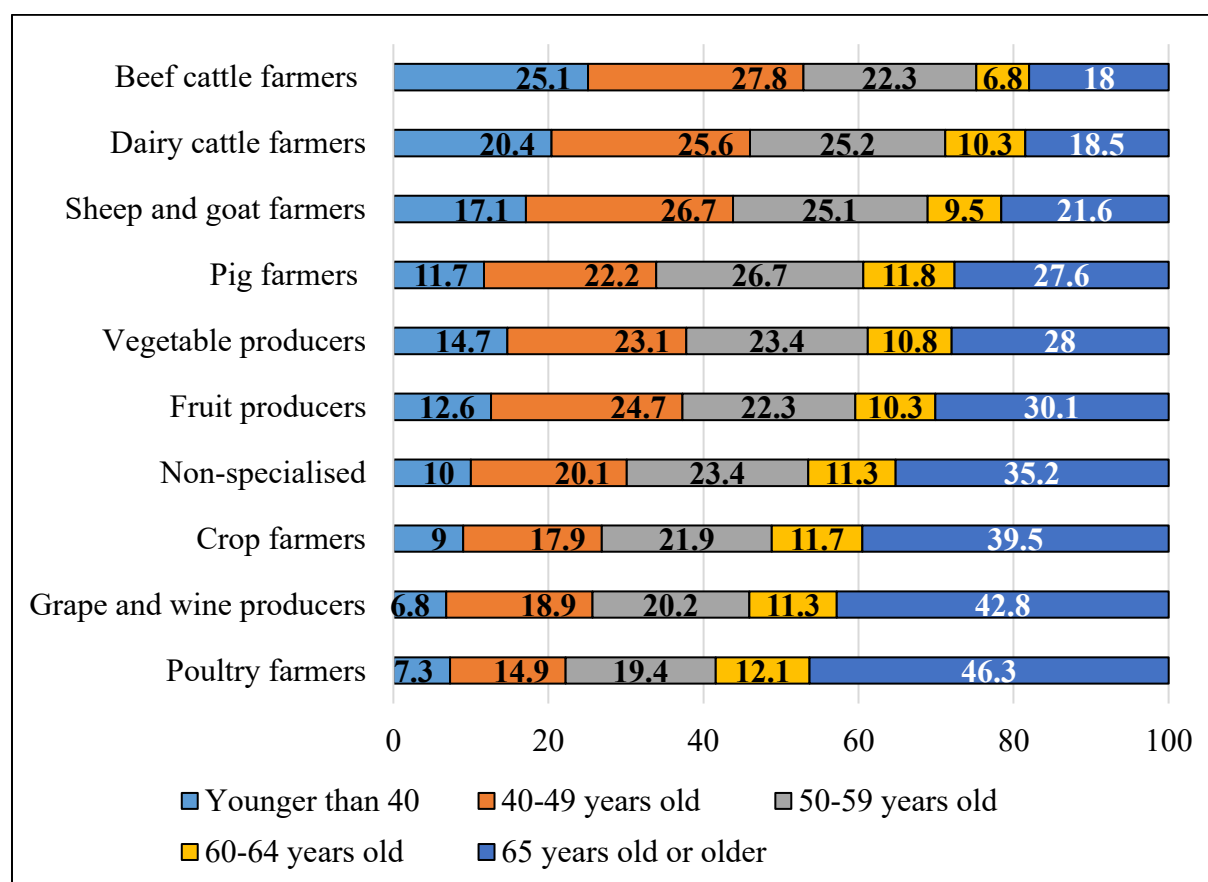
**Figure 5: Age structure of farm managers by economic size in 2023 in Hungary,
(expressed as a percentage)**



Source: Own editing based on data from the 2023 Agricultural Census of HCSO

The data presented in Figure 5 demonstrates that smaller farms with production values under EUR 5,000 have a significantly higher percentage of managers aged 65 and above (41.5%), while younger workers under 40 make up only 8.3% of the workforce. The smallest farms are often managed by elderly individuals who show little interest from younger people. The age distribution of farm managers changes as farm economic size increases. The age distribution in farms earning between EUR 25,000 and 49,999 shows that people aged 40–49 make up 22.5% and 22.4% of the total population, indicating a balanced age distribution. The age distribution in this farm size category shows that people aged 65 and above make up 30.9%, which remains lower than in the smallest farm category. The oldest farmers comprise 25–27% of the population in large farms that exceed 100,000 euros, while middle-aged workers between 40–49 and 50–59 years old represent almost half of the total population. The percentage of young farmers who are under 40 years old reaches 10–13% in these farm categories, which exceeds the numbers found in the smallest farm operations. The data indicate that younger people prefer to work on larger farms, which generate more economic success.

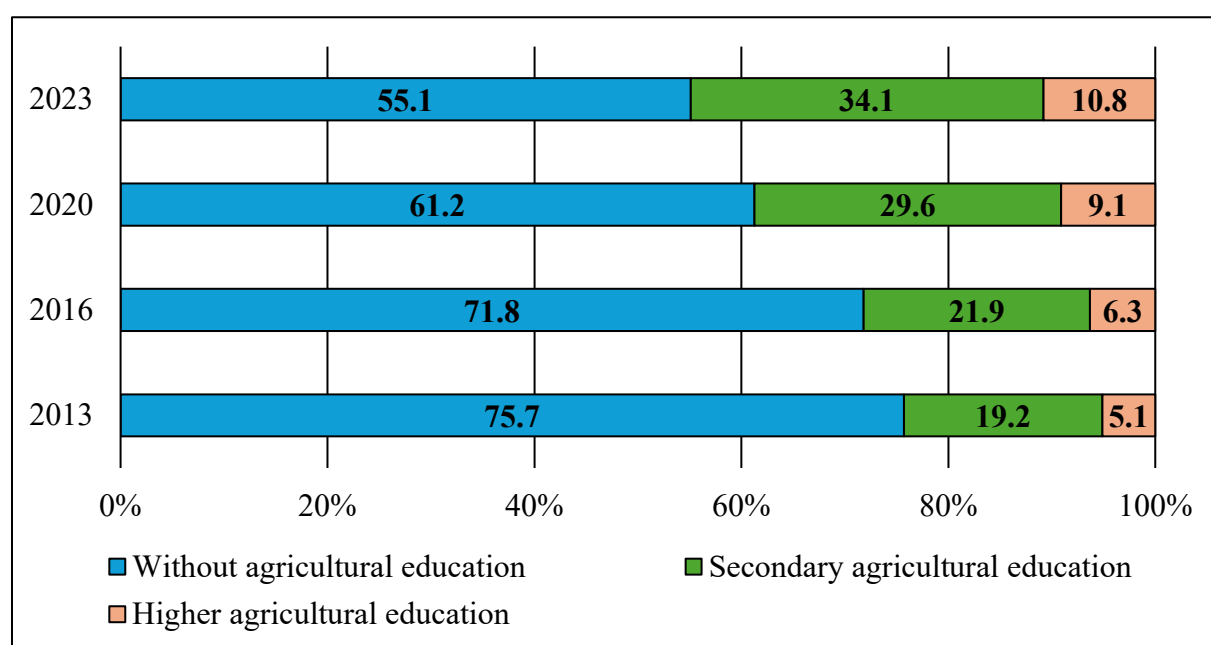
Figure 6: Age structure of farm managers in specialized farms by sector in 2016 in Hungary (expressed as a percentage)



Source: Own compilation, based on data from the 2016 Agricultural Census of the HCSO

Figure 6 shows the age structure of farm managers by specialized holding in 2016, clearly illustrating the differences in generational composition across sectors. The proportion of the oldest managers over 65 is particularly high in poultry farming (46.3%), arable crop production (39.5%), and non-specialised farms (35.2%), which suggests that the pace of generational change in these sectors is slow, and the average age of farmers is much higher than the EU average. In contrast, the presence of younger generations is significant in beef and dairy cattle farming: the proportion of managers under 40 is 25.1% and 20.4%, respectively, which is well above the values observed in other sectors and indicates that young farmers are more likely to enter the more capital- and technology-intensive sectors. The dominance of the middle-aged group (40–59 years old) can be observed in almost all sectors, especially in fruit and vegetable production, where 40–49-year-olds are present at a rate of around 23–25%, indicating that a gradual transfer of farm management to the next generation is already underway in these areas. Overall, the data in Figure 6 highlight that while the ageing of the farming community poses a significant challenge in some sectors (e.g., poultry farming and arable crop production), in other sectors – especially the cattle sector – the higher proportion of young managers suggests a more favourable perspective for generational change.

**Figure 7: Distribution of farm managers by highest level of education attained
(expressed as a percentage)**



Source: Own editing based on data from the 2023 Agricultural Census of HCSO

Figure 7 shows that from 2013 to 2023, farm managers' educational qualifications improved significantly, highlighting the rising value of specialized agricultural knowledge. The share of

managers without an agricultural qualification fell from 75.7% to 55.1%. Meanwhile, those with at most a secondary agricultural qualification rose from 19.2% to 34.1%, and those with higher qualifications doubled from 5.1% to 10.8%. This trend underscores the growing importance of formal training, driven by technological advances, sustainability goals, and regulatory complexity.

The 2013 Land Transactions Act¹ also supported this shift by requiring, from 2014, that land over 1 hectare be purchased only by those with relevant qualifications or at least three years of agricultural experience. Extra points for agricultural qualifications in the 2014–2020 Rural Development Programme further encouraged formal training. While most managers still lack formal qualifications, their declining share is a positive sign that professional knowledge is becoming more valued, supporting the growth of sustainable, competitive, and innovative farms.

5.4. Governmental incentives to stimulate generational change in Hungarian agriculture

5.4.1. Land purchase

In Hungary, the legal framework for the acquisition of agricultural land is defined by Act CXXII of 2013², commonly known as the Land Transfer Act, which contains strict regulations on the transfer of land ownership. The primary objective of the legislation is to ensure that agricultural land is primarily in the hands of farmers living locally and engaged in agricultural activities, thereby ensuring the sustainability of agricultural production and strengthening rural communities. The possibility of acquiring ownership is essentially limited to domestic natural persons – Hungarian citizens and citizens of European Union Member States – if they meet the criteria for agricultural qualification. The maximum acquisition limit for farmers is 300 hectares, while non-farmers can own up to 1 hectare, except if the purchase is made from a close relative, when the restrictions do not apply. The buyer must also undertake to use the acquired land for himself and not to use it for any other purpose for at least five years.

In land purchases, the right of pre-emption is exercised based on a strict ranking. The state is the first to have this right, followed by persons who have been registered as co-owners for at least three years. They are followed by neighbouring farmers who actually use the land and live locally, then farmers who live locally, and those whose place of residence or business centre is

¹ CXXII of 2013 Act on the transfer of agricultural and forestry land.

² Act CXXII of 2013 on the circulation of agricultural and forestry land

located no more than 20 kilometres away by public road. The order also includes those who have been operating livestock farms for at least three years and farmers who live locally, while at the end of the ranking are farmers with a business centre within 20 kilometres. Within each group, additional priorities apply those who have been members of a family agricultural company or a family farm of primary producers for at least one year are given priority, and young farmers are also in a more favourable position, even if they are not among the primary groups. In order to promote generational change, new regulations will make it easier for young farmers to acquire land from 1 July 2023³. According to the regulation, farmers between the ages of 18 and 40 are entitled to purchase up to ten hectares of land without being subject to the complicated order of pre-emption rights, provided that their total land ownership does not exceed ten hectares and they have had a residence or business centre within 20 kilometres of the land they want to acquire for at least three years. This facilitation allows them to acquire property faster and easier, which can be a significant support in starting and maintaining farming in the long term.

5.4.2. Farm transfer law

Act CXLI of 2021⁴ was introduced in Hungary to support the generational renewal of agricultural holdings and to provide a clear legal framework for the transfer of farms. Its main objective is to ensure the continuity of agricultural activities, the sustainable use of farmland, and to make the handover process smoother for younger generations.

A major change in the law is the new farm transfer contract. This contract lets farms be handed over in different ways, like selling, donating, or through maintenance or life annuity agreements. The law also gives up to five years for the transfer, so the retiring farmer can share their knowledge and help the new owner get used to running the farm.

To make things simpler, the contract needs approval from the agricultural administration within sixty days, or it will not be valid. Also, related paperwork like land registry entries does not have any fees or charges. As a temporary rule until the end of 2026, the age limit for farm transfer has been raised from 50 to 60 years, so older farmers can also hand over their farms.

The law also defines the assets that can be included in the transfer of property. These range from farmland ownership and agricultural buildings (such as dryers and machine sheds) to machinery and other movable equipment. The transfer can also cover entitlements linked to

³ Decree 19/2023 (IV.19.) of the Ministry of Agriculture on the support for young farmers

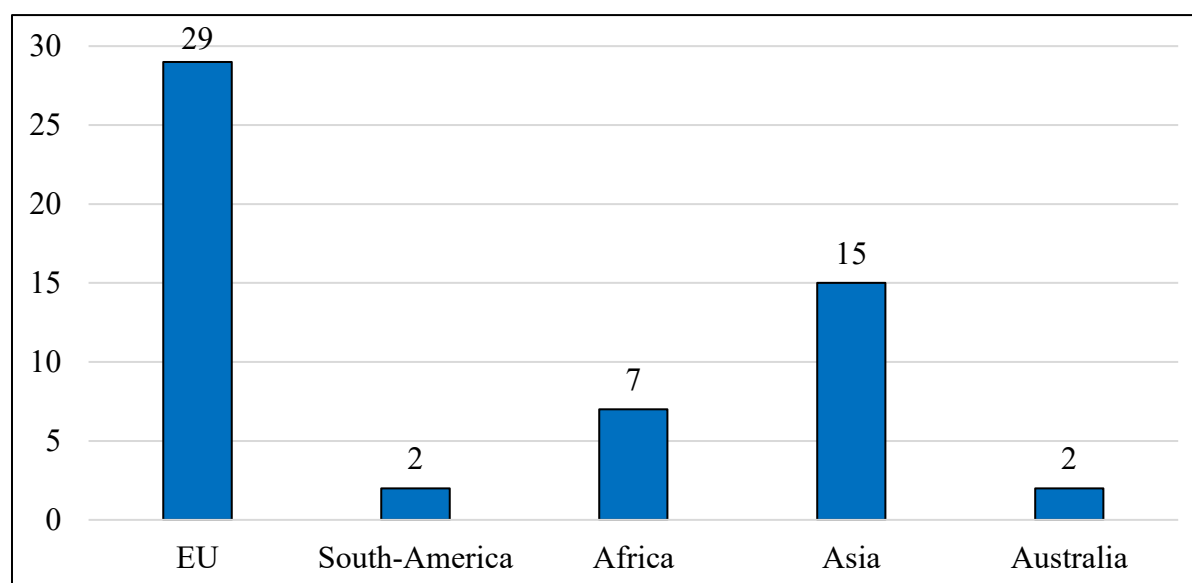
⁴ Act CXLI of 2021 on the Transfer of Agricultural Holdings

subsidies, contracts, or loans, as well as ownership shares in agricultural companies and the necessary permits or certificates required for operation.

5.5. Results of the systematic literature review

During the systematic literature review, 55 articles were subjected to in-depth analysis. Regarding the representation of continents considered in the selected economics literature, Europe or the European Union (29) was the most popular continent analysed on the topic of agricultural generation change, followed by Asia (15), Africa (7). However, North America was not mentioned; South America (2) and Australia (2) appeared twice. In the case of the European Union, 13 articles investigated generational change in Central and Eastern European countries, 12 in Western European countries, and 4 articles discussed the topic in the EU member states in general. Finally, 7 articles explored generational change in Romanian agriculture, 3 articles investigated this phenomenon in the Czech Republic and a further 3 did so for Spain. Furthermore, change in agricultural generation was also analysed in Hungary, Norway, Ireland, the UK, Portugal, Austria, Latvia, Greece, and Germany. Figure 8 shows the continents discussed in the literature. (Borda et al., 2023)

Figure 8.: Frequency of the continents analysed by the articles

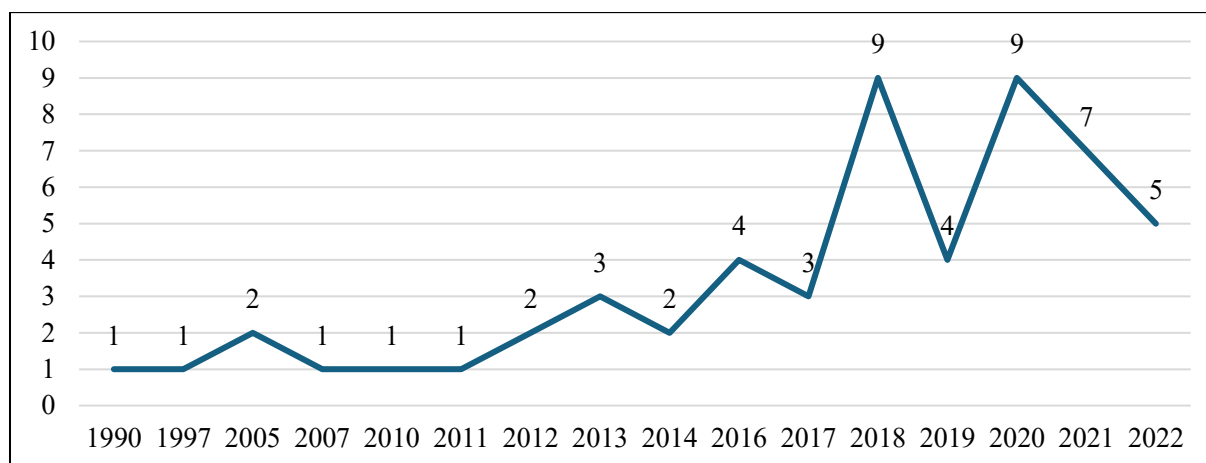


Source: Own editing based on the results of the systematic literature review, Borda et al., 2023

Figure 9 illustrates the articles in terms of the year of publication. Most articles were published in 2020 (9) and 2018 (9) on the topic of agricultural generation change, followed by 2021 (7) and 2022 (5). The results demonstrate that this topic has become more popular and more researched since 2016. After the first in-depth screening, five main research fields were identified among the articles. Figure 10 illustrates the distribution of these five thematic areas.

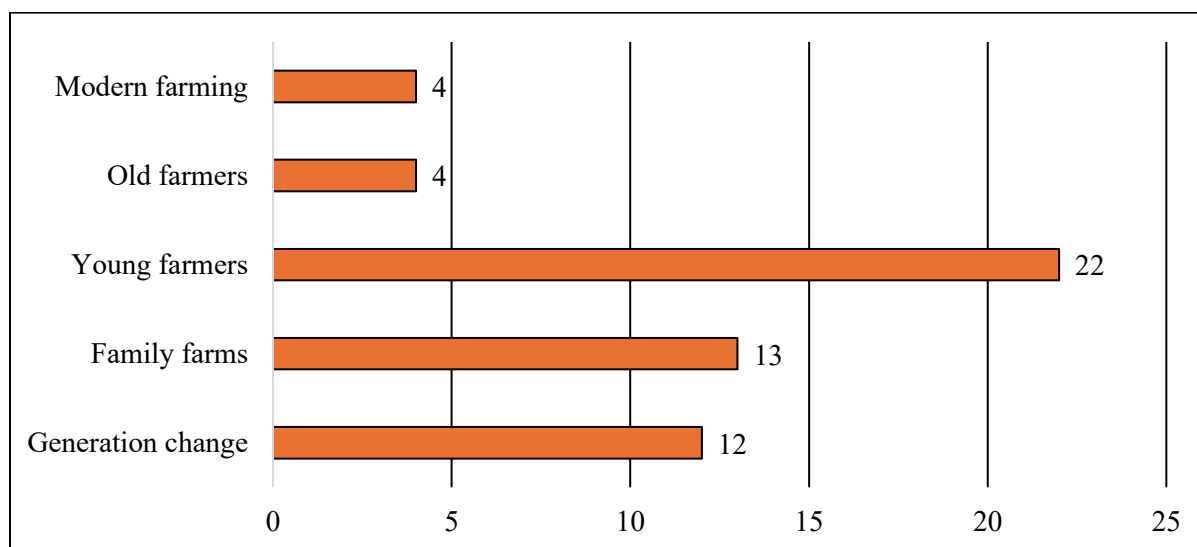
Twelve articles highlighted generational change in agriculture (changing fatherhood, agricultural generational renewal, farm transfer between generations, farm succession). (Borda et al., 2023)

Figure 9.: Frequency of articles by year of publication



Source: Own editing based on the results of the systematic literature review, Borda et al., 2023

Figure 10.: Frequency of the articles by main topics



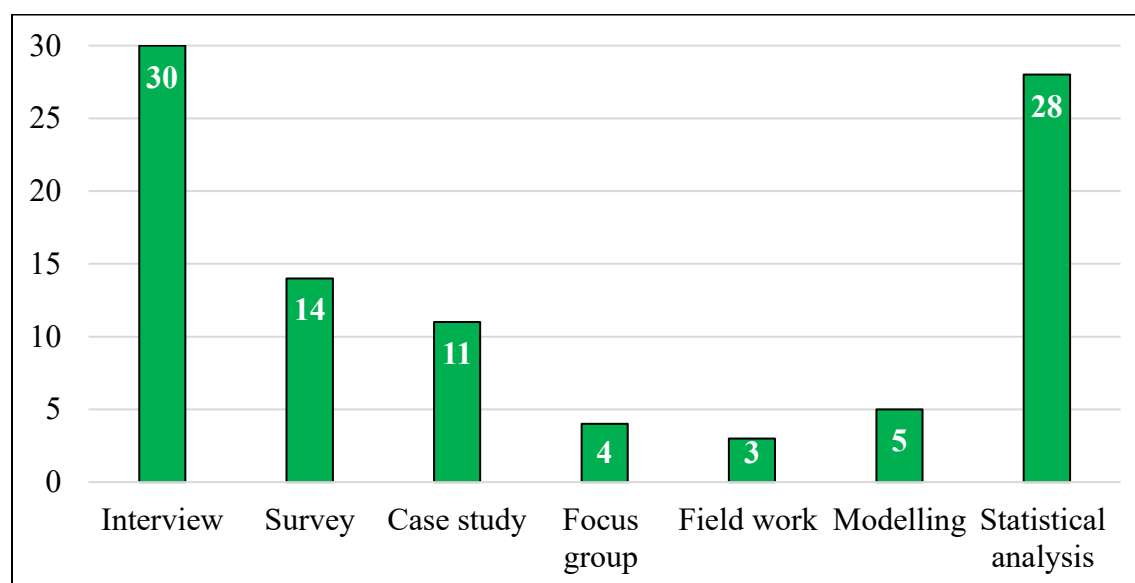
Source: Own editing based on the results of the systematic literature review, Borda et al., 2023

Thirteen articles focused on family farms. Furthermore, 22 articles examined perspectives on generational change; however, only four of them paid specific attention to the older generation of farmers. With regard to generational renewal, the modernization of farms (including digitalisation, robotics, precision farming, etc.) was the central topic of four articles. In addition to these main themes, secondary topics such as climate change, the Common Agricultural

Policy, land mobility, and the agricultural labour market were also considered significant. (Borda et al., 2023)

Regarding the methodology used for the articles, both quantitative (25) and qualitative (21) analysis were popular among scholars. In total, 9 articles used both methods at the same time in their studies. Figure 11. shows the methodology chosen by the authors. In 30 cases, the authors conducted interviews, mostly in-depth interviews, with average respondents of 20-30 people, and this method was used for almost every case study. Survey data was analysed using statistical methods, but this quantitative tool was also used for national-level data analyses. On the contrary, the authors applied the techniques of focus groups (4), field work (3), and statistical modelling (5) less. Thus, it is suggested for those who want to investigate generational change in agriculture to use both qualitative and quantitative methodologies for a comprehensive and high-quality analysis. In the selected sources, no systematic literature review was found; therefore, it identifies the research gap and justifies the need for this study. (Borda et al., 2023)

Figure 11.: Frequency of the methodology applied in the articles



Source: Own editing based on the results of the systematic literature review, Borda et al., 2023

The literature reviewed does not generally paint a positive picture of generational change in agriculture and the future of young farmers. Family farms have been a pillar of rural society worldwide for decades, but all articles report that the farming community in the regions they review is ageing and the number of farms is decreasing. Several studies around the world have mentioned the decline in the number of young farmers and the lack of business start-ups. There

are several reasons for this, which are analysed in more detail below, and the main obstacles to generational change are also presented.

The research focused on generational change in the agricultural sector, which was examined using the PRISMA guidelines and based on a systematic review of relevant publications in the Scopus and Web of Science databases (55 articles). The literature reviewed identified a number of factors that hinder and support generational change, a systematic summary of which is provided in Table 4. (Borda et al., 2023)

The most important barriers include limited access to land and high entry costs, which make it difficult for young people to start their own farms or expand their family businesses (Conway et al., 2020; Yamashita and Morisawa, 2020). Financial factors are also decisive: low agricultural incomes, low pensions for older farmers, and the weak bargaining power of young people all have a deterrent effect (Steward, 2007; Downey et al., 2017; Mariwah et al., 2019; Jansuwan and Zander, 2021). The high price of farmland and the difficulty of accessing land are also inhibiting factors, for which most authors suggest financial support as a solution (Simpachová Pechrová et al., 2018).

Table 4: Summary table of supporting measures and main barriers to agriculture generational change

<i>Supporting measures</i>	<i>Main barriers</i>
<i>Economic and financial factors</i>	
• Financial incentives to improve access to land and to encourage income diversification. • Modernisation, digitalisation and adoption of innovative practices (robots, drones, farm management software) • Income diversification (e.g., agrotourism). • Administration simplification • Support of Organic production, Short Supply Chains, and sustainable farming practices	• Difficult access to arable land • Resources needed for initial investment • Low disposable income of farmers • Low pension of the old farmers • Low bargaining position of farmers on the market • High administrative burdens • Labour-intensive sector • Impacts and risks caused by climate change

<i>Education system</i>	
• Improving agricultural education system (increasing qualification level, knowledge transfer)	• Children of farming activity who have left to pursue education and employment elsewhere
<i>Social and individual factors</i>	
• Strengthening family roots (family relationships, emotional factors) • Need for associations of young farmers (common representation of interests)	• Lack of the motivation of young generation • Changing attitude of their parents (less time for children, difficulty delegating farm management tasks) • Greater understanding of interactions between sustainable food systems, changing land use, gender, and generational inequalities in rural spaces is needed • Bad and dirty working conditions ('working in the mud', 'working with animals')

Source: Own composition based on the results of the systematic literature review, Borda et al., 2023

Administrative burdens and bureaucratic obstacles pose additional challenges, especially in Europe (Pechrová and Simpach, 2018; Simpach, 2017). The labour-intensive nature of agriculture, as well as the 'dirty' and physically demanding nature of the profession, often result in low motivation among young people (Lorenzen and Lorenzen, 2011; Buliga-Stefanescu and Necula, 2018). This is further reinforced by urban job opportunities and better earnings prospects. The difficulties of older generations in handing over farming responsibilities and the transformation of family roles also hinder succession (Brandth and Overrein, 2013; Chiswell and Lobly, 2018). Climate change, especially in Asia and Africa, appears to be a negative motivational factor (Dhanya et al., 2022; Mariwah et al., 2019; Elahi et al., 2022).

