

THE EFFECT OF FACTORS OF THE SOCIO-GEOGRAPHIC STRUCTURE OF MOUNTAIN FARMS ON SUCCESSION ON THESE FARMS

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Abstract

The effect of factors of the socio-geographic structure of mountain farms on succession on these farms

The basic premise of this paper is that certain factors of the socio-geographic structure of mountain farms have an influence upon succession on these farms. The conducted survey confirmed this hypothesis. The most prominent influence that was observed included factors that reflect the tradition and the opinions of the householders, and especially that express the economic power of a farm. In the conclusion of this paper, we offer some solutions regarding the problem of succession in Slovene mountain farms. These solutions are not simple, due to the complex mixed rate of influence with respect to the various factors.

Key words

social geography, agrarian geography, rural geography, mountain farms, farm succession, Slovenia.

1. Introduction

Farms are mainly the property of families ("family farms") and are therefore the only part of society that, alone, are assuring its socio-professional reproduction. The managerial control of the farm and farm ownership are transferred inter-generationally within the family on family farms (Gasson and Errington 1993). According to Laband and Lentz (1983), successions on family farms are five times more frequent than in other professions and are the best case of the inter-generational transfer of assets and human capital. Within the process of socialization, the potential successor gains detailed insight into the work of the householder and the rural way of life, direct experiences with the inter-generational passing of skills and knowledge and, at the same time, forms a respectful attitude towards the land as the primary source of survival on the farm.

According to Laband and Lentz (1983), the transfer of human capital between generations within the family also represents its enrichment and the increase of assets: both their real value and the realisation of their value. In order to achieve this, certain preconditions have to be fulfilled, namely that the succession and the continuation of farming on the farm in question take place and that the handing over of the farm is performed in due time.

Within the agricultural sectors of developed countries, including Slovenia, one of the biggest issues is the decrease in the number of farm takeovers or farms transferred to successors. The number and influence of negative factors are much stronger than the number and influence of positive factors that keep young people within the agricultural sphere. In recent years, a series of research oriented towards the identification and quantitative evaluation of these factors has been performed abroad. Kimhi and Nachlieli (2001) for example, studied the factors of succession on Israeli farms, Glaubien et al. (2002) studied the same factors on Austrian farms, Corsi (2004) on Italian farms, Tietje (2004) on German farms, Hennessy (2004) on Irish farms, etc. Researchers focused on the "internal" factors typical for a farm or "deriving from it". The goal of the research was to establish models for predicting the probability of succession on farms with regard to their structure.

Slovenia has only recently conducted such forms of research. The first one was performed in the context of a doctoral thesis. Following examples from abroad, amongst those factors that we assumed have an influence on succession, we focused on factors of the "socio-geographical structure", i.e. factors regarding the population structure, the farm estate structure, the demographic structure, the production (economic) structure, the technical structure and the developmental-innovative structure.

As we wanted to ensure the most homogeneous structure with respect to the farms within the realm of the research in order to achieve comparable results, we limited our research to one segment of Slovene farms, namely mountain farms. According to Hribernik (1994), the process of abandonment of farms in Slovenia is typical primarily in mountainous areas. This is especially worrying, as mountain farms are the most important element of the mountain cultural landscape: they are the landscape's permanent creators and preservers (Natek 1989). Their potential concentrates those elements of the landscape, which, through various effects, influence changes in the landscape (Markeš 1998).

This paper represents the results of our doctoral research. We explain factors of the socio-geographic structure of farms in Slovenia and to what extent those factors have an influence, if any, upon succession on these farms. We also propose a number of solutions.

2. Terminology

In our research, farm succession will be defined as a hyponym of the phrase farm succession, which integrates:

- Farm succession status and decision, where farm succession status means whether a person who is going to take over the managerial control of the entire farm and will then become the householder and owner of the farm is already in control or will be appointed/expected; while farm succession decision means whether this person has decided by him/herself to succeed the householder and whether this person has decided to continue farming after taking over the farm.
- The timing of the handover of the farm to the successor or the timing of handing over the farm to the successor, namely the moment when the current householder will formally hand over the farm to his/her successor.

3. Methodology

We acquired the research data through the use of surveying. In comparison to the data of statistical departments, a survey enables a more detailed view into farm succession statuses and decisions, as well as into the timing of succession and the socio-geographic structure of the farms themselves. Thus, in this way, we can obtain important data that statistical departments don't gather.

