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THE ASSESSMENT OF THE CHARACTER PROFILE OF WOOD-BASED HOUSE USERS IN THE CZECH REPUBLIC

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Abstract

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In the years 2012–2014 the authors carried out an extensive marketing research among users of wood-based buildings in the Czech Republic. The questionnaire survey had 1,000 respondents – Czech households using a wood-based house. The survey was conducted separately in each region of the Czech Republic (40–100 questionnaires per region). The results were evaluated separately for each region and for the Czech Republic as a whole. Questionnaires consisted of four thematic groups of questions.
This paper deals with processing and evaluation of results of the first group of questions. This group addresses characteristics of people using wood-based family houses. The results are evaluated for individual regions and for the whole Czech Republic. The evaluation covers seven characteristics of adults using the surveyed buildings: age of users, type of the buildings' ownership, educational attainment, sector of employment, profession, type of previous housing, and the size of municipality of the previous housing. The aim of the paper is to create profile of a "common user" of wood-based buildings. The results of the marketing research can be used to enhance competitiveness of companies in the woodworking and construction sector.

Keywords: wood-based construction, family house, green marketing, questionnaire survey, consumer attitudes, wood processing industry, economics

INTRODUCTION

Wood-based houses have a long tradition on the territory of today's Czech Republic. Wood-based structures were built from the early Middle Ages until the first half of the 20th century. A detailed history of wood-based buildings can be found in publications Vanduchová, Zajacová (2007), Klimeš (2009), Gerner (2002), Ruszcyk (2009) and Cieslak (2007).

The options of wooden construction were published e.g. by the authors Lokaj (2010), Kolb (2011), (Dřevostavby a konstrukce na bázi dřeva, 2009).

Awareness of the general public in the Czech Republic of the aspects of building and living in wood-based family houses ensues from a general hypothesis based on the prerequisites below; these are defined on the grounds of hitherto knowledge of the issues and experience of the authors of the survey, see e.g. Lenoch, Kalousek (2010) and Lenoch (2012):

1) romantic ideas about living in country timbered houses built before 1948,
2) direct or orally transmitted experience of OKÁL-type houses' users from the years 1970–1989,
3) direct or orally transmitted experience with modern wood-based houses bought after 1995, general awareness acquired through print and electronic information sources issued within marketing, promotion and advertising campaigns.

Currently, the predominant idea of the public is based on the new experience with modern wood-based buildings constructed after 1995. The other

two public images are rather rare these days. The above arguments are supported by Vaverka (2008) and Zahradníček (2011).

In the years 1998–2014, there were 12,097 wood-based houses in the Czech Republic (CSO 2015). The estimated amount for the period 1996–2014 is about 12,500 houses. The share of wood-based houses in the total number of complete houses in the Czech Republic was progressively increasing during this period – it increased from 1.11% in 1999 to 9.94 in 2012 (CSO, 2014).

The prerequisite of the research was the existence of a market with a large number of built and long-time inhabited modern wood-based family houses. For this reason, the authors carried out marketing satisfaction survey. The aim was to gather information about users of the houses, about the houses themselves, and about the experience of living in these houses.

A similar marketing study of users of wood-based buildings was carried out in Germany (Gold, Rubik, 2009) and in Finland (Kankare, 2013).

The aim of this paper is to present the results of one part of marketing research focused on characteristics of persons who buy and use/live in wood-based buildings in the Czech Republic. Characteristics of these persons are conceived in terms of marketing characteristics of customers – users of wood-based buildings. The survey results cover the following parameters:

1) age of persons using the buildings in the time of the buildings' approbation,
2) ownership of buildings (one or more persons),
3) education of persons using the buildings,
4) sector of working activities of persons using the buildings,
5) profession,
6) type of previous housing,
7) category of municipality of the previous housing (classification based on number of population).

The work's goal is to create profile of a "common user" of a wood-based house. The marketing research will help companies in the woodworking and construction sector to increase their sales. Customers – users of wood-based buildings will benefit from the marketing research by an increased satisfaction with their housing and a higher comfort of living in these buildings.

MATERIALS AND METHODS

The marketing research of satisfaction of users of wood-based houses was conceived as an extensive multi-year project realised in the years 2012–2014. Its first phase consisted in of the first version of the questionnaire. The questionnaire was compiled on the basis of the domestic and foreign literature. The authors (e.g. Kozel *et al.*, 2008; Bradley, 2010) used modern methods of marketing research and tested the questionnaire on a sample of 20 persons ("pretesting"). On the basis of opinions and experiences of these respondents, the authors modified the questions' wording and the way of entering answers and created the second – tested version of the questionnaire, which was used in all regions of the Czech Republic.

The questionnaire included a total of 25 questions that were divided into four groups:

- The first six questions addressed characteristics of users of buildings, i.e. information about persons who bought and have been living in wood-based houses.
- The second group consisting of eight questions aimed at technical parameters of the wood-based houses, i.e. the technical and technological parameters and the way of the buildings' acquisition.
- The third group contained only three questions that were aimed at motivations and profiling of interest when deciding on the purchase of a wood-based building. These questions identify the circumstances of emergence of interest in wood-based constructions and ideas, opinions, and expectations associated with the construction.
- The last group of eight questions addressed practical experience, opinions, and customer satisfaction with wood-based buildings after a certain period of use.

As regards methodology, it was applied market segmentation – division of the varied market into smaller homogenous groups according to demographic (age, education, sex, occupation, type of previous housing) and geographic (size of previous housing municipality, building of wood-based house in the respective region) criteria.

Except one question, the questions included in the first group were closed, i. e. each question had only several possible answers and the respondents had to choose one of them.

Question 1) age of users at the time of the building's approbation; possible answers: 18–25 years, 26–35 years, 36–50 years, 51–65 years, 66 years or more.

Question 2) The building is owned; possible answers: by individual, by couple.

Question 3) Educational attainment of persons using the building; possible answers: primary education, secondary school, secondary school with graduation, university education.