Supporting factors can be primarily linked to economic and policy measures. Investment loans provided on preferential terms to young farmers, support for access to land, and income diversification – such as agritourism – can increase the willingness to enter and improve economic security (Galluzzo, 2016; Popa and Turek Rahoveanu, 2021). Innovative and

modernizing practices, digitalization and technological developments (e.g. robotization, drones, farm management software) can improve working conditions and make agriculture more attractive to the younger generation (Guerra, 2018; Farrell et al., 2021; Chiswell and Lobly, 2018).

Improving the education system, strengthening vocational training and knowledge transfer are key, as they help young farmers to have the right competencies and to undertake investments (Popescu, 2019; Popa and Turek Rahoveanu, 2021). Family ties and parental support are also motivating forces (Brandth and Overrein, 2013). Young farmers' associations and advocacy can improve market bargaining power and provide opportunities to coordinate production and marketing (Nainggolan et al., 2020; Mariwah et al., 2019). Finally, sustainable agricultural practices and climate change adaptation strategies can act as incentives for young people, especially through organic production and other environmentally friendly solutions (Farrell et al., 2019; Elahi et al., 2022; Lindsjö et al., 2021).

5.6. Thematic analysis of the interviews

The interviews were conducted between 16 April and 25 June 2024 in Hungary in person or online. 19 farmers were interviewed, representing each of Hungary's counties (Table 5.). Participants ranged in age from 21 to 62, with 5 women and 14 men participating in the study. By generational cohort, the sample included 11 members of Generation Z, 4 from Generation Y, 2 from Generation X, and 2 from the baby boomer generation. The sample composition ensured broad coverage of agricultural sectors, including arable crop producers, livestock farmers, vegetable growers, foresters, food processors, and mixed farms. Specific attention was given to building trust during the research process, a factor reinforced by the researcher's farming background. This facilitated a collegial atmosphere, encouraging participants to provide candid and reflective responses. Interviewees are referred to by their first names throughout the analysis to ensure anonymity.

Table 5: A detailed overview of the interviewees' data

Name	County	Gender	Age	The legal form of the farm	The type of the farm
Gábor	Komárom – Esztergom	Man	34	Family farm of registered producers	crop production, grassland
Áron	Veszprém	Man	24	Family farm of registered producers	crop production, animal breeding, fruit production

Ákos1	Hajdú – Bihar	Man	26	Company (Ltd.)	crop production, agricultural machinery services
Levente	Jász – Nagykanizsa – Szolnok	Man	26	Family farm of registered producers	BIO, crop production, grassland, animal breeding
Ákos2	Szabolcs – Szatmár-Bereg	Man	21	Family farm of registered producers	Forestry, grassland, fruit production
Zsóka	Zala	Woman	39	Family farm of registered producers	BIO, crop production, animal breeding, food processing
Gergő	Békés	Man	25	Company (Ltd.)	crop production
Márk	Csongrád – Csanád	Man	25	Family farm of registered producers	crop production
Szabolcs	Vas	Man	28	Agricultural cooperative	crop production, animal breeding
Márton	Nógrád	Man	28	Agricultural primary producer	vegetables
Lili	Fejér	Woman	31	Company (Ltd.)	crop production
Péter	Győr-Moson-Sopron	Man	30	Individual entrepreneur	crop production
Attila	Borsod – Abaúj – Zemplén	Man	23	Company (Ltd.)	crop production, animal breeding, grassland
Bettina	Bács – Kiskun	Woman	23	Family farm of registered producers	crop production, animal breeding
Nándor	Tolna	Man	28	Family farm of registered producers	crop production
Márta	Somogy	Woman	46	Agricultural primary producer	animal breeding
Vivien	Heves	Woman	25	Family farm of registered producers	vegetables
Sándor	Baranya	Man	60	Agricultural primary producer	vegetables
József	Pest	Man	62	Family farm of registered producers	crop production, vegetables, animal breeding, food processing

Source: Own editing based on the interviews

The family farm of registered producers is a special form of farming defined by Hungarian agrarian law, regulated by Act CXXIII of 2020⁵. In this framework, at least two and up to fifteen primary producers, who are close relatives, combine their resources and carry out agricultural

⁵ Act CXXIII of 2020 on family farms

activities together. The members of the primary producer family farm are considered a single economic unit, jointly fulfilling production, tax, and administrative obligations. From a taxation perspective, this form offers more favourable conditions, as income is divided equally among the members—meaning that the more family members participate, the lower the per capita income forming the tax base. In addition, members of the primary producer family farm are granted priority in land purchase, which serves as an important tool for maintaining farm stability and keeping land ownership within the family.

The purpose of the thematic analysis was to identify recurring patterns, motives, and layers of meaning within the interview data. The analysis unfolded in several stages: first, the interviews were fully transcribed and repeatedly read, after which initial codes were generated based on recurring ideas, expressions, and narrative elements. These codes were subsequently organised into coding categories, which gradually revealed the main themes. The analytic process followed an inductive logic, meaning that themes did not emerge from a pre-established theoretical framework but were grounded directly in the empirical material. Manual coding ensured that the participants' perspectives were preserved and that the nuances of individual stories were not lost. Particular attention was paid to presenting the data not merely as abstracted categories, but in close connection with the interviewees' lived experiences.

The final analysis identified five overarching themes: (1) farming as an inheritance and a natural life path, (2) motivations for farm succession and continuation, (3) administrative burdens as obstacles, (4) generational differences and cooperation, and (5) conditions of successful succession. These themes not only enabled the interpretation of individual experiences but also contributed to a broader understanding of the dynamics of generational change in Hungarian agriculture. To enhance transparency in the qualitative analysis, Table 6 provides an overview of the main coding categories for each theme, along with their interpretations and selected illustrative quotations. By explicitly linking empirical evidence to the thematic structure applied throughout the results section, the table demonstrates how abstract analytical categories are rooted in the everyday experiences and narratives of the interviewed farmers, while also shedding light on the social context and deeper layers of meaning embedded in their accounts.

Table 6: Overview of the main qualitative coding categories

Main themes	Coding category	Description	Illustrative quote
Farming as an inheritance and a natural life path	Early socialisation	Involvement in farm work from early childhood	<i>“I have been part of the farm since I was a child – I was already helping at the age of three.” (Bettina, 23)</i>
	Family identity	Farming perceived as inherited identity and obligation	<i>“I was basically born into agriculture; I have lived in it since my childhood.” (Sándor, 62)</i>
Motivations for farm succession and continuation	Lifestyle and self-fulfilment	Farming as a value-based life choice	<i>“This is about preserving family values, where everything feels more tangible.” (Lili, 31)</i>
	Opportunity for development	Learning, innovation, and value creation	<i>“When I started, I knew nothing about pig farming, but I soon realised that there was an opportunity here to create value.” (Zsóka, 39)</i>
Administrative burdens as obstacles	Bureaucratic overload	Administrative tasks as time- and energy-consuming	<i>“It takes up so much time. This is practically a profession of its own.” (Levente, 26)</i>
	Generational division of labour	Administrative tasks shifting to younger family members	<i>“In the long term, I want to take care of the paperwork, because my parents will no longer want to deal with it.” (Lili, 31)</i>
Generational differences and cooperation	Innovation gap	Differences in attitudes towards technology and modernisation	<i>“My father often thinks in terms of technologies from 30 years ago.” (Nándor, 28)</i>
	Attitude-based differences	Innovation driven by mindset rather than age	<i>“It is not about age, it’s about attitude.” (Péter, 30)</i>
Conditions of successful succession	Gradual transfer	Multi-year, step-by-step handover process	<i>“Such a complex activity cannot be handed over from one day to the next.” (Gábor, 34)</i>
	Trust and emotional disengagement	Difficulty of older generation letting go of control	<i>“This is his life, and he cannot let it go.” (Nándor, 28)</i>

Source: Own editing based on the interview coding

5.6.1. Farming as an inheritance and a natural life path

For many interviewees, farming appeared not merely as an occupational choice but as a natural life trajectory, closely intertwined with family background and childhood experiences.

H1. Young farmers born into agricultural families are more likely to assume family farm leadership than those who enter the sector later in life in Hungary.

Agricultural work was described less as a profession and more as an inherited way of life, a context into which many were born and through which their long-term commitment gradually developed. As Sándor (62) emphasized: *“I was basically born into agriculture; I have lived in it since my childhood.”* Bettina (23) similarly highlighted her early involvement: *“I have been part of the farm since I was a child – I was already helping at the age of three. At 19, I decided more seriously that this was what I wanted to do.”* Gergő’s (25) account illustrates the role of physical presence and gradual identification with everyday practices: *“Even when I was young, I helped with hoeing, detasseling corn, and harvesting peppers. I did not drive the tractor, but I was always there.”*

These experiences may be interpreted as a natural initiation into the world of farming, not as a sudden decision but as a process of continuity across life stages. Attila (23) underscored this embeddedness: *“I have lived my whole life in this environment. It was natural that I would get involved in this work.”* Levente’s (26) story highlights how physical engagement can serve as a symbolic milestone of agricultural adulthood: *“When I was fifteen. That’s when I could finally reach the pedals, so I started driving the tractor, transporting bales, raking, mowing – a real agricultural initiation.”* His example shows how acquiring technical and physical skills simultaneously functioned as an identity-forming experience, reinforcing his sense of belonging to family traditions.

At the same time, in a few cases – such as Márk (25), Péter (30), and Zsóka (39) – engagement came later, as the result of more deliberate choices. However, these ‘late beginnings’ still occurred in early adulthood, indicating that the family legacy exerted a strong orienting influence. As Márk (25) put it: *“I am 25 years old now, and I started farming when I was 19. Before that, I was not really interested, but family influence made me committed.”* Péter (30) also pointed to a gradual interest shaped by family transmission: *“When I was sixteen or seventeen, I started helping during the summers, mostly with fieldwork. Later, at twenty-three, I took it more seriously and started my own business.”* Similarly, Zsóka (39) noted: *“I was born into this way of life, but I only began working independently on the farm at the age of twenty-six.”* These cases suggest that the orienting force of the family agricultural heritage persists even when commitment does not occur immediately. While engagement may be delayed, it still takes place within the boundaries of youth, underscoring how farming is experienced not as an external career option but as a life course anchored in family tradition and identity.

Overall, based on the results of the qualitative analysis, hypothesis H1 was accepted. Through innateness, young people not only acquire practical knowledge, but also internalize a sense of ownership responsibility and family duty, which strongly increases the likelihood of taking over. Familiar activities, getting used to everyday work processes, and emotional attachment together reduce the cognitive and emotional costs of generational change. Although later entrants occur, these are more likely to represent a delayed career start than a refutation of the hypothesis.

5.6.2. Motivations for farm succession and continuation

The motivations of young farmers to take over and continue family farms clearly extend beyond considerations of economic livelihood. Farming was consistently described not only as a source of income but as a way of life, a value-based decision, and simultaneously a pathway for personal and professional development.

H2. In Hungary, farmers' motivations for farm continuation go beyond financial aspects, reflecting family values, self-fulfilment, and the rural lifestyle.

A recurring theme among respondents was the attraction to rural life, combined with the challenges and opportunities inherent in managing a complex farm system. As Áron (24) explained: *“The farm is diverse, there is always room for growth. Rural life has always attracted me, and I would like to increase the level of processing.”*

Several interviewees noted that even if they initially lacked extensive technical knowledge, the possibility of learning by doing and of creating tangible value became a powerful source of motivation. Zsóka (39) reflected: *“When I started, I knew nothing about pig farming. But I soon realized that there was an opportunity here to create value.”* For many, farming was also closely tied to the preservation of family values, especially among those who consciously embraced the transfer of responsibilities. As Lili (31) described: *“This is about preserving family values, where everything feels more tangible.”*

The narratives highlight that continuing the economy is simultaneously a challenge, self-fulfilment and social responsibility that goes far beyond short-term financial interests. The literature (Conway et al., 2020; Nuthall and Old, 2017; Plana-Farran and Gallizo, 2021) also highlights that during the generational change, non-monetary factors – identity, lifestyle, family ties – determine decisions more strongly than direct financial gain. Overall, based on the results of the qualitative analysis, hypothesis H2 was accepted.

Another important dimension of the study focused on the motivational level of young people. Hypothesis H6: In Hungary, young people are less motivated to pursue farming as a long-term career when they perceive low-income prospects and limited career opportunities in agriculture, particularly in comparison with alternative non-agricultural career paths that offer greater income stability, better working conditions.

However, the analysis clearly refuted this assumption: a broad commitment, long-term planning, and conscious development intention emerged among the interviewees. Several reported that taking over a farm was not an obligation for them, but an opportunity – an opportunity for self-realization, modernization, and the preservation of community values. Although the international literature often emphasizes a lack of motivation or a turning away from an agricultural career (Zagata and Sutherland, 2015; Van der Ploeg, 2010) the experiences of the Hungarian interviewees contradict this. At the same time, interviewees also noted that within their broader social and professional networks there are young people who appear to be less motivated to pursue farming as a career. Moreover, the nature of the sample—based on voluntary participation by active farmers—may have resulted in a biased picture by disproportionately capturing the perspectives of more motivated individuals. As a result, the findings cannot be generalised to the entire farming population in Hungary. Taking these considerations into account, hypothesis H6 was partially rejected.

5.6.3. Administrative burdens as obstacles

The issue of administrative obligations emerged prominently in almost every interview with young farmers. The responses clearly revealed that administration is perceived as one of the most time- and energy-consuming, yet least appreciated aspects of agricultural activity. The complexity of the system, the level of documentation required, and the constantly changing legal and subsidy environment pose major challenges for the younger generation, even though several respondents indicated that they have come to accept these tasks as part of the job.

H3, In Hungary, administrative burdens constitute a significant barrier to successful generational renewal in family farming.

As Péter (30) remarked: *“It’s a huge hassle. A tremendous amount of time and energy is wasted on paperwork. Everything is getting more complicated, whether it’s about subsidies or just daily operations.”* Ákos (26) expressed a similar view: *“I do not like the bookkeeping and administrative tasks. For me, this is a real difficulty.”*

For many, the challenges go beyond time management and appear as a form of mental strain: *“I do not like doing it, and it causes me serious difficulties”* Ákos (26) added. Administrative tasks not only complicate daily operations but may also obstruct the process of generational transfer. As Levente (26) pointed out: *“It takes up so much time. This is practically a profession of its own.”* The complexity of the system often exceeds the internal logic of everyday farm management, making specialization, outsourcing, or the redistribution of paperwork within the family almost inevitable. A common pattern is that older generations find administrative tasks nearly incomprehensible, which means they are automatically delegated to the younger family members. Lili (31) explained: *“In the long term, I want to take care of the paperwork, because my parents will no longer want to deal with it.”* A similar dynamic was described by Vivien (25): *“I handle the paperwork at home.”*

Young farmers also intensify the perceived burden, as administrative responsibilities often concentrate on a single individual. At the same time, some voices tempered this generally negative picture. Both Áron (24) and Attila (23) emphasized that administration was less of a problem for them, as their socialization had made these tasks feel more natural. Áron (24) put it this way: *“I think, young people handle paperwork better. We were born into this; for us it is not such a challenge.”* Attila (23) echoed this sentiment: *“Older generations are afraid of administration. For us, it’s more natural since we grew up with it.”* These accounts highlight that generational differences manifest not only in technology adoption or values but also in the logic and organization of everyday work.

Some farmers took a pragmatic approach by organizing administrative tasks within the family to make them more manageable. As Bettina (23) described: *“The two of us divide the paperwork well, and it works out fine.”* Vivien also noted a balanced approach: *“For me, it’s still manageable, but many people struggle with it, especially the older ones.”* Administrative tasks related to subsidy applications were seen as particularly problematic. Péter (30) observed: *“Grants are good, but they do not work without co-financing and pre-financing.”* Meanwhile, Vivien (25) highlighted issues with the VAT system: *“VAT is especially unfairly high.”* These reflections indicate that farmers perceive not only the quantity of administrative burdens as problematic but also the underlying logic and imbalances of the system itself.

Overall, administrative burdens are one of the most significant obstacles to farm transfer from the perspective of the younger generation. Hypothesis H3 was therefore confirmed: the bureaucratic environment is a systemic inhibitory factor that slows down and complicates the process of successful generational change. Although the digital literacy and flexibility of

younger farmers reduce the burden to a certain extent, this is not enough to eliminate bureaucratic obstacles. Paradoxically, administration can still facilitate generational change: since young people are generally more proficient in digital administration, they often take over the administrative tasks of the family farm. This also creates an opportunity for them to gradually become involved in the everyday operation of the farm, take responsibility and become active players in strategic decision-making.

5.6.4. Generational differences and cooperation

When examining the generational dimensions of farming, clear differences emerge in the ways younger and older farmers approach agricultural work, technology, and innovation.

The literature also suggests that young people are generally more open to innovation, diversification, and sustainability, whereas older generations are typically more conservative (Vesala and Vesala, 2010; McDonald et al., 2015; Grubbström et al., 2014; Suess-Reyes and Fuetsch, 2016). However, innovation is not only an age-related phenomenon, but also a matter of attitude and competence. The key to success lies in the integration of the two perspectives, a concept also confirmed by the GIP model (Perrachón, 2018).

H4. Generational differences in family farming are mainly expressed in attitudes towards innovation, risk-taking, and work culture, with successful succession relying on the integration of perspectives from both generations in Hungary.

5.6.4.1. Differences in terms of innovation across generations

When examining the generational dimensions of farming, clear differences emerge in the ways younger and older farmers approach agricultural work, technology, and innovation. Many interviewees emphasized that younger generations are more open to modernization and digitalization, while older generations tend to rely on long-standing practices and familiar tools. As Nándor (28) explained, *“My father often thinks in terms of technologies from 30 years ago”*. Zsóka made a similar point: *“I am open to innovation, development, and digitalization, while my parents believe in the usual ways. They say: ‘this is fine as it is.’”* According to Ákos (26), *“the older generation is reluctant about digital solutions, they like simple machines”* while he places greater trust in new technologies.

For Lili, the generational gap also extends to patterns of learning and information processing: *“Technology and short-term information dominate for us, while parents tend to rely more on memory.”* Gábor (34) highlighted a similar tension: *“Young people are more open to digitalization and innovation, but they often lack practical knowledge. The older generation*

builds on experience and finds it hard to let go of control.” Márk (25) underscored this divide as well: “*Young people are more open to innovations and collaborations*” whereas “*the older generation sticks to traditions and is afraid of administration.*” Sándor (60) pointed out that the contrast is not only one of attitudes but also of available resources: “*Younger people have more innovation skills. They already think differently. Of course, every generation must evolve. In the past, opportunities were different – for example, manual labour has practically disappeared today.*” These accounts illustrate that younger farmers often associate themselves with openness, adaptability, and technological advancement, while older farmers are portrayed as rooted in experience, caution, and traditional practices. Yet the narratives also suggest that the differences are not absolute but reflect shifting opportunities, skills, and contexts between generations.

Although many interviewees emphasized the technological openness of younger farmers, several stressed that attitudes toward innovation are not determined solely by age, but rather by mindset and motivation. As Péter (30) put it: “*If someone wants to do it, they will go for it - no matter how old they are.*” He has been using drones for six to seven years and invested independently, without relying on subsidies or loans: “*I do not even understand when people say young farmers are more innovative. It is not about age, it’s about attitude.*” Attila’s (23) experience reinforces this perspective: “*In our family there is no big difference, because my parents are very modern.*” Bettina (25) expressed a similar view: “*The willingness to innovate does not differ that much.*” Szabolcs (28) explicitly emphasized cooperation: “*Older generations are more cautious, but they are willing to adapt... I try to combine traditions with innovation.*”

These accounts highlight that generational differences do not manifest in a mechanical or uniform way. Openness, adaptability, and personal commitment are decisive factors in shaping how a farmer engages with innovation, regardless of generational belonging. The most effective approach involves building on the knowledge and experience of older generations while enabling younger ones to introduce digital tools and new perspectives. In practice, however, this process is rarely straightforward and often accompanied by conflicts. In such cases, human factors and the ability to collaborate become even more crucial, requiring compromise and mutual understanding across generations.

5.6.4.2. Differences in terms of risk taking and economic reasoning across generations

Several young farmers emphasized that generational differences are also reflected in approaches to risk-taking and economic reasoning. Áron (24) highlighted the contrast in

attitudes: *“Parents are risk-averse, which is understandable – they want to preserve what they have built. Young people have far more ideas, but not enough money to realize them.”* Bettina (23), however, noted a different perspective: *“The younger generation is more cautious economically – maybe we do not yet see the full picture.”* At the same time, she observed that the grandparental generation was *“often dismissive of innovations.”* József (62) underlined the expansion of opportunities for young people: *“Back in the day, young people did not have so many opportunities... Today there are far more, and we also have the internet.”*

This duality between conservative attitudes and openness to new directions also appeared in other accounts. As Ákos² (21) put it, *“In the past everything could be sold; now production must be much more deliberate.”* Márton (28) illustrated the persistence of traditionalist views through family experience: *“My grandfather, for example, is very cautious and clings to what my great-grandfather used to do... the younger ones are more open and adaptable.”* At the same time, some families showed less pronounced generational divides. As Attila (23) explained: *“In our family there is not much difference, because my parents are very modern. Perhaps I would go even further toward precision farming and digitalization.”* These narratives suggest that while intergenerational contrasts in risk attitudes and economic rationalities are significant in many cases, they are neither universal nor uniform. In some families, continuity is achieved through shared openness to modernization, whereas in others, traditionalist caution and youthful ambition coexist in dynamic tension.

Generational contrasts also manifest in attitudes toward work. Vivien (25) observed: *“My parents live for work; they work all day. I no longer want to work in such an exploitative way.”* Similarly, Levente (26) reflected on shifting norms: *“My parents’ generation was used to working 12–15 hours of physical labour every day, but we believe in something different. We see the future in technological progress and efficiency.”* For Lili (31), the future of farming lies in strategic thinking rather than sheer physical effort: *“The hoe needs to be taken out of the farmers’ hands.”* Márta (46) pointed instead to changing task profiles: *“Younger generations differ more in terms of innovations and marketing.”* These insights illustrate how younger farmers increasingly frame agriculture as a profession that relies on knowledge, strategy, and innovation, rather than exclusively on intensive physical labour. The shift reflects broader societal changes in work culture, where efficiency, technology, and diversification are prioritized over traditional notions of diligence and endurance.

The thematic analysis therefore confirms that hypothesis H4, formulated based on the literature, has been confirmed: there are significant differences in attitudes towards innovation, risk-taking

and work, but at the same time, intergenerational cooperation and the combination of the two approaches may be the key to success.

5.6.4.3. Conditions of successful succession

The perception of a successful generational renewal within farming families emerges in diverse forms and often extends beyond the transfer of ownership rights. The interviews reveal that successful succession is not simply a formal act but carries a deeper meaning. It represents a combination of trust, continuity, value preservation, and development.

Based on the literature, the hypothesis H5 was previously formulated, according to which successful farm succession is a gradual, multi-year process built on trust, the clarification of ownership structures, and the emotional disengagement of the older generation, within the Hungarian context. We tested this hypothesis by thematic analysis of the responses received during the interviews. The international literature clearly highlights that business transfer takes place in three stages: identification of the potential successor, examination of his/her willingness and final takeover (Bertolozzi-Caredio et al., 2020). Early involvement of the successor can encourage the emergence of new strategies (Calus and Van Huylenbroeck, 2008), and trust, clear communication and gradual involvement in decision-making can be considered the key to success (Dyck et al., 2002).

Several respondents emphasized the importance of gradual transfer and practical cooperation between generations. As Gábor (34) noted: *“It is a multi-year process. Such a complex activity cannot be handed over from one day to the next.”* Similarly, Bettina (23) explained: *“The transfer should be gradual, ideally stretching over several years. A successful handover would be if the older generation no longer felt the need to go out to the farm every day.”* Thus, gradual transition reflects not only technical requirements but also emotional needs, particularly on the part of the older generation.

The challenge of emotional detachment appeared especially in the case of Nándor’s (28) account: *“My father always says he will hand it over, but nothing happens. I feel that this is his life, and he cannot let it go.”* These testimonies suggest that the psychological barriers to succession are at least as significant as administrative or financial challenges. The formal transfer of leadership roles and decision-making power was also identified as a fundamental element of successful succession. Márk (25) put it as follows: *“For me, it would mean having all signing rights transferred to me, and the daily operations clearly under my control.”* Nándor (28) expressed a similar view, adding: *“Decision-making and financial management would be fully transferred to me. At the same time, the older generation could remain as advisors.”*

Maintaining the integrity of the farm as a shared value was a recurring theme across nearly all interviews. In the case of Péter (30): *“The most important thing would be to keep the farm together. I would not want to have to spend years, maybe five or ten, buying out my siblings with loans.”* Márta (46) shared a similar perspective: *“The ideal would be if the farm remained intact. I place no expectations on my children; I support them in everything.”* József (62) added a moral dimension to this sentiment: *“What I have built so far should remain. I want to see that I have not worked in vain.”*

The clarification of ownership structures and the transparency of inheritance issues also emerged as crucial factors. Márton (28) stated: *“First and foremost, clarifying ownership structures. It is important for me that the family land remains intact and that property issues are not left unresolved.”* Most respondents emphasized not only the importance of preserving the legacy of the past but also of adding their own value to it. Levente (26) explained: *“It is not only about keeping what has been built but about developing it further. I would like to create a modern, well-documented, yet nature-oriented farm.”* Similarly, Zsóka (39) noted: *“The handover will only be successful if the successor not only preserves what has been received but also develops it further.”* A forward-looking perspective was particularly emphasized by Szabolcs (28), who illustrated the intergenerational development trajectory with his own experience: *“My generation has introduced newer technologies, such as precision farming.”* At the same time, he also pointed out the challenges of the process: *“Previously I was only present but not actively involved. (...) Taking over office work, applications, and financial management was the biggest challenge.”* The necessity of formal and legal arrangements was underlined by Attila (23): *“That my parents could officially transfer the leadership to me. It is important that the process runs smoothly, but for this we still need to take many bureaucratic steps.”* This reflects the practical demand that succession must not only be informal but also legally secured.

