

SPECIFICS OF FAMILY BUSINESSES IN THE WOODWORKING AND FURNITURE INDUSTRY IN SLOVAKIA

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ABSTRACT

A survey into the field of the family business in woodworking and furniture enterprises in Slovakia has not been carried out yet. The presented paper tries to eliminate these shortcomings. Its goal is to map the situation of family woodworking and furniture enterprises in Slovakia as a hitherto unexplored segment to capture a view of their current position together with the main internal and external determinants hindering their development in practice. Based on the results obtained by conducting and evaluating the questionnaire, it can be stated that more than half of enterprises consider a lack of qualified workforce and increasing intensity of competition to hinder their development along with specific problems arising from the nature of family business, which is the underestimation of the issue of succession. A contribution at the level of theory and practice is assumed in the paper as well. The main contribution is characterizing of a family business as the legal definition in the legislative conditions in the Slovak Republic is absent. The contribution also refers to the future direction of the development of the Slovak woodworking and furniture family enterprises.

Key words: family business, furniture industry, specifics, woodworking industry.

INTRODUCTION

Family business (FB) faces, not only in Slovakia, insufficient legislative support (MORESOVÁ *et al.* 2020). The statutory definition of a family business in Slovakia is absent, and therefore, based on its own survey from 2020, the Slovak Business Agency (hereinafter SBA) defined it for domestic conditions as follows:

“Family business means a group of natural persons who have blood ties or court decisions or legally recognized ties with the same effect (adoption, marriage) or have personal, mutual ties and are interested in creating interdependence, coherence and dependency through these common ties (partner) and meet at least one of the following conditions in relation to the business:

- *one or more members own more than 50% of the shares, votes, or stocks in the company,*
- *one or more members own such a number of shares, votes or stocks that they can enforce their will against other co-owners (hereinafter referred to as “has influence”),*

- *one or more members perform control functions in the company and have influence,*
- *one or more members perform managerial functions in the company and have influence“.*

According to the above definition, the share of FBs in Slovakia is estimated at 60 to 80% in all sectors. FBs in Slovakia produce 30 to 40% of GDP and provide 40% of employment (PERÁČEK *et al.* 2020). The data presented by the European National Association representing FBs in the EU (EFB) are even more favourable. GDP indicator is estimated at 40% and the employment rate at up to 60% (SHARMA 2004).

Family business has a long tradition. It dates back to 587 in Japan, where the first family business was established (KRISTIE 2002). Since then, the importance of family business has been growing and nowadays, family businesses make up more than two-thirds of all businesses worldwide. Slovakia, Cyprus and Estonia reach the highest share in the European Union (in all more than 90 %) (MURA 2019).

Family businesses have many advantages as well as disadvantages, which can be considered the specifics and differences compared to non-family businesses. The primary ones include the following: the owner usually also acts as a managing director, the family's income depends on the success of the FB, most FBs have a family name included in the denomination, the FB owners expect a generation change. Disadvantages can be considered: strict adherence to quality and reputation at the expense of other indicators (gain, profitability, etc.), conflicts of family members, the selection of a manager from among family members and the above-mentioned advantages in reverse principle (i.e. family collapse in case of failure, lacks in management in case of insufficient qualification of family members and others) (HENNART *et al.* 2019, ARRAGLE *et al.* 2016, MARINOVA and MARINOV 2017, SCHOLES *et al.* 2015, DE MASSIS *et al.* 2016, VERBEKE and FOROOTAN 2012).

The woodworking and furniture industry, together with the pulp and paper industry, form a uniform sector of the wood-processing industry (WPI) in Slovakia, which has a long tradition and has hitherto unused potential (MORESOVÁ *et al.* 2019, HALAJ *et al.* 2018). The rich domestic base of raw material, processing capacities (especially in the case of coniferous log processing), a stable share of the industry in the field of industrial diversification (approximately 2.5% over a decade) are some of the many predispositions. Long-term problems of the industry are the lack of support and development strategy, lack of targeted modernization of technology and machinery, low attractiveness of the industry from the point of view of investors and entrepreneurs themselves, insufficient product finalization, WPI enterprises act as subcontractors of semi-finished products for foreign companies, slow growth of competitiveness (MUSOVA *et al.* 2021, HAJDÚCHOVÁ and HLAVÁČKOVÁ 2019). At present, more than 5,300 business entities are operating in this segment, which follows the tradition of WPI in Slovakia, compared to the European average, which is more than 397 thousand business units (19.6% of all businesses) (KRIŠŤÁKOVÁ *et al.* 2021, ANTOV *et al.* 2020). The level of forest cover in Slovakia, which reaches 41.2% and has been growing exponentially over the years, also contributes to their prosperity (ŠEBEŇ *et al.* 2018).