In order to ensure relevant observations and to have the most homogeneous socio-geographical structure of farms, we ascertained the influence of factors by using a random sample that included 11.6% of Slovene mountain farms, which had to fulfil the following criteria:

- The farm had to be in the Alpine and subalpine areas of Slovenia.
- The main production orientation on the farm was livestock breeding.
- The farm householder's age was 45 or above.

The influences of factors were ascertained with the help of discrete choice models, which, as probability models, enable forecasting the probability of the realisation of events (Liao 1994; Wooldridge 2002; Greene 2003) or in our case the events regarding the takeovers and handover of farms. The ascertained factors' influence on succession in mountain farms were compared and integrated with the opinions and reflections of the householders gathered during interviews. The interviews ensured compliance with the empirical analysis results and disclosed the connections between the causes for farm succession statuses and decisions and the stipulated time of the farm handover. The quantitative methods didn't disclose these causes. Apart from that, we assessed the feelings and actions of the householders in question regarding the mountain farm succession process.

4. Results and discussion

The empirical analysis results show that farm succession statuses and decisions are influenced by all factors regarding the population structure, the farm estate

structure, the demographic structure, the production (economic) structure and the developmental-innovative structure, for which those influences were foreseen. The only exceptions are those factors with reference to the technical structure. This confirms Kovačič's (2001) observation that Slovene farms are over-mechanised and that the ownership of agricultural mechanisation represents a status symbol. The time of farm handovers is also influenced by almost all foreseen socio-geographical factors on these farms, except the factor defined as employment of the householder and/or his off-farm partner.

The intensity and direction of the influences of the socio-geographical factor on farm succession are shown in Tab. 1. The intensity of influences is determined by the *t*-value, while the direction of the influence of each factor refers to (if not stated otherwise) favourable (positive) succession status and decisions on a farm and is determined through the increase of the factor value, if it is quantitative; or with affirmation, if the factor is qualitative, where the only two possible answers are either 'yes' or 'no'. All influences in Tab. 1 are statistically significant to at least a 90 percent confidence interval.

Tab. 1: The intensity and direction of the estimated influences, with regard to socio-geographical factors, on succession statuses and decisions on mountain farms in Slovenia, and the timing of their handover.

Socio-geographical factor	Intensity and direction of influence
Succession statuses and decisions on mountain farms	
Factors of the population structure of the farm	
Location of a farm – time/spatial remoteness of a farm and its position with regard to natural factors [the direction of influence is determined if the location of a farm is not favourable]	--
Perception about the remoteness, isolation of a farm [the direction of influence is determined if the householder believes that the farm is extremely remote from the main road in a valley and the closest administrative centres]	-----
Factors of the demo-geographical structure of the farm	
Number of persons on the farm	+++
Number of children in the householder's family	++
Number of male children in the householder's family	++++
Number of generations of which the farm has been in the hands of the householder's family	++
Householder's decision regarding whether or not he would still decide to take over the farm and run it if he had the opportunity to make this decision again	++++
Householder's age	-
Householder's gender [the direction of influence is determined if the householder is male]	+
Householder's succession from the previous householder	+
Householder's marital status, respectively unmarried status	+
Highest completed level of householder's general education	+
Householder's formal agricultural education	+
Householder's off-farm employment and/or off-farm employment of his/her partner	+