Prospects of succession were also articulated. Lili (31) remarked: *“In the future, it will probably be my grandchild, that is my child, who will take over; but he is still very young.”* Ákos² (21) described successful succession as balancing past and present: *“Preserving traditions while adapting to the challenges of the present age.”* Áron (24) also emphasized development: *“It is important not to fragment the farm but to continue developing it together.”*

5.6.5. Summary of the qualitative hypotheses

Overall, according to the respondents, successful business transfer is a multi-layered process that affects legal, economic, family, technological, and psychological dimensions. The key to long-term success is trust, gradualness, transparency, and openness to innovation. The thematic

analysis confirms that hypothesis H5, formulated based on the literature, has been confirmed: successful business transfer is indeed a gradual, trust-based process, in which the clarification of ownership relations and the emotional release of the older generation play a key role.

Table 7: Summary of qualitative Hypotheses (H1–H6) and their validation

Hypothesis	Statement	Result	Justification
H1 – Embeddedness	Young farmers born into agricultural families are more likely to assume family farm leadership than those who enter the sector later in life in Hungary.	Confirmed	Interviews showed that early involvement creates stronger commitment and responsibility. Succession appears as a natural life path, reducing both emotional and cognitive costs.
H2 – Beyond financial motives	Motivations for farm succession go beyond financial benefits, including emotional, identity-related, and value-preservation aspects.	Confirmed	Interviews revealed that successors are driven not only by income, but also by preserving family heritage, achieving independence, and long-term future building.
H3 – Administrative burdens	In Hungary, administrative burdens constitute a significant barrier to successful generational renewal in family farming.	Confirmed	Paperwork is excessively time- and energy-consuming, mentally exhausting, and often exceeds the logic of farm management. Many young farmers are forced to take over these tasks from older generations, creating extra pressure.
H4 – Generational differences	Generational differences in family farming are mainly expressed in attitudes towards innovation, risk-taking, and work culture, with successful succession relying on the integration of perspectives	Confirmed	Younger farmers brought new ideas and openness to digitalization and technology but had less capital and experience. Older farmers relied on established methods, valued physical labour, and

	from both generations in Hungary.		showed greater caution. Successful succession depends on combining these perspectives.
H5 – Gradual transfer based on trust	Successful farm succession is a gradual, multi-year process built on trust, the clarification of ownership structures, and the emotional disengagement of the older generation, within the Hungarian context.	Confirmed	Respondents emphasized the importance of gradual handover, transparency, and emotional readiness. Succession is successful when the heir not only preserves but also develops the farm.
H6 – Lack of motivation among youth	In Hungary, young people are less motivated to pursue farming as a long-term career when they perceive low-income prospects and limited career opportunities in agriculture, particularly in comparison with alternative non-agricultural career paths that offer greater income stability, better working conditions.	Partially Rejected	Interviews contradicted this: most respondents showed strong commitment, long-term planning, and willingness to develop. Lack of motivation appears in literature, but not in this Hungarian sample, however this phenomenon is present in this country.

Source: Own composition

Table 7 summarizes the qualitative hypotheses, which, when summarized, suggest that the success of farm transfer is based on several interrelated factors. The confirmed hypotheses (H1–H5) indicate that the commitment of young farmers is significantly strengthened by early involvement, resulting in a deeper bond, a sense of responsibility, and a more natural transition. Motivations are not limited to material benefits, but also include emotional, identity, and value-preserving aspects, which ensure long-term commitment. At the same time, administrative

burdens appear as a serious, systemic obstacle, imposing a significant time and energy demand on young farmers. The research also confirmed that successful farm transfer is a gradual, multi-year process, the basis of which is trust, transparency, and emotional readiness. On the other hand, H6 was partially rejected: the lack of motivation of young people did not emerge as a relevant factor, although, this phenomenon is present in Hungary. Overall, the qualitative analysis emphasizes that the key to a successful generational change is a trust-based, gradual, and emotionally grounded handover, while administrative obstacles remain the most significant inhibiting factor.

5.7. Evaluation of the obstacles to agricultural generational change in Hungary

Table 8.: Comparative evaluation of barriers to agricultural generational change

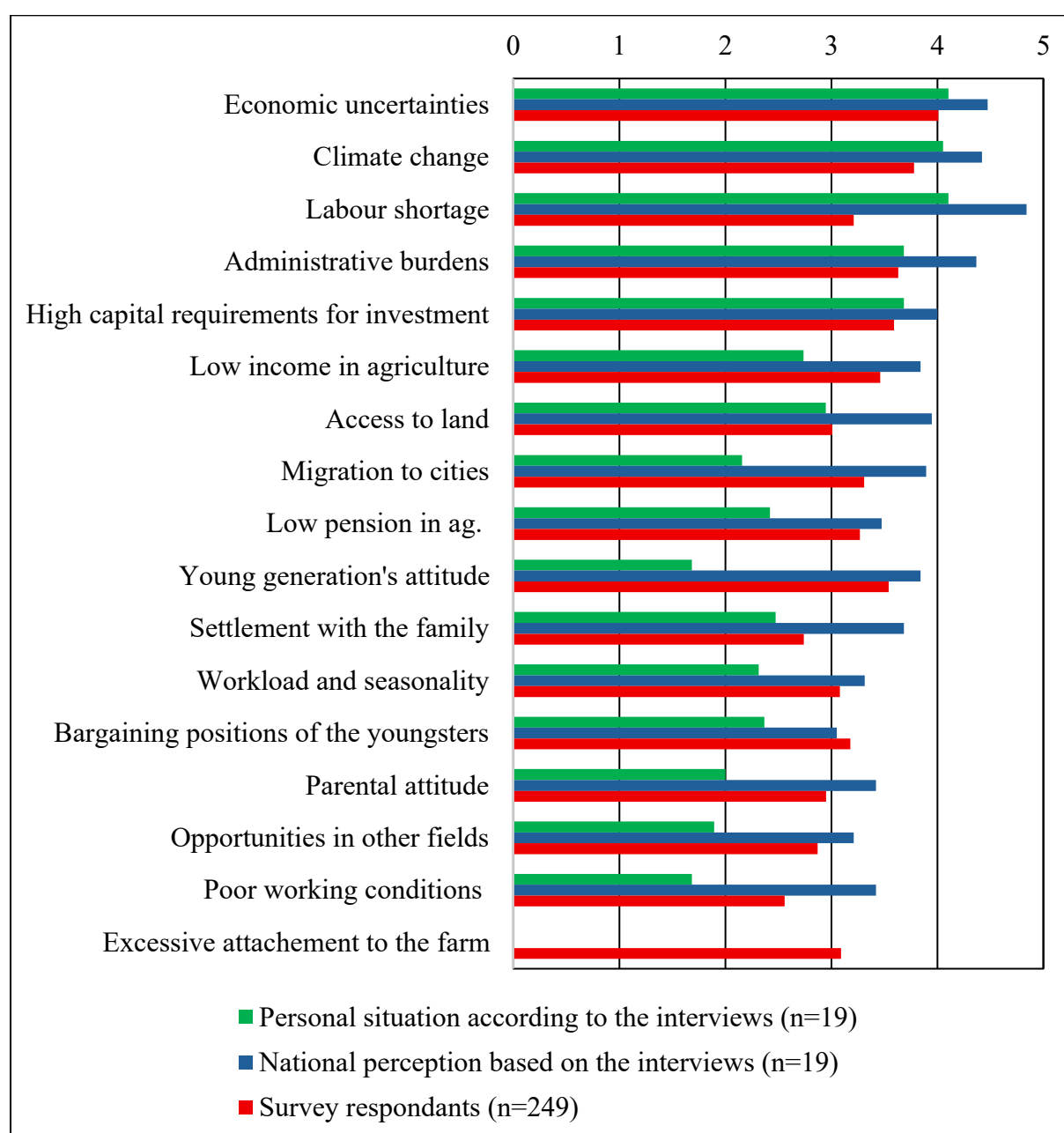
Barriers	Personal	National	Survey
Economic uncertainties	4.11	4.47	4.01
Climate change	4.05	4.42	3.78
Labour shortage	4.11	4.84	3.21
Administrative burdens	3.68	4.37	3.63
High capital requirements for investment	3.68	4.00	3.59
Low income in agriculture	2.74	3.84	3.46
Access to land	2.95	3.95	3.01
Migration to cities	2.16	3.89	3.31
Low pension in ag.	2.42	3.47	3.27
Young generation's attitude	1.68	3.84	3.54
Settlement with the family	2.47	3.68	2.74
Workload and seasonality	2.32	3.32	3.08
Bargaining positions of the youngsters	2.37	3.05	3.18
Parental attitude	2.00	3.42	2.95
Opportunities in other fields	1.89	3.21	2.87
Poor working conditions	1.68	3.42	2.56
Excessive attachment to the farm	x	x	3.09

Source: Own editing based on the interviews and the survey

Table 8 and Figure 12 rank the obstacles that arise during the agricultural generational change along three dimensions. The interviewees had to assess their own situation and then, based on

their experiences, the national situation related to the given issue. During the questionnaire survey, we also asked the farmers about the specific obstacles they faced. On the scale from 1 to 5, higher values indicate more serious challenges. 1- does not hinder at all, 2- does not hinder to a small extent, 3 - hinders neither, 4 - hinders to a small extent, 5 - hinders completely. During the interviews, it became apparent that an additional obstacle worth considering is ‘excessive attachment to the farm’. The results show that the respondents primarily perceive obstacles of a structural and economic nature, while personal and cultural factors are less emphasized, although not negligible. The following is a detailed analysis of each hindering factor.

Figure 12.: Comparative evaluation of barriers to agricultural generational change



Own editing based on the interviews and the survey

5.7.1. Economic uncertainties

Economic uncertainty was also rated exceptionally high among farmers, which strongly influences their thinking due to the experiences of recent years and the current unfavourable situation. This obstacle reached an average score of 4.11 at the personal level, 4.47 nationally, and 4.01 in the questionnaire survey. Although it received a slightly lower value in the questionnaire, the results overall clearly indicate that economic uncertainty is one of the most serious obstacles to the generational change process for farmers. Based on data from the Central Statistical Office (KSH) (2023), in 2022, the volume of total agricultural output decreased by 18% compared to the previous year, while prices increased by an average of 42%. Due to weather and market shocks, there was no year in the new millennium that experienced such a significant decline in production volume as 2022. The yield of cereals fell by 36%. Within this, grain maize, which suffered the most from the lack of rainfall, showed a decrease of 57%. Wheat, which is grown in the largest area, decreased by 18%, while barley showed a decrease of 10%. According to the HCSO (2023), in parallel, crop prices increased significantly: the price of cereals increased by 67%, and that of oilseeds by 52%. At the same time, the price of fertilizers increased dramatically, by 156%, due to the energy crisis resulting from the Russian-Ukrainian war and general uncertainty. In 2023, the market took a turn: the price of industrial crops decreased by 29% and that of cereals by 2.6% compared to the same period of the previous year. Wheat and corn prices have fallen significantly since October 2022, largely due to the emergence of Ukrainian imports, while warehouses still had significant amounts of last year's harvest. Meanwhile, energy prices increased by 42% compared to the first half of 2022: heating fuel prices increased by 59% and fuel prices by 38%. At the same time, fertilizer prices were 11% lower in the first half of 2023 than in the same period a year earlier and then fell by an average of 50% in the second quarter compared to the peak experienced in the second half of 2022. The macroeconomic environment was further complicated by high inflation. According to the Central Statistical Office, the average annual inflation in Hungary was 14.5% in 2022, 17.6% in 2023, and 3.7% in 2024. The price increase peaked in early 2023, when it exceeded 25%, and then gradually decreased, slowing significantly by 2024. Overall, Hungarian farmers have faced several serious economic challenges in recent years. In addition to high inflation, the problem was the drastic increase in fertilizer prices, the extreme fluctuations in crop prices (first a large increase, then a sudden drop), the unfavourable and rapid fluctuations of the forint-euro exchange rate, and the continuous rise in energy and fuel costs.

On a personal level, Nándor (28) had a grade of 1, Attila (23) a grade of 2, and Bettina (23) a grade of 2, which reveals that they did not consider this factor to be a serious problem in their own lives. However, with the exception of Nándor (28), everyone speaks of this issue as a defining problem at the national level. Nándor sees this as an opportunity, not a problem: “I think it helps the generational change. Young people are better equipped to adapt to new circumstances, they have a better understanding of precision farming, and they work more cost-effectively. This gives them the opportunity to take the economy forward with a new approach.” Áron (24), on the other hand, highlights the difficulties: “Inflation, the decline in grain prices, high input costs – all of these make planning very difficult. You have to calculate and do a lot more math to make farming work. Everyone is talking about this nationwide, and it makes many people uncertain.”

5.7.2. Climate change

The extreme weather events of recent years pose a significant challenge for farmers, especially the persistent droughts, the consequences of which are still vivid in the minds of those affected. Farmers perceive it as a serious problem both personally (4.05) and nationally (4.42); however, in the questionnaire survey, this factor received a slightly lower rating of 3.78. This suggests that although the majority of farmers acknowledge the seriousness of climate change and extreme weather events, those participating in the survey overall assessed the significance of the problem somewhat more modestly. At the same time, Áron (24) drew attention to the fact that, in addition to the difficulties, this phenomenon can also bring opportunities: “I think this is not only a problem, but it can also be an opportunity for the younger generation if it can adapt. We can react more flexibly than our parents. They already feel this nationally, but many older farmers still have difficulty opening up to new solutions.” In contrast, Márk (25) highlighted the seriousness of the situation, briefly summarizing the concerns of farmers: “The situation is very difficult. This is perhaps the most difficult.” The problem is felt particularly acutely by those who farm in the country's driest regions. As Gergő (25) put it: “This is one of the most serious problems for us. Békésszentandrás is one of the driest places in Hungary, with an annual rainfall of barely 350 millimetres. In 2022, there was even less. Extreme weather, lack of precipitation, and an unpredictable climate cause a lot of problems.”

5.7.3. Labour shortage

One of the most pressing challenges in the agricultural sector is the lack of labour, which received an extremely high rating both personally (4.11) and nationally (4.84). However, the results of the questionnaire survey showed a lower average of 3.21, which suggests that the

respondents overall considered this problem to be less serious than the interviewees. This clearly shows that due to the physical strain and low attractiveness of agricultural work, it is increasingly difficult to find sufficient labour, especially among young and skilled workers. Although there were a few farmers (Lili (31) –1, Ákos1 (26)–2, Gergő (25) –2, who gave a lower rating on a personal level, they also see the problem as a serious obstacle on a national level. Lili (31)'s answer illustrates this duality well: "Fortunately, this is not a problem for us; we have a stable team. However, this is one of the most serious problems nationwide. It is difficult to find reliable people who want to work, especially in animal husbandry, but the labour shortage is also felt in crop production." However, most farms are also directly struggling with the labour shortage. Szabolcs (28), for example, put it this way: "This is a huge problem for us too. Many tasks must be performed by hired workers because there are no available personnel. It is difficult to find good ones even among hired workers."

5.7.4. Administrative burdens

Administrative burdens are also among the most serious obstacles: the average personal assessment is 3.68, whereas at the national level, respondents gave an average score of 4.37, indicating that the majority of farmers perceive the national situation as even more challenging. The questionnaire survey yielded an average score of 3.63, which is closer to personal experiences, suggesting that farmers perceive the problem as more manageable at their own level than in a national context. In two cases, farmers personally gave only a grade of 1, indicating that it does not pose a significant problem for them. Gábor (34) assessed the situation as follows: "1 – It does not pose a barrier for me, because I have already dealt with it before. However, the transferor often experiences it as a burden. Nationally, it is more of a barrier, so there is a 3," Attila (23), as a young man, saw it more as an opportunity: "Nationally, this is a big problem, but it does not deter me. I was born into it, and now I deal mostly with paperwork at the company." Older farmers, on the other hand, perceive it as more of a problem. It also causes problems for József (62): "This is a big problem! I do not even understand it, so someone else in the family deals with it. Nationally, it's a problem for everyone. There's a lot of administration! Too much! Last year, they had to check it three times. Everything was fine, but it was still a lot of stress." Sándor (60) could not help but emphasize how much of a burden it is for him: "The administrative burdens are very big, and they get worse every year. It would be enough to deal with cultivation."

5.7.5. High capital requirements for investments

Agriculture is traditionally a capital-intensive sector, requiring significant financial resources for both entry and ongoing development. However, the personal assessments of farmers reveal a very different picture: the average personal score was 3.68, whereas at the national level, respondents rated the severity of the problem as 4.00. In contrast, the questionnaire survey yielded an average score of 3.59, which is slightly lower, indicating that some respondents perceived this problem as less serious than the interviewees. This clearly shows that for some, financing investments does not pose a particular challenge, while for others, the excessively high costs represent a serious obstacle. Nándor (28), for example, stated: “It does not pose a particular problem for us, because I started from a good position, but there are many people nationwide for whom this is a serious obstacle.” This suggests that the starting position, family background, and existing capital situation significantly influence the experience of investment difficulties. In contrast, several farmers considered the national situation to be much more serious than their own farm. Vivien (25), for example, highlighted the magnitude of the investment constraints and the associated cost burdens: “This is the biggest problem for us. We still heat (the foils) with coal, but we would like to switch; however, drilling a well would cost 600 million forints. This could even be a 10 in our case!” The investment needs of this magnitude clearly illustrate that energy efficiency, the introduction of modern technologies, and the use of environmentally friendly solutions often depend not only on professional intentions but primarily on financial possibilities. The answers show that the issue of high investment costs is closely related to farmer competitiveness and long-term sustainability. Although younger farmers tend to strive for modernization more often, their opportunities largely depend on the availability of financing sources and the size of their initial capital.

5.7.6. Low income in agriculture

The issue of low income appears to be a less serious problem at a personal level, as indicated by the average value of 2.74. This suggests that there are significant differences between farmers in how they experience the problem: some report a stable income, while others struggle with everyday difficulties. According to the interviewees, at a national level, the low level of income is a much more serious obstacle (3.84), indicating that they perceive the situation of other farmers as more severe than their own. However, the result of the questionnaire survey showed an average score of 3.46, which confirms that the issue of income is indeed a significant problem among farmers, even if there are large differences in individual experiences. Márk (25) highlighted the specificities of arable production, which, in his opinion, does not provide

adequate added value: “Arable crops are not exactly the best. Their added value is not that high.” The words of Zsóka (39) reveal the daily struggles and the squeeze on income: “It is simply not possible to sell the product for the price we produce. The costs have increased, but prices cannot be raised indefinitely. For us, it is a daily struggle. The situation is the same nationwide – many are just vegetating.” In contrast, Márta (46)’s situation can be said to be rather stable, but she is aware that this is a serious problem for other farms: “This is not a problem for us now, because the economy has settled down and the income is stable, the operation is predictable. However, I know that it is much more difficult for those who are starting now or do not have the appropriate background. Incomes fluctuate, one year is good, the next is bad – this unpredictability really discourages young people, especially if there is no other source of income.” The experiences of farmers demonstrate that the income situation is strongly influenced by the sectoral structure, the type of production, and the stability of the economy. While for some, income provides a predictable and secure livelihood, others face constant uncertainty and a struggle to make ends meet.

5.7.7. Access to land

According to the respondents, access to land is a bigger problem than for other farmers at the national level (3.95), indicating the strengthening of land concentration and a permanent increase in land prices. However, the answers show a strongly divided picture: for some farmers, the issue does not pose a problem, while for others it appears as a fundamental obstacle, which is why the personal assessment of this factor was “only” 2.95. The result of the questionnaire survey showed an average score of 3.01, which also indicates a relatively lower value, but at the same time emphasizes the duality that the experience of the problem depends to a large extent on the individual situation. Three farmers gave a personal score of 1, as their situation can be said to be stable, and they are not looking for new areas. Márta (46) assessed the situation as follows: “This is not a problem for us, because we do not plan to increase the area, so we are not looking for new lands.” Vivien (25), who does not see the future in expansion, had a similar opinion: “Our goal is not to expand the area; we want to make what we already have more efficient. However, it is true that land prices nationwide make it very difficult for young people.” At the other end of the scale, several farmers drew attention to the serious obstacles to accessing land. Zsóka (39) emphasized the changes experienced compared to the previous period: “It is increasingly difficult for us to access land. In the past, in the late 1990s and early 2000s, you could still buy it relatively cheaply, but today the prices are almost unattainable. Anyone who does not inherit land is almost certainly starting from a competitive

disadvantage. This is also a problem nationwide, especially for young people.” Levente (26)'s recent experiences also confirm the difficulties: "Personally, this is a very serious obstacle for us. We have now managed to buy a smaller area of less than 10 hectares, but this was also difficult to arrange. It is almost impossible to get land on the market if you do not inherit it or do not have a wealthy family behind you. You can see nationwide that large agricultural companies are buying up everything, and young people are simply being squeezed out of it." The farmers' responses thus shed light on the structural nature of the land access problem and generational differences. While the situation of some does not necessitate expansion, for others, land market prices and increasing concentration result in a competitive disadvantage and the squeezing out of young farmers.

5.7.8. Migration to cities

The issue of moving to cities clearly highlights the distinction between personal and national concerns. On a personal level, the majority of farmers hardly consider it a problem (average: 2.16), as they do not perceive any intention to migrate in their own families. However, when assessed at a national level, it appears as a much more serious factor (average: 3.89), which is also supported by the questionnaire survey, where this problem received a score of 3.31. All of this highlights the difficulty that the locational nature of agriculture has in competing with the job opportunities, income security, and services offered by cities. Gábor (34) pointed out this duality: “Agriculture is locational, while cities provide a more secure income. This is also critical at a national level.” Áron (24) also highlighted the attachment to urban services: “For us, it’s more of a problem because of education and healthcare – these services are tied to the city. Young people do not go there for partying, but because there are more opportunities available. This makes it difficult to lure them back to the countryside.” Some people considered the problem completely indifferent, such as Ákos1 (26): “Personally 1, I’m not interested in it and it does not affect me. Nationally: 4 It really depends on the individual, but it can be a big problem.” Others, such as Lili (31), emphasised generational differences: “We did not have a problem with this, but nationwide, many young people leave because there are more opportunities in the city. As long as they come back and do not completely break away, it’s not a problem – but if they leave permanently, the generational renewal is lost.” Based on the interviews, moving to cities rarely poses a direct obstacle on a personal level, but it increasingly threatens generational renewal nationwide. For young people, the attractiveness of cities is enhanced by the availability of education, healthcare, and other services, in addition to higher income opportunities, which may lead to a long-term decline in rural youth.

5.7.9. Low pension in agriculture

The low pension of farmers is less of a problem on a personal level, as shown by the relatively low average value (2.42). The majority believe that this issue does not directly affect their own family, but at the same time, they perceive the problem with much greater weight at the national level (3.47). The average score of 3.27 in the questionnaire survey indicates that farmers perceive this issue as significant on a wider scale, even if many consider it less decisive on a personal level. The interviews show that although many farmers do not personally depend on the pension, they are aware that it can represent a serious obstacle in the process of transferring the farm to other farming families. Most respondents gave a low value (1), but two farmers also personally assessed it as a serious problem (they marked 5). Among them, Gábor (34) said: “This can be a serious deterrent for older people. The pension calculation is very unfavourable for primary producers, and this is also a problem nationwide.” Vivien (25) saw the situation as similarly serious, highlighting her family experience: “My mother’s example shows how little pension even someone who has worked their whole life receives.” In contrast, for others, the issue poses no personal difficulties. Levente (26), for example, assessed it this way: “This is not a problem for us. Our family does not even count on this; our livelihood does not depend on it. However, many older farmers nationwide have not been able to save, so it is financially difficult for them to retire, and because of this, it is also difficult for them to hand over the farm.” Márton (28) illustrated his own experiences through the example of his grandparents: “On the one hand, it is a problem. If the land-based support does not arrive on time, it can cause problems. It is a bigger problem nationwide, because many farmers do not register properly. They pay fewer contributions this way, and this can have repercussions later.” The answers show that the issue of low pensions carries both personal and social implications. In many cases, it does not represent a direct financial constraint for farming families, but it contributes nationwide to older generations remaining active in the economy, which slows down the process of generational change.

5.7.10. Young generation’s attitude

The results of the research provide a fundamentally encouraging picture of the attitude of young people: the average of personal assessments is only 1.68, which indicates that the majority of farmers participating in the study – who are typically young themselves – did not perceive a problem with motivation on their own farms. However, the responses also reveal that the situation is much more unfavourable at the national level: the average score of 3.84 indicates that in many regions there is a lack of interest, a rejection of physical work, and a lower

attraction to the agricultural lifestyle. The average result of the questionnaire survey, at 3.54, confirms this trend, indicating that the motivation of young people poses a serious challenge nationwide. Gergő (25), for example, finds the phenomenon particularly worrying: “Few and fewer young people are choosing agriculture because they do not want to do inflexible, hard physical work. Most want a fixed 8-hour shift and an office environment. This makes it very difficult for the generational change, because there is no one to take over.” Péter (30) emphasized the specific strain of the profession: “A lot of people are already burned out by the age of thirty. The main problem is that weekends and holidays are not free either – not everyone can handle this. This profession requires a lot of sacrifice, and not everyone is willing to take it on.” Márta saw a positive example in his own family but was more pessimistic on a national level: “Fortunately, this was not a problem for us; we always had the intention and the will. However, on a national level, it is evident that many young people do not genuinely desire to work. They expect a high income, but they do not really want to work for it. They prefer to look for a job that requires less effort but pays a lot – this does not work in agriculture.” József (62) also highlighted his own children: “I cannot complain! My sons help a lot. But elsewhere I hear that they do not help, that they are not interested in agriculture.” Attila’s (23) short but significant comment well captured the uncertainty: “Those who will actually take over farms are typically motivated. But I cannot give many really good examples, and this is worrying.” Overall, the interviews reveal that while there is a strong commitment among the farmers participating in the study, maintaining the interest and motivation of young people is a significant challenge nationwide. The physical strain of agriculture, the inflexibility of working hours, and the tension between income expectations pose a serious obstacle to ensuring generational renewal.