The aim of this paper is to map the situation of family woodworking and furniture businesses in Slovakia, as a hitherto unexplored segment, to define their current position together with the main internal and external determinants hindering their development in practice.

METHODOLOGY

Achievement of the set goal presupposes scientific work at the level of both theoretical and practical in the form of obtaining primary data. The first step was to define the FB for

the needs of this paper, based on the definition proposed by the SBA (2020), methods of analysis, description, comparison, analogy, summarization and synthesis. Mapping of the situation of woodworking and furniture family businesses in practice presupposes the acquisition of primary data, for which a questioning method was used in the survey in the form of an electronic questionnaire (SCHEER 2007, RIMARČÍK 2007). The questionnaire contained a total of 29 questions (closed and semi-closed with the answer type “other”).

Inner consistency of a questionnaire was evaluated by the Cronbach alpha coefficient (α) (CRONBACH 1951) according to the following relation where k is the number of test items, s_i^2 is the sum of the item variance; s^2 is the variance of the total score:

$$\alpha = \frac{k}{k-1} \times \left(1 - \frac{\sum_{i=1}^k s_i^2}{s^2} \right) \quad (1)$$

The level of Cronbach alpha is 0.75, which means from the point of view of consistency, our questionnaire could be accepted. Based on the FINSTAT (2020) data about all enterprises, it was possible to compile a database of WPI enterprises, a total of 5.343 operating in Slovakia. In order to meet the condition for generalization of measured data and obtained results to the whole population of enterprises, it is necessary to meet the minimum sample size (n), which was determined by the following relationship to the calculation under conditions of the permissible error of 5% ($e=0.05$) and confidence level of 95% ($z=1.96$) at known base set size ($N=5343$) and p-level ($p=0.5$) (KOZEL 2006, FAERON 2017):

$$n \geq \frac{p*(1-p)}{\frac{e^2}{z^2} + \frac{p*(1-p)}{N}} \quad (2)$$

Using the formula above, it was possible to calculate the minimum sample size for the survey. The sample must consist of at least 359 respondents. The questionnaire was sent to 2,500 enterprises via their e-mail contacts in the period from September 2020 to the end of that year. As 404 respondents took part in the survey, the results of the survey can be generalized to the whole basic set – the survey meets the condition of a minimum sample size. The results of the questionnaire survey were processed in the Statistica program and the following statistical methods were used to verify the assumed hypotheses: Hypothesis test of relative abundance and Interval estimation of relative frequency. The Hypothesis test of relative abundance is used to test a statistical hypothesis that the proportion of a certain value of a variable in the base set is equal to a given constant according to the following relation:

$$u = \frac{f - \varphi_0}{\sqrt{\frac{f(1-f)}{n}}} \quad (3)$$

The Interval estimation of a parameter of the basic set determines the numerical interval in which the estimated parameter occurs with a certain probability (i.e., the estimated parameter is in the interval (q1,q2) with the probability of $1 - \alpha$). The interval (q1,q2) is called the confidence interval and depends on α (RIMARČÍK 2007). Hypotheses were verified through Interval estimation according to the relation for the calculation of the 95% Confidence interval for relative frequency:

$$f - u_{\frac{\alpha}{2}} \sqrt{\frac{f(1-f)}{n}} < \varphi < f + u_{\frac{\alpha}{2}} \sqrt{\frac{f(1-f)}{n}} \quad (4)$$

The results of the survey were also processed through descriptive statistics and clear graphs were used for their simplicity, comprehensibility, and graphical clarity to display the measured data.

The following hypotheses have been formulated:

H1: It is assumed that at least half of the Slovak woodworking and furniture enterprises are family businesses.