Socio-geographical factor	Intensity and direction of influence
Successor's gender [the direction of influence is determined if the successor is male]	++
Successor's familial relationship to the householder [the direction of influence is determined if the successor is the householder's son]	++
Successor lives on the householder's farm	++
Highest completed level of successor's general education / (highest foreseen level of successor's general education at the end of his/her present schooling) [the direction of influence is determined if the successor's general education is on the level of secondary school / (if successor's education is, or will be above the level of secondary school)]	++ / (- - -)
Successor's formal agricultural education	++
Successor's off-farm employment	--
Volume of labour input on the farm	+++
Changes of volume of labour input on the farm in the last ten years / (in the future) [the direction of influence is determined if the volume of labour input on the farm has increased in the last ten years / (will increase in the future)]	+++ / (++++)
Factors of the farm estate structure	
Farm size	++++
Perception about the farm size [the direction of influence is determined if the householder believes that his/her farm is big]	++
Changes in the farm size in last ten years / (in the future) [the direction of influence is determined if the farm size increased / (will increase in the future)]	++++ / (++++)
The area of agricultural land that is not in use for agricultural production in relation to the total size of the farm	--
Leasing of agricultural land on the farm / (leasing out of agricultural land on the farm)	+++ / (-)
Factors of the production (economic) structure of the farm	
Marketing of the stockbreeding production	++++
The intensity of stockbreeding	++
Quantity of annual removal of wood	++
Vitality of the forest's potential [the direction of influence is determined if the householder believes that the forest is vital]	+++
Engagement in supplementary activities	++
Annual gross income derived from the farm's sources	++++
Satisfaction with the amount of annual gross income derived from the farm's sources	++
The share of income derived from the farm's sources / (from off-farm sources) in relation to the total annual gross income on the farm itself	+++ / (- - -)
The share of subsidies in relation to the total annual gross income	+++
Types of income sources from which the annual gross income in the last ten years has increased most / (which will prevail in the future) [the direction of influence is determined if in the last ten years the annual gross income has increased mostly from the farm's resources / (if this annual gross income will prevail on the farm in the future)]	+++ / (++++)
Factors of the technical structure of the farm	
Farm equipment with machines and devices	o
Farm equipment with machines and devices in the future	o
Factors of the developmental-innovative structure of the farm	
Financial capability of the farm for investment in further developments	++++
Debit of farm for further development owing to debt of loans and other	- - - -

Socio-geographical factor	Intensity and direction of influence
financial loads	
Engagement in ecological farming	+
Time of handing over of the farm to the successor	
Factors of the demo-geographical structure of the farm	
Number of persons on the farm	++
Number of male children in the householder's family	++++
Householder's age	+
Householder's off-farm employment and/or off-farm employment of his/her partner	o
Factors of the farm estate structure	
Farm size	---
Factors of the production (economic) structure of the farm	
Annual gross income derived from the farm's resources	++++
Factors of the developmental-innovative structure of the farm	
Financial capability of the farm for investment in further developments	+++

Legend:

- [++++] distinctive positive influence,
- [+++] great positive influence,
- [++] moderate positive influence,
- [+] small positive influence,
- [- - -] distinctive negative influence,
- [- -] great negative influence,
- [- -] moderate negative influence,
- [-] small negative influence,
- [o] no influence.

Amongst the 52 factors that were assessed to have an influence upon mountain farm succession statuses and decisions and the timing of their handover, 13 of them have a very significant influence upon farm succession. They can be divided into three groups:

1. Factors reflecting the economic power of a farm:
 - farm size,
 - the marketability of a farm, and
 - the annual revenue deriving from the resources on the farm.
2. Factors reflecting the tradition or traditional way of thinking and acting:
 - the number of male children in the householder's family.
3. Factors reflecting householders' positions, perceptions and opinions:
 - householder's perception about the remoteness of the farm,
 - householder's decision regarding whether or not he would still decide to take over the farm and run it if he had the opportunity to make this decision again,
 - householder's opinion regarding the changes of the volume of labour input in the future,
 - householder's opinion regarding the changes of the farm size in the future,
 - householder's perception about the farm size,
 - householder's opinion regarding the vitality of the forest's potential,

- householder's opinion regarding the biggest increase in the amount of annual gross income that will derive from the farm's resources,
- householder's opinion regarding financial capability of the farm for investment in further developments,
- householder's opinion regarding debit of farm for further development owing to debt of loans and other financial loads.

4.1 Factors reflecting the economic power of a farm

The fact that factors reflecting the economic power of a farm and its developmental orientation have a significant influence on succession is confirmed by Ana Barbič's (1993, 265) finding that "young people who persist in agriculture do this less and less for emotional and more and more for economic reasons." According to Kovačič (1995), increasingly tougher management conditions in agriculture call for continuous innovations and adaptation of the production structure to suit market demands. In such an environment, positive development is achieved only by farms with householders who possess enough confidence, creativity, flexibility and self-initiative and who follow innovation processes in the fields of economics, technology, legislation, policy, organization, informatics, environmental protection, sociology and culture. According to Vrišer (1995), young and dynamic people manage best in such circumstances.