Question 4) consisted of two parameters. The first parameter was the sector of work; possible answers: own business, employment in the private sector, employment in the public sector. The second parameter was the field of work; respondents indicated the specific fields of their professions. Within the further processing the professions were grouped into basic branches of the national economy.

Question 5) Type of previous housing; possible answers: panel flat, brick flat, brick house, wood-based house, other.

Question 6) Size of municipality of previous housing; possible answers: municipality with less than 1,000 inhabitants, municipality with 1,001–5,000 inhabitants, municipality with 5,001–20,000 inhabitants, municipality with 20,001–50,000 inhabitants, municipality with 50,001–100,000 inhabitants, municipality with 100,001–400,000 inhabitants, Prague.

In cases where the building was occupied by a couple, questions 1, 3, 4, 5 and 6 were answered by each of the two persons separately. Question 2 was answered by both users together.

The scope of the marketing research was set to 1,000 Czech households that inhabit a wood-based house built between 1996 and 2014. The houses completed before 1995 were not included in the survey due to the potential use of older construction technologies. Methodologically the extent of the studied file was determined as ca 8% share of the studied households out of the total assumption of 12,500 finalized wood-based family houses in this period; taking into account the size sample of 1,000 households, in terms of statistics this sample is considered as adequately representative for the purposes of this investigation.

The questionnaires were processed and evaluated for each region of the Czech Republic separately. The authors plan to compare individual regions between themselves in the future and it is also possible to perform a joint assessment of the whole Czech Republic. 40–100 questionnaires were distributed in each region (one questionnaire per household). Wood-based buildings were selected randomly in order to achieve the desired objectivity and statistical representativeness. First we carried out a random selection of 6 to 10 municipalities according to their sizes; the municipalities were situated on a certain transect across the respective region. Walking through regional cities, medium-sized towns to small villages we made random selections of appropriate wooden construction. In case sufficient numbers of suitable buildings were not found in these municipalities, we added other communities of similar sizes.

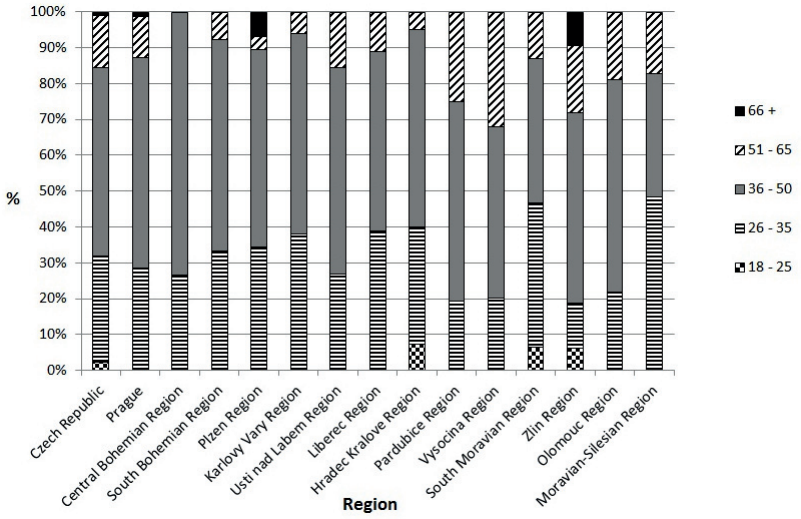
The number of wooden constructions in individual municipalities included into the investigation was determined in such a way that the sizes and numbers of selected constructions in the chosen municipalities were representative of the community size categories and the share of inhabitants of the respective region living in them. Using a map we prepared a route, which always included all of the selected municipalities of the respective region. We travelled into these communities by a car and identified wooden constructions either visually or by questioning the local inhabitants. We achieved the highest rate of success in the new residential zones of the municipalities. The structure of the studied assemblage relied on the method of a completely random selection, only with respect to proportional representation of buildings according to the sizes of the selected communities. The probability for a unit to be chosen for the assemblage was 8%.

The survey was performed gradually in the individual regions; each region was prepared, processed and assessed individually. Within the Czech Republic we proceeded geographically from southeast to northwest, processing Moravia first, Bohemia after that. In each region data acquisition and filling of questionnaires took 3 to 5 days within one scheduled week, always with one person as interrogator. Summer months – July and August – were chosen for data acquisition because of a higher probability of finding the users of family houses in. The prevailing manner of contacting respondents were personal visits with subsequent personal filling of the questionnaire and a possible consultation and specification of the individual questions. To a lesser extent (ca 25%) we left the questionnaire in a post box or handed it to the respondents in person to fill it in later on and send back by mail. An interview with the users of each family house took ca 15 to 20 minutes; in cases of couples the two persons had to agree upon their joint answers. In the straight majority of cases the approach of the users of houses to the completion of our questionnaires was accommodating and co-operative. Therefore, the main method used in the marketing research was the standardised interview. Interview is a technique for collecting primary data. The information is obtained from the respondents through targeted questions that are asked personally (Meuser, Nagel, 1991).