5.7.11. Settlement with the family

Most farmers consider themselves fortunate, as they are less affected by the issue of inheritance and the distribution of material assets on a personal level, which is also reflected in the relatively low average value (2.47). According to their experience, their families are mostly characterized by open communication, which makes it easier to resolve disputes and provides an opportunity to discuss problems peacefully. However, at the national level, they perceive this problem to be much more serious (3.68), since in many cases, inheritance and transfer of the farm can give rise to conflicts. The results of the questionnaire survey showed an average score of 2.74, indicating that it is not a significant problem for those who responded to the questionnaire to come to an agreement with their family. Some farmers also experienced the issue of inheritance

and settlement as a serious personal difficulty, and they assigned a high value (5) to personal involvement. Péter (30) emphasized: “This is one of the most difficult parts of transferring a farm. It is often unfair, and as a result, family conflicts arise. Whoever works in it should carry it on – but not everyone sees it that way.” Zsóka (39) also reported similar difficulties: “This is a serious issue for us as well. I have two sisters, and they live in Budapest. I run the farm, but when it comes to inheritance and settlement, every penny counts. The most challenging aspect of generational change is often financial. The older ones created the wealth, but the younger ones have to take it over – and this is a very sensitive matter.” These examples illustrate that the distribution of material assets can lead to significant tensions, particularly when family members value the work done on the farm and future roles differently. Nándor (28)'s personal experience also confirms this: "This is the biggest problem for us. It causes a lot of conflict over how things should be divided. Many people do not feel it's fair the way it's done. They might be better able to discuss it than other families, but it's very difficult for us." Despite all this, many interviewees noted that they consider themselves fortunate because communication within their families is smooth, and they are able to resolve delicate issues of inheritance and the distribution of material assets together, striving for a mutually agreeable outcome. This suggests that although tension within families over the transfer of property is a significant problem nationwide, in many cases, family cohesion and prior consultation reduce the chances of conflicts arising.

5.7.12. Workload and seasonality

The issues of workload and seasonality do not pose any particular problems for most respondents on a personal level, as shown by the average value of 2.32. The value of 3.08 in the questionnaire survey also indicates that there are farms where this issue is a concern. The majority of farmers believed that those who choose agriculture are aware that this way of life involves continuous, often physically demanding work. For this reason, during the interviews, most respondents interpreted workload as a natural consequence rather than a serious obstacle. At the same time, at the national level (with an average value of 3.32), several people believed that in certain regions or farm types, this could pose a more serious difficulty; however, overall, it was not classified as one of the most significant obstacles. Vivien (25) was an exception, who gave the highest score (5), highlighting the severity of the workload: “OOOOO of course... This is exploitative. My parents are devastated. I love it, but I do not want to work in this way.” In the other farmers’ responses, dedication and habit were more prominent. József (62), an older farmer, said: “Well, you have to work! But this is my life. I do it as long as I can. It’s a problem

if I stop.” Levente (26) also drew attention to the fact that although work is often exhausting, he does not consider it a serious problem: “This is really a way of life that requires a whole person. For me, there is no such thing as not feeling like working right now or going on vacation. You have to accept this. It is also acknowledged nationwide that this is not a comfortable way of life, but those who love it do it.” Sándor (60) also assessed it similarly, although a little more critically: “This is quite a big problem, but we are personally used to it. So, it is a 3,” The opinions of the farmers interviewed show that the workload and seasonality do not necessarily appear as obstacles, but rather as a natural feature of farming. While some emphasized overload, the majority reported more on adapting to it, the commitment to the profession, and accepting farming as a way of life.

5.7.13. Bargaining positions of the youngsters

The low bargaining power of young farmers is less of a problem for the majority of respondents on a personal level (2.37), but at the same time, it appears as a more strongly perceived hindrance at the national level (3.05), especially among newly entering farmers. The average result of the questionnaire survey, at 3.18, confirms that this problem is present in a wider circle, but it is not considered a serious issue. Based on experience, difficulties often appear at the beginning of their careers, especially for those without a family background, a network of contacts, or inherited prestige. Péter (30) recalled the beginnings as follows: “When I started, it took years for me to be accepted in the area. Initially, almost no one took me seriously. Those who are now trying to enter agriculture, especially from scratch, face an even more challenging situation. And if the person is a woman, that is a particular disadvantage.” Vivien (25), who felt the discrimination particularly strongly as a woman, reported similar experiences: “It was very difficult for me as a newbie in the market. Sometimes they would not even talk to me. I had to earn respect – it’s not easy as a woman.” The words of Zsóka (39) also support the intertwining of gender and generational factors: “It was particularly difficult for me as a woman and as a young person to negotiate with new partners. There was a lot of mistrust; many people did not take me seriously. It must be easier for boys. Of course, this varies nationally, but it’s harder for beginners everywhere.” In contrast, Szabolcs (28) reported positive experiences, highlighting the role of professional performance in integration: “I did not have any problems. I applied to a company, and they accepted me. I proved it with my work. Relationships with other companies were not problematic either. Where there were relationships, they can be transferred.” Ákos² (21), however, reflected on his own initial difficulties: “When I started, many people did not take me seriously. The older generation tends to look down on young

people, especially if they lack a solid educational background. Then, when you show results, the attitude changes. But nationwide, this is a serious obstacle, especially for those who are trying to start from scratch.” The answers show that the bargaining position of young people strongly depends on the social and economic environment, family and relationship background, and gender roles: while for some, work performance and existing networks ensure quick acceptance, others – especially women and career starters without a background – are able to earn their place in the agricultural sector through longer and more difficult struggles.

5.7.14. Parental attitude

The attitude of parents to the transfer of the farm and the involvement of young people on a personal level is not a problem according to most respondents (average: 2.00). Based on their experiences, they have encountered difficulties more often with other farming families, less often in their own lives, as shown by the 3.42 given at the national level. The result of the questionnaire survey was 2.95, indicating that this problem is present but not severe. They perceive this as a problem, especially due to the lack of information flow between generations and the difficulty of transferring control. The answers also highlight that in the fast-paced world, parents have less time for their young people and, in many cases, do not allow them to make mistakes, even though this is a natural part of the learning process. The problem was also highlighted by Gergő (25), who emphasized the shortcomings of knowledge transfer: “This was difficult for us too. Grandpa had a hard time passing on information; he often did not tell us why he was doing what he was doing. We had to figure things out ourselves. In contrast, we tend to think in systems, not through experience, and this causes generational tension.” Lili (31) also reported a similar experience: “This is a serious difficulty for me. They often do not tell us why they are doing what they are doing, or how they think about a decision. Instead of passing on experience, it is often said, ‘I’ll do it later,’ and this makes it difficult to learn. However, it would be important to make mistakes, because that is how you can really develop.” Nándor (28) also highlighted the tendency of parents to maintain control: “This is a problem for us too. It often happens that parents do not hand over control; they do not allow the young person to make mistakes or try. This causes a lot of tension. I’m sure many people nationwide suffer from this.” At the same time, several respondents mentioned a particularly positive example. Szabolcs (28) assessed the joint work as follows: “It’s not a problem for us. My dad used to work a lot. Since we’ve been working together, there’s time, there’s patience. Nationwide, if you work together, there’s an opportunity to pass on knowledge.” Ákos¹ (26) emphasized the decisive role of parental support: “It’s not a problem for me; they always paid attention to me.

I chose this profession because of the influence of the family.” The farmers’ responses clearly show that the parents’ attitude can have a double effect on the generational change. On the one hand, withholding information, limiting young people’s attempts, and maintaining control can be an obstacle, while on the other hand, joint work, trust, and a supportive parental background specifically promote the transfer of knowledge and keep the younger generations on track.

5.7.15. Opportunities in other fields

The attractiveness of careers outside of agriculture is not a personal concern for the farmers surveyed (average: 1.89). This is because they are already committed to farming, see it as a way of life, and feel little attraction to other professions as alternatives. However, according to respondents, the picture is much more divided at the national level (average: 3.21): more people believe that young people choose other, more predictable, more prestigious, or simply more profitable careers, which can hinder the supply of agriculture and slow down the process of generational change. The result of the questionnaire survey (2.87) also confirms that the problem is present, but its impact is not considered serious by respondents. Gábor (34) clearly pointed out one of the dangers of the phenomenon: “Many young people prefer to choose other, more predictable professions. This drains the supply of agriculture.” Nándor (28) also feels the problem in his own life situation: “This arises in our country too. I also work elsewhere because I do not always get along well with my dad. Young people often pursue other interests and can drift away from agriculture. This can set back the generational change.” Sándor (60) experiences the same thing through his children: “Children do not learn agriculture here. The youngest is still young. Only what they see at home. If someone wants to do it, they can go in that direction.” Others, however, see experiences outside of agriculture as an opportunity. Zsóka (39), for example, returned to farming after foreign and other professional experiences: “I never had a problem studying. I went abroad, and I made good use of the opportunities. However, I also see that many young people prefer to choose other careers because they can earn money more easily and conveniently. This is quite a common phenomenon nationwide.” József (62) also sees it as positive if young people try other paths first: “With us, it’s not a problem. Let the young people study as long as they can! Then come home and work at home. This is how it works here, and it’s not a problem. It’s conceivable that there might be a problem with this elsewhere.” Péter (30) reinforces the duality through his own example: “I tried something else, but in the end, I came back because this way of life is closer to me. However, many people prefer to study to be an IT specialist, a lawyer, or a doctor, and they do not even think about coming to agriculture.” Szabolcs (28) also highlighted the danger of leaving their careers: “I

also studied something else, so there are opportunities. But nationwide, it depends on how young people are guided in childhood. If they study something else, it's difficult to get them back into the economy. My brother also became an engineer and does not work in the economy.” The interviews show that opportunities outside of agriculture have a dual effect. On the one hand, they can distract young people from agriculture, and on the other hand, the experience gained can contribute to the renewal of farms if young people later return to the family farm.

5.7.16. Poor working conditions

In general, it can be said that the majority of farmers surveyed are satisfied with the working conditions they experience on their own farms: the average personal assessment is only 1.68, indicating that this is less of an obstacle for them. They believe they are aware of what they have undertaken by choosing agriculture, and they take it for granted that this career involves hard physical work and sometimes uncomfortable conditions. At the national level, however, respondents perceive working conditions as a much more serious problem (average of 3.42), especially among the younger generation, who are often less accepting of the specificities of agriculture. However, the result of the questionnaire research (2.56) confirms the interview result that it does not pose a problem for farmers. Although according to the respondents, this factor is less significant compared to the previously mentioned obstacles, it is still important to consider it from the perspective of career choice and generational renewal. Zsóka (39) put it this way: “The conditions are really not always ideal. You’re cold in winter, you’re sweating in summer (24), there’s no romance in it – just work. Many people, however, are reluctant to take on this task. This puts young people off.” Péter (30) also highlighted the difficulties of the workload and the conditions: “There’s a lot of physical work, it’s almost impossible to go on holiday during the season. Animal husbandry is particularly stressful, but even crop production has plenty of challenges.” For the majority, however, working conditions are a natural part of farming. Márk (25) summed it up briefly: “It’s not exactly a problem.” Sándor (60) added: “We’re used to it, although it bothers young people more.” Ákos² (21) also expressed his acceptance, while highlighting the generational differences: “It does not bother me. The work is sometimes dirty, but that’s part of it. However, people are becoming increasingly sensitive – many find it difficult to tolerate dust or heat. More and more people prefer office work.” Based on the farmers’ responses, working conditions are less of an obstacle in their personal experiences, but nationally, they may increasingly represent a deterrent to young people entering agriculture.

5.7.17. Excessive attachment to the farm

The issue of “excessive attachment to land” was not directly addressed in the interviews; however, it was included in the questionnaire survey as a potential barrier. Based on the results, this phenomenon proved to be a moderate, yet non-negligible problem among respondents, as it received an average score of 3.09 in the survey, indicating that many farmers believe a strong emotional attachment to land can hinder the transfer of farms. In Hungarian agrarian culture, land has traditionally been one of the most important symbols of family identity and intergenerational continuity; therefore, attachment to land is often not merely an economic matter but also an emotional one. The survey results suggest that while this factor does not emerge sharply in every farm, in certain cases, it can cause significant tension, particularly when the transferring party is unable or unwilling to accept that the younger generation would manage the farm differently or apply new strategies. In this way, such attachment may indirectly slow down generational change and obstruct the necessary processes of renewal.

5.7.18. Summary of the analysis of the barriers to agricultural generational change

The results of the analysis of obstacles to agricultural generational change indicate that farmers primarily perceive structural and economic challenges, which significantly impact the farm transfer process at both personal and national levels. The highest ratings were given to labour shortages and economic uncertainty, which both highlight that the low attractiveness of agricultural work and the unpredictable economic environment – inflation, rising input prices, fluctuations in crop prices, energy and fuel costs – constitute serious barriers to young people entering the sector and to the sustainable operation of farms. Closely related to this is the increasing impact of climate change, which primarily increases production uncertainty through droughts and extreme weather conditions, as well as high investment costs, making modernization and technological renewal impossible for many farmers. High administrative burdens also emerged as a central obstacle, with excessive bureaucracy acting as a deterrent, especially for older farmers, but also affecting younger farmers at a national level. Difficulties in accessing land – including increasing concentration and rising land prices – are also fundamental obstacles, especially for those who do not inherit land. Meanwhile, low incomes and income fluctuations make many people hesitant to stay on track. Although inheritance and the distribution of material assets within the family are less of a problem at a personal level, they often emerge as a source of conflict at a national level, as is the low pensions of older generations, which deters many from transferring their farms. The low bargaining power of

young people, workload and seasonality, and the pull-out effect of cities are also factors that weaken the supply of agricultural workers, especially when parents find it difficult to hand over control and young people turn to other, more secure or attractive careers. Experiences related to working conditions and young people's attitudes also contribute to all this: although the majority of those surveyed are committed to agriculture, a lack of motivation, aversion to physical work, and the deterrent effect of an inflexible lifestyle can be felt in many places across the country. Overall, the research highlights that the main obstacles to generational change are of economic, structural, and social origin, which interact in a complex manner. Without alleviating these obstacles, the long-term retention and successful integration of young generations in agriculture will remain significantly limited.

5.8. Evaluation of supporting factors to agricultural generational change in Hungary

Figure 13 and Table 9 rank the various factors related to promoting generational change in agriculture along three dimensions. At the personal level, 19 interviewees answered how the given factor helps them. The national level refers to how the 19 interviewees perceive the given factor at the national level, i.e., how much the given factor aids them in their experiences elsewhere. Dimension 3 contains the average of the 249 responses to the questionnaire survey. The assessment was made on a scale of 1–5, according to how much the given factor helps and supports generational change and farmers. 1- does not help at all, 2- does not help to a small extent, 3 – does not help at all, 4 – helps to a small extent, 5 – helps completely.

Table 9.: Comparative evaluation of factors supporting generational change in agriculture

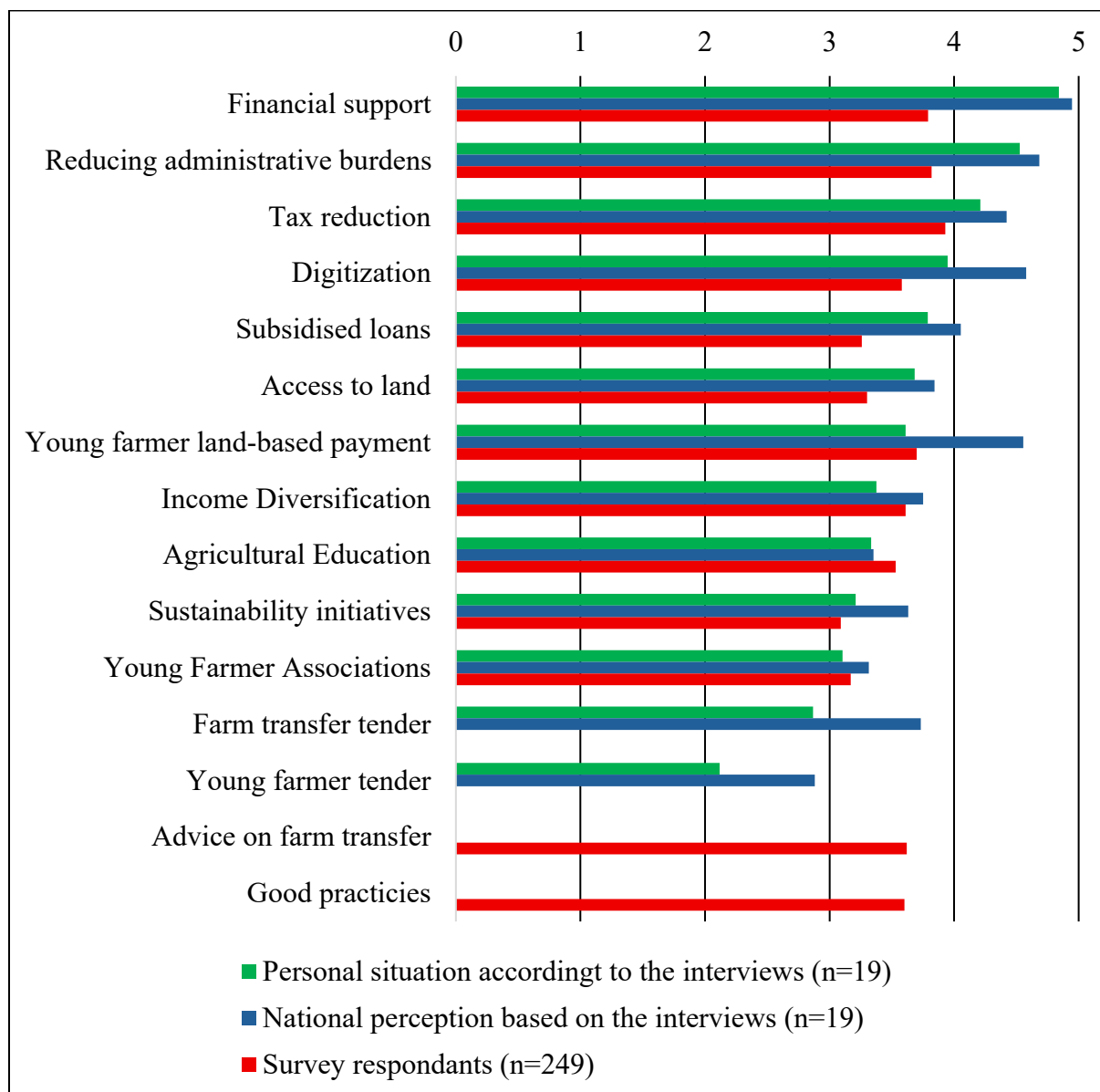
Supporting factors	Personal	National	Survey
Financial support	4.8	4.9	3.79
Reducing administrative burdens	4.5	4.7	3.82
Tax reduction	4.2	4.4	3.93
Digitization	3.9	4.6	3.58
Subsidised loans	3.8	4.1	3.26
Access to land	3.7	3.8	3.3
Young farmer land-based payment	3.6	4.6	3.7

Income Diversification	3.4	3.8	3.61
Agricultural Education	3.3	3.4	3.53
Sustainability initiatives	3.2	3.6	3.09
Young Farmer Associations	3.1	3.3	3.17
Farm transfer tender	2.9	3.7	x
Young farmer tender	2.1	2.9	x
Advice on farm transfer	x	x	3.62
Good practices	x	x	3.6

Source: Own editing based on the interviews and the survey

I also examined two additional supporting factors in the questionnaire: the "Advice on farm transfer" and "Good practices" categories, which were not included in the interview questions. The need to evaluate these arose as a result of the answers given during the interviews; therefore, they were included exclusively as part of the questionnaire data collection. However, we did not consider the farm transfer tender to be relevant for examination in the questionnaire, as it had not yet been announced at the time of the research. Similarly, we considered it justified to omit the question in the case of the young farmer tender, as a significant part of the respondents were unable to participate in it. Therefore, due to a lack of appropriate experience, they would not have been able to provide meaningful answers. The individual supporting factors are presented in detail below.

Figure 13.: Comparative evaluation of factors supporting generational change in agriculture



Source: Own editing based on the interviews and the survey

5.8.1. Financial support

According to the study's results, the role of financial support proved to be extremely important, both at the personal level (4.8) and the national level (4.9). This received the highest rating among all the factors examined, which clearly indicates that for young farmers, taking over, maintaining, and developing the farm primarily depends on the availability of financial resources. The result of the questionnaire survey was an average score of 3.79, which also supports the prominent role of financial support, even if to a somewhat more restrained extent than the interviewees perceived. According to the respondents, support is decisive not only at

the start-up, but also during long-term operation, especially in an environment where investment costs and input prices are constantly rising. Bettina (23)'s words succinctly summarize the importance of financial support: "It is needed for developments, and everyone expects it nationwide – it is difficult to move forward without money." This formulation clearly shows that the lack of support would hinder the development opportunities of many farms and would also make it very difficult for the younger generations to enter. However, Márta (46) nuanced the picture: their family had already reached the size and level of development they had set as a goal, so she felt less urgent about further developments. "Our children are still young, so we do not want to carry out major developments, and we are also afraid of the heavy administrative burden associated with the support," she said. This suggests that the administration's support can be a deterrent for many farmers and does not always encourage further expansion. Overall, the interviews show that financial support is a key factor for young farmers, ensuring both the viability of the farms and the success of the generational change. At the same time, the administrative burdens associated with support, as well as the different developmental stages and goals of families, nuance the assessment, providing a more differentiated picture of the effects of support systems.

5.8.2. Reducing administrative burdens

Reducing administrative burdens emerged as one of the most important areas for farmers to support, as reflected by the average values of the personal (4.5), national (4.7), and questionnaire surveys (3.82). The high ratings indicate that bureaucracy is often a significant obstacle during generational change, and that simplifying administrative processes can be a key factor in facilitating the involvement of younger generations. During the interviews, almost everyone unanimously indicated that they would welcome a reduction in administrative burdens, which would allow more time and energy to be spent on actual farming activities. However, two young farmers approached the issue from a different perspective, highlighting that for them, administration is not necessarily an obstacle, but rather a task that also contains opportunities. Attila (23) said: "This is a big problem nationwide, but it does not deter me. I was born into it, and now I deal mostly with paperwork at the company." Similarly, Áron (24) assessed the situation more positively: "I'm used to having to follow the administration, applications, paperwork – in fact, I like doing it. But it's too complicated for the older generation. In many places, they cannot handle it on their own, which is why it holds them back from handing over." These responses highlight that although the majority of farmers experience paperwork as a hassle, some younger ones also see the challenge as an opportunity. By adapting

to and taking on the administration, young people can assume a greater role in managing the farm, and in many cases, this also helps them become more involved in decision-making. This way, administration can be interpreted not only as a burden, but also as a means of integration that facilitates the younger generation's entry into the everyday operation of the economy.

5.8.3. Tax reduction

Reducing the tax burden was rated highly both at the personal (4.2) and national level (4.4) and in the questionnaire survey (3.93), indicating that most farmers believe that the current tax system has a significant impact on the operation of agriculture and can directly influence the willingness to change generations. However, the responses showed that farmers' experiences differ: smaller farms find it less burdensome, while for larger or diversified farmers, it is a serious difficulty. For Márton (28), tax policy is a less relevant issue, as he operates a small farm, so the products he produces are not subject to VAT. Áron (24) also attributes a lower weight to the problem: "I do not feel it is a problem at the moment. The tax burden is not so high as to hold anyone back. It is a much bigger obstacle." Other interviewees, however, emphasized the weight of the tax burden. Vivien (25), for example, said: "It would be great if the 27% VAT were reduced. That would be a huge relief." Ákos² (21), who also works in forestry, also highlighted VAT: "The current tax system is difficult to operate. For example, the VAT on firewood is 27 percent, which is simply unrealistic. A lower tax rate would make agriculture much more competitive and would also motivate young people to get involved." Gergő (25) highlighted the general burden of contributions and public charges, especially for smaller businesses: "Those working in agriculture are burdened by too many burdens. Contributions, taxes, and other public charges are often disproportionately high compared to the sector's profitability. It is particularly difficult for smaller businesses, and this system also hinders the entry of young people. A targeted reduction would improve the situation a lot." Overall, the interviews highlight that high tax and public burden levels represent a significant obstacle for many farmers, reducing competitiveness and potentially discouraging younger generations. At the same time, it can also be observed that the size and situation of the farm greatly influence how severe the tax burden is perceived: while smaller farms sometimes feel less affected, it is a daily difficulty for larger and market-oriented actors.

5.8.4. Digitization

The importance of digitalization was rated exceptionally high at the national level (4.6), while at the personal level, it was slightly lower (3.9); the average score in the questionnaire survey was 3.58. The difference primarily stems from the fact that it appears less as a personal

motivation among older farmers, but they also recognize the potential it holds. Technological development can not only increase the efficiency of production but can also make agriculture more attractive to younger generations. The words of Sándor (60) clearly illustrate the generational difference: “The future belongs to the young. It does not affect me, but it motivates them. For me, it’s a 1, but nationally it could be a 5.” Márk (25), on the other hand, is also strongly committed to digitalization: “It helps me a lot personally and motivates me at the same time. I’m interested in soil sampling, leaf analysis, and numerous decision support systems – all of them are particularly engaging.” Ákos¹ (26) also reported positively on his own experiences, highlighting the commitment of the younger generations: “I really like these things, and I already do a lot of things digitally on the farm. This motivates young people, although older people do not always know how to use them.” Péter (30) added that although digitalization was not his primary motivation in taking over the farm, he still sees the potential in it: “That’s not why I took over the farm, that’s not what motivated me, but I see that machines, applications, automation can help a lot. This is attractive to more and more young people nationwide – especially those who do not see the future in physical work. If technology can help avoid ‘digging in the mud’, that can be motivating.” Based on the interviews, digitalization is therefore increasingly playing a key role in agriculture: while it is often less attractive for older generations, it appears as a distinctly motivating factor among younger people. This can contribute to making agriculture more competitive and, using modern technologies, increase the attractiveness of the profession for future generations.

5.8.5. Subsidised loan

The perception of subsidized loans among farmers appeared as a factor of medium strength: at a personal level, it received 3.8 points, and at a national level, 4.1 points; the result of the questionnaire survey was slightly lower, 3.26. This suggests that although farmers generally consider preferential loan programs useful, their perception is strongly divided and is often accompanied by distrust or uncertainty. The background to the different assessments is primarily the unpredictability of the economic environment and bureaucratic difficulties; however, for many, these schemes can be a real help in implementing developments. Péter (30) shared more negative experiences, emphasizing unpredictability in particular: “Everything is unpredictable, the interest rates, the conditions, the system too. For example, I tried solar panel subsidies, but the bureaucracy simply discouraged me.” In this way, he also highlighted the problems of economic uncertainty and high administrative burdens, which deter many farmers. In contrast, Gábor (34) mentioned a positive example, highlighting the practical benefits of

subsidized loans: “Long-term, low-interest or 0% loans have worked well in the past. These can provide real help for specific investments.” His words indicate that, under the right conditions, subsidized loan programs present a significant opportunity to develop economies and finance investments.