Farm size is one of the most important factors reflecting their economic power. The importance of this factor is shown through the fact that the majority of researchers (for example Kimhi and Lopez (1999), Stiglbauer and Weiss (2000), Kimhi and Nachlieli (2001), etc.) included this factor in their analyses. Glauben et al. (2004) state that farm size is the main factor in decisions regarding the cessation of farming. These findings comply with conclusions by Rosemary Fennell (1981) and Ruth Gasson et al. (1988) that an insufficient farm size is one of the main reasons why the householder's children don't take over the farm.

Although potential successors on bigger or economically stronger farms more often than not decide to take over and continue farming than those on smaller and economically weaker farms, findings regarding the timing of the handover showed the contrary: householders of big farms hand over the farm to their successors later than householders on smaller farms. A more detailed analysis shows that householders often delay the handover after their successors start investing their energy into the farm and (formally) keep the farm until they die or get weaker or sick and aren't able to manage the farm anymore. Their decision to hand over the farm is often too late, since the designated successors as well as other potential candidates find other jobs in the non-agricultural sector and have usually made other plans by then.

According to Pinterič et al. (2006), management of the farm gives a householder power, rights, value and as a consequence, guarantees him/her the obedience of his/her family and other farm workers. Farming is still a way of living and a meaning of life for many Slovene householders; not just capital, but a life project that needs to be continuously enriched. Householders of big farms, where the farm is the main source of income for the family, are very tightly connected with work and life on the farm and are more emotionally attached to it than householders of farms where the greater percentage of income is created off-farm. With the handover itself, the householders are scared of losing their rights and value and, consequently, their sense of self-worth.

4.2 The influence of tradition or traditional patterns of thinking and acting

The number of male children in the householder's family is without a doubt a factor reflecting the tradition. Kimhi and Nachlieli (2001) determined that householder's sons traditionally have an advantage over their daughters. This is evident from the ratio between the number of male and female householders on studied farms and from the ratio between appointed or foreseen male or female successors. The majority of householders and potential successors are male.

A more detailed analysis of research data shows that the householders choose a daughter for the farm takeover only because they don't have any male descendants and that daughters are usually just foreseen and not actually appointed successors. Taking into account that almost all foreseen female successors on the studied farms are below 40 years old (the majority of them are below 30 years old), we can assume that some householders still hope to be able to choose their successors amongst their grandchildren or to name their son-in-law as the appointed successor. Tietje (2004) therefore ascertains that householders prefer to appoint their sons-in-laws as their successors rather than their own daughters.

What is interesting is that a son's appointment as successor usually goes without saying. We can conclude this through the reflections of one of the householders participating in the survey:

/.../ I have one daughter and only one son, who just finished secondary school. He likes to work on the farm and if I don't hand him the farm soon, he could lose interest and leave. Then I won't have anyone to hand the farm over to. There are a lot of similar cases in our mountains /.../

Although tradition is, according to Hribernik (1993), still a very strong factor to persevere in farming, even amongst the younger generations – due to their devotion to tradition, which is more typical for the rural population than for other spheres of the population, the abandonment of farming is lower than we could expect with regard to the marginalisation of farming as an occupation in Slovene society – we should be very careful when interpreting factors such as "traditional" sanctioning of male descendants. Traditional patterns can endanger the existence of farms as well, as they impede the succession process and the timely transfer of farms to the impending successor. Waiting for a male successor forces householders to delay the appointment of their successor and potential female successors may experience a decrease in their interest in a takeover, which may cause the handover of the farm to not take place at all. With ageing the householder becomes also less creative and less interested in market innovations, etc. The growth and the financial stability of the farm are, thus, gradually diminished, which may further encourage potential female successors in deciding not to take over the farm. According to Hribernik (1995, 210), "return to the farm after the 'chased away' successor has already built his/her life elsewhere is certainly less probable."

Slovene mountain farms should recognise and overcome such traditional patterns in order to strengthen the positive meaning of succession. Householders should realise that women can be good and able householders as well!

4.3 The influence of the householder's perceptions and opinions

The education of potential successors to become future householders takes place on farms entirely within families. The parents' orientation therefore plays a pivotal role

in the preservation of the continuity between generations. In a traditional, predominantly patriarchal society, as is the norm in rural society, householders' standpoints, perceptions and thinking play a very important role in farm life. The behavioural and thinking patterns received by potential successors during the socialisation process from householders as role models for future occupation of the position of householder are very well preserved in the transfer of agricultural activities between the generations. Tietje (2004), referring to Neldert et al. (1981) says that the parents' orientation frequently passes to their children.