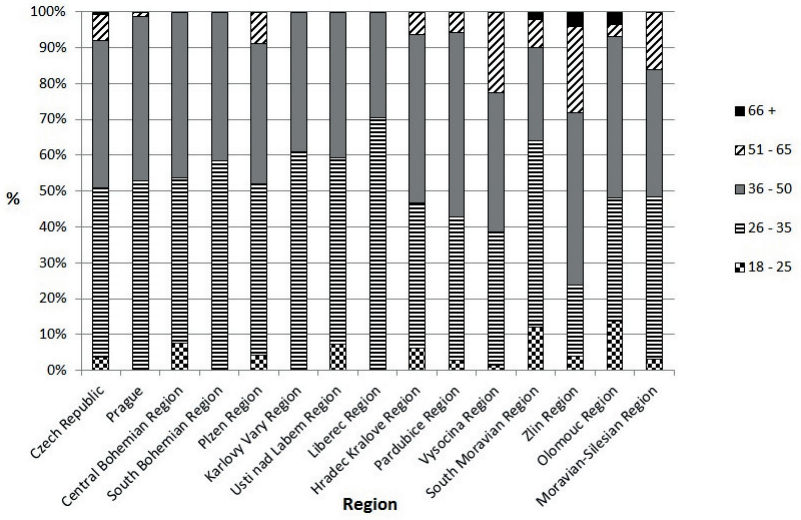
Processing of the data acquired from our questionnaires started from re-recording into a common table, in which we took down the frequencies of the individual types of responses with the individual questions. After this followed statistical evaluation in either absolute or percentage rate parameter of every possible response to all questions, both separately for the individual regions and in total for the Czech Republic. The results obtained this way were processed into the form of suitably selected types of graphs. The Microsoft Office Excel programme was applied for mathematical, statistical, and graphical processing of the results. Realistically possible scope of the studied file, which was however determined within adequate statistical representativeness, was the temporal, technical, and financial limit of the research.

RESULTS

This part of the paper includes presentation of results of the first part of marketing research. In total, there are 11 annotated figures. The results for



1: *Age of men at the time of approbation of the building*



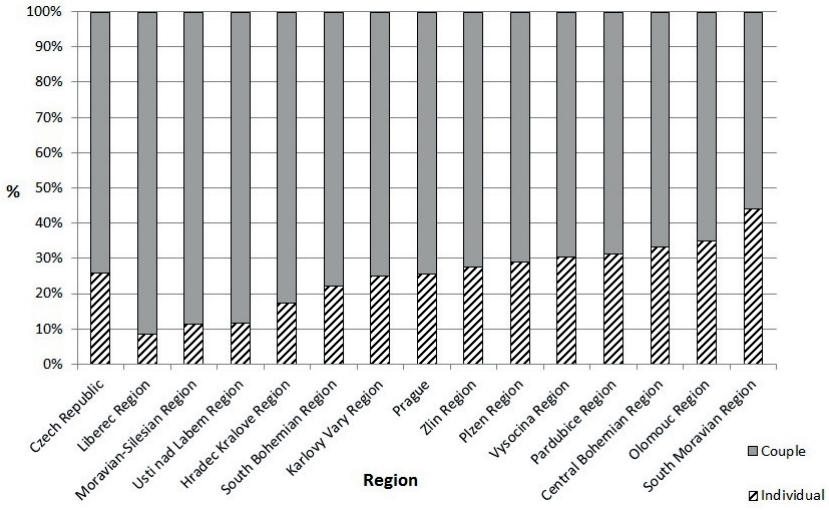
2: *Age of women at the time of approbation of the building*

individual regions were compared with the national average values.

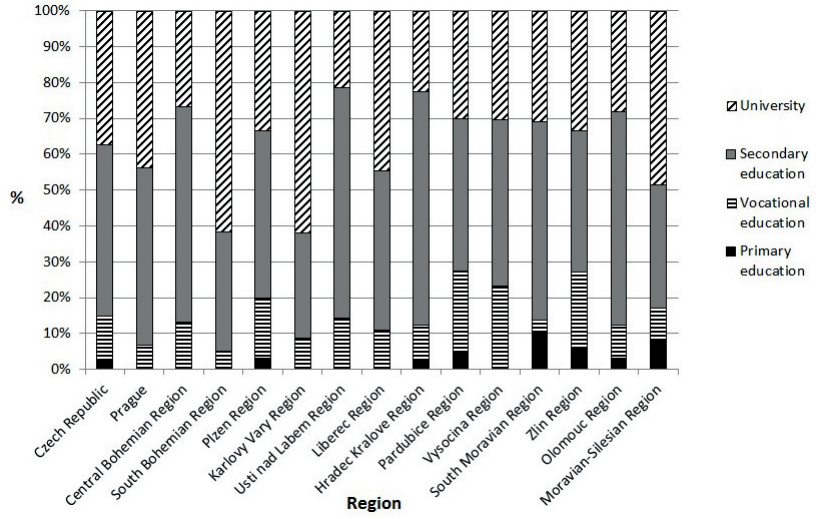
Figs. 1 and 2 show the ratio of age categories of men and women at the time of the buildings' approbation.

The age structure of men at the time of the building's approbation was similar in individual regions of the Czech Republic. The highest percentage had the age category of 36–50 years (on average 52.3%, values in individual regions ranged from 34.3% to 73.3%). The second highest percentage had the age category of 26–35 years (on average 29.8%, values in individual regions ranged from 12.5% to 48.6%). The third highest percentage had the age category of 51–65 years (on average 14.5%, values in individual regions ranged from 0.0% to 31.9%). The age category of 18–25 years had on average 2.3%, these respondents were only in the Hradec Králové Region (7.5%), South Moravian Region (6.5%) and the Zlín Region (6.3%). The least represented category were the respondents with 66 years and more – here belonged on average 1.1% of men, the category was represented only in the Plzeň Region (6.9%), Zlín Region (6.4%), and Prague (1.2%). The largest deviation from the nationwide average values had the Central Bohemian Region, where was significantly represented the age category of 36–50 years (73.3%) and the Moravian-Silesian Region, where was, on the other hand, strongly represented the age category of 26–35 years (48.6%). The highest share of respondents in the age category of 51–65 years was in the Vysočina Region (31.9%). There is a noticeable influence of economic activity (Central Bohemian Region) or larger numbers of younger age groups (Moravian-Silesian Region).