5.8.6. Access to land

Support for access to land received an average rating both personally (3.7), nationally (3.8), and in the questionnaire (3.3), which suggests that, according to farmers, it is important, but not the most decisive factor in generational change. Based on the interviews, the assessment of the issue is strongly divided: for some, support would represent a real opportunity, while for others, the root of the problem lies not in support, but rather in land prices, the scarcity of supply, and local conditions. Szabolcs (28) assessed the support options very positively: “If they helped me to buy land as a young farmer, I would take advantage of the opportunity. Young people have an advantage here. Nationally, the 10-hectare discount is particularly good; it is well thought out.” Similarly, Vivien (25) emphasized the usefulness at the national level: “This does not affect me personally, because we do not want to expand. However, nationally, it would help young people a lot.” Gábor (34) also mentioned a positive example regarding the regulation: “The regulations that have come into force in recent years, such as the purchase of land below the 10-hectare threshold without posting, are a great help. This really makes it easier for young people to access land, so it is no longer an obstacle for them.” Other interviewees, however, saw the situation in a more nuanced way. Péter (30) pointed to the structural problems: “It could help, but it does not solve anything in itself. It is one thing to be young, but that does not mean you will have land. Anyone who wants it will try to obtain it in some way, but prices, supply, and local conditions are very restrictive. And at the national level, the owner is often young only on paper; in reality, they have no connection to the land. There is a lot of abuse, so I do not really see how this would be a real help.” Zsóka (39) also emphasized the difficulties, but at the same time saw a great opportunity for beginning farmers: “If it were easier to get access to land, that would be a huge help for me too. Today it is almost impossible to acquire a larger area unless someone inherits it. The fact that a young person receives the first 10 hectares with support is a very good idea, and it could give a serious boost to beginning farmers nationwide.” The responses clearly indicate that supporting access to land is important, but it is not a sufficient incentive in all cases. While it can be a real help for some in getting started, others say that its impact is often limited due to market conditions and abuses.

5.8.7. Young farmers' land-based payment

The additional land-based support provided to young farmers received an exceptionally high rating at the national level (4.6), indicating that this tool plays a crucial role in encouraging generational change. However, at the personal level, it received a lower average value of 3.6, as several interviewees were unable to use this form of support, so its direct impact was less perceived. The survey participants gave it a 3.7. The difference suggests that the existence of the support is viewed as a positive policy message at the national level, but at the personal level, the eligibility conditions and accessibility strongly influence the experience of its usefulness. Szabolcs (28) looked forward to the expansion of the support: "I have not taken it yet, but I was waiting for more money to come for it. Now they have expanded it to 300 ha, which would be a great help." For Attila (23), it meant a tangible advantage: "It can be useful, it can be an incentive. We can also perceive its positive impact here." Zsóka (39) considered it especially important for novice farmers: "All help counts, especially for beginners. Additional support can be a very good incentive. Many people start with these funds nationwide – that's why it's important that it's maintained." At the same time, several farmers attached less importance to the support. According to Sándor (60): "It does not matter to us, so it's number 1. That's not why young people will continue." Ákos¹ (26) made a similar statement, who believes that the support may be more of an advantage for others: "It was not that important to me, but I know that it helps a lot for others, especially on smaller family farms." Overall, the interviews indicate that land-based additional support for young farmers is perceived as a strongly supportive factor at the policy level; however, its practical effects can be perceived differently depending on eligibility and farm size. While it provides significant motivation and financial relief for some, it has a marginal role for others.

5.8.8. Income diversification

The issue of income diversification emerged as an important but not prominent aspect among farmers, with an average rating of 3.4 on a personal level, 3.8 on a national level, and 3.61 on the questionnaire. Based on the interviews, this factor strongly divided the respondents, with all values occurring on a scale from 1 to 5. Those who gave a high score (4–5) are already involved in several activities, often not only agricultural, but also related or even non-agricultural businesses (e.g., logistics companies). Farmers who gave a lower score (1–2), on the other hand, believed that diversification would not be a meaningful solution for them, and the possibility of support alone would not encourage them to start a new activity. Levente (26) clearly sees an opportunity in diversification: "Personally, I see the future in this too. We already

have more legs, but if there were a concrete incentive, it would be even easier to explore new directions – for example, rural tourism, handicrafts, and services. This would be a huge advantage for every young farmer nationwide, because you cannot just make a living from classic crop production.” Attila (23) also emphasized stability: “We do this ourselves; we reinvest the income. Diversification gives stability. It would help nationwide, but it depends on a lot of things.” Others, however, attributed more moderate importance to this factor. Bettina (23) put it this way: “We are trying to have more legs within agriculture, not looking for alternatives outside. It might work better in tourist areas, but it’s not really important for us.” Gábor (34) pointed to the future possibilities of diversification: “Although diversification is an important goal (e.g., village catering), now it is more of a future plan. It would become a real support if it were easily accessible and sustainable in the long term.” Overall, the farmers’ responses indicate that income diversification is considered by many to be an important additional option that can enhance farm stability, but it is not always viewed as a key factor. Its usefulness depends largely on local conditions, the size of the farm, and the market environment.

5.8.9. Agricultural education

Agricultural education was identified as a factor of moderate importance among the surveyed farmers, receiving an average value of 3.2 at the personal level and 3.4 at the national level. Interestingly, neither very low (1) nor exceptionally high (5) ratings were given at the personal level, which clearly indicates that, according to farmers, agricultural education is important but not a determining factor in itself for the success of generational change. Surprisingly, education received the highest value from the questionnaire responses, with farmers rating it at 3.53. The respondents emphasized that there would be a greater need for more practical, modern forms of training. Gergő (25) expressed harsh criticism regarding the shortcomings of practical training: “Students who came to our place of work often did not want to work at all; they had no intention of gaining experience. The situation is even worse nationwide. The curriculum is outdated, students receive little practical training, and they lack professional ambition. Interns often only read theoretical materials, staying away from real work.” Ákos¹ (26) also highlighted the lack of practice, although less sharply: “School does not help that much, but professional connections mean a lot. It would be good if education were more practical.” Szabolcs (28), on the other hand, also highlighted positive experiences, mainly in terms of shaping one’s perspective: “It helped a lot in broadening my perspective, the student organization was also very useful. Universities should be developed nationwide, but one cannot expect a graduate to

know everything.” Overall, the interviews reveal that farmers agree on the need for modern, practice-oriented agricultural training that effectively prepares young people for the practical challenges of agriculture. At the same time, they do not make the success of farms and the generational change dependent solely on the quality of education, but rather on family background, professional relationships, and opportunities to gain practical experience.

5.8.10. Sustainability initiatives

Sustainability initiatives were perceived as a factor of medium importance among the surveyed farmers, receiving an average value of 3.2 at the personal level and 3.6 at the national level. During the questionnaire survey, respondents also rated them as medium, with an average of 3.02. This suggests that although steps taken towards sustainability are increasingly becoming more prominent, they are not a primary motivation for many farmers. Several emphasized that the production of organic food takes place under difficult production conditions, is accompanied by high administrative burdens, while domestic solvent demand is not yet strong enough to bring about a mass breakthrough. At the same time, two farmers are explicitly committed to organic production. Zsóka (39) said: “I am an organic farmer myself, so I fully support these directions. We need sustainability to be more than just a word; it needs to be genuinely supported. More and more young people and families nationwide are focusing on these forms.” Similarly, this area is close to my heart for Levente (26): “This is close to my heart. We are already partially organic, and I would like to take this path even more consciously. This is, of course, a challenge, but in the long run, this is the direction towards sustainable and healthy agriculture. It would be a great opportunity nationwide if it were accompanied by more serious support.” Other farmers were more cautious about the issue, prioritizing the stability of the economic foundations. According to Áron (24): “These are nice things, but first we need to achieve a stable economy. If we cannot make a living from it, then it’s pointless to talk about sustainability. First, we need to put the economic foundations in order, and then we can go in this direction.” Another important element of sustainability initiatives is related to short supply chains, which provide motivation and a stable market for many farmers. The experiences of József (62) confirm this: “Short supply chains are very important for us. We sell our goods to our consumers at markets. We have a very close relationship with our customers. This is the secret of our success.” Smaller farms and producers involved in direct sales highlighted that although selling at home, at markets, or even online involves more work, in their experience, it is worth it because it strengthens the relationship between producer and consumer. Overall, the perception of sustainability initiatives is mixed: while for some they are a central motivation,

for others they are more of a future opportunity or an additional element. However, short supply chains and direct sales emerged as positive examples for almost all respondents, offering tangible benefits for their farms.

5.8.11. Young farmer associations

The role of young farmers' associations emerged as a factor of moderate importance among the surveyed farmers, receiving an average value of 3.1 at the personal level and 3.3 at the national level. The questionnaire survey results were very similar, with an average score of 3.17. This suggests that most respondents do not consider official interest representation organizations to be particularly important. Although they recognize the potential of community cooperation and exchange of experiences in theory, many are sceptical about the actual functionality and effectiveness of the organizations. The distrust is often based on negative past experiences, which is unfortunately also noticeable among the younger generations. Most people rely more on their personal, informal relationships than on official associations. According to Zsóka (39), however, the lack of such communities represents a serious loss: “This was not typical of me, but I can see that it would be useful. Finding fellow citizens, exchanging experiences, and thinking together. This is sorely lacking at a national level, and it would give young people a big boost.” Márk (25) would also be open to the possibility, but he approaches it cautiously: “There is one in the county, but I have not joined it yet. If organizations like this are good and have a legal basis, they will be very useful.” Ákos¹ (26) 2. however, remained sceptical: “I think it’s a good idea, but to be honest, I do not see how it would really work. People do not like to come together; everyone goes their own way. If there were a working example, it would perhaps be more motivating, but it’s not a realistic possibility at the moment.” Attila (23), on the other hand, emphasized the advocacy aspect: “It would be good to build partnerships, but the current alliances are not always useful. It would be important for advocacy.” Based on the interviews, young farmers’ associations do not currently play a strong supporting role, primarily due to distrust and operational deficiencies. At the same time, several people recognized their potential, particularly in areas such as community building, exchange of experiences, and advocacy. In the future, the establishment of credible and well-functioning associations for young farmers could provide real support in the process of generational change.

5.8.12. Young farmer tender and Farm transfer tender

The various grant schemes, such as the farm transfer grant and the Young Farmer Grant (start-up support for young farmers), received the lowest ratings among the surveyed farmers. The farm transfer grant achieved a score of 2.9 at the personal level and 3.7 at the national level.

These questions were omitted from the questionnaire survey because we believed they were not relevant to ask farmers about. The lower personal value can be partly attributed to the fact that this scheme is still very new, so farmers have little practical experience with it. Despite this, several people indicated that they are looking forward to it and see it as an important opportunity if it works well in practice. The young farmer grant received an even lower rating: only 2.1 at the personal level and 2.9 at the national level. This suggests that most respondents do not consider it to be a well-functioning, efficient form of support. Although the scheme was originally intended to help young farmers get started, several criticisms were expressed during the interviews, including excessive administration, slow payments, and a lack of trust in the system. Zsóka (39) personally assessed the start-up support positively, highlighting its tangible benefits: “It helped me a lot, it gave me start-up capital that my family could also supplement. However, many people do not even apply because there is too much paperwork. Nationally, it is mostly the more motivated who use it – but the system could be more efficient.” In contrast, Gábor (34) was explicitly critical: “Unfortunately, there are many negative experiences with previous schemes – complicated administration, slow payments, little success. Trust needs to be restored.” Based on the feedback, farmers believe that the current applications do not adequately represent a widely available and attractive opportunity. Although they could be important incentives in theory, in practice, excessive bureaucracy and efficiency problems prevent many young people from utilizing them, which significantly limits their role in supporting generational change.

5.8.13. Advice on farm transfer and Good practices

Based on the results of the questionnaire survey, supporting factors such as advice related to farm transfer (3.62) and the presentation of good practices and examples (3.6) can also play an important role in facilitating generational change. According to the respondents, professional and legal advice provided during farm transfer can provide security for those involved, as it reduces uncertainty and helps avoid conflicts between family members. Good examples are equally important: the presentation of successful transfer processes can provide strong motivation for younger farmers, while also instilling confidence in the older generation that the process can be implemented smoothly. Although the average values of these factors are somewhat lower than in the case of other forms of support, they still indicate that knowledge sharing, the transfer of practical experience, and the presentation of positive models are essential in the long term to increase the number of successful farm transfers.

5.8.14. Summary of supporting factors

The results of the study show that the success of agricultural generational change is fundamentally determined by those factors that simultaneously ensure the financial stability of farms, reduce the barriers to entry and operation, and increase the attractiveness of the agricultural career for younger generations. The outstanding importance of financial support makes it clear that farm transfer and development primarily depend on the availability of financial resources, while reducing administrative burdens makes the process of generational change easier by reducing bureaucratic obstacles. Tax reductions, subsidized loans, and support for access to land are also tools that directly affect farmers' profitability and investment opportunities. Additionally, land-based support for young farmers and various tender schemes specifically serve to ensure the security of start-ups, although the assessment of their effectiveness is often mixed. Digitalization, income diversification, and sustainability initiatives primarily strengthen long-term competitiveness and modernization, contributing to the motivation of young generations. In addition, agricultural education and young farmers' associations appear to be complementary factors that can support the process through professional knowledge, the exchange of experiences, and advocacy. Overall, it can be stated that the success of generational change is shaped by a complex system of factors, in which, in addition to direct economic incentives, structural, institutional, and social forms of support also play a decisive role.

Table 10.: Measures supporting and barriers hindering the farm succession process

<i>Supporting measures</i>	<i>Barriers</i>
<i>Economic and financial factors</i>	
• Financial incentives to improve access to land and to encourage income diversification • Tax reduction • Modernisation, digitization and adoption of innovative practices (robots, drones, farm management software) • Income diversification (e.g., agrotourism). • Administration simplification	• Economic uncertainties • Difficult access to arable land • High capital requirements for investments • Low disposable income of farmers • Low pension of the old farmers • Low bargaining position of farmers on the market • High administrative burdens • Labour-intensive sector • Impacts and risks caused by climate change

• Support of Organic production, Short Supply Chains, and sustainable farming practices • Subsidised loans • Young farmer land-based payment • Farm transfer tender • Young farmer tender	• Labour shortage
<i>Education system</i>	
• Improving agricultural education system (increasing qualification level, knowledge transfer) • Advice on farm transfer	• Children of farming activity who have left to pursue education and employment elsewhere
<i>Social and individual factors</i>	
• Strengthening family roots (family relationships, emotional factors) • Need for associations of young farmers (common representation of interests) • Good practices	• Lack of the motivation of young generation • Changing attitude of their parents (less time for children, difficulty delegating farm management tasks) • Settlement with the family • Poor working conditions, workload and seasonality • Excessive attachment to the farm

Source: Own composition

Table 10 summarises the supporting factors and the barriers to agricultural generational change in three main categories. The “Economic and financial factors” category encompasses financial incentives (e.g., land-based subsidies, preferential loans, tax breaks) that can facilitate the entry of young farmers, while also listing the most significant obstacles, such as high capital requirements, difficulties in accessing land, or low profitability. The “Education system” category highlights the role of agricultural education and knowledge transfer. Improving the education system, transferring practical knowledge, and advising on farm transfers can all contribute to the success of the process. However, the emigration of young people and their employment in other sectors can be an obstacle. “Social and individual factors” presents the effects of family relationships, emotional factors, and social customs. This includes strengthening family roots and the need for advocacy organizations for young farmers, but at the same time, the older generation's excessive attachment to the farm, the lack of motivation

among young people, and unfavourable working conditions can also cause significant difficulties.

5.9. Results of the questionnaire

The statistical data of the survey respondents are presented in Table 11. In the sample of 249 respondents, the proportion of men is 58.2%. In terms of age distribution, the majority belong to Generation Z (born 1995–2009) (48.59%), followed by Generation Y (born 1980–1994) with 28.92%, while Generation X (born 1965–1979) and the baby boomer generation (born 1946–1964) are represented in smaller proportions. The oldest respondent was 79 years old, while the youngest was 18 years old. Almost half of the respondents (47.79%) have a higher education in agriculture, while 15.26% do not have any agricultural education.

Table 11.: Descriptive analysis of survey responses

	Sample (n=249)	Sample (%)
<i>Gender</i>		
Female	104	41.77%
Male	145	58.23%
<i>Generations by age</i>		
GenZ (1995-2009)	121	48.59 %
GenY (1980-1994)	72	28.92%
GenX (1965-1979)	38	15.26%
Baby-boomer (1946-64)	18	7.23%
<i>Education in agriculture</i>		
Higher education degree in agriculture	119	47.79%
Secondary education degree in agriculture	38	15.26%
Vocational qualification in agriculture	54	21.69%
No agriculture education	38	15.26%
<i>How long have you been working in agriculture?</i>		
5 years or less	56	22.49%
5-10 years	74	29.72%
11-20 years	57	22.89%
21-30 years	32	12.85%
31-40 years	23	9.24%
41-50 years	5	2.01%
51 or more years	2	0.8%
<i>What generation of farmer are you?</i>		
First	50	20.08%
Second	76	30.52%
Third	77	30.92%
Fourth or more	46	18.48%
<i>In which region does your farm operate?</i>		

Outside Hungary	3	1.20%
Southern Great Plain	61	24.50%
Southern Transdanubia	22	8.84%
Northern Great Plain	34	13.65%
Northern Hungary	31	12.45%
Central Transdanubia	34	13.65%
Central Hungary	37	14.86%
Western Transdanubia	27	10.84%

Source: Own editing based on the survey

The research participants who took part in the study included 47.8% of farmers who held advanced agricultural education. The study participants exceeded the 2023 Agricultural Census results from HCSO (2023) since they reached 47.8% of farmers with higher education levels. The study results indicate that degree-holding farmers comprise the majority of participants, as the research population primarily consists of farmers with advanced educational backgrounds.

The study results showed a different gender distribution than what the HCSO census reported for the country. The study included 41.8% female farm managers, although the HCSO census reported only 27% of farm managers were women. The research data shows that female farmers made up a larger proportion than male farmers in this study.

The age distribution between this study and the national data shows significant differences. The HCSO (2023) reports that farm managers aged 65 and above make up 37% of the total, while managers under 40 years old number less than 10%. The research participants consisted of 48.6% Generation Z members (born 1995–2009) and 28.9% Generation Y members (born 1980–1994).

The research findings demonstrate a distinct pattern as Hungarian agriculture faces an aging population crisis. However, this study examined younger, educated farmers who will determine the direction of future generational transitions.

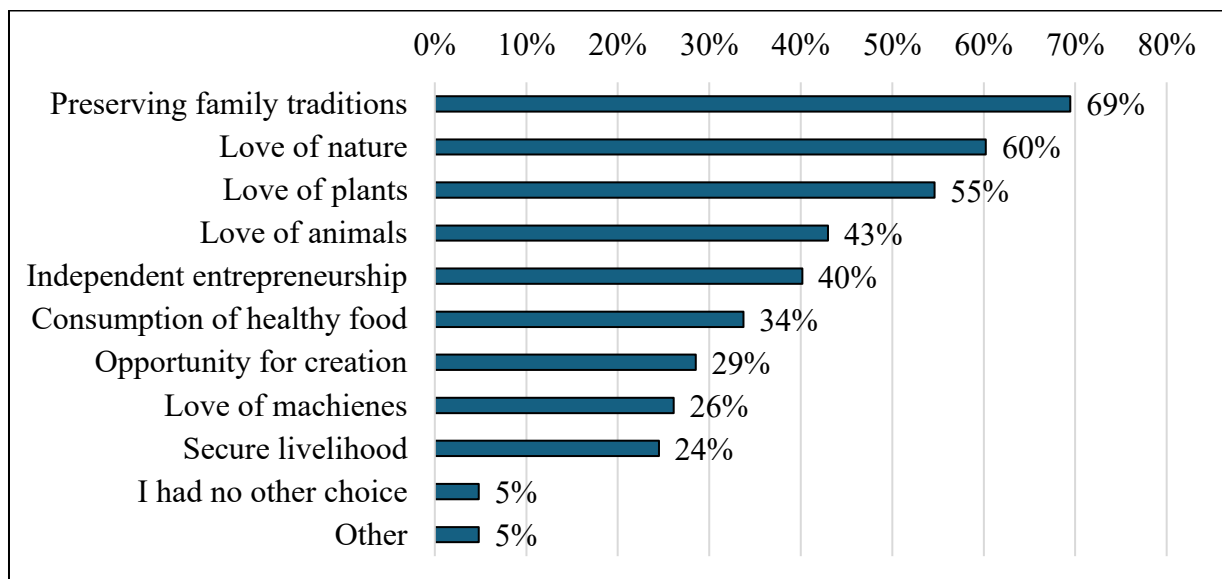
The picture is varied in terms of years spent in agriculture. Many respondents have worked in the profession for 5–10 years (29.72%), but the proportion of those with several decades of experience is also significant. Regarding agricultural sectors, most of the respondents were crop producers (58.3%), mixed crop and livestock 37.3 %, and livestock farmers (4.4%)

Of the respondents, 20.08% are first-generation farmers, while the second and third generations are nearly equal (30.52% and 30.92%). The fourth or later generation is represented by 18.48%, indicating the longer-term continuity of family farms.

According to the regional distribution, most respondents come from the Southern Great Plain (24.50%), followed by Central Hungary (14.86%), the Northern Great Plain and Central Transdanubia (both 13.65%). Northern Hungary accounts for 12.45%, Western Transdanubia for 10.84%, and Southern Transdanubia for 8.84%. A small portion of respondents (1.2%) farm outside Hungary.

Figure 14 presents the motivational factors for choosing a career in agriculture, allowing for multiple answers to be selected. The most significant motivation was the preservation of family traditions (69%), highlighting that continuity between generations and the passing on of family heritage continue to play a key role in choosing a farming lifestyle. This is followed by a love of nature (60%) and a commitment to plants (55%), which indicate that emotional and environmental factors strongly influence participation in agriculture. A significant proportion of respondents also express a love of animals (43%) and a desire to be self-employed (40%), indicating that agriculture attracts both those who feel an emotional connection to the production process and those who seek the opportunity for independence.

Figure 14.: Distribution of responses to the question: ‘What motivated you to choose a career in agriculture?’ (multiple answers possible) (n=249)



Source: Own editing based on the survey

Conscious, healthy food consumption is also a motivating factor (34%), which aligns with shifting consumer trends. The opportunity to create (29%), interest in machines (26%), and the need for a secure livelihood (24%) also contribute to career choice, but these have a smaller weight. The forced career motivation (“I had no other choice”) was reported by only 5% of respondents, indicating that the choice of agriculture is mostly based on conscious and internal

motivations. Overall, the results indicate that the choice of agriculture as a career is primarily driven by family, emotional, and value-based motivations, while independence and economic security also play a role in the decision.

Table 12. presents the characteristics of farms represented in the completed questionnaires. These results highlight key aspects of Hungarian agricultural structure and factors influencing generational change.

Table 12.: Survey results on the characteristics of respondents' farms (n=249)

<i>Which sector of agriculture do you work in?</i>		
Plant production	145	58.23%
Livestock farming	11	4.42%
Mixed farming	93	37.35%
<i>What is the legal form of the farm's operation?</i>		
Individual farmer	74	29.72%
Family Farm Company	110	44.18%
Agricultural Family Corporation	3	1.20%
Sole proprietor	23	9.24%
Ltd.	19	7.63%
Lp.	6	2.41%
Agricultural Cooperative	2	0.80%
Other	12	4.82%
<i>Who is the owner of the farm?</i>		
You	42	16.87%
You and your partner	33	13.25%
Immediate Family	130	52.21%
Extended family	24	9.64%
You and a partner outside the family	9	3.61%
Other	11	4.42%
<i>What is the farm's Standard Output (SO) value (in Euro)?</i>		
0-3.999	39	16%
4.000-7.999	24	10%
8.000-14.999	31	12%
15.000-99.999	86	35%
100.000-499.999	57	23%
500.000+	12	5%
<i>Does your farm have loan?</i>		
Yes	146	59%
No	103	41%
<i>Have you ever received funding from a rural development programme?</i>		
Yes	123	49%
No	126	51%

Source: Own editing based on the survey

Based on the sectoral distribution, most respondents are engaged in crop production (58.23%), while the proportion of livestock farming is small (4.42%), and mixed farming represents a significant part (37.35%). The examination of legal forms reveals that family business associations (44.18%) and individual farms (29.72%) play a significant role, confirming the dominance of family-based operations. Regarding the ownership structure, more than half of the farms (52.21%) are directly family-owned, which highlights the central importance of intergenerational transfer. The distribution according to standard production value (SO) shows that medium-sized farms dominate (15,000–99,999 euros: 35%), while both smaller and larger farms are present in the sample. In terms of financing background, 59% of respondents have loans, which indicates a strong dependence on external sources for development and investment opportunities. A balanced picture emerges regarding the use of rural development support, as almost half of farmers (49%) have already received support, while 51% have not, indicating inequalities in access to support.