We assume that this is especially true for farms in mountainous areas, which have evolved in a very specific fashion for centuries, when compared to the development in valleys and plains. This development was based mainly on autarchic farms and the closeness of the rural society.

If a householder sees his/her farm as isolated, removed from all main traffic routes and the nearest administrative centres, and working on the farm/farm life is perceived as a burden and if he/she is worried about the future development of the farm or doesn't have trust in his/her farm as the main source of income, the probability of a farm takeover and the continuation of farming is greatly decreased. The opposite is true when the householder thinks positively, so showed the results of the empirical analysis.

With a positive orientation, encouragement, satisfaction and joy to work and live on a farm and with a good opinion about the farm, its structure (especially economic) and its current and future development, householders can greatly influence the potential successor's decision to take over the farm and continue farming, and thus enable the continuous development and existence of the farm itself.

The most influential factor amongst those that express the householders' perceptions and opinions is the factor that we named householder's decision regarding whether or not he would still decide to take over the farm and run it if he had the opportunity to make this decision again. According to Fasterding (1995 and 1999) and Tietje (2004), the householder's decision to take over the farm and run it if he had the opportunity to make this decision again expresses his satisfaction with his job. Besides that, it expresses his joy to work and live on the farm, his respectful attitude to farming and the preservation of the heritage of past generations. All this has a very important motivational effect for the appointed or foreseen successor for his/her preparations and decisions regarding the takeover of the farm.

Satisfaction with work on the farm expresses the opinion or mindset of a young householder on a mountain farm. The successor will continue farming. He is 24 years of age, has finished secondary school in agriculture, wants to increase the number of his livestock and plans to equip his farm with new machines and devices. The former householder, his father, would still decide without hesitation to take over the farm and run it if he had the opportunity to make this decision again. During the interview, the young householder said:

/.../ On this farm, we have been working with joy and tenacity for many years. Therefore I decided to continue farming even as a young lad. We cultivate all the land, even the steepest parts of the farm. If the situation for farmers doesn't worsen too much, I'll be happy to continue farming. I disapprove of the tightening up of controls over farmers and I don't intend to become a slave /.../

The second case is in stark contrast with the first one and shows how a householder's discontent with his job can have the opposite effect:

/.../ I don't wish for any of my children or grandchildren to have such a strenuous and frugal life. Joy for nature and animals alone cannot make up for all the hardships and struggles that life on such a mountain farm brings /.../

This farm doesn't have an appointed or foreseen successor yet and the householder is not looking for one. By the time he stops running the farm, he won't find or appoint one. If the householder had the opportunity make the decision again, he would never decide to take over the farm and run it.

As a measure to encourage farm takeovers, especially farms in the mountain regions of Slovenia, the government should therefore, aside from financial incentives, promote this new awareness amongst the farming population, i.e. the fact that farms themselves can do a lot to ensure their own takeovers. There is not sufficient incentive for the potential successor to become the future householder of the farm. Current householders have to believe in what they are raising their potential successors for.

5. Conclusion

Research has shown that succession statuses and decisions on mountain farms are influenced by factors related to population structure, farm estate structure, demogeographical structure and the production (economic) and developmental-innovative structure of the farm, but are not influenced by factors related to the technical structure of the farm. The most influential factors are those which reflect the traditions or traditional mindset and behavioural patterns and the householders' standpoints, perceptions and opinions. Nevertheless, the joy of work and life along with tradition on mountain farms are only a preliminary condition for a potential successors' decision as to whether to take over the farm and continue farming. The overriding conditions for this are: an appropriate farm size, a suitable annual amount of gross income derived from the farm's resources and the ability of the farm to invest in its own further development. If these conditions aren't met, factors that have negative influences on mountain farm succession statuses and decisions come to the forefront. These factors gradually prevail and the insistence of traditional behavioural thinking patterns may endanger the further development and existence of farms.

Although, due to the complexity of the solutions to these problems, we, nevertheless, think potential successors would decide to take over and continue farming on Slovene mountain farms more often and householders would hand over their farms quicker and more efficiently if:

- The Slovene state would more clearly emphasise the importance of mountain farms for the landscape and all of society and accept the preservation of mountain farms as a national value, and even more so, if Slovene society would accept them as a national treasure.
- Mountain farms would recognise and overcome those traditional patterns of thinking and behaviour that impede the succession process and endanger the further development and existence of mountain farms.