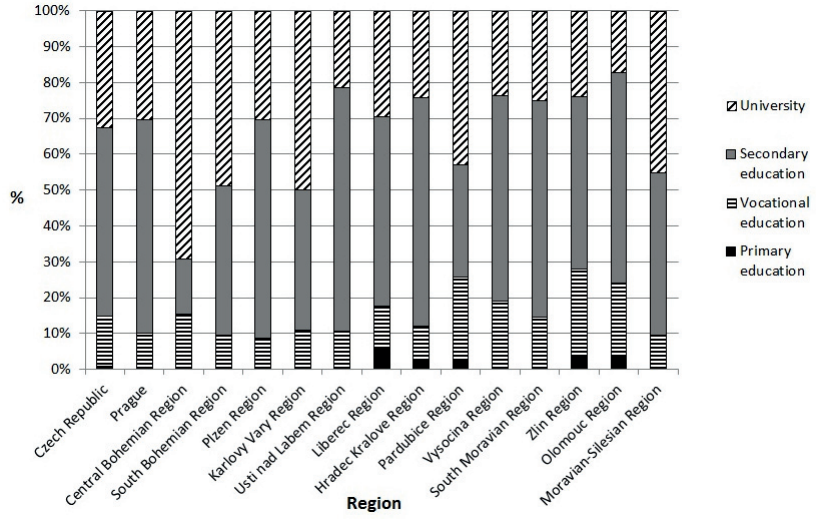
Similarly like men, the age structure of women at the time of the building's approbation was similar in individual regions of the Czech Republic. Compared to men, the highest percentage had the age category of 26–35 years (on average



3: *Ownership of wood-based buildings*



4: *Highest educational attainment of men owning a wood-based building*



5: *Highest educational attainment of women owning a wood-based building*

47.2%, values in individual regions ranged from 20.0% to 70.6%). The second highest percentage had the age category of 36–50 years (on average 41.0%, values in individual regions ranged from 26.0% to 51.4%). The third highest percentage had the age category of 51–65 years (on average 7.4%, values in individual regions ranged from 0.0% to 24.0%). The age category of 18–25 had the average percentage of 3.9%, the values in individual regions ranged from 0.0% to 13.8%. The least represented category were the respondents with 66 years and more – here belonged on average 0.9% of women, the category was represented only in the Zlín Region (4.0%), Olomouc Region (3.5%), and South Bohemian Region (2.0%). The largest deviation from nationwide average values had the regions with a higher share of respondents in the category of 36–50 years than in the category of 26–35 years (the values for the category of 36–50 years were 51.4% in the Pardubice Region, 46.9% in the Hradec Králové Region, 44.9% in the Olomouc Region, and 48.0% in the Zlín Region). The highest shares of respondents in the age category of 51–65 years were in the Zlín Region (24.0%), Vysočina Region (22.4%), and the Moravian-Silesian Region (16.1%).

Fig. 3 shows the proportion in which the buildings were owned by an individual or a couple.

On the national average, 26.0% of wood-based buildings were owned by individuals – a man or a woman – and the rest was jointly owned by two people. The regional percentage of individual ownership ranged from 8.6% in the Liberec Region to 44.12% in the South Moravian Region. In the Liberec Region, Moravian-Silesian Region, and Ústí nad Labem Region, the ratio of individual ownership of wood-based buildings was relatively low, while in the South Moravian region the ratio was above the average. In other regions this parameter was close to the national average. Substantiation of these different values would require a detailed socio-economic study of its own.

The next two pictures show the educational attainment of respondents owning a wood-based building (men – Fig. 4, women – Fig. 5).

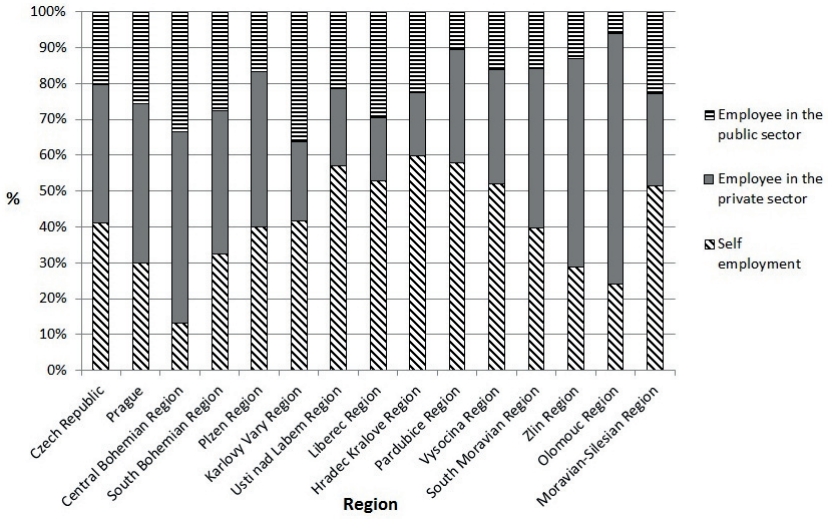
The most frequent highest educational attainment of men owning a wood-based building was the secondary school education with graduation (47.8%), values in individual regions ranged from 29.4% to 65.0%. In the second position were university graduates with (the average of 37.2%), where the values in individual regions ranged from 21.4% to 61.8%. In the third position were secondary school graduates (programmes without graduation) with the average value of 12.0%, the values in individual regions ranged from 3.1% to 23.2%. The least frequent highest educational attainment was the primary education (the average of 3.0%), where the values in individual regions ranged from 0.0% to 10.8%. The proportions of individual categories were similar in individual regions, deviations were identified only in the South Bohemian Region, Karlovy Vary Region, and Moravian-Silesian Region, where the university education was more frequent than the secondary education with graduation. Another deviation was found in the South Moravian Region, where the wood-based buildings were owned by significantly more men with the primary education than with the secondary education.

The most frequent highest educational attainment of women owning a wood-based building was usually the high school education with graduation (52.5%), values in individual regions ranged from 15.4% to 67.9%. In the second position were university graduates with (the average of 32.6%), where the values in individual regions ranged significantly from 17.2% to 69.2%. In the third position were high school graduates (programmes without graduation) with the average value of 14.0%, the values in individual regions ranged from 8.7% to 24.0%. The least frequent educational attainment was the primary education (the average of 1.0%), the values of which in individual regions ranged from 0.0% to 5.9%. The proportions of individual categories were similar in individual regions, deviations were identified only in the Central Bohemian Region, Karlovy Vary Region, South Bohemian Region, and Pardubice Region, where the university education was more frequent than the secondary education with graduation.