Table 13.: Survey results related to labour (n=249)

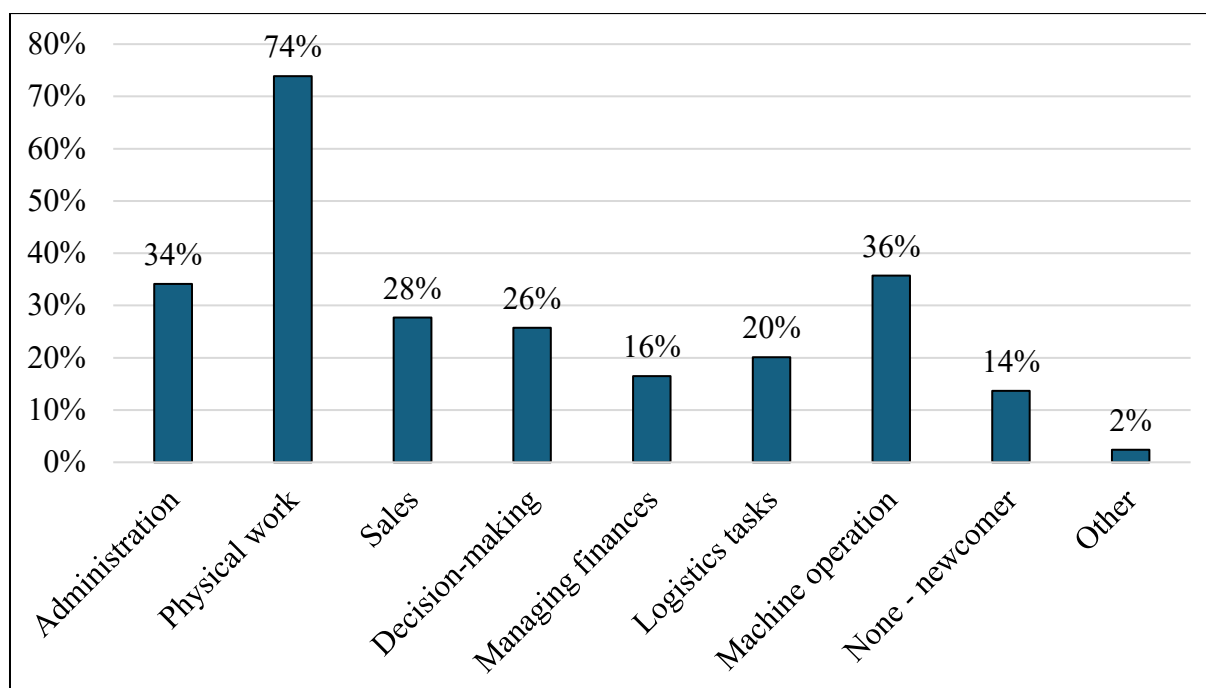
<i>Do you employ family labour?</i>		
No	81	32.53%
Full-time	58	23.29%
Part-time	110	44.18%
<i>How many non-family workers do you employ?</i>		
0	145	58.23%
1	34	13.65%
2-5	46	18.47%
5+	23	9.24%
<i>How many seasonal labours do you employ?</i>		
0	139	55.82%
1	24	9.64%
2-5	54	21.69%
5+	32	12.85%

Source: Own editing based on the survey

Table 13 shows the nature of the employment of labour among the surveyed farms. According to the results, most farms employ family labour: 44.18% of respondents employ family members part-time, while 23.29% employ family members full-time, and 32.53% do not use family labour at all. The use of non-family workers is less typical, as more than half of the farms (58.23%) do not employ external workers. Thirteen percent (13.65%) employ only one person, while 18.47% employ 2–5 people, and only 9.24% employ more than 5 external workers. In the case of seasonal labour, the majority (55.82%) do not employ casual workers, while 9.64%

employ one person, 21.69% employ 2–5 people, and 12.85% employ more than 5 people on a seasonal basis. The results clearly show that the basis of agricultural work organization is primarily provided by family work, with the use of external and seasonal labour appearing as a complementary feature. This pattern reinforces the finding that the sustainability of farm operations in Hungarian agriculture is closely tied to work organization that relies on family resources.

Figure 15.: Responses to the question on which farming activities respondents were involved in during childhood (n=249)



Source: Own editing based on the survey

Figure 15 shows the types of work processes in which respondents were involved in family farms during their childhood. The most typical was physical work (74%), which suggests that most young people gained experience directly in production processes. A significant proportion also mentioned operating machines (36%) and administrative tasks (34%), which suggests that both the practical and administrative sides of farm operations were present in the educational process. Participation in trade (28%) and involvement in decision-making processes (26%) are also important elements that could facilitate the early development of economic thinking and responsibility. Managing finances (16%) and logistical tasks (20%) were less typical but still represented an important experience for a small group. 14% of respondents were not involved in economic activities as children, which may indicate that family background and openness to generational change can vary greatly. Overall, the results suggest that early involvement –

primarily through manual labour and the use of machinery – plays a decisive role in agricultural career choice and in preparing for the succession process.

Table 14.: Survey responses related to generational change, (n=249)

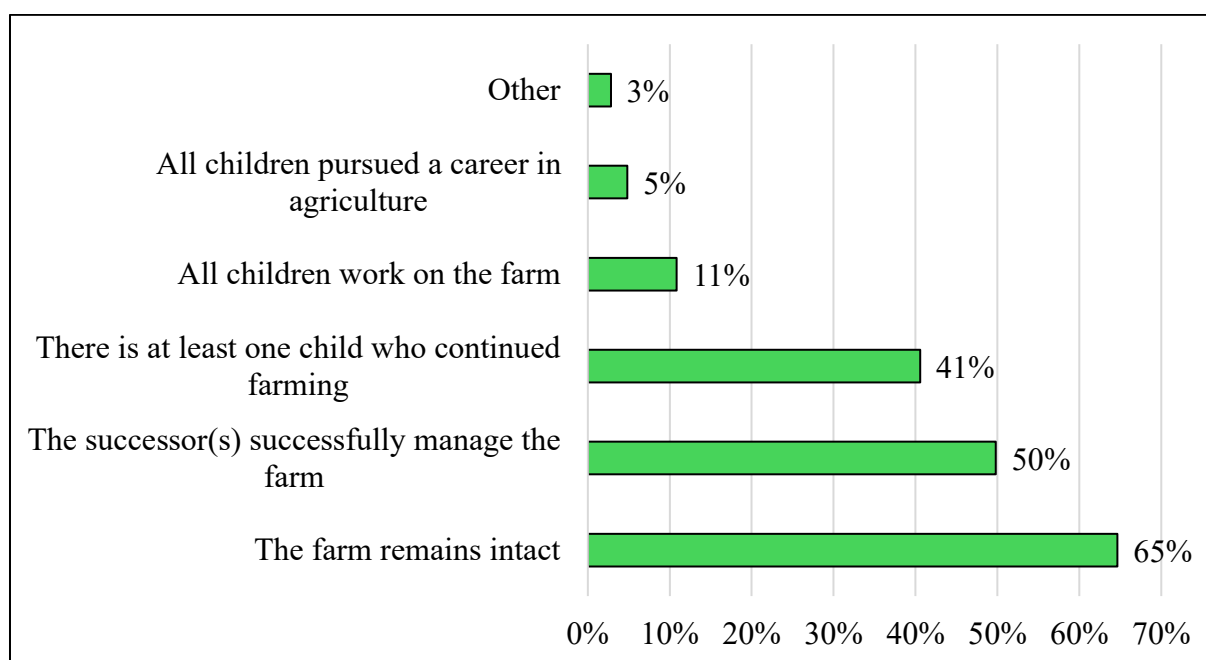
<i>Transferor or successor?</i>		
Farm transferor	66	26.51%
Farm successor	173	69.48%
Recently took over	10	4.02%
<i>How many more years do you intend to continue farming?</i>		
Do not know	71	29%
0-5	18	7%
6-10	16	6%
11-20	29	12%
21-30	24	10%
31-40	33	13%
41-50	16	6%
51+	42	17%
<i>Have you already discussed the issue of succession within the family?</i>		
Yes	105	42%
No	144	58%
<i>How much time would the transfer of the farm take at present?</i>		
Recently took over	14	6%
Some months	53	21%
1 year	47	19%
2-3 years	55	22%
3-5 years	51	20%
5-10 years	20	8%
More than 10 years	9	4%
<i>How do you see your situation after the generational change?</i>		
Remain an owner	173	69%
No longer an owner	76	31%

Source: Own editing based on the survey

Table 14 shows the results of the questions related to generational change. The majority of respondents (69.48%) are in the role of successors, while the proportion of transferors is 26.51%, and only 4.02% reported that they had recently taken over the farm. There is significant uncertainty regarding the time horizon for continuing farming, as 29% could not provide an answer. The highest proportion (17%) is among those who intend to farm for more than 51 years, which indicates the high number of young respondents in the sample. Regarding family consultation on generational change, 58% of farmers have not yet discussed this issue, highlighting the shortcomings in communication and the postponement of the succession process. The assessment of the time required for the transfer of the farm was highly

differentiated: most estimated the process at 2–3 years (22%) or 3–5 years (20%), while a significant proportion also estimated a few months (21%) and a year (19%), which indicates differences arising from different farm sizes and family circumstances. Regarding their future situation, the respondents believed that after the generational change, the vast majority (69%) would remain owners, while 31% would completely withdraw from the farm. Overall, the results indicate that although the issue of succession is of fundamental importance for the sustainability of agriculture, the process is often delayed by a lack of communication within the family, an uncertain timeframe, and future uncertainty about ownership roles. Furthermore, farmers may be overly attached to the land and property, making it more difficult for them to cooperate with the new generation. However, young people need to understand the importance of the economy to the older generation, so they must learn to cooperate with it.

Figure 16. Perceptions of what constitutes a successful farm transfer (multiple answers possible), (n=249)



Source: Own editing based on the survey

The most vital outcome of successful generational change, according to farmers, is evident in Figure 16. Most farmers (65%) view farm preservation as their top priority because they understand that maintaining the integrity of their production unit ensures the sustainability of their family farm. The ability of successors to effectively manage the farm represents a vital factor, according to 50% of respondents who understand its importance for farm sustainability and market competitiveness. The success of generational transition is marked by at least one child taking up farming, according to 41% of respondents. However, 11% view all children

working on the farm as a success, and 5% define success through agricultural career choices. The survival of the farm and proper succession planning represent the core elements that define success according to farming families. The research findings indicate that farmers view successful generational succession through maintaining farm unity and operational continuity rather than children pursuing full-time agricultural work.

5.10. Qualitative analysis of the questionnaire

This section looks at what influences whether Hungarian farmers talk about and plan for generational change. To do this, probit regression models were used, which make it possible to see how family background, age, and financial factors shape these decisions. The method also highlights the role of generational differences, helping us better understand how farm succession unfolds across different groups of farmers.

5.10.1. Determinants of succession planning in family firms

A probit regression (Table 15) was performed to examine factors associated with whether Hungarian farmers (respondents) had spoken about generational change. Model 1 tests (Hosmer–Lemeshow test: $p = 0.714$ and Pearson goodness-of-fit: $p = 0.504$) were statistically significant, indicating a good appropriate fit. The model explained 16.2% of the variance in the outcome ($\text{pseudo-}R^2 = 0.162$) and correctly classified 67.1% of cases. Specification link test for single-equation models suggests that the model predicts well (hat is significant, hat² variable is insignificant). The area under the ROC (Receiver Operating Characteristic) curve was 0.755, indicating good discriminatory power. Sensitivity (true positives), specificity (true negatives), and percent correctly classified tests were also performed. The overall correct classification rate is estimated to be 69.88%, with 66.67% of the normal weight group correctly classified (sensitivity) and 74.29% of the low weight group correctly classified (specificity) at cutoff 0.6. The correlation matrix between the variables can be found in Appendix 1.

Table 15 presents the results of probit regression analysis to examine the factors influencing the intention to engage in generational succession planning within family firms. The results indicate that all included predictors are statistically significant at the 1% or 5% level, highlighting their relevance in explaining the dependent variable. Among these, the decision-making role exhibits the highest positive impact on succession planning ($\beta = 0.675$, $p < 0.01$), implying that individuals more involved in decision-making processes are significantly more likely to engage in succession-related discussions. The involvement of family members in the workforce shows a positive and significant association with succession planning ($\beta = 0.530$, $p < 0.05$), indicating

that the active participation of family members in the business contributes to a higher likelihood of planning for generational change.

Similarly, family support is positively associated with succession intentions ($\beta = 0.472$, $p < 0.05$), emphasizing the importance of a supportive family environment in succession-related considerations. Financial performance, measured by standard gross margin (SGM), has a smaller but still statistically significant coefficient ($\beta = 0.211$). This implies that better financial performance may facilitate or motivate succession planning. Regarding demographic variables, age is positively related to succession planning ($\beta = 0.019$, $p < 0.01$), suggesting that older respondents are more likely to engage in such discussions. In contrast, gender exhibits a negative and statistically significant effect ($\beta = -0.491$, $p < 0.01$). It implies that male respondents are less likely to discuss generational succession than female respondents.

Table 15.: Probit regression for succession planning

Variables	Generation_succession_planning
Family_support	0.472**
	(0.203)
Family_involvement	0.530**
	(0.238)
Financial_performance	0.211***
	(0.0690)
Decision_making	0.675***
	(0.218)
Age	0.0188***
	(0.00683)
Gender	-0.491***
	(0.188)
Constant	-1.541***
	(0.365)
Pseudo R ²	0.156
χ^2	0.000
Observations	249

Sorce: Own composition. Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.10.2. Generational differences in succession planning

Model 2 was estimated to capture the impacts of Generation theory (McCrindle and Wolfinger 2018), family support, and qualification on generation succession (Table 16). Model 2 tests (Hosmer–Lemeshow test: $p = 0.3286$ and Pearson goodness-of-fit: $p = 0.473$) were statistically significant, indicating again an appropriate model fit. The model explained 8.3% of the variance in the outcome (Pseudo- $R^2=0.0828$). Specification link test for single-equation models suggests that the model predicts well (hat is significant, hat² variable is insignificant). The area under the ROC curve was 0.702, suggesting good discriminatory power. The overall correct classification rate is estimated to be 62.65%, with 84.72 % of the normal weight group correctly classified (sensitivity) and 32.38% of the low weight group correctly classified (specificity) at cutoff 0.6.

Table 16 shows the results of a probit regression model conducted to test the relevance of generational affiliation and other predictors in explaining engagement in succession planning. The dependent variable is the same as in previous models: whether the respondent has engaged in discussions or planning related to generational succession in the family business. The results demonstrate that family support is statistically significant predictor ($\beta = 0.531$, $p < 0.01$), reinforcing that a supportive family environment is essential in fostering succession intentions. In addition, agricultural qualification shows a positive and significant association with succession planning ($\beta = 0.192$, $p < 0.05$), indicating that individuals with higher levels of education or training in agriculture are more likely to consider generational transition. The core focus of this model 2 lies in examining generational differences. The reference category is the Baby Boomer Generation (individuals over the age of 60), and the coefficients for other generational cohorts (Gen Z, Gen Y, and Gen X) are all negative and statistically significant:

- Generation Z (age 16–30) shows a significantly lower probability of engaging in succession discussions ($\beta = -1.102$, $p < 0.01$), suggesting significant generational gap in attitudes toward farm succession planning.
- Generation Y (age 31–45) demonstrates the most substantial negative effect ($\beta = -1.487$, $p < 0.01$), indicating that individuals in this age group are the least likely to initiate or participate in such planning.
- Generation X (age 46–60) also has a significantly negative association with the dependent variable ($\beta = -1.034$, $p < 0.05$), albeit to a lesser extent than Generation Y.

These results underline generational disparities in attitudes and behaviours toward succession planning in agriculture. Younger generations appear to be less engaged in such discussions,

possibly due to differing career aspirations, lower levels of farm attachment, or uncertainty regarding long-term involvement in agriculture. The Baby Boomer Generation of farmers (those older than 60 years) serves as a reference group for generation dummies, which is set to 0.

Table 16: Probit regression for Generation theory

Variables	Generation_succession_planning
Qualification	0.192**
	(0.0773)
Family_support	0.531***
	(0.195)
Gen_Z	-1.102***
	(0.421)
Gen_Y	-1.487***
	(0.432)
Gen_X	-1.034**
	(0.449)
Constant	0.382
	(0.449)
Pseudo R ²	0.083
χ^2	0.000
Observations	249

Source: Own composition. Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

5.10.3. The role of socioemotional wealth and family dynamics

In line with previous studies (Berrone et al., 2012; Plana-Farran and Gallizo, 2021), the findings confirm that family involvement (e.g., in the decision-making) and family support significantly enhance the likelihood of discussing generational change, thus, essential motivators for succession planning among Hungarian farmers. These factors represent core components of SEW (Conway et al., 2020; Plana-Farran and Gallizo, 2021), particularly emotional attachment, family control, and identity preservation. The significant positive association between family workforce involvement and succession discussions supports that integrating family members in the business strengthens operational capacity and emotional commitment to intergenerational continuity. Furthermore, the strong positive effect of decision-making participation highlights

the importance of empowerment in succession intentions. This aligns with findings from Chrisman and Holt (2016), suggesting that individuals in influential roles are more likely to internalize strategic priorities such as succession. All in all, the explanatory variables capture that family farms prioritize emotional and legacy-based goals over purely financial ones. This supports emotional attachment to farming as a factor in succession (Downey et al., 2016; Swain and Hamza, 2023).

The positive association with age also reinforces the lifecycle perspective of farm operators, where older farmers, more aware of succession needs, are more inclined to initiate generational discussions. This observation is in line with the findings by Downey et al. (2016) and Lobley et al. (2010), who emphasize that ageing and identity interwoven with land ownership often compel older generations to consider continuity planning, even amid emotional resistance to retirement. The significance of farm economic performance, captured by the SGM value, reflects rational planning behaviour affiliated with economic decision-making as more economically viable farms are more likely to initiate succession planning to ensure continuity of value and resources across generations (Lobley et al., 2010; Nipers and Pilvere, 2020).

The conclusion that female respondents are less likely to engage in succession discussions reflects persistent gender norms and barriers in farm transfer processes. Women's roles in agriculture are often less visible or formally recognized, which can limit their participation in succession conversations (Brandth and Overrein, 2013). In turn, in our model, gender was negatively associated with succession discussions, indicating that female respondents were more likely to engage in succession planning. This contradicts traditional literature (Brandth and Overrein, 2013; Chiswell, 2018), presenting women as marginalized group in succession processes due to patriarchal family norms. A possible explanation lies in evolving cultural scripts (Kahneman and Tversky, 2013; Vanclay and Enticott, 2011), where younger generations may increasingly recognize women's strategic and emotional contributions to farming operations. However, further qualitative research is needed to test whether this represents a true shift in empowerment or reflects auxiliary roles (e.g., caregiving) perceived as supportive of continuity.

5.10.4. Generational disparities and disengagement

Based on Generation Theory (McCrindle and Wolfinger, 2018), the second model, revealed significant generational differences in succession engagement. Compared to the Baby Boomer generation as a reference group, all younger cohorts (Generation X, Y, and Z) were less likely

to report discussing generational change. This result was significantly apparent in the case of Generation Y (aged 31–45), who exhibited the most substantial disengagement. This trend supports earlier research (see e.g., Bertolozzi-Caredio et al., 2020; Chiswell and Lobley, 2018), which associates younger generations with increasing individualization, off-farm employment aspirations, and delayed return to agriculture. The results also suggest a generational detachment from agricultural identity and long-term farm commitment, especially if the farm's economic viability is uncertain or insufficient to support a modern lifestyle. From this aspect, the role of agricultural education emerged as a positive determinant of succession planning. This supports earlier claims (see e.g., Farrell et al., 2022; Šūmane et al., 2018) that formal training stimulates professional identity and long-term engagement, potentially mitigating generational withdrawal. Moreover, family support played a determining role, thus, intergenerational encouragement and shared values remain fundamental for succession engagement - even when economic rationality is not primary.

5.10.5. Summary of quantitative hypotheses

Table 17.: Summary of empirical support for the hypotheses (H7-H11)

Hypothesis	Statement	Model	Result	Justification
H7: Family cohesion hypothesis	In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present.	1 (2)	Accepted	Family involvement showed a positive and statistically significant effect ($\beta = 0.530$, $p < 0.05$). Decision-making participation had the strongest positive effect among all predictors ($\beta = 0.675$, $p < 0.01$). Family support was significant in both models (Model 1: $\beta = 0.472$, $p < 0.05$; Model 2: $\beta = 0.531$, $p < 0.01$).
H8: Farm's financial performance	In Hungary, higher farm-level financial performance, as measured by Standard Gross Margin (SGM),	1	Accepted	Standard gross margin has a smaller statistically significant coefficient ($\beta = 0.211$) at the 1% level

	increases the likelihood of engaging in discussions about generational change.			indicating that higher financial performance may facilitate succession planning.
H9: Gender/family role hypothesis	Within the Hungarian context, male successors are more frequently entrusted with traditional agricultural tasks, reflecting societal expectations, and are therefore more likely to report succession discussions due to their higher influence in family succession processes.	1	Rejected	Gender had a significant negative effect ($\beta = -0.491$, $p < 0.01$), indicating that female respondents were more likely to engage in succession discussions.
H10: Farmer's qualification	Hungarian farmers holding higher agricultural qualifications are more likely to speak about generation change.	2	Accepted	Agricultural qualification has a positive significant association with succession planning ($\beta = 0.192$, $p < 0.05$), indicating higher levels of education or training in agriculture are more likely to consider generational transition.
H11: Generational differences in attitudes towards farm succession planning	In Hungary, Older generation farmers (Baby Boomers) are more likely to speak about generation change than younger ones.	2	Accepted	There is a significant gap among Generation Z, Generation Y, and Generation X, with negative effects on engagement.

Source: Own composition

Based on these results, Table 17 provides a concise overview of the hypotheses, their empirical validation status, and a short justification based on the statistical results.

The empirical testing of hypotheses H7–H11 clearly demonstrates that agricultural generational change in Hungary is fundamentally a family-embedded and socially conditioned process rather than a purely economically driven decision. The results for H7 confirm that active family involvement in farm work, participation in decision-making, and the presence of family support significantly increase the likelihood that succession becomes an explicit topic of discussion within the family. The acceptance of H8 indicates that stronger financial performance facilitates thinking about generational transfer; however, its effect remains moderate, suggesting that economic factors function primarily as enabling conditions rather than as decisive drivers of succession. The rejection of H9 represents a notable divergence from much of the international literature, as the findings show that women are more likely to participate in discussions related to farm succession, pointing to a more nuanced role of gender in the planning and communication phases of generational change in Hungarian agriculture. The confirmation of H10 highlights the importance of agricultural education, as farmers with formal agricultural qualifications are more likely to engage consciously and proactively with succession planning, reflecting the role of human capital in fostering long-term strategic thinking. Finally, the validation of H11 indicates that older generations are more likely to initiate discussions about farm transfer, while younger generations tend to adopt a more passive role in this process, a pattern that is consistent with both the qualitative findings and generational theory. Overall, the results of this chapter show that the success of agricultural generational change in Hungary is determined less by the financial or structural characteristics of the farm than by the timing, inclusiveness, and quality of intra-family communication through which succession is recognised, discussed, and collectively negotiated.

5.11. Summary of the results

Taken together, the qualitative and quantitative findings show that agricultural generational change in Hungary is rarely the outcome of a single, clearly defined decision. Rather, it unfolds as a gradual and often lengthy process shaped by economic conditions, institutional constraints, and family dynamics. The interview narratives and the statistical patterns identified in the survey complement each other in highlighting that farm transfer is frequently postponed not because of formal or technical barriers, but because the trust, communication, and role-sharing required within the family take time to develop.

From the perspective of barriers, farmers most often cited income-related and financial uncertainty as central challenges. Unpredictable revenues and difficulties in long-term financial planning were repeatedly mentioned in the interviews as factors that make farming feel risky,

particularly for younger family members. Closely connected to this, climate change–related production risks emerged as an additional source of uncertainty, reinforcing concerns about yields, income stability, and the long-term viability of farming. Labour shortages in agriculture also featured prominently, as the lack of available and suitably skilled workers increases workloads and places additional pressure on farm families. Alongside these challenges, respondents also referred—albeit less emphatically—to constraints associated with rural living conditions, such as limited access to services and opportunities, which shape how farming as a life course is perceived.

In contrast, the results clearly indicate that successful generational change is most strongly supported by family-based mechanisms. The qualitative findings suggest that when younger family members are involved in farm work from an early stage and are gradually entrusted with responsibility, succession is experienced as a more natural and less conflictual process. The quantitative analysis supports this observation, showing that active family involvement, participation in decision-making, and family support all increase the likelihood that generational change becomes a topic of open discussion within the family. Economic incentives also play an important supporting role. According to the quantitative results, financial support measures—especially those targeting young farmers and offering preferential financing—are among the most important forms of support in farmers' eyes. Rather than triggering succession on their own, these instruments primarily provide a sense of security and predictability, making it easier for families to view generational change as a feasible and sustainable option.

Finally, socio-demographic patterns add further depth to the picture. Older generations tend to take a more active role in initiating conversations about generational change, while younger family members often adopt a more cautious or waiting position. Farmers with agricultural education are more likely to think in long-term terms and to approach succession in a more planned manner. In addition, the results highlight the role of women in the succession process: regardless of formal leadership status, women frequently play an active role in communication and in preparing decisions related to generational change.

Overall, the empirical results portray agricultural generational change in Hungary as a complex and deeply embedded process. Financial, production-related, and labour-market uncertainties interact with family relationships, communication practices, and gradual role transfer, shaping when and how farm succession becomes possible. This interconnected set of findings provides the empirical foundation for the interpretation and broader contextualisation presented in the following chapter.

6. Discussion

In this chapter, I present how the findings of the literature and the results of my own research complement each other in understanding generational change in Hungarian agriculture. My analysis is based on 19 semi-structured interviews and a survey with 249 respondents, which together provide both qualitative and quantitative insights into the process. Following the research questions, I place international and domestic findings side by side, highlighting where they reinforce each other and where they diverge. For me, the aim was not only to identify the barriers and supporting factors, but also to understand how these economic, family, and lifestyle dimensions intertwine in everyday farming practice.

6.1. First research question

The first research question aimed to identify the most significant barriers to agricultural generational change, based on the literature, and to explore the extent to which these factors hinder farm transfer in practice among Hungarian farmers.

In the research, we examined the obstacles to agricultural generational change at three levels: (1) a personal level, where the 19 interviewees spoke about their own farms; (2) a national level, which reflects the opinions of the same interviewees on how they think the given factor is developing in Hungarian agriculture in general; and (3) a questionnaire level, which shows the average of the responses of the 249 farmers. These three levels, when combined, enable us to compare personal experiences, professional perceptions, and broader feedback.

Based on the comparison of the literature and domestic empirical evidence, the Hungarian agricultural generational change is slowed down by economic-structural, family-social, and work organization-lifestyle obstacles. International research consistently highlights the erosion of the motivational base, which is driven by poor working conditions and physical strain (Lorenzen and Lorenzen, 2011), the attractiveness of other sectors and higher earnings prospects (Kondo, 2021; Bosselmann, 2012), and migration to the city (Buliga-Stefanescu and Necula, 2018; Jansuwan and Zander, 2021; Yamamoto, 1997; Sponte, 2014; Swindell, 2019). This picture is echoed in our material: the personal assessment of the 19 interviewees about their own economy treats several factors as “natural aspects of the profession” (e.g. workload and seasonality, poor working conditions), while on the other hand, they see the situation as more serious at the national level (as a perception), while the questionnaire of 249 people typically draws the middle ground, i.e. indicates heterogeneity. An important methodological

note is that the “national” level here refers to the national perception of the 19 interviewees, rather than official statistics.

