



POTENTIALS OF MASS CUSTOMIZATION ON FURNITURE MARKET OF VOJVODINA

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Abstract: In this paper a research of furniture market of Vojvodina province (Serbia) is presented. The main goal was to establish if there is a market for customized furniture and what kind of customization would be welcomed from the customers point of view. For the purposes of research a questionnaire was composed. Results presented in the paper are derived from that questionnaire and presented in tables and diagrams. In the end a sum of conclusions was made on whole topic of research.

Key Words: mass customization, furniture market, panel furniture, Vojvodina province

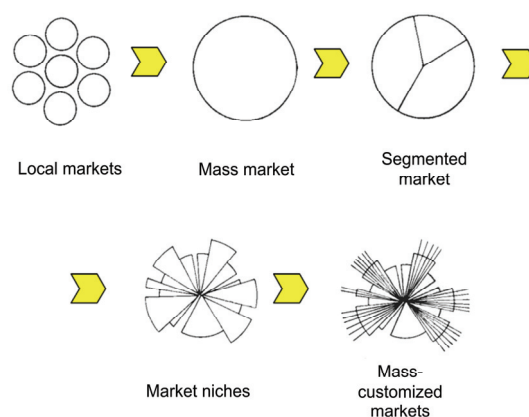


Fig. 2 Market development [4]

1. INTRODUCTION

"New products must be different from what is already in the market and must meet customer needs more completely" says Pine [1], who attributes the increasing attention on product variety and customer demand to the saturation of the market and the need to improve customer satisfaction. Sanderson and Uzumeri [2] state that "The emergence of global markets has fundamentally altered competition as many firms have known it" with the resulting market dynamics "forcing the compression of product development times and expansion of product variety." Global changes in market and product variety can be seen in Fig. 1 and Fig. 2.

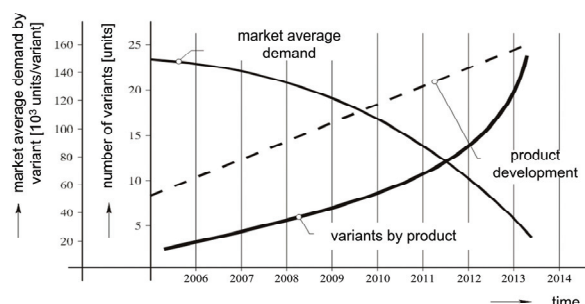


Fig. 1 Average demands of market buy product variant, with parallel rising of number of variants [3]

Customized production is also acknowledged for competitive advantage in developed countries of western world: "While standardised, mass-produced furniture is made more cheaply at similar or better quality in low-cost offshore countries, customized furniture gives producers who are close to customers a sustainable competitive advantage" [5].

The question is: Is there a market for customized products in developing countries? And if there is, do production companies have the ability to produce wide enough palette of products to satisfy the needs of their customers? Are their production structures flexible enough to handle rapid and frequent change of market needs for many variants of products? And at last what are the characteristics, the properties of products whose customization will yield most promising results.

In the light of previously stated, a research of furniture market in province of Vojvodina (Serbia) was conducted during the year of 2010, and the results are presented in remaining of this paper.

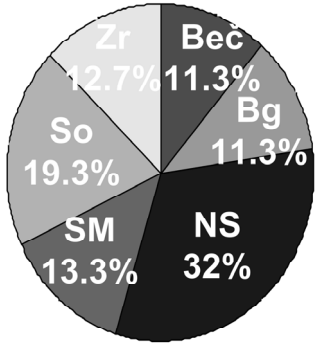
2. THE STRATIFICATION OF SAMPLE

The research presented in the paper is a part and introduction to wider research in the field of production systems in mass customization [6]. The goal of research

was to reveal the potential of furniture market in province of Vojvodina (Serbia), and if the potential exists, to determine what features of furniture would be welcomed for customization from customers point of view in this region.