Family businesses, as evidenced by their shares of employment (50% to 80%) and GDP (70%) worldwide are irreplaceable and together with their specific advantages and overall share of almost two-thirds of all companies, they represent a pillar of the market economy (BEKERIS 2012, PARADA and GIMENO 2016, WANG *et al.* 2017). For the conditions of the Slovak business environment, the SBA (2020), based on its own research of the family business issue, presented an estimate which states that approximately 60 to 80% of Slovak enterprises in all sectors are family-type. A specific study in the woodworking and furniture industry connected to the family business has not been published so far. This is one of the reasons why verification and assessment of the conditions are among the first priorities.

H2: It is assumed that the main external problem of the development of woodworking and furniture enterprises is the intensity of competition growth from the perspective of other enterprises in the sector.

H3: It is assumed that the main internal problem of Slovak woodworking and furniture family businesses is the lack of a qualified workforce and disharmony of the interaction between the elements of family and business.

Every company operating in a market economy is to some extent influenced by both external and internal determinants of the business environment (MISZTAL and KOWALSKA 2020, HERNÁNDEZ *et al.* 2020). Most factors of the external environment are invariable (tax and regulatory burden, legal and legislative environment, business conditions, etc.). These conditions have a major impact on business, and the European Union, together with the individual Member States, has long been working to eliminate them by seeking to remove obstacles to the development of European businesses by simplifying legislation and improving business conditions (BRAGARU 2015, IONESCU *et al.* 2011). However, it is also possible to speak of a group of partially variable factors (own activity or attitude towards them) such as competition, while the problem of the SME sector is the relatively low competitiveness, both against large enterprises as well as other enterprises (MALEGA 2017, ABDULAALI *et al.* 2019). The group of factors that an enterprise creates, modifies and influences is referred to as internal problems. A specific internal problem in the wood-processing industry is the provision of a qualified workforce, and therefore it can be assumed that the problem also affects family businesses (KOVALČÍK 2018). A particularly specific problem of family businesses is to achieve harmony between family and work life of the family members (ZHOU 2014).

RESULTS AND DISCUSSION

A total of 282 FBs participated in the survey about the current position of family woodworking and furniture enterprises in Slovakia (Table 1). The results show that their share is more than half. To verify the validity of hypothesis H1 that at least half of the enterprises in the woodworking and furniture industry are family-owned, statistical verification was performed by the Hypothesis test of relative abundance with the result of $p = 0.000$ (Table 2). At the same time, for more detailed data, the results obtained using the Interval estimate of the relative frequency with 95% confidence (Table 3) showed that the share of FBs in the woodworking and furniture sectors is between 65% and 74%. From several available sources, whether domestic or foreign (BEKERIS 2012, PARADA and GIMENO 2016, WANG *et al.* 2017, SBA 2020), it is possible to deduce the majority shares of family businesses within all currently operating companies worldwide for all sectors. Based on the above results of the statistical verification of the validity of hypothesis H1, it can be

concluded that even in Slovakia in the woodworking and furniture sectors, the share of family businesses is major.

Tab. 1 Frequency table of the research sample.

Type of enterprise in the sample	Absolute frequency	Cumulative absolute frequency	Relative frequency (%)	Cumulative relative frequency (%)
Family business	282	282	69.80	69.80
Non-family business	122	404	30.20	100.00
Total	404		100	

Tab. 2 Hypothesis H1 test on relative abundance.

Hypothesis	Research area	Alternative hypothesis	<i>p</i>	<i>n</i>	<i>u</i>	<i>p-level</i>
H1	Share of FBs in woodworking and furniture industry	$\pi > 50\%$	69.80%	404	8.67	0.000

Tab. 3 Hypothesis H1 Confidence interval for relative frequency.