- The realisation that positive thinking, encouragement, self satisfaction and joy for work and life on farms must prevail, especially amongst householders, as they can have a huge influence upon their children's decisions.
- Members of a farm, especially the householder, realise that he can trust his children, believe in them and doesn't need to be afraid to hand over what he worked hard to create.

The suggested solutions would have an indirect influence on mountain farm succession as well: with their realisation, the influence of those factors that have a negative effect on succession regarding the socio-geographical structure of mountain farms would certainly be diminished, while the importance of those factors with a positive influence would increase. Nevertheless, the proposed solutions wouldn't necessarily have an equally strong and positive effect in all cases. Every farm is unique and the succession process differs from case to case. For this reason, we should focus on studying the life cycle of every individual farm separately when looking for appropriate solutions.

References

- Barbič, A. 1993: (Samo)obnavljanje kmečkega sloja v Sloveniji. *Sodobno kmetijstvo* 26(6): 258–266. Ljubljana.
- Corsi, A., 2004: Intra-family succession in Italian farms. Available at: http://www.child-centre.it/papers/child21_2004.pdf (17. 10. 2005).
- Fasterding, F. 1995: Hofnachfolge in Westdeutschland. *Landbauforschung Völkenrode* 45(1): 48–66. Braunschweig.
- Fasterding, F. 1999: Nachfolge in landwirtschaftlichen Betrieben in Deutschland. *Berichte über Landwirtschaft* 77(2): 165–183. Berlin.
- Fennell, R. 1981: Farm Succession in the European Community. *Sociologia Ruralis* 21(1): 19–42. Oxford.
- Gasson, R. 1986: Part time farming: Strategy for survival? *Sociologia ruralis* 24(3): 364–376. Oxford.
- Gasson, R., Errington, A. 1993: *The Farm Family Business*. Wallingford.
- Glauben, T., Tietje, H., Weiss, C. H. 2002: Intergenerational Succession on Family Farms: Evidence from Survey Data. Available at: <http://www.food-econ.uni-kiel.de/Workingpaper/Ewp0202.pdf> (12. 9. 2003).
- Glauben, T., Tietje, H., Weiss, C. H. 2004: Succession in Agriculture: A Probit and Competing Risk Analysis. Available at: <http://www.food-econ.uni-kiel.de/Workingpaper/FE0406.pdf> (7. 7. 2004).
- Greene, W. H. 2003: *Econometric analysis*. New Jersey.
- Hennessy, T. (2004): *Examining the Factors that Affect Intergenerational Transfer in Irish Farming: An Application of Limited Dependent Variable Models*. Dublin.
- Hribernik, F. 1993: Vpliv vrednotenja izobraževanja in vrednotenja poklicev na olanje kmečke mladine. *Sodobno kmetijstvo* 26-6, str. 251–258. Ljubljana.
- Hribernik, F. 1994: Proces zapu čanja kmetijstva se nadaljuje. *IB revija* 28(3–4): 26–34. Ljubljana.
- Hribernik, F., 1995: Nekateri vidiki socio-demografskega položaja kmečkih družin v Sloveniji. *Socialno delo* 34(3): 203–216. Ljubljana.
- Kimhi, A., Lopez, R. 1999: A Note on Farmers' Retirement and Succession Considerations: Evidence from a Household Survey. *Journal of Agricultural Economics* 50(1): 154–162. Hampshire.
- Kimhi, A., Nachlieli, N. 2001: Intergenerational Succession on Israeli Family Farms. *Journal of Agricultural Economics* 52(2): 45–58. Oxford.