Among the economic-structural barriers, the most striking are economic uncertainty (price and cost volatility, inflation, exchange rate and energy shocks), low income and income volatility (Steward, 2007; Downey et al., 2017), high capital requirements for investments, administrative burdens (Pechrová et al., 2018; Pechrová and Simpach, 2018, 2020; Simpach, 2017), and persistent difficulties in accessing land and limitations on land mobility (Conway et al., 2020; Ramos, 2005; deHaan et al., 2020; Yamashita and Morisawa, 2020). Domestic respondents often adapt on a personal level (through cost discipline and efficiency improvement), but according to their national perception, these constraints significantly restrict investment and delay the optimal timing of handover. Labor shortages – especially in livestock farming – are a particularly inhibiting factor at both levels, leading to dependence on wage labor and increased organizational risk. Climate change and weather extremes (drought, yield uncertainty) also strengthen risk perception; although the younger generation is mostly more open to sustainable practices and renewable energy (Elahi et al., 2022; Lindsjö et al., 2021; Karttunen et al., 2016), overall climate uncertainty can still have a demotivating effect (Dhanya et al., 2022). These factors reinforce each other and narrow the margin and room for manoeuvre: high capital requirements and administration "from above", and profitability and climate risk "from below" squeeze the young takeover.

In the family-social dimension, parental attitude and the quality of knowledge transfer are central. According to the literature, older farmers often have difficulty delegating tasks and delaying the transfer of control (Koczberski and Curry, 2016; Chiswell and Lobley, 2018; Heider et al., 2021), which is a recurring pattern in our interviews: the disruption of the flow of information, the “I’ll do it later” logic and the scarcity of opportunities to make mistakes hinder the independence of the young. At the same time, close family ties and the transformation of the positive father role can strengthen motivation (Plana-Farran and Gallizo, 2021; Brandth and Overrein, 2013). Agreements within the family, such as inheritance and settlements, are often settled personally but remain a common source of conflict in national perception; here, transparent rules and mediation can help reduce tension. The bargaining position of young people in the first years of market entry is weak, especially for those without a background and women (Mariwah et al., 2019; Nainggolan et al., 2020; Popa and Turek Rahoveanu, 2021; White, 2020), which is also confirmed by our interviews. The agrarian-specific problem of low pensions (Downey et al., 2016) delays the withdrawal of the older generation, thus blocking the

pace of transfer. Finally, excessive attachment to the farm/land – although not mentioned as a separate item in the interviews – is a medium barrier, according to the questionnaire. The emotional connection linked to identity and status elements can slow down the transfer of control and the adoption of innovation (Nemenyi and Rosser, 2010).

Among the obstacles related to individual career logic, the attractiveness of other sectors and urban mobility are decisive, according to both the literature and domestic material: higher prestige, more flexible working hours and better services cause a lasting "suction", especially if the young person's educational career separates them from everyday economic work (Farrell et al., 2019; Chiswell and Lobley, 2018). Education has a dual effect: on the one hand, higher education and openness to digital/modern technologies strengthen the chances of successful transfer (Popa and Turek Rahoveanu, 2021; Popescu, 2019; Gapuz and Gapuz, 2013; Elahi et al., 2022; Osterhoudt, 2018; Seck et al., 2005; Ariyo and Mortimore, 2012), on the other hand, broader career options increase the risk of emigration (Chiswell and Lobley, 2018). Digitalization – milking robots, automated steering, drones, farm management software – also serves to motivate young people and improve working conditions, especially when accompanied by financial support (Guerra, 2018; Chiswell, 2018; Karttunen et al., 2016; Widiyanti et al., 2018; Yang, 2013; St Aisyah et al., 2020; Farrell et al., 2021). In our results, technological openness emerges as an adaptive advantage for many young people; however, it cannot fully compensate for the economic and structural burdens described above.

The primary obstacles identified in the literature, including economic uncertainty, low income, high capital requirements, administrative burdens, limited access to land, climate risk, labour shortages, poor working conditions, urban migration, and alternative career opportunities, are also evident in Hungarian agriculture. These factors significantly hinder the process of farm transfer. Additional challenges such as family dynamics, the bargaining position of younger generations, low pension levels, workload intensity, seasonality, and strong emotional attachment to land further complicate succession. Analysis of three perspectives—the personal experiences of 19 interviewees, national perceptions, and responses from a questionnaire of 249 participants—reveals a consistent pattern. Issues perceived as manageable at the individual level are regarded as systemic at the national level, while the questionnaire data indicate a moderate average severity. In response to research question 1, the obstacles identified in the literature are confirmed as real and mutually reinforcing constraints in Hungarian practice. Their effects are observable in the timing, cost, and quality of farm succession. Effective

mitigation requires coordinated economic and regulatory support, professionalization of family and organizational processes, and targeted technological and human resource development.

6.2. Second research question

The second research question focused on the supporting factors identified in the literature and the extent to which these factors facilitate successful generational change in Hungarian agriculture. Similar to the first research question, we examined the phenomenon from several perspectives: personal experiences, national perceptions, and the results of the questionnaire survey, which together provided a comprehensive picture of how the forms of support identified in the literature appear in practice and to what extent they facilitate the farm transfer process. Below, I present the results of this research question, in parallel with the findings in the literature.

The literature widely agrees that financial support for young farmers is the most important condition for generational change (Buliga-Stefanescu and Necula, 2018; Nipers and Pilvere, 2020). A similar conclusion was reached in Hungarian research, where financial support emerged as the strongest motivating factor at all levels. Interviewees and questionnaire respondents emphasized that without support, entry and development are almost impossible, while the administration related to support was often a deterrent. This aligns with the statement by Simpachová Pechrová et al. (2018), who note that providing financial resources alone is insufficient if the institutional environment is complex and bureaucratic.

Reducing bureaucracy emerged as one of the most important supporting factors in the domestic results. According to most farmers, reducing paperwork would significantly facilitate the process of generational change. Although some young farmers viewed administration as a natural task, the majority found it to be a serious obstacle. This confirms the claim in the literature that reducing entry barriers requires not only financial but also administrative facilitation (Korzenszky, 2019).

According to the research results, tax reduction would also serve as a significant facilitation for farmers, especially for larger farms. This finding is consistent with the conclusion in the literature that high public charges place a disproportionate burden on agricultural actors and reduce the willingness of young people to enter the sector (Lindsjö et al., 2021).

The literature considers support for innovation and modernization to be crucial, as younger generations are more educated and open to new technologies (Guerra, 2018). This is also reflected in the Hungarian results: digitalization was a motivating force especially for young

farmers, while older ones recognized its importance more at the national level. Technological development is not only seen by young people as a factor that increases efficiency, but also as a means to enhance the attractiveness of agriculture, which aligns with Farrell et al. (2021), who suggest that targeted, innovation-based measures can be used to attract young people back into the sector. Land-based additional support is also listed in the literature as a factor that encourages generational change (Mariwah et al., 2019), and Hungarian farmers also considered it useful, especially for novice farmers. However, practical experiences were divided: many felt that they received less direct benefit due to access barriers. This highlights that the impact of policy instruments strongly depends on eligibility conditions and farm size.

The role of subsidized loans is assessed in the literature in a mixed way: according to several studies, they can support investments under the right conditions, but lack of trust and unpredictability can limit their impact (Simpachová Pechrová et al., 2018; Lindsjö et al., 2021). The Hungarian results also show this: while some farmers highlighted the importance of loans for development, others preferred to avoid them due to excessive bureaucracy.

The issue of access to land is of central importance, both in the literature and in Hungarian data. Several researchers have pointed out that land shortages and market barriers hinder the entry of young people (Korzenszky, 2019). This was also reflected in the feedback from Hungarian farmers: although several highlighted the importance of facilitated land purchase opportunities, the actual impact is often limited due to high prices and abuses.

The importance of income diversification is emphasized in several places in the literature as a means of increasing economic stability (Galluzzo, 2016; Marcu, 2014). The Hungarian results partly confirm this: many farmers saw it as important to stand on more than one foot, especially in relation to tourism or handicrafts, while others saw it as more of an afterthought. This division shows that supporting diversification can indeed contribute to generational change for certain types of farmers, but it is not a general incentive.

Sustainability initiatives are frequently cited in the literature as a factor that enhances rural well-being and cohesion (Gkatsikos et al., 2022; Mariwah et al., 2019). Among Hungarian farmers, sustainability appeared more as a complementary aspect: while it was a central motivation for some young farmers, the majority prioritized economic stability. At the same time, short supply chains and direct sales offered tangible benefits for everyone, aligning with the market and community benefits highlighted in the literature. The importance of education and training is also emphasized in the literature, particularly in criticism of the lack of practical knowledge (Guerra, 2018). Hungarian farmers also recognized that current training is too theoretical and

that there is a greater need for practice-oriented training forms. Although education is not a key factor in itself, it plays an important role in shaping perspectives and expanding professional relationships.

The role of young farmers' associations is also highlighted in the literature as a tool for community resources and advocacy (Nainggolan et al., 2020; Mariwah et al., 2019). However, in Hungary, these organizations are of moderate importance, as farmers are generally distrustful and tend to rely more on their informal connections. This indicates that, although they are important factors in theory, their practical impact is currently limited.

Grant schemes – including farm transfer and young farmer grants – are presented in the literature as promising tools, but their effectiveness strongly depends on their implementation (Nipers and Pilvere, 2020). The experiences of Hungarian farmers are largely negative: many highlighted excessive administration and slow processes, which detract from the actual attractiveness of the schemes.

Finally, according to the literature and domestic research, advice and the presentation of good practices are factors that can be important even without direct financial incentives. Sharing experiences can reduce uncertainty and increase farmers' confidence in the transfer process, thereby strengthening the long-term success of generational change (Mariwah et al., 2019).

In conclusion, it can be stated that the supporting factors identified in the literature – such as financial support, access to land, diversification, and innovation incentives – are also key in facilitating generational change, as evidenced by the Hungarian results. However, the impact of the factors is differentiated: while financial and technological incentives clearly help the entry of young farmers, institutional and social factors (e.g., education, organizations, consulting) may contribute to the success of the process more indirectly, in the longer term. The results of the research thus confirm that supporting generational change can only be effective through a complex, multi-dimensional package of measures.

6.3. Third research question

The third research question of the thesis was “How do social-demographic factors – such as gender, age, and education – form decisions and attitudes related to farm transfer?” The question is of central importance, as the process of generational change is fundamentally determined not only by economic and structural factors, but also by the social background and personal characteristics of farmers. Examining the roles of age, gender, and education provides an

opportunity to explore how these factors affect succession decisions and to what extent they strengthen or weaken the chances of a successful farm transfer.

The empirical results are in close agreement with the literature regarding age: older farmers are more likely to participate in negotiations on generational change, which is consistent with the finding that succession typically becomes an issue as retirement approaches (Lobley et al., 2010; Conway et al., 2017). However, there is also the risk of late planning, which has been identified as a barrier in the literature (Burton and Fischer, 2015). However, there is a difference in the role of gender compared to the literature. The study revealed that women participate in negotiations regarding farm transfer to a greater extent, whereas international research typically emphasizes that women are less often considered as potential successors and are often relegated to the background in decision-making (Wheeler et al., 2020). This difference may indicate that women in Hungarian agriculture are more active in the planning process than previously assumed, although their actual leadership role may still be limited.

However, there is complete consistency in the impact of education. Agricultural education has a positive influence on thinking about farm transfer, which is consistent with the literature's claims that higher education increases productivity and facilitates long-term planning (Glauben et al., 2009; Popescu, 2019). The role of knowledge transfer has also been emphasized in previous research (Cush and Macken-Walsh, 2016; Csizmady et al., 2021), which is confirmed by the present results.

There is also a clear consistency in the area of generational differences: compared to Baby Boomers, younger generations (X, Y, Z) are less involved in thinking about farm transfer. This finding is consistent with the literature, which suggests that young people are losing interest in agriculture, primarily due to urbanization and better career opportunities in other sectors (Lorenzen and Lorenzen, 2011; Farrell et al., 2021). The low activity of Gen Y, in particular, is consistent with the literature, which finds that younger generations are less motivated to continue farming (Zagata and Sutherland, 2015).

Overall, the research results largely confirm the trends described in the literature: older age and higher agricultural education facilitate thinking about farm transfer, while the reluctance of younger generations reduces its chances. The only significant difference is in the role of gender, where the empirical results in Hungary indicated a more active participation of women in farm transfer negotiations than assumed in the international literature. This difference may suggest

that changes in social norms introduce a new dimension to the interpretation of the farm transfer process in Hungary.

6.4. Forth research question

Business succession is not just an economic transaction, but a complex family process that is fundamentally determined by the quality of relationships and cooperation between family members. The literature emphasizes that the success of succession largely depends on the family's ability to maintain cohesion and that the younger generation is involved in strategic decision-making (Lobley et al., 2010; Suess-Reyes and Fuetsch, 2016). The research, therefore, paid special attention to exploring how family cohesion and involvement in decision-making affect the implementation of generational change.

The fourth research question: How do family cohesion and involvement in decision-making influence the implementation of the succession process?

The results clearly confirmed that the timely involvement of young people in decision-making is a key factor for a smooth handover. In family farms where the younger generation was gradually able to participate in strategic decisions, conversations about the farm's future were initiated to a much greater extent, and succession was implemented with greater certainty. This finding is directly in line with Hypothesis H7, which was confirmed: In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present. The research showed that trust, open communication, and the absence of conflicts are essential for a successful handover. Where there were contradictions and distrust between family members, the process of farm handover was much more difficult to start or often stalled altogether. This finding is consistent with those of Conway et al. (2017), who also highlight that a lack of family cooperation is one of the biggest risk factors for succession.

However, the Hungarian experience nuances the international literature: in several cases, it was observed that although the involvement of the younger generation had formally started, older farmers clung to the leadership role for too long, which created tension and distrust. This phenomenon aligns with the findings of Suess-Reyes and Fuetsch (2016), who describe the delayed transfer of leadership as a structural issue in family businesses. Overall, the research results show that family cohesion and involvement in decision-making are essential factors in the successful implementation of farm transfers. In line with the international literature,

Hungarian data also show that without trust within the family and gradual involvement, generational change often fails. At the same time, domestic experiences warn that success depends not only on the existence of cooperation, but also on its timing: if young people are only given a say in decisions too late, it may jeopardize the effectiveness of the entire process.

6.5. The fifth research question

The fifth research question of the thesis was: “What role do women play in the succession of family farms, and which obstacles or opportunities determine their participation?” According to international literature, agricultural succession is strongly male-dominated, and the role of women is often invisible or undervalued (Wheeler et al., 2020).

However, the research results reveal a more nuanced picture: women participate in conversations about succession to a greater extent than men, thereby rejecting the “gender/family role hypothesis” (H9). It is worth noting that the proportion of female farmers among the respondents to the questionnaire was also significant (41.8%), which exceeds the 27% reported in the national agricultural census. This suggests that women are becoming increasingly active in the discourse surrounding the generational change process.

The difference compared to the literature may indicate that the role of women in Hungary is changing. However, in many cases, they continue to participate in support functions – for example, in administrative tasks or maintaining family cohesion – which does not mean they have full decision-making power (Brandth and Overrein, 2013). Overall, Hungarian empirical data indicate that women's roles are more active than the literature has assumed, but structural barriers continue to limit their participation.

6.6. Hypotheses of qualitative analysis

The hypotheses related to the qualitative analysis focused on the motivations of farmers, the administrative burdens, and the specificities of the transfer process. The results confirmed the importance of the factors emphasized in the literature; however, they also revealed differences in certain aspects, which highlight the unique characteristics of the Hungarian agricultural context. Hypotheses H1 and H2 examined the roles of farmers' innate abilities and motivations. The results of the research confirmed that decisions about continuing the farm are not based exclusively on rational, economic calculations, but are fundamentally determined by family tradition and emotional attachment (Berrone et al., 2012; Nuthall and Old, 2017). It was also stated in several interviews that “going in another direction never occurred to me”, since farming is part of the family identity. The motivations, therefore, go beyond financial: for young

people, taking over the economy is more a matter of lifestyle and commitment, not just a financial investment.

Hypothesis H3 related to administration was also supported. Interviewees unanimously stated that the complexity of support systems, constantly changing regulations, and documentation obligations represent a significant time and energy burden. This is fully consistent with the results of the literature, which identify the administrative environment as one of the main obstacles to generational change (Chaplin et al., 2004; Lobley et al., 2010; Vesala and Vesala, 2010). However, some younger farmers, due to their administrative advantages, can more easily handle bureaucratic burdens, was not confirmed. Although some did indeed see a competitive advantage in their digital competencies, for the majority, it was just as difficult as for the older generation. Hypothesis H4 was based on the fact that the process of farm transfer occurs gradually over several years, during which both older and younger generations are present in parallel in the management of the farm. This assumption was confirmed: based on the interviews, successful handovers rarely happen suddenly, but rather are the result of longer collaboration and joint work. This finding aligns with the research of Lobley et al. (2010) and Conway et al. (2017), who suggest that continuity and collaboration facilitate the transfer of knowledge and enhance trust.

Hypothesis H5 emphasized the importance of cooperation and cohesion within the family. The empirical results supported the notion that succession works well when there are strong communication and a shared vision among family members. Several interviews stated that conflict-free cooperation is a basic condition for the success of the handover, while family disputes can seriously hinder it. This is fully consistent with the literature, which identifies family cohesion as one of the most important prerequisites for generational change (Suess-Reyes and Fuetsch, 2016).

Hypothesis H6, which assumed a general lack of motivation among young farmers, was partially rejected. Although international literature emphasizes that the attractiveness of agriculture is decreasing among younger generations (Farrell et al., 2021), the sample's interviewees were clearly motivated, with many envisioning the future through innovation and modernization. This discrepancy can be partly explained by the sampling characteristics, as active and committed farmers participated in the research.

Overall, most of the qualitative hypotheses (H1–H5) were confirmed, while H6 was partially rejected. The results confirm that family embeddedness and emotional wealth are key factors

in generational change, while administrative burdens are a systemic obstacle, and the handover is a gradual, collaborative process. At the same time, the motivation of young people and their administrative advantages were not as weak or as strong as suggested in the literature, which sheds light on the specificities of the Hungarian context.

6.7. Hypotheses of quantitative analysis

The hypotheses of the quantitative analysis focused on family resources, decision-making, cohesion, economic performance, and socio-demographic factors. The results essentially confirmed the patterns presented in the literature, while also providing a more nuanced understanding of the specificities of the Hungarian agricultural context in certain areas.

The H7 hypothesis was confirmed, which is formulated as follows: In Hungary, the likelihood of engaging in discussions about generational change and farm succession increases when family members are actively involved in the farm's workforce, when farmers possess higher decision-making power within the family farm, and when strong family support is present.'

In farms where more family members are actively involved in everyday work, the likelihood of succession discussions is higher. This is consistent with the findings of Gasson and Errington (1993) and Suess-Reyes and Fuetsch (2016), who identify family resources as a key factor in generational change. The results showed that where the younger generation was involved in strategic decisions, the future of the economy was much more likely to be on the agenda. This is in line with the experience of Lobley et al. (2010), who believe that the success of succession depends largely on the older generation's ability to gradually hand over control. According to the data, cooperation based on trust and a conflict-free relationship is one of the most important conditions for succession. This is fully consistent with the results of Suess-Reyes and Fuetsch (2016), who highlight family cohesion as one of the most critical factors in generational change.

Hypothesis H8, which examined the role of economic performance in shaping succession intentions, was accepted based on the obtained results. Although the effect of farms' financial performance, measured by Standard Gross Margin (SGM), was moderate, it showed a statistically significant relationship with thinking about generational change. This suggests that higher financial performance may contribute to the emergence of succession planning. This finding is partially consistent with the international literature (Ramos, 2005; Nuthall and Old, 2017), which identifies economic stability as an important prerequisite for succession. At the same time, the Hungarian results indicate that family-related and emotional factors continue to play a more decisive role in succession decisions than financial performance alone.

Hypothesis H9 was rejected, which stated as follows: Within the Hungarian context, male successors are more frequently entrusted with traditional agricultural tasks, reflecting societal expectations, and are therefore more likely to report succession discussions due to their higher influence in family succession processes. On the contrary, the analysis showed that women are more willing to participate in conversations about succession. This is in contrast to the literature, which traditionally presents women in a peripheral role (Brandth and Overrein, 2013; Chiswell, 2018). The results suggest that, in the Hungarian context, women play a more active role than previously assumed.

Hypothesis H10, Hungarian farmers holding higher agricultural qualifications are more likely to speak about generation change., was confirmed. Farmers with agricultural education participate in succession discussions at a significantly higher rate, which is consistent with the claims of the literature (Vesala and Vesala, 2010; Conway et al., 2020).

Finally, hypothesis H11, which assumed a more active participation of older generations (Baby Boomers and X) in succession discussions compared to younger generations (Y and Z), was also confirmed. According to the results, older people are increasingly concerned with the future of the economy. This is consistent with McCrindle and Wolfinger's (2018) generational theory, which posits that different socialization environments have shaped distinct value systems and attitudes across generations.

Overall, the quantitative hypothesis testing confirmed that family factors—workforce, decision-making, and cohesion—play a significant role in farm transfer. The lack of significance of economic performance, although different from the literature, clearly shows that for Hungarian farmers, succession is more of a family and emotional issue than a rational financial decision. In addition, socio-demographic factors – especially gender, education, and age – drew significant differences, partly refuting and partly underlining previous international results.

6.7. Steps for successful agricultural generational change

The research indicates that agricultural generational change involves a complex, multi-step process that depends on various factors, including economic considerations, legal aspects, family dynamics, and emotional factors. The initial step of farm succession requires younger family members to start with basic farm duties, which will progress to more complex responsibilities until they reach leadership positions. The knowledge and skill transfer process should include formal education, as well as hands-on experience and the unspoken rules that govern farm operations. The process of a smooth transfer depends on open communication and

the younger generation's involvement in decision-making, as it creates transparent operations and minimizes family disputes. The main obstacle to farm succession stems from the deep emotional bond that older farmers maintain with their land, which prevents them from relinquishing control. The formal and legal aspects of succession require the complete transfer of ownership and the assignment of land use and management rights to establish legal stability and predictability. Young farmers gain additional motivation when their work receives financial and professional recognition, and when they see opportunities to introduce new ideas and advance their operations, ultimately achieving their personal goals. The success of farm succession depends on maintaining family unity and protecting shared values, as farm continuation represents both business succession and the transmission of family heritage and cultural identity. Research indicates that generational transition develops over time as it leverages past knowledge to address upcoming challenges.

6.8. Policy recommendations to support generational change in Hungarian agriculture

The effective management of agricultural generational change requires a diverse set of policy tools, as the challenges of farm transfer are rooted not only in economic and administrative factors but also in social, cultural, and emotional dimensions. To address these challenges in a structured manner, policy recommendations can be categorized into two groups. On the one hand, there are short-term measures, which provide immediate relief and create the basic conditions for succession. On the other hand, there are long-term strategies that aim to ensure the sustainability of generational renewal by reshaping education, innovation, and social perceptions. The following section presents these two categories in detail.

In the short term, the priority is to help families manage succession through a structured and transparent process. Key actions include strategic family planning, generational workshops, and legal consulting, which formalize the transfer and help prevent conflicts. Encouraging open family dialogue about succession clarifies expectations, involves younger members, and reduces the risk of disputes (Farrell et al., 2021). Mentoring programs support aging farmers in gradually transferring managerial responsibilities while preserving essential knowledge and skills. Sharing good practices and successful handover case studies also enables farming communities to learn from each other and build confidence in managing transitions (Csizmady et al., 2021).

At the policy level, short-term interventions also include strengthening financial incentives. Although preferential interest loans and other instruments are crucial for enabling takeovers, they have been shown to be insufficient on their own to secure long-term commitment (Simpachová Pechrová et al., 2018). Complementary actions are therefore needed, including the reduction of administrative and tax burdens (Gkatsikos et al., 2022). Recent Hungarian legislation provides concrete support in this regard. The Land Transactions Act (Act CXXII of 2013, with amendments effective as of July 2023) permits farmers aged 18–40 to purchase up to 10 hectares of land without undergoing the complex pre-emption procedure, provided they reside and farm locally. This change significantly eases one of the greatest barriers to entry into agriculture: access to land. Similarly, the Farm Transfer Act (Act CXLI of 2021) has introduced a flexible and less bureaucratic framework for succession. The act enables farm transfers by sale, gift, maintenance, or life annuity contract, while administrative burdens have been reduced through measures such as a fee-free land registry process. Importantly, it also provides for a five-year transition period, during which older farmers can pass on their experience to successors. This combination of legal flexibility and knowledge transfer makes the law a cornerstone of immediate policy support.

Other short-term measures should recognize and support the active role women play in succession, as evidence from Hungary shows their involvement often exceeds formal roles. Policies that strengthen short supply chains and producer associations can also improve young farmers' bargaining power, offering greater market security and collective strength (Farrell et al., 2021; Popa and Turek Rahoveanu, 2021). While short-term interventions lay the groundwork for succession, long-term sustainability depends on deeper structural and cultural changes. Education and knowledge transfer are critical. Well-educated young farmers are more likely to seek investment and adopt innovation (Popa and Turek Rahoveanu, 2021). Modernizing agricultural education, formalizing training and mentoring, and introducing career orientation programs such as interactive classes, farm visits, and internships are essential. These initiatives help position agriculture as a creative and innovative profession. Programs for successors returning from other sectors can also strengthen agriculture by bringing in external skills and experience (Farrell et al., 2021).

Long-term solutions require fostering innovation and technological progress, including precision farming, digital technologies, and agricultural robotics, to attract younger generations interested in technology or the environment (Bertolozzi-Caredio et al., 2020). These efforts will succeed only if young people view agriculture as a viable and fulfilling career. Policies must

therefore ensure access to land and capital, farm viability, and strong community support for young farmers. Addressing the market environment is equally important. Young farmers often have limited bargaining power, which can be improved by strengthening producer organizations, supporting cooperatives, and developing local markets. These measures help stabilize incomes and reduce vulnerability to external shocks.

Long-term success also relies on raising social awareness and promoting generational change in a positive light. Reducing negative stereotypes and emphasizing the social value, innovation, and personal fulfilment in farming can encourage more young people to enter the sector (Csizmady et al., 2021). Public communication at agricultural fairs, professional forums, community events, and integrating succession topics into education can help present generational change as both natural and desirable.

Overall, it can be said that the success of generational change in family farms does not depend solely on financial incentives, but also on whether farms can incorporate emotional, relationship-based, and identity-based aspects into their strategic decision-making. The task of policy is to support this complex process with an integrated approach, connecting economic, social, community, and cultural dimensions. The example of the Land Transaction Act, which facilitates access to land, and the Land Transfer Act, which reduces bureaucracy, clearly demonstrates that an appropriate legal environment can provide real impetus for generational change. Successful management of this is a prerequisite for the survival of family farms and the long-term demographic and economic stability of rural areas.