Hypothesis	Research area	<i>p</i>	<i>n</i>	95% Confidence interval	
				Lower limit	Upper limit
H1	Share of FBs in woodworking and furniture industry	69.80%	404	66%	74%

The questioned family businesses in the woodworking and furniture industry in Slovakia identified the problem factors from the internal and external environment they face and consider them a priority in terms of further development. Figure 1 shows a total of 12 evaluated determinants and their percentage representation. The key internal determinant in the development of woodworking and furniture FBs is the lack of a qualified workforce, which was expressed by almost 77% of respondents. From the results of the Interval estimate for relative frequency with 95% confidence, it can be determined that the given determinant occurs in 72% to 82% of enterprises (Table 5). First part of hypothesis H3 was confirmed by a Hypothesis test of relative abundance result with a *p*-level value ($p = 0.000$) (Table 4). Among the verified external determinants, attention was paid to the intensity of competition growth in the woodworking and furniture sectors. The available data for this determinant showed a rate of only 14.89% compared to the determinant of the rising cost, which also belongs to the external group. An estimate from 11% to 19% of FBs (Table 5) in the woodworking and furniture sectors worry about the growing competition, moreover, only 2% to 7% feel the inability to cope with it. In the case of the determinant of rising costs, 60.99% of the respondents expressed a degree of importance, i.e., significantly higher. Hypothesis H2 was not confirmed based on the Hypothesis test of relative abundance ($p = 1.000$) (Table 4).

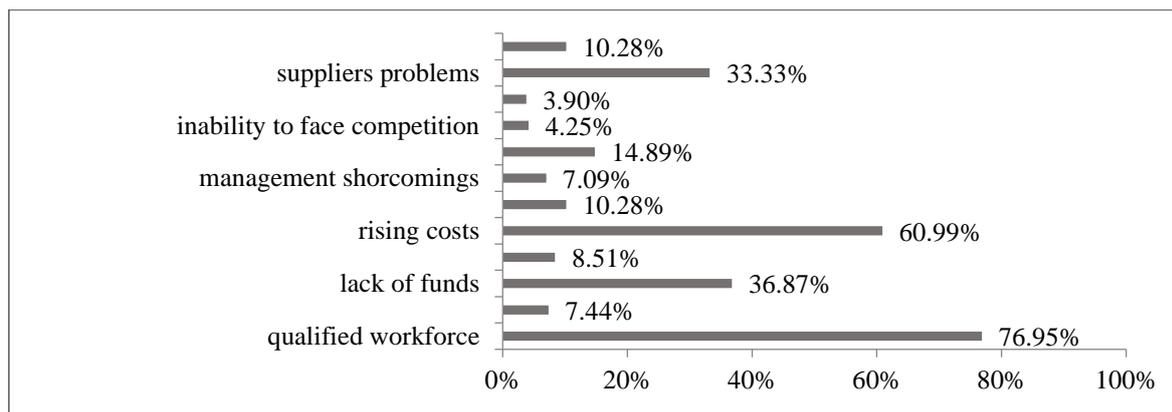


Fig. 1 Internal and external determinants of family woodworking and furniture enterprises
(Source: authors)

Tab. 4 Hypothesis H2 and H3 test on relative abundance.

Hypothesis	Research area	Alternative hypothesis	p	n	u	p -level
H2	Determinant of increasing competition in the industry	$\pi > 50\%$	14.98%	282	-16.56	1.000
H3	Determinant of lack of qualified workforce	$\pi > 50\%$	76.95%	282	10.74	0.000
H3	Disharmony of family and business	$\pi > 50\%$	57.44%	282	2.53	0.006

Tab. 5 Hypothesis H2 and H3 Confidence interval for relative frequency.

Hypothesis	Research area	p	n	95% Confidence interval	
				Lower limit	Upper limit
H2	Determinant of increasing competition in the industry	14.98%	282	11%	19%
H3	Determinant of lack of qualified workforce	76.95%	282	72%	82%
H3	Disharmony of family and business	57.44%	282	52%	63%

The question arises, what are the specific problems of family businesses in the woodworking and furniture sectors, assuming that there is a disharmony between the elements of family and business. The values for the selected 7 specifics are shown in Figure 2, where the most significant was the neglect of the family at the expense of the business, which significantly exceeds the others. Second part of hypothesis H3 was confirmed by a Hypothesis test of relative abundance result with a p -level value ($p = 0.006$) (Table 4). As results of Confidence interval for relative frequency (Table 5) show this problem affects from 52% to 63% of woodworking and furniture family enterprises.