Five towns in the province were chosen for research sample: Novi Sad, Sombor, Zrenjanin, Sremska Mitrovica and Becej. Smaller number of participants in research came from Belgrade, although the city is not the part of province of Vojvodina, but it is resting on it's southern edge. Allocation of participants (in percents) can be seen in **Table 1**. The towns in which the research was done can be seen on map of Vojvodina region (**Figure 3**).

Table 1. Allocation of participants(in percents)

Label	Town/City	
NS	Novi Sad	
So	Sombor	
Zr	Zrenjanin	
SM	Sremska Mitrovica	
Beč	Becej	
Bg	Beograd	

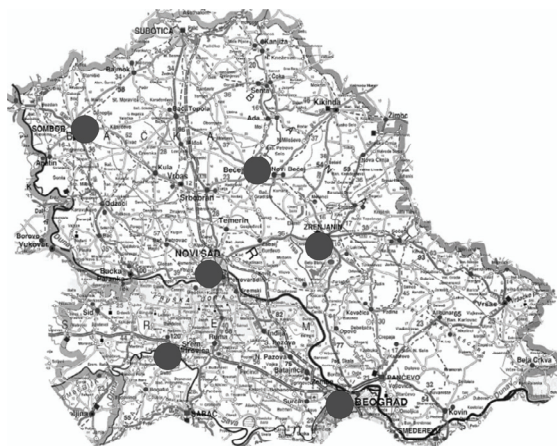
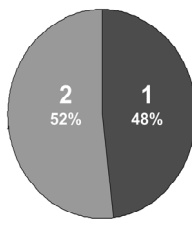
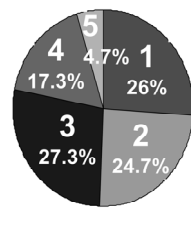
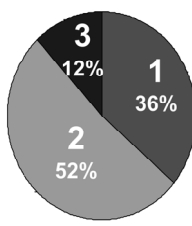
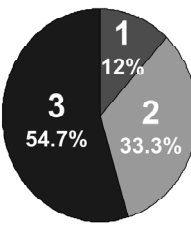


Fig. 1. Towns in Vojvodina in which the research was done

Although the research included towns and cities, the area of towns was also included (**Table 2**) with 12% of participants coming from villages surrounding the towns, and 33% of examinees coming from suburbs, making it 49% all together. If we analyze the profile of participants in questionnaire, male and female participants were equally included, citizens of all ages and generations were represented (**Table 2**).

Table 2. Profile of participants

Gender of participants	Age
	
1 male 2 female	1 up to 30 years 2 from 30 to 40 years 3 from 40 to 50 years 4 from 50 to 60 years 5 over 60 years
Do you live in house or apartment?	Size of settlement you live in?
	
1 apartment 2 house 3 I am renting apartment/house	1 village 2 suburbs or a smaller town 3 large town or a city (over 50 000 inhabitants)


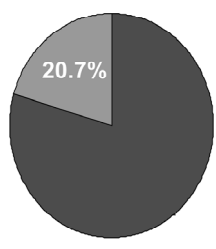
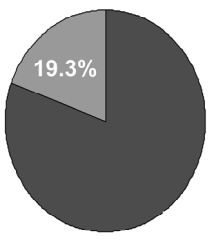
Giving the percentages presented in **Table 1** and **Table 2**, we can conclude that the stratification of sample in the research is good.