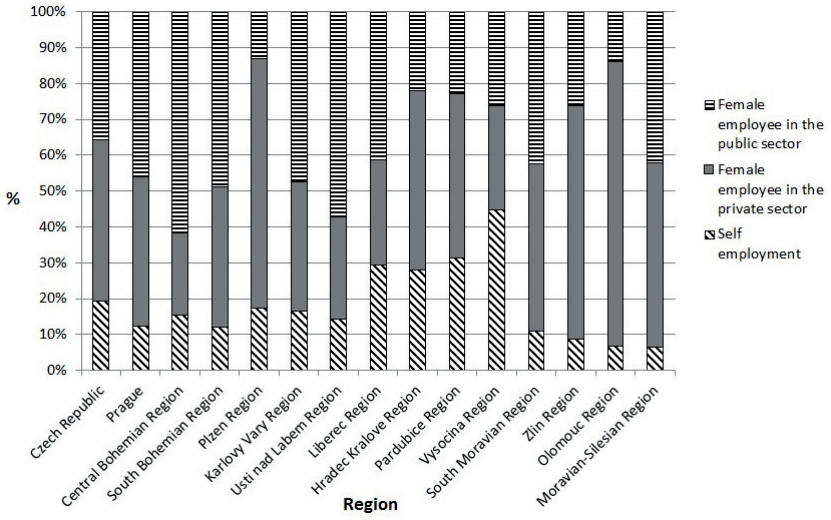
The respondents' sectors of employment are shown in Fig. 6 (men) and Fig. 7 (women).

The most frequent sector of employment of men owning a wood-based building (the national average) was own business with the value of 41.3%, values in individual regions ranged significantly from 13.3% to 60.0%. The second most frequent sector of employment with the average of 38.6% was employment relationship in the private sector, the individual regions ranged significantly from 17.5% to 69.7%. The least frequent sector of employment was employment relationship in the public sector (the average of 20.2%), where the values in individual regions ranged from 6.1% to 36.1%. The survey showed that in the Hradec Králové Region, Pardubice Region, Ústí nad Labem Region, Liberec Region, Moravian-Silesian Region, Karlovy Vary Region and Vysočina Region the prevalent sector of men's employment was own business, while in the Olomouc Region, Plzeň Region, Central Bohemian Region, South Bohemian Region, and Prague prevailed employment in the private sector. With respect to this parameter, there were significant deviations between individual regions. There is a noticeable influence of big private companies in certain regions that raise the proportion of employed men over self-employed entrepreneurs.

The most frequent sector of employment of women owning a wood-based building (the national average) was employment relationship in the private sector with the value of 45.1%, values in individual regions also ranged significantly from 23.1% to 79.3%. The second most frequent sector of employment with the average of 35.6% was



6: *Sector of employment of men owning a wood-based building*

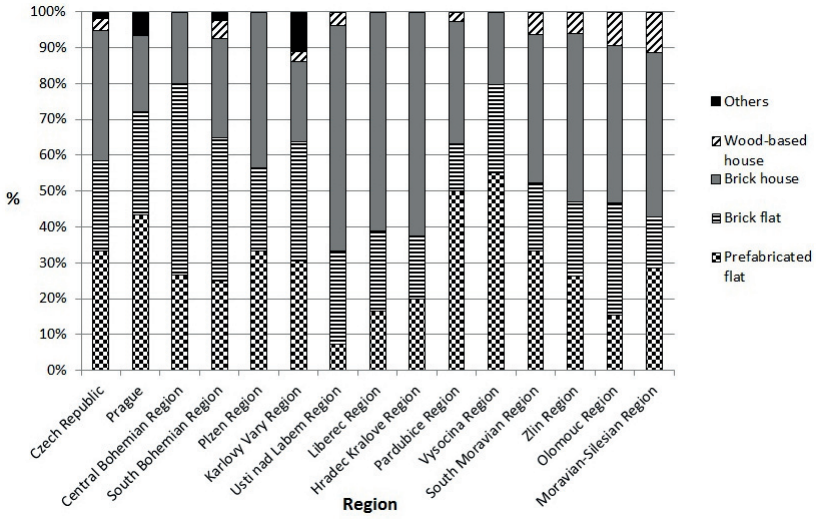


7: *Sector of employment of women owning a wood-based building*

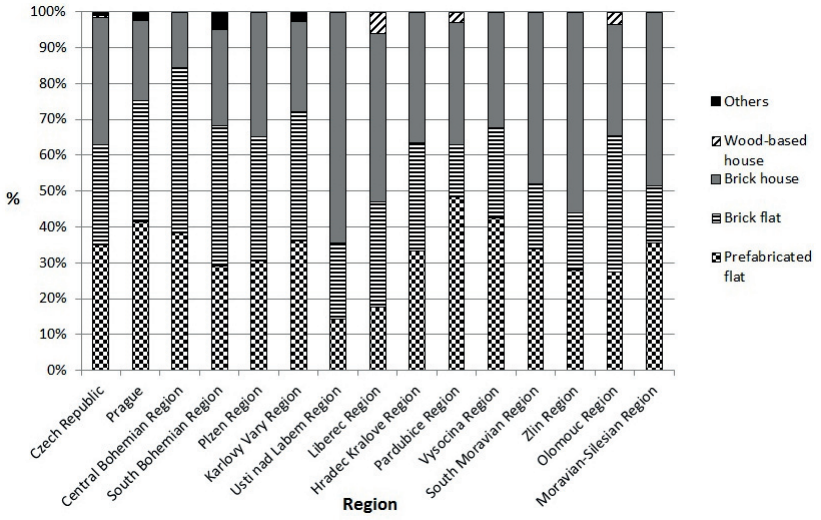
employment relationship in the public sector, also here the individual regions ranged significantly from 13.0% to 61.5%. The least frequent sector of employment was own business (the average of 19.3%), the values in individual regions ranged from 6.5% to 45.0%. In the Vysočina Region clearly prevailed women running their own business; in the Olomouc Region, Plzeň Region, Zlín Region and Moravian-Silesian Region prevailed employees in the private sector and in the Central Bohemian Region, Ústí nad Labem Region, and Liberec Region employees in the public sector. With respect to this parameter, there were significant deviations between individual regions. In the regions with greater opportunities for working in the public sector (big cities) or with a lower economic activity women naturally work more often in the public sector than in the private one.