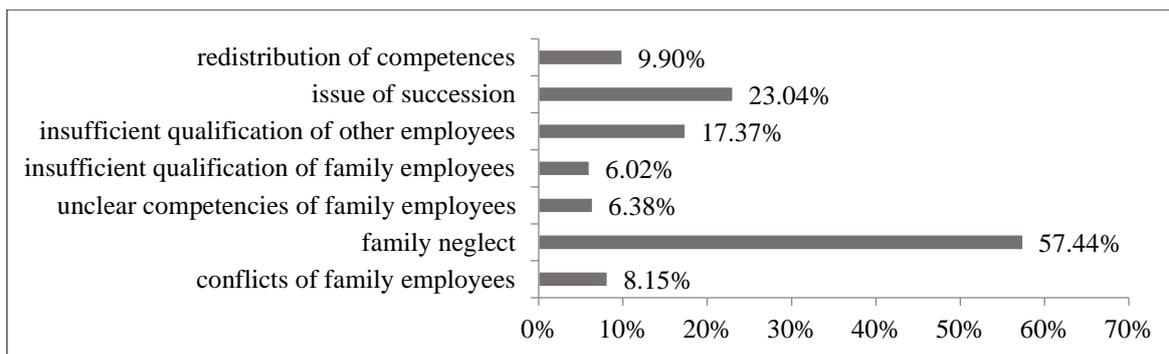


Fig. 2 Specific problems of family woodworking and furniture enterprises (Source: authors).

The second most common specific of FBs is the solution of the issue of succession. Specifically, 23.04% of respondents consider the subsequent transfer of the company to the next generation to be problematic. The smooth succession of the company to the next generation can be ensured by the succession strategy. Most enterprises in Slovakia (which started their activities after 1993) have not experienced the succession process yet, and according to the results of the Interval Estimate, 76% to 85% do not even have a specific succession strategy. The succession itself occurs approximately every 20 to 25 years and is managed well by only a third (PERÁČEK *et al.* 2020, VILČEKOVÁ *et al.* 2018).

In addition to the above facts as the share of FBs in the woodworking and furniture industries in Slovakia, the determinants hindering their development and specifics, the paper seeks to address the areas of future development of the enterprises (Figure 3). The results of the survey clearly showed that the dominant areas in which targeted attention is needed are technical equipment and production technology. The high percentage (68.79%) of respondents, who anticipate future development in any area of the company, is positive.

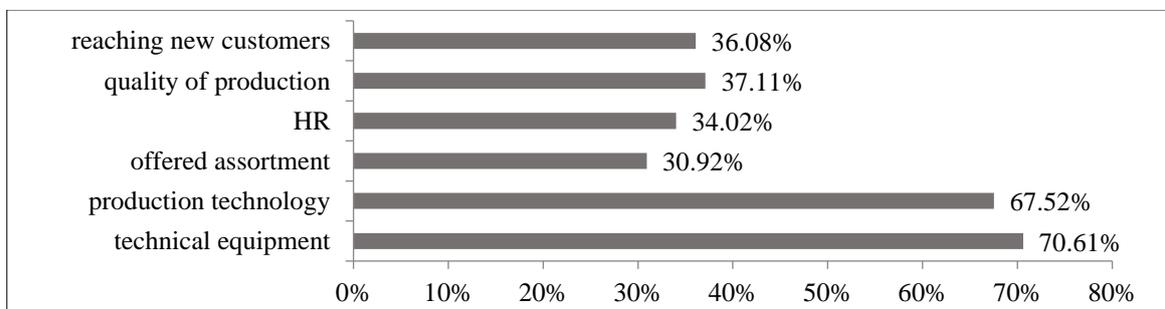


Fig. 3 Assumed areas of future development of woodworking and furniture FBs (Source: authors).

The above results clearly showed that there is a majority share of family businesses in Slovakia in the woodworking and furniture industries, as stated by the SBA (2020) for family businesses in general, BEKERIS (2012), PARADA and GIMENO (2016), WANG *et al.* (2017) and PERÁČEK *et al.* (2020). On the sample of 404 woodworking and furniture enterprises, 282 FBs (69.8%) were identified. The result of the Hypothesis test of relative abundance ($p = 0.000$) and the Interval estimate for relative frequency with 95% confidence, which determined the range of FB share in the given sectors to 65% to 74%, can validate the hypothesis H1 about the majority share of family businesses in woodworking and furniture sector in Slovakia. The authors MACHEK *et al.* (2013), SZABÓ (2012), MARTIN (2008) and WRÓBLEWSKA-KAZAKIN (2012) agree that without the adoption of a specific definition in the legislative conditions, the collection and evaluation of data on family business are not possible and at the same time there is no room for its further development. From the point