- Kovačič, M. 1995: Funkcije kmetijstva v prihodnjem razvoju podeželja. In: Kovačič, M. (ed.): *Izhodišča, sestavine in problemi celovitega razvoja podeželja v Sloveniji*: 61–73. Ljubljana.
- Kovačič, M. 2001: Podjetniške in sociološke značilnosti kmetij v Sloveniji. Available at: http://www.bf.uni-lj.si/daes/index_files/DS-1-kovacic.pdf (11. 4. 2007)
- Laband, N. D., Lentz, B. F. 1983: Occupational Inheritance in Agriculture. *American Journal of Agricultural Economics* 65(2): 311–314. Milwaukee.
- Liao, T. F. 1994: Interpreting probability models: logit, probit, and other generalized linear models. London, New Delhi.
- Markež, M. 1998: Vloga kmetijstva v razvojnem programu Triglavskega narodnega parka. *Kmetijstvo in okolje: zbornik posveta*: 91–96. Ljubljana.
- Natek, M. 1989: Kmetije kot činitelji in jedra gospodarske in socialne preobrazbe hribovskega sveta. *Dela Oddelka za geografijo* 6: 196–207. Ljubljana.
- Pinterič, L., Černič Istenič, M., Vrtačnik, J. 2006: Kmečka družina na prehodu od tradicionalnosti k post-modernosti. *Acta agriculturae Slovenica* 88(2): 101–116. Ljubljana.
- Stiglbauer, A., M., Weiss, C., R. 2000: Family and Non-family Succession in Upper-Austrian Farm Sector. *Cahiers s'economie et sociologie rurales* 54: 5–26. Ivry.
- Tietje, H. 2004: Hofnachfolge in Schleswig-Holstein. Ph.D. Thesis. Institut für Ernährungswirtschaft und Verbrauchslehre der Christian-Albrechts-Universität zu Kiel, Kiel.
- Vriener, I. 1995: *Agrarna geografija*. Ljubljana.
- Wooldridge, J. M. 2002: *Econometric analysis of cross section and panel data*. Cambridge, London.

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Summary

Succession on family farms is the best case of the inter-generational transfer of assets and human capital. The transfer of human capital between generations within the family also represents its enrichment and an increase of assets: both their real value and the realisation of their value. In order to achieve this, certain preconditions have to be fulfilled, namely that succession and continuation of farming on the farm in question take place and that the handing over of the farm is performed in due time.

Within the agricultural sector of developed countries, including Slovenia, one of the biggest issues is the decrease in the number of farm takeovers or transferring of farms to successors. The number and influence of negative factors is much stronger than the number and influence of factors that keep young people within the agricultural sphere.

Nevertheless, Slovenia has only recently conducted research studying the effects of various factors on farm succession. The first one was performed in the context of a doctoral thesis. The findings are presented in this paper. It explains which factors and the extent to which the social-geographic structure of farms influence succession on these farms. We focused on a specific section of Slovene farms, namely those defined as mountain farms, and on the factors of 'socio-geographical structure', i.e. factors regarding the population structure, the farm estate structure, the demographic structure, the production (economic) structure, technical structure and the developmental-innovative structure.

The established influences of factors with respect to the socio-geographical structure on mountain farm succession were examined and enriched with the householders' reflections regarding factors that are most important to them; and especially with the findings regarding how these factors refer to their feelings and actions in connection to succession itself. Thus, we have revealed additional quantitative developments of this issue.

Research showed that succession statuses and decisions on mountain farms are influenced by factors relating to population structure, farm estate structure, demogeographical structure and production (economic) and developmental-innovative structure of the farm, but are not influenced by factors related to the technical structure of the farm. The most influential factors are those that reflect tradition or traditional mindset, behavioural patterns and householders' standpoints, perceptions and opinions. Nevertheless, the tradition and joy of work and life on mountains farms are only a preliminary condition for the potential successor's decision as to whether to take over the farm and continue farming.

The suitable conditions for that scenario to take hold are: an appropriate farm size, a suitable annual amount of gross income derived from the farm's sources and the ability of the farm to invest in its own further development. If these conditions aren't met, factors that have negative influences on mountain farm succession statuses and decisions come to the foreground, and will gradually prevail. The results show that certain traditional patterns of behaviour and thinking, which are still deeply rooted in Slovene mountain farms, may have negative influences on the

succession process and may endanger the further development and existence of the farms themselves.

In conclusion, we propose some solutions with regard to solving Slovene mountain farm succession problems. Although, due to the complexity of the influence of factors with regard to socio-geographical structure of farms on the succession process of these farms, the solutions aren't simple, the knowledge regarding the basic factors for (not) taking over farms in Slovenia and the inter-connection of these factors is necessary if we want to develop measures to promote the preservation of farms as fundamental holders of agricultural activities and provide sustainable development of agriculture and countryside, especially in mountain areas with negative demographic trends.