Another surveyed area was the previous type of housing. Fig. 8 shows results for men owning a wood-based building. Fig. 9 shows results for women.

The most frequent type of previous housing of men owning a wood-based building was brick family house (36.3%), values in individual regions ranged significantly from 20.3% to 63.0%. The second most frequent type was panel flat (33.3%), the range between individual regions was also significant from 7.4% to 55.1%. In the third position was brick flat with the average value of 25.2%, the values in individual regions also ranged significantly from 13.2% to 53.3%. In fourth place was wood-based building with the average value of 3.2%, values in individual regions ranged from 0.0% to 11.43% (in the Moravian-Silesian Region prevailed the OKÁL Rýmařov type). In the Vysočina Region, Prague, and in the Pardubice region prevailed panel flats. In the Central Bohemian Region, South Bohemia Region, and Karlovy Vary Region prevailed brick flats. In the Zlín Region, Liberec Region, and



8: *Type of previous housing of men owning a wood-based building*



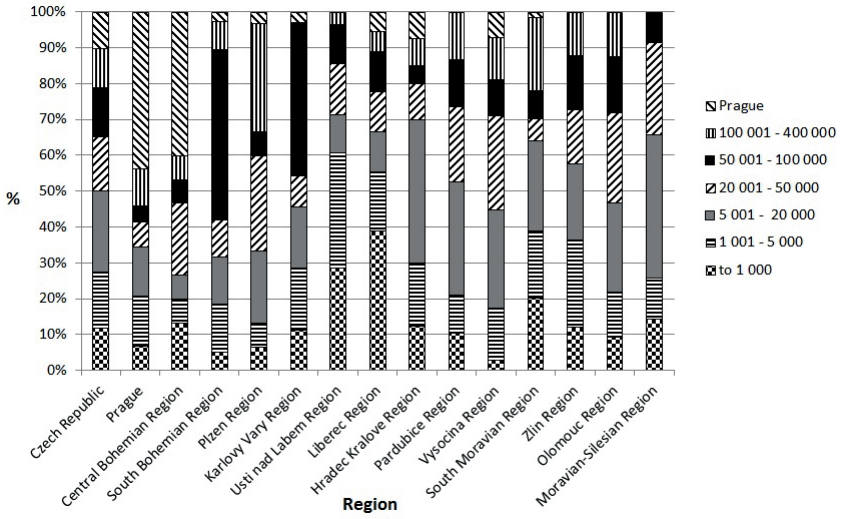
9: *Type of previous housing of women owning a wood-based building*

Hradec Králové Region prevailed brick family houses. Because of specific regional differences between the individual regions there are relatively distinct deviations in this parameter (probably due to the prevailing type of housing up to now), and relations to other socio-economic parameters cannot be found out.

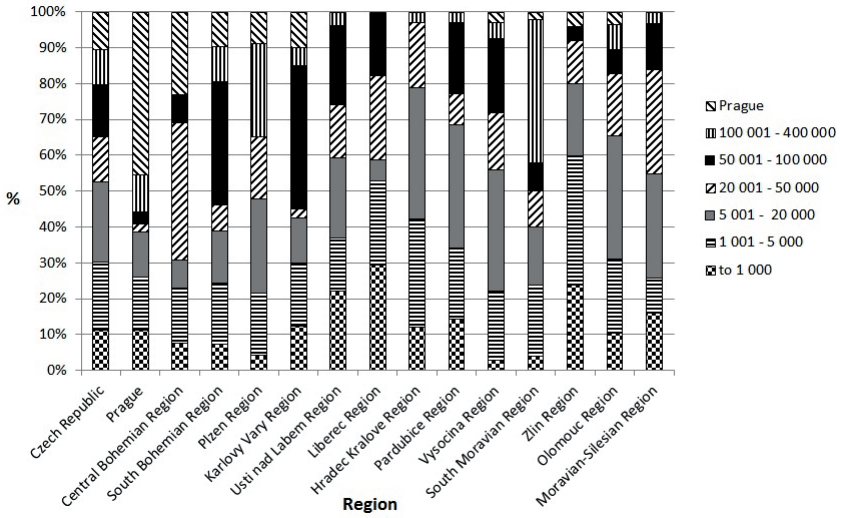
The most frequent type of previous housing of women owning a wood-based building was brick family house (35.5%), values in individual regions ranged significantly from 15.4% to 64.3%. The second most frequent type was panel flat (35.0%), the range between individual regions was also significant from 14.3% to 48.6%. In the third position was brick flat with the average value of 28.0%, the values in individual regions ranged from 14.3% to 46.2%. In the fourth position were wood-based buildings with the average value of 0.6%, the values in individual regions ranged from 0.0% to 5.9%. In the Pardubice Region, Vysočina Region, and Prague dominated panel flats. In the Central Bohemian Region, South Bohemia Region, and Olomouc Region prevailed brick flats. In the Ústí nad Labem Region, Zlín Region, Moravian-Silesian Region, and Liberec Region prevailed brick family houses. Because of specific regional differences between the individual regions there are also relatively distinct deviations in this parameter (probably due to the prevailing type of housing up to now), and same as with men relations to other socio-economic parameters cannot be found out.