of view of the examined determinants of the internal and external environment, which affect each enterprise in the market economy (MALÁ *et al.* 2017) for the group of internal determinants, the most important was the provision of a qualified workforce confirmed by a Hypothesis test of relative abundance result with a p-level value ($p=0.000$), as also expressed by AYMEN *et al.* (2019), SEDLIČIKOVÁ *et al.* (2021), KOVALČÍK (2018). It is estimated by the Interval estimate for relative frequency that 72% to 82% of family woodworking and furniture businesses face this problem. Along with the above, family businesses are also characterized by their specific areas (ZHOU 2014, RAMADANI and HOY 2015). In the research area, the central problem of woodworking and furniture family businesses can be considered the disharmony of family and business elements, i.e., family neglect at the expense of the business, as expressed by up to 57.44% of respondents and confirmed by the a Hypothesis test of relative abundance result with a p-level value ($p = 0.006$). According to the results of the Interval estimate for relative frequency, 52% to 63% solve the given problem. The second most serious problem is the issue and the process of succession, which in practice is not given sufficient attention, respectively it is neglected (SZABÓ 2012, PETRÁČEK *et al.* 2020). As many as 80% of the addressed enterprises have not solved the issue of succession yet, while only 16% of enterprises worldwide have a formally established succession strategy and a selected successor (ZAJKOVSKI and DOMANSKA 2019, HAVIERNIKOVÁ *et al.* 2019). Succession is considered to be the most critical period of a family business, and founders usually try to delay this moment as much as possible (MURA and KAJŠAR 2019). From the findings of the internal determinants, and thus on the problem of securing a qualified workforce and, in the case of the specifics of family businesses, the problem of maintaining harmony between family and business, the H3 hypothesis can be confirmed. Even though the authors MISZTAL and KOWALSKA (2020), HERNÁNDEZ *et al.* (2020), BRAGARU (2015), IONESCU *et al.* (2011), MALEGA (2017) and ABDULAALI *et al.* (2019) agree that competition and ability to face it are considered to be strong external determinants and the hypothesis H2 assumed it, it was not possible to confirm it (according to the result of a Hypothesis test of relative equal p-level value ($p = 1.000$)). Out of the studied external factors, the determinant of rising costs was identified to be the most significant (60.99 %). The indicator of growing competition (14.98%) that worries family woodworking and furniture business is estimated by the Interval estimate for relative frequency at 11% to 19%, while the indicator of inability to face it (only 4.25%) is estimated at only 2% to 7%.

CONCLUSION

A total of 404 woodworking and furniture enterprises took part in the survey of the current position of family woodworking and furniture businesses in Slovakia. According to the definition of FB, it was possible to clearly identify up to 282 family businesses. The results of the survey show that most enterprises in the woodworking and furniture sector are family-run, with an estimated share ranging from 65% to 74%. These enterprises are affected by many factors that hinder their development. The most important internal determinant is considered to be the provision of a qualified workforce, however, there is a shortage of it. The specifics of family businesses indicate that the neglect of the family at the expense of the business has emerged as a serious problem. It follows from the above that two of the three assumed hypotheses were confirmed. The hypothesis of external determinants was not confirmed, where the assumption was formulated that the most serious is growing competition. In this case, the determined key factor was the rising costs for maintaining the business. The aim of the paper has been met and thus provides an insight into the situation

of woodworking and furniture family businesses, their determinants and the results finally also provide an overview of areas for future development. These include investments in technical equipment and production technology.

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ACKNOWLEDGEMENT

The authors are grateful for the support of the Slovak Research and Development Agency, grants number APVV-18-0520, APVV-18-0378, APVV-17-0456, APVV-17-0583, APVV-20-0004 and project KEGA 005TUZ-4/2020 also project IPA 09/2021. This publication is also the result of the project implementation: Progressive research of performance properties of wood-based materials and products (LignoPro), ITMS: 313011T720 (10%) supported by the Operational Programme Integrated Infrastructure (OPII) funded by the ERDF.

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