6.9. Limitations of the research

Every study has its limits, and this one is no exception. When examining the results, several key points are worth considering. Firstly, the systematic literature review was limited in both time and scope. It covered only the period between 1990 and 2022, drew exclusively from Scopus and Web of Science, and included only English-language publications. This means that valuable work published in other languages — for example, Hungarian studies — may have been left out. This is particularly relevant in Central Europe, where a significant amount of valuable knowledge is often published in the local language.

Timing is another challenge. The data reflects a snapshot of a given period, but agriculture changes quickly. Exchange rates, input prices, international market conditions, and shifts in EU policies can all alter the environment in a very short time. Because of this, results that seem relevant today may look very different tomorrow, making repeated studies necessary.

The empirical part of the research has its own set of limitations. The in-depth interviews were carried out with farmers I personally selected, which means they cannot be considered fully representative. While interviews give a rich and detailed picture, the sample was inevitably selective. It's also worth noting that the answers were self-reported, and in such a sensitive topic as farm succession, personal interests or social expectations may have influenced how openly farmers spoke.

The questionnaire-based data collection relied on self-reported information, which inevitably entails the risk of response bias. This is particularly relevant for sensitive issues such as succession intentions, intra-family relationships, and decision-making roles within the farm, where respondents may be inclined to provide socially desirable answers or to over- or underestimate certain aspects of their situation. Such biases may, in turn, influence the perceived strength of relationships between the variables examined.

The questionnaire survey was conducted online and relied on voluntary participation, which inevitably introduced certain biases. In particular, selection bias may have occurred, as farmers who are more digitally accessible, more active, and more consciously engaged with the issue of generational change were more likely to participate. By contrast, older farmers, those facing structural constraints, or less motivated respondents may have remained underrepresented, partly due to limited digital access and partly because the questionnaire was relatively long and demanding. Moreover, the survey could not be distributed to the entire population of Hungarian farmers, as doing so would have required substantially greater time and resources. Taken together, these factors may have led to an overestimation of succession intentions and the overall level of reflection on succession-related issues.

The data collection followed a cross-sectional design, capturing respondents' perceptions and decision-making intentions at a single point in time, limiting the ability to examine the generational change process dynamically or trace developments over time. Consequently, the analysis does not allow for the clear identification of causal relationships, and the applied probit models primarily indicate statistical associations rather than causal effects. In addition, data collection took place during a period of economic uncertainty, characterised by inflationary pressures and rising input costs, which may have heightened respondents' perceptions of financial risk and influenced their expectations regarding the future of agriculture and succession planning. These contextual factors should therefore be taken into account when interpreting the results.

The composition of the sample may have also skewed the results, as farmers with higher education and women were somewhat overrepresented. This limits the extent to which the findings can be generalized.

In terms of regional distribution, the sample does not fully reflect the territorial heterogeneity of Hungarian agriculture. Certain regions are more prominently represented, while others remain underrepresented. Regional differences were therefore only partially captured, even though succession processes may differ substantially between Transdanubia, the Great Plain, and mountain areas due to variations in land sizes, farm structures, economic conditions, labour availability, and social settings.

Regarding farm size, the sample is skewed towards small and medium-sized family farms, while larger farms and agricultural enterprises operating as legal entities are underrepresented. This reflects both the accessibility of respondents through online channels and the substantive focus of the research on family farming and intra-family succession. However, succession processes in larger, more capital-intensive farms may follow different organizational, legal, and managerial patterns, which this study only partially captures.

Although the quantitative models include several relevant explanatory variables, the possibility of omitted variable bias cannot be ruled out. Certain factors were not measured systematically, such as individual risk preferences, the health status of the predecessor generation, the intensity of intra-family conflicts, or the specific legal and inheritance arrangements in place. At the same time, while the applied probit regression model is well-suited for analysing binary outcome variables, it cannot fully account for unobserved heterogeneity across farms and families. As a result, the influence of factors such as family culture, the local institutional environment, or informal decision-making mechanisms may remain hidden. Alternative model specifications—such as logit or multilevel models—as well as longitudinal data collection could therefore provide more nuanced insights in future research.

Another point is international comparison. While the literature review included global trends, the study did not directly compare Hungary with other countries. This narrows the scope and makes it more challenging to situate the results within a broader European context.

Ultimately, the analysis relied primarily on farmers' perceptions when it came to agricultural policy. That means it did not measure the actual effects of subsidies, preferential loans, taxes, or digitalization programs — only how farmers felt about them. To properly test these impacts, more long-term, outcome-based research would be needed.

6.10. Further research directions:

In future research, it is justified to extend the study to more European countries – at least at the V4 level (HU, PL, CZ, SK) – with a uniformly harmonized questionnaire and indicator set, which allows for comparative analysis, verification of measurement invariance, and multilevel (individual–family–country) modelling. This is also motivated by the fact that the present material relies on a time- and database-limited literature base (1990–2022; Scopus/WoS; English language), which limits generalizability. In addition, a representative, mixed (offline + online) sample is needed in order to better reach the older age group and to reduce the biases arising from online arbitrary sampling (digital divide, dropout due to questionnaire length), since the present sample is not representative. A targeted, deeper qualitative exploration is recommended for interpreting gender effects, given that the results on women's involvement are at odds with the "traditional" narratives on several points, and it needs to be clarified whether this is a case of real empowerment or rather an increased visibility of supporting roles. An impact assessment of policy instruments, such as reducing administrative and tax burdens, improving land access, offering preferential loans, and supporting education and digitalization, is recommended. The effectiveness of these interventions, especially those rated highly in perception surveys, should be measured longitudinally to assess their influence on outcomes like successful transfers and youth retention.

As a further direction, it is also justified to examine the temporal dynamics of generational change: what factors accelerate or slow down the transfer, and how the logic of family decision-making changes at different points in the life cycle. For this, it would be beneficial to combine case studies and panel data surveys.

Research should also measure how infrastructural and social environments, including rural migration, local public services, and digital infrastructure, influence young people's decisions to stay or return. It is important to examine how targeted education and attitude development affect the long-term success of generational change. Research should explore family patterns where young people are involved in economic activities from an early age and where generational change is openly discussed.?

Each identified supporting and hindering factor, such as labour shortages, investment costs, family communication, education, digitalization, and access to best practices, should be examined individually. In-depth qualitative and quantitative analysis will help determine their relative importance and inform targeted policy interventions.

Digitalisation in agriculture is not only a technological issue but also a generational one. Future research could examine how the presence or absence of digital competencies shapes the transfer of administrative tasks, the distribution of decision-making roles, and the division of labour between older and younger generations during the succession process.

Exploring sectoral differences is also important, as generational change presents unique challenges across crop production, animal husbandry, horticulture, and viticulture. Considering these specificities will help tailor policy instruments and support programs to farmers' actual needs.

Pluriactivity and off-farm income are becoming increasingly important stabilising factors in agricultural succession decisions. Future research should explore how these income sources influence young people's willingness to remain in farming and whether they help to mitigate the economic risks associated with agricultural activities.

Furthermore, it would be worth examining which farms the successor is present in. Hungarian statistics generally look at who runs the farm. Above a certain age, it would be worth asking whether the successor or successors are present in the life of the farm and how old the successors are. This would provide a more comprehensive picture of the overall agricultural generational change. In the case of several farms, the elderly farmer may still be the leader, but there are also young people who are not visible in the statistics.

Moreover, examining territorial differences and similarities is also relevant, as regions, counties, or settlement types (e.g., farm areas, small villages, larger rural centres) have distinct economic, infrastructural, and social conditions. These fundamentally determine the possibilities and success of farm transfer, which is why it is worth including territorial dimensions in future research.

An additional, largely underexplored direction for future research concerns the relationship among health, quality of life, and generational change in agriculture. While succession studies have predominantly focused on economic viability, structural conditions, and family dynamics, considerably less attention has been paid to the physical and mental health implications of farming and their influence on succession decisions. Agricultural work is frequently associated with increased physical risks, long working hours, high mental and emotional strain, limited opportunities for leisure, and persistent challenges in achieving work–life balance. These factors may substantially affect both the older generation's willingness to transfer managerial responsibility and the younger family members' readiness to enter farming. In this sense, the

absence of a willing successor may not solely reflect economic or structural constraints, but also a conscious avoidance of a perceived deterioration in quality of life. Integrating health-related dimensions into succession research—through indicators of physical strain, mental well-being, and perceived life quality—could therefore provide a more comprehensive understanding of generational renewal processes in agriculture.

Future research would benefit from incorporating psychological and attitudinal variables, such as risk-taking propensity, tolerance for uncertainty, or the need for autonomy. These factors may substantially shape young people’s motivation to pursue an agricultural career and influence succession decisions in ways that go beyond purely structural constraints.

Another relatively underexplored area concerns the role of informal learning, intra-family mentoring, and the gradual transfer of responsibility in shaping both the timing and the success of farm succession. Early involvement in farm activities and the accumulation of practical experience may have a lasting impact on successors’ preparedness and long-term commitment.

Generational change is not merely an economic decision but also a process of identity transformation, which underscores the need to evaluate succession-support programmes beyond their immediate financial or structural effects. Systematic assessments of experimental initiatives — such as mentoring schemes, family mediation services, or targeted training programmes — would therefore be highly valuable. In this context, the application of quasi-experimental and mixed-method approaches, alongside narrative and life-course perspectives, could provide deeper insights into how individuals move from the role of a “helping family member” to that of a farm manager, and how identity formation is linked to responsibility-taking and long-term commitment.

Finally, it would be advisable to research the image and attractiveness of agriculture at a societal level, with particular regard to the fact that it is not coercion when choosing a career, but awareness of the beauty and opportunities of the career that creates the long-term provision of new recruits. This concept could also be extended to how agriculture can be integrated into the urban environment, for example, through educational programs, urban gardens, or community agricultural projects.

7. Conclusions

This dissertation addressed the complex process of agricultural generational change, with a particular focus on family farm succession in Hungary. The overarching aim of the research was to explore how generational change unfolds in practice, which factors hinder or support farm transfer, and how economic conditions, family dynamics, and generational differences jointly shape succession outcomes. Given the strategic importance of generational renewal for the long-term sustainability and competitiveness of agriculture, the study sought to provide an integrated and empirically grounded perspective on this multifaceted phenomenon.

The dissertation contributes to the literature on agricultural generational change by synthesising existing international and domestic research in a systematic manner and by providing an integrated analytical framework for understanding farm succession. Previous studies have examined generational change from various perspectives, often focusing on specific economic, structural, or social aspects. By bringing these strands of research together, the literature review helps to identify key hindering and supporting factors and to situate generational change within a broader theoretical context.

Building on this foundation, the dissertation extends the existing literature by combining economic and structural considerations with family-related, social, cultural, and emotional dimensions of succession. In this sense, the research highlights the multidimensional character of generational change and illustrates how these dimensions interact in shaping farm transfer processes.

From a methodological perspective, the dissertation applies a mixed-methods research design tailored to the complex and socially embedded nature of agricultural generational change. The study combines a systematic literature review with empirical research based on 19 qualitative in-depth interviews and a quantitative questionnaire survey completed by 249 respondents, enabling the analysis of succession processes at multiple analytical levels.

The qualitative component employed thematic analysis to identify recurring patterns related to motivations, barriers, supporting factors, and family dynamics in the interview material. The quantitative survey relied on Likert-scale measurements to assess the perceived importance of key obstacles and enabling factors, ensuring comparability across respondents. Building on these data, regression-based analyses were applied to examine how socio-demographic characteristics, farm-level variables, and family involvement are associated with engagement in succession-related discussions and decisions.

The integration of thematic qualitative insights, Likert-scale-based measurement, and regression analysis strengthened the robustness and interpretability of the findings through methodological triangulation. Overall, the applied framework offers a structured and replicable approach to studying agricultural generational change, balancing contextual depth with analytical generalisability.

Taken together, the dissertation contributes to the literature on agricultural generational change in three main ways. First, it provides an integrated analytical framework that synthesises fragmented international and domestic research and situates farm succession within a multidimensional theoretical perspective. Second, it offers original empirical evidence from Hungary by combining qualitative and quantitative data to capture both the processual and measurable dimensions of generational change. Third, through its mixed-methods design, the dissertation demonstrates how thematic qualitative analysis, Likert-scale measurement, and regression-based modelling can be effectively integrated to study family farm succession. In doing so, the research advances a process-oriented understanding of generational change that is relevant for both academic research and policy design.

The first research question focused on the most important obstacles to generational change and their practical significance. The research identified seventeen obstacles, of which economic uncertainty, labour shortages, climate change, administrative burdens, high investment capital requirements, low agricultural incomes, and difficulties in accessing land proved to be the most significant. These factors are present as both structural and financial obstacles, and several hypotheses support their role in this context. During the qualitative analysis, interviewees repeatedly emphasized that the uncertain market environment and labour shortages seriously complicate succession planning. Quantitative data also showed that these factors exhibit high average values at the national level. It was also proven that family factors and parental attitudes often hinder the process, as the older generation often finds it difficult to hand over decision-making powers. At the same time, the research refuted the assumption that administration is solely an obstacle: some young farmers cope with these tasks more easily thanks to their digital skills, which shades the general picture.

The second research question focused on enabling factors. Of the fourteen identified, financial support, tax reduction, administrative reduction, preferential loans, and additional land-based support for young farmers were the most significant. These measures lower entry barriers and encourage succession. However, the findings indicate that financial incentives are effective only when combined with knowledge transfer, mentoring, and family cooperation. Access to land,

income diversification, agricultural education, sustainability initiatives, and young farmer associations also play important supporting roles. New policy instruments, such as the Farm Transfer and Young Farmer Grants, have received mixed feedback. The research suggests these tools are promising, but their true effectiveness will become clear as more practical experience is gained.

The third research question explored farmers' motivations. Interviews and survey results confirmed that motivations extend beyond financial considerations. Family identity, connection to rural life, and emotional security are key factors for young farmers. The research confirmed that motivations are complex and not solely driven by profitability. It also found that a lack of motivation among young people can be a significant barrier, as many seek opportunities in other sectors due to challenging working conditions and limited profitability. This highlights the need to strengthen motivation not only through financial support but also by addressing social and cultural factors.

The fourth research question focused on the role of family dynamics and decision-making. The results confirmed that family cohesion and cooperation are key to a successful handover. Several of the hypotheses confirmed that the gradual transfer of decision-making control facilitates succession, while the lack of conscious planning often causes difficulties. The research highlighted that in families where structured task sharing and trust-based communication are in place, generational change occurs much more smoothly. In contrast, in families burdened with conflicts, the process often stalls, or the handover is delayed. The fifth research question examined generational differences. The results of the research showed that Baby Boomers and members of Generation X participate more actively in conversations about the future of the economy, while representatives of Generations Y and Z are more innovative, more open to including sustainability aspects, and at the same time less attached to traditional farming patterns. This difference has a dual effect: on the one hand, it creates an opportunity for experience and innovation to complement each other, but on the other hand, it can also be a source of conflict if intergenerational cooperation is not properly organized.

The policy conclusions of the dissertation are clear and straightforward. The conditions for a successful generational change are the provision of stable and predictable financial support, the development of vocational training and knowledge transfer, the dissemination of best practices, the establishment of advisory networks, and the stronger integration of sustainability and climate change management. The practical conclusions are also clear: the key to success lies in

early planning, the gradual transfer of responsibility, active involvement of descendants, and the preservation of family cohesion.

Overall, the research has shown that the key issues of generational change can only be resolved with a complex approach. The key barriers – economic uncertainty, labour shortages, climate change, administrative burdens, low incomes and land access – can only be mitigated through comprehensive, coordinated policy measures. At the same time, strengthening the enabling factors —particularly financial incentives, education, family cooperation, and sustainability initiatives —will create the conditions for future generations to successfully take over the management of agricultural enterprises, thereby ensuring the long-term sustainability and competitiveness of Hungarian agriculture.

8. References

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9. Appendix

9.1. Questionnaire Generational Change in Agriculture

Interview questionnaire

1. Brief information about the interviewee

- Age, gender, marital status

- How many siblings and how many children do you have? How many people currently live in the same household?
- Educational background? Do you have an agricultural qualification? If yes, what kind? (vocational training, technical school, university degree)
- How old were you when you started working in agriculture? (You may indicate two points in time: one referring to childhood involvement and another when you started farming independently)

Answers:

2. Brief description of the farm

- Who currently owns the farm? How old is/are the owner(s)?
- Does the interviewee farm alone, with their partner, parents, children, or siblings?
- How long has the family been engaged in agriculture? (How many years?)
- Which branch(es) of agriculture is the farm involved in?
 - Livestock farming (pigs, poultry, cattle, etc.)
 - Fruit production
 - Vegetable production
 - Arable crop production
- What is the size of the farmed area (in hectares)?
- What legal form does the farm operate under? (family farm, Ltd., sole proprietorship, etc.)
- Is the farm engaged in other activities? e.g. services, contract work, trade
- Does the farm have any outstanding loans? (Yes/No is sufficient)
- Has the farm ever received funding through grants or tenders? If yes, which ones? (no amount required)

Answers:

3. Generational change

- Which family member originally started farming? If there was a previous generational transfer, how did it take place?
- What did you consider most important when taking over the farm?
- What motivated you to take over the farm? Please name three factors.
- What caused the greatest difficulties in taking over the farm? Please name three factors.
- Have succession issues already been discussed in detail within the family?
- How do you envision the transfer of the farm?
- How does this differ from the way the farm was previously transferred?
- What would constitute a successful farm transfer for you?
- Which tasks do you try to involve your children in, or which tasks were you involved in at the beginning?
 - Sales, data recording, administration (e.g. grant applications), keeping the farm logbook, production, input procurement, physical work
- In what ways do you perceive differences between younger and older farmers? For example: openness to innovation, willingness to cooperate with other farmers, etc.

Answers:

4. Please rate on a scale from 1 to 5 to what extent the following factors constitute obstacles to farm transfer or make ordinary farming more difficult in your case. Please rate the Personal level (P) and the National level (N) according to what you have heard or experienced.

Scale:

- 1 – not an obstacle at all
- 2 – a minor obstacle
- 3 – partly an obstacle
- 4 – a significant obstacle
- 5 – a very serious obstacle
- Difficult access to arable land
 - **P:**

- **N:**
- High capital requirements for investments
 - **P:**
 - **N:**
- Labour shortage
 - **P:**
 - **N:**
- Low-income levels of agricultural producers
 - **P:**
 - **N:**
- Low pensions of agricultural producers
 - **P:**
 - **N:**
- High administrative burdens
 - **P:**
 - **N:**
- Weak bargaining position of new entrants to agriculture
 - **P:**
 - **N:**
- Agriculture as a labour-intensive sector
 - **P:**
 - **N:**
- Impacts and risks caused by climate change
 - **P:**

- **N:**
- Impacts and risks caused by market and economic changes (e.g. inflation, low crop prices, high input costs)
 - **P:**
 - **N:**
- Education-related obstacles (availability of alternative educational pathways for young people)
 - **P:**
 - **N:**
- Outmigration of young people to urban areas
 - **P:**
 - **N:**
- Attitudes of the younger generation (lack of motivation)
 - **P:**
 - **N:**
- Poor / dirty working conditions
 - **P:**
 - **N:**
- Changing parental attitudes (faster pace of life, less time spent with children)
 - **P:**
 - **N:**
- Settlement among family members (asset distribution, inheritance issues)
 - **P:**
 - **N:**

5. Please rate on a scale from 1 to 5 to what extent the following factors would support farm transfer in your case. Please rate the Personal level (P) and the National level (N) according to what you have heard or experienced.

Scale:

- 1 – would not support at all
- 2 – would support to a small extent
- 3 – would partly support
- 4 – would strongly support
- 5 – would fully support

Supporting young people's access to land

P:

N:

Financial incentives for income diversification

P:

N:

Financial incentives for farm development

P:

N:

Farm transfer support schemes

P:

N:

Young farmer support schemes

P:

N:

Additional payments for young farmers

P:

N:

Preferential loan schemes

P:

N:

Education (quality of agricultural education)

P:

N:

Digitalisation and modernisation

P:

N:

Reduction of administrative burdens

P:

N:

Reduction of tax burdens

P:

N:

Support for organic farming, short supply chains (REL), and sustainable farming practices

P:

N:

Cooperation and organisation of young farmers into associations or alliances

P:

N:

9.2. Questionnaire of the online survey

Dear Respondent, Dear Farmer,

My name is **Áron Borda**, PhD candidate at **Corvinus University of Budapest**. In my doctoral dissertation, I am researching the issue of **generational change in agriculture**, a topic that also affects me personally. My aim is to explore the processes of farm succession currently taking place in Hungarian agriculture.

For this purpose, I kindly ask for your help by completing this **short questionnaire (approx. 10 minutes)**. The questionnaire is **completely anonymous**, and all data provided will be used **exclusively for scientific purposes**, without personal identification.

If you have any questions, please contact me at the following email address:
aron.borda@uni-corvinus.hu

Thank you in advance for your valuable contribution!

Q1. Your age: 18 ... 99

Q2. Your gender:

- Male
- Female

Q4. What is your highest agricultural qualification?

- No agricultural qualification
- Vocational qualification (e.g. certified farmer)
- Secondary education (e.g. agricultural technical school)
- Higher education (university/college degree)

Q39. Are you engaged in agriculture full-time or part-time?

- Full-time
- Part-time
- Hobby level

How long have you been involved in agriculture?

- Less than 5 years
- 5–10 years
- 11–20 years
- 21–30 years
- 31–40 years
- 41–50 years

- More than 51 years

Q5. Which generation of farmer are you?

- 1st generation
- 2nd generation
- 3rd generation
- 4th generation or more

Motivation and Succession Status

Q38. What motivated you to choose an agricultural career?

(Multiple answers possible)

- Continuing family traditions
- Secure livelihood
- Consumption of healthy food
- Love of animals
- Love of plants
- Love of nature
- Love of machinery
- Independent entrepreneurial lifestyle
- Opportunity for creation and innovation
- I had no other choice
- Other: _____

Q40. What is your current position regarding generational change?

- I am a farm transferor, and the process is currently ongoing
- I will become a farm transferor within 5 years
- I will become a farm transferor within 10 years
- I will become a farm transferor in more than 10 years
- I am a farm successor, and the process is currently ongoing
- I will become a farm successor within 5 years
- I will become a farm successor within 10 years
- I have only recently started farming

About the Farm

Q3. In which county do you farm? (or abroad)

Q6. What legal form does the farm operate under?

- Primary producer
- Family Farm (ÖCSG)
- Family Agricultural Company (CSMT)
- Sole proprietor
- Ltd. (Kft.)
- Limited partnership (Bt.)
- Agricultural cooperative
- Other: _____

Q15. Which agricultural sector(s) are you engaged in?

(Multiple answers possible)

- Arable crop production
- Open-field vegetable production
- Greenhouse vegetable production
- Fruit production
- Livestock farming
- Ornamental plant production
- Plant propagation
- Forestry
- Food processing
- Beekeeping
- Other: _____

Q27. Who owns the farm?

- You alone
- You and your partner
- You and close family members (children and/or parents)

- You and extended family members
- You and non-family professional partners
- Other: _____

Q24. Does the farm employ family labour?

- Yes, occasionally
- Yes, part-time
- Yes, several family members part-time
- Yes, full-time
- Yes, several family members full-time
- No

Q25. How many permanent non-family employees does the farm have?

0 ... 10+

Q26. How many seasonal non-family workers does the farm employ annually?

0 ... 10+

Q14. What is the farm's Standard Output (SO)?

- Less than €4,000
- €4,000–7,999
- €8,000–14,999
- €15,000–99,999
- €100,000–499,999
- More than €500,000

Q16. Has your farm received rural development support before?

- Yes
- No

Q31. Does the farm currently have loans?

- Yes
- No
- Had loans previously, but not anymore

About Generational Change

Q11. For how many more years do you plan to continue farming?

- 0–5
- 6–10
- 11–20
- 21–30
- 31–40
- 41–50
- 51+
- I don't know

Q28. Have you already discussed succession within the family?

- Yes
- No
- Not yet, but we will soon

Q37. How long do you think the complete transfer of the farm would currently take?

- A few months
- 1 year
- 2–3 years
- 3–5 years
- 5–10 years
- More than 10 years
- I have recently taken over the farm

Q12. How do you envision the future of the farm?

- A family successor will manage it, but I will remain the owner
- A family successor will manage it and ownership will also be transferred
- I will sell the farm but continue working as a manager
- I will sell the farm and continue working in a non-managerial role
- I will sell the farm and only farm for self-sufficiency
- I will sell the farm and stop farming
- I don't know / I haven't thought about it yet
- Other: _____

Q30. As a young person, which tasks were you first involved in on the farm?

(Multiple answers possible)

- Data recording, administration
- Physical labour
- Sales activities
- Participation in decision-making
- Financial management
- Logistics and transportation
- Machinery operation
- None – I am a first-generation farmer
- Other: _____

Q32. What would you consider a successful farm transfer?

(Multiple answers possible)

- If the farm remains intact
- If all children work on the farm
- If all children pursue agricultural careers
- If at least one child continues farming
- If the successor(s) successfully manage the farm
- Other: _____

Obstacles and Supporting Factors

Q19. Obstacles to farm transfer

Please rate on a scale from **1 to 5** how much the following factors **obstruct farm transfer** in your case:

- 1 – Not an obstacle at all
- 2 – Slightly not an obstacle
- 3 – Neutral
- 4 – Slightly an obstacle
- 5 – Strong obstacle
- 6 – I don't know

- Difficult access to agricultural land
- High capital requirements for investments
- Labour shortages

- Low income level of farmers / low income-generating capacity of agriculture
- Low pensions of farmers
- High administrative burdens
- Weak bargaining position of new entrants
- Workload intensity and seasonality
- Climate change impacts and risks
- Economic risks (inflation, high input costs, low output prices)
- Education opportunities outside agriculture
- Youth migration to cities
- Attitudes and lack of motivation of the younger generation
- Dirty / poor working conditions
- Parents' attitudes (e.g. not allowing mistakes, limited time for children)
- Emotional attachment to the farm
- Settlement of assets among family members (inheritance, asset distribution)

Q21. Supporting factors for farm transfer

Please rate on a scale from **1 to 5** how much the following factors **would support farm transfer** in your case:

- Supporting young farmers' access to land
- Financial incentives for farm development
- Financial incentives for income diversification
- Additional support for young farmers
- Preferential loans
- Education and training (quality of agricultural education)
- Digitalisation and modernisation
- Reduction of administrative burdens
- Reduction of tax burdens
- Support for organic farming, sustainable practices, and short food supply chains
- Cooperation and alliances among young farmers
- Advisory services related to farm transfer

- Presentation of good practices and case studies on farm succession

Closing

Q36. Thank you for supporting my work by completing the questionnaire!