The last surveyed area was the size of municipality of the previous housing. Fig. 10 shows results for men owning a wood-based building, Fig. 11 shows results for women.

The most frequent size category of municipality of the previous housing of men owning a wood-based building was 5,001–20,000 inhabitants (22.6%), the second were municipalities with 1,001–5,000 inhabitants (15.5%), then municipalities



10: *Size of municipality of previous housing of men owning a wood-based building*



11: *Size of municipality of previous housing of women owning a wood-based building*

with 20,001–50,000 inhabitants (15.3%), 50,001–100,000 inhabitants (13.7%), municipalities with less than 1,000 inhabitants (10.9%), and finally Prague (10.1%). As for this parameter, however, there were so significant regional differences that the arithmetic average of all regions has only a very limited explanatory power. Here it was necessary to evaluate each region separately. The Central Bohemian Region and Prague had the highest share of former inhabitants of Prague. The Plzeň Region and the South Moravian Region had the highest share of former inhabitants of towns with 100,001 to 400,000 inhabitants (i.e. the respective regional capitals). The South Bohemian Region and the Karlovy Vary Region had the highest share of former inhabitants of municipalities with 50,001 to 100,000 inhabitants (i.e. also the relevant regional capitals); the Moravian-Silesian Region and the Hradec Králové Region had the highest share of former inhabitants of municipalities with 5,001 to 20,000 inhabitants; the Ústí nad Labem Region had the share of former inhabitants of municipalities with 1,001 to 5,000 inhabitants; the Liberec Region had the highest share of former inhabitants of municipalities with less than 1,000 inhabitants. Therefore, wooden constructions are more often purchased by men from big cities than from small municipalities, and with building of such house these men move into smaller municipalities at the same time. In north Bohemia with cheaper land there is an opposite trend.

The most frequent size category of municipality of the previous housing of women owning a wood-based building was 5,001–20,000 inhabitants (22.3%), the second were municipalities with 1,001–5,000 inhabitants (19.2%), then municipalities with 50,001–100,000 inhabitants (14.5%), 20,001–50,000 inhabitants (12.6%), Prague (10.5%), and finally municipalities with 100,001–400,000 inhabitants (9.7%). There were also quite substantial

regional differences between individual regions, so the arithmetic average of all regions is have also a very low explanatory power. Here it was necessary to evaluate each region separately. Prague had the highest share of women that previously lived in Prague. The South Moravian Region and the Plzeň Region had the highest share of former inhabitants of towns with 100,001 to 400,000 inhabitants (i.e. the respective regional capitals). The South Bohemian Region had the highest share of former inhabitants of towns with 50,001 to 100,000 inhabitants (i.e. also the respective regional capitals). The Central Bohemian Region had the highest share of former inhabitants of municipalities with 20,001 to 50,000 inhabitants. The Hradec Králové Region, the Olomouc Region, and the Vysočina Region had the highest share of former inhabitants of municipalities with 5,001 to 20,000 inhabitants; the Zlín Region then had the highest share of former inhabitants of municipalities with 1,001 to 5,000 inhabitants. The Liberec Region had the largest share of former inhabitants of municipalities with less than 1,000 inhabitants. Most often wood-based structures are also purchased by women from Prague and big regional cities; these women move to smaller municipalities. Contrariwise, in some regions, where housing opportunities are not so expensive, building of a house is tied to moving into bigger municipalities. Regarding the values for men and women, this parameter was similar across the Czech Republic.

DISCUSSION

According to the available literature, there was yet no similar survey related to wood-based buildings or buildings built of other materials performed in the Czech Republic.

Foreign publications include information on similar surveys of wood-based buildings; however, these surveys were methodically differently.

In Germany was conducted an analysis focused on consumers' views on living in wood-based houses (Gold, Rubik, 2009). This survey was based on typology of a representative sample of the German population. It addressed views on: general social issues, the environment, wood, forestry, wood as a building material, and wood-frame-based houses. The results of the survey were eight types of consumers classified by their views on these issues, specific information about the consumers' past, their socio-demographic characteristics, and their expected behaviour on the construction market. Four basic types of consumers representing 47% of the population can be considered as promising target groups for marketing campaigns promoting wood-based houses.

Finnish researchers conducted a questionnaire survey the aim of which was to identify the socio-economic parameters of users of wood-based houses. Identification of such parameters would enable creation of groups of customers with similar demands for housing. The result of the survey was four basic groups of customers distinguished by their houses' life cycle, requirements for recreational activities, and financial situation. For more details see Gibler, Tyvimaa (2014).

In August 2010, American experts carried out a questionnaire survey in order to find the percentage of the people with lower, middle, upper middle, and high incomes that were able to buy and maintain a wood-based house. More information in NAHB Research Center – National Association of Home Builders (2010).

A survey aimed at the population's willingness to pay more for living in a wood-based house compared to a traditional brick house was carried out in Israel. For more details see Horsky, Varsno (2013).

Romanian researchers realised a questionnaire and interview-based study (Schauerte, 2013) the aim of which was to identify preferences of different groups of users of wood-based buildings. Based on these preferences were created attributes that multi-storey wood-based buildings should have.

The parameters of housing in wood-based buildings preferred by different groups of customers were addressed in detail by Wang, Chen (2014).

In Finland was published a student thesis based on a survey among middle-class population in the Leningrad region which dealt with the local insufficient demand for wood-based houses. These results were compared with information in the annual reports of the Finnish and Russian woodworking associations. For more details see Kankare (2013).

Since there has been no similar survey performed in the Czech Republic and even the foreign literature does address detailed characteristics of users (typical customers) of wood-based family houses, this part of the paper brings the essential information that arose from this survey. For the time being it is impossible to compare these outcomes directly with other publications.

Comparison according to the methodological approaches applied: The study published in Germany (Gold, Rubik, 2009) employs a user typology as per mere opinions and attitudes of persons towards the above topics; on the other hand a questionnaire survey in Finland (Gibler, Tyvimaa, 2014) was targeted at forming groups of customers with similar housing demands; a survey in the Unites States of America (NAHB Research Center – National Association of Home Builders, 2010) examined availability of wood-based buildings according to income levels, and an article (Horsky, Varsno, 2013) determined the willingness of the inhabitants in Israel to pay more money for this type of construction than for a brick house. All of these are the thematically closest works in terms of methodology and objective setting that were published up to now. The methodology of this work, however, builds on a different, so far unpublished segmentation of the wooden construction market

according to age, education, sex, sector and line of employment, type and size of municipality of the previous housing. This is why we are only able to contrast various methods employed in the individual published works dealing with these issues, without making a direct comparison of their outcomes.

The comparison of age categories suggests that compared to men, women owning a wood-based building are significantly younger – the most numerous age category was 26–35 years (for men it was the category of 36–50 years). In the age category of 18–25 years there were by 1.6% more women than men; in the age category of 26–35 years there were by 17.4% more women than men, and in the age category of 36–50 years, on the contrary, there were by 7.1% more men than women; in the categories of 51–65 years and 66 years and more, the number of women is about half the size of the number of men. In terms of ownership structure of wood-based buildings, most of the buildings in the Czech Republic (and in all regions) are owned by two people. The highest share of individually-owned wood-based buildings was in the South Moravian Region. The prevailing educational attainment of owners of wood-based buildings, both of men and women, is the secondary and university education. The nationwide average differences between men and women in this parameter are minimal, men have a 4.6% higher percentage of university education, women, on the other hand, have a 4.7% higher percentage of secondary education with graduation. On average, women have a 1.9% higher share of secondary education without graduation; men have a 2.0% share of the category of basic education.

The largest deviations from the average, both among men and women, were found in the area of employment. The nationwide average differences consist especially in the fact that most men owning a wood-based house have their own business, and then there are employees in the private sector and then employees in the public sector. As for women owning a wood-based house, most of them are employees in the private sector, and then there are employees in the public sector and then women owning their own business.

The most frequent professional field of men is the construction industry, and then it is engineering and financial services. Then it was services, crafts, and information technology. The most frequent professional field of women is education, then state administration and health services. Then it was services, administration, and trade.

As for the previous type of housing, the average nationwide differences between men and women are only minimal. Both groups most often moved from a brick house, in second place is panel flat (the difference between family brick houses and panel flats is 3.0% for men and only 0.6% for women), in the third place is brick flat (percentages of men and women were approximately the same in each category). The difference is only in wood-based buildings, which was selected as the previous housing by on average 3.2% of men and 0.6% of women. Differences between individual regions were also caused by regional specifics. The size of municipality of the previous housing mostly depends on the region where the respondent previously lived. Average nationwide differences between men and women are small; there is by 3.7% more women in the category of municipalities with 1,001–5,000 inhabitants, and, on the other hand, by 2.7% more men in the category of municipalities with 20,001–50,000 inhabitants. Differences in other categories are lower than 1%.

CONCLUSION

The aim of this paper is to present the results of one part of marketing research focused on characteristics of the people who buy wood-based buildings in the Czech Republic. The marketing research showed that the typical (majority) customer buying a wood-based building in the Czech Republic is a pair of man and woman. The man is 36–50 years old and has a secondary education with graduation (or university education). He runs his own business or works as an employee in the private sector – mostly as a builder, engineer, or provider of financial services. He moved from a brick house or a panel flat, usually from a municipality with 5,001–20,000 inhabitants. The woman is 26–36 years old and has a secondary education with graduation (or university education). She works as an employee in the private, or public sector – mostly in education, public administration, or health services. She moved from a brick house or a panel flat, usually from a municipality with 5,001–20,000 inhabitants. A scientific merit of this article is also the use of a new way of processing of wood-based houses users' character profile through a unified questionnaire, which, in its first part, deals with ascertaining of selected parameters of marketing importance in the users of these houses. A survey conceived this way shifts the hitherto perspective and opens new options for the use of marketing as a scientific discipline aimed at an increase in sales of these structures in the Czech Republic. Processing of concrete parameters of wood-based houses users' characteristics that can be utilised for marketing enables a more effective recognition, addressing, and recruitment of the customers and the consequent users of these buildings. In contrast to the works by Gold, Rubik (2009); Gibler, Tyvimaa (2014); NAHB Research Center – National Association of Home Builders (2010) and Horsky, Varsno (2013) it is exactly the age, education, sex, type of ownership, sector and line of employment, type and

size of municipality of the previous housing that form the recommended decisive parameters of the characteristics of the users for marketing of wooden constructions.

The practical benefit of this work for construction companies rests mainly in the possibility of starting to work themselves with the set segmentation of the market, addressing the potential customers of wooden constructions. Together with the utilisation of the outcomes of this work their marketing activities relating to the success of these products can be more focused, cheaper, and more effective. Within the construction sector interest in the results of this work is exceptionally intense; this is indicative of the importance of this topic, the call for its solution and publication of the research dealing with these issues.

The results of this work verified the original hypothesis that the wood-based houses custom ensue mainly from the views and experience acquired with the modern wooden constructions built after 1995; the influence of the generally disseminated marketing, promotion, and advertising of these construction technologies can be observed as well. The survey proved that the group of users of wood-based family houses is not markedly different from a regular sample of population, who purchase their dwellings. Wood-based buildings are not purchased by some specific categories of the population (e.g. distinguished by their sector of employment, field of profession, education, type of previous housing, etc.), but that these buildings are demanded by the whole spectrum of people interested in living in their own houses. The most common field of profession of men using a wood-based building is the construction industry, which also confirms the preference and recognition of quality and other advantages of these buildings directly by the construction industry professionals.

This proves that the sharply rising popularity of wood-based buildings that we could have seen in the previous ten years is a stable and population-wide trend. Continuation and a further increase of popularity of wood-based buildings may help to protect the environment and conserve non-renewable sources of raw materials and energy in the future.

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