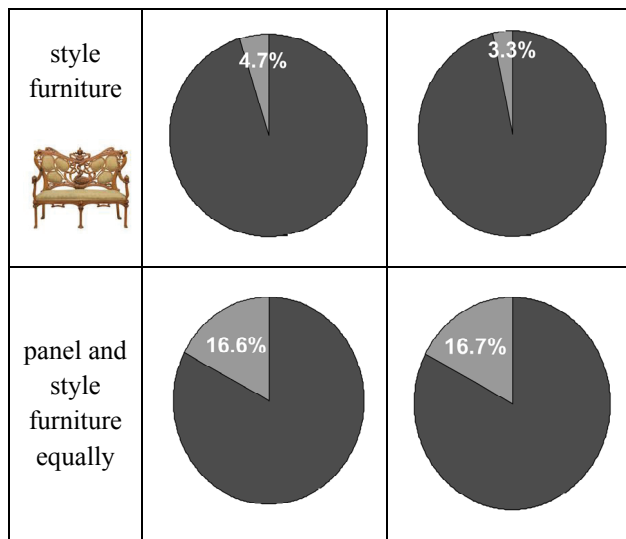
3. ANALYZING THE PREFERENCES OF BUYERS

For the purposes of the research a questionnaire made of 14 questions was composed. Some of the questions are grouped in tables for better presentation of results. The questions were composed with purpose of finding out the preferences of buyers and perspectives of mass customization in furniture industry in Vojvodina region.

The analysis of collected results has shown that 26% of examinees does not plan to buy furniture at all in next two years. The preferences of those who are planing to buy furniture in next two years are given in **Table 3**.

Table 3. Preferences of furniture buyers

I plan to buy:	smaller peaces of furniture	larger peaces of furniture
panel furniture 		



It is necessary to say that examinees could have multiple answers to this question, and that is the reason that sum of percentages in **Table 3** is exceeding 100%, which did not affect overall results. Analyzing the results we come to number of 40% of buyers gravitating to panel furniture, 8% of examinees are buyers of style furniture, and 33,3% of them are buying both types of furniture. These results show that buyers in Vojvodina region are oriented to panel furniture rather than style furniture. The reasons for this fact can probably be found in the economic situation, not only is Serbia, but in whole Balkan region whose countries are still in transition period. This makes panel furniture more acceptable and realistic alternative for Serbian buyer. Research results are far from surprising and researchers expected similar findings.

After preferences of buyers were established a series of questions was asked regarding previous experiences of buyers. The emphasis was on place of purchase, and satisfaction of customers with already bought furniture (**Table 4**).

Table 4. *Experiences with previous purchasing of furniture*

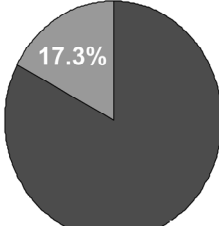
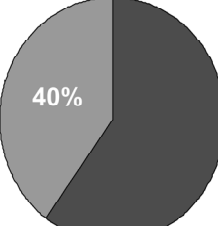
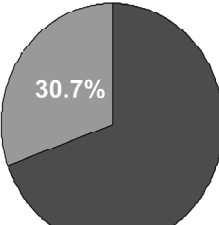
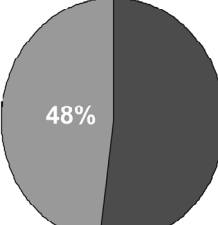
Where did you most frequently buy the furniture?	How often does it happen that offer of standard furniture does not match your needs?
	
<p>1 in furniture stores</p> <p>2 at carpenters, done by exact size</p> <p>3 equally in furniture stores and at carpenters</p> <p>4 nowhere, rarely or something else</p>	<p>1 never, standard furniture always or almost always satisfies my needs</p> <p>2 sometimes it satisfies my needs, and sometimes it does not</p> <p>3 in most cases it does not satisfy my needs</p>

Furniture stores have proven themselves like dominant place for furniture purchase (48,7%), with large number of examinees that bought their furniture equally in stores and at carpenters (36,7%). Frequent comment that this group of buyers had is that they went to carpenters (and pay higher price) when they did not find what they were searching for in furniture stores.

The customers were then asked if the standard furniture offer satisfied their needs. Only 24,7% of them answered that standard furniture always or almost always satisfies their needs, 62,7% said that it sometimes satisfies their needs, and sometimes it does not, and 12,7% said that in most cases it does not satisfy their needs (**Table 4**).

Customers who said that standard offer of furniture sometimes satisfies their needs or in most cases does not satisfy their needs where than asked about the furniture properties that did not meet their needs in past (colour, dimensions, quality and functionality of furniture). The examinees could pick out more than one property from given options (**Table 5**). Dimensions (40%) and functionality of furniture dominate the answers to this question, which leads to conclusion that there is a need for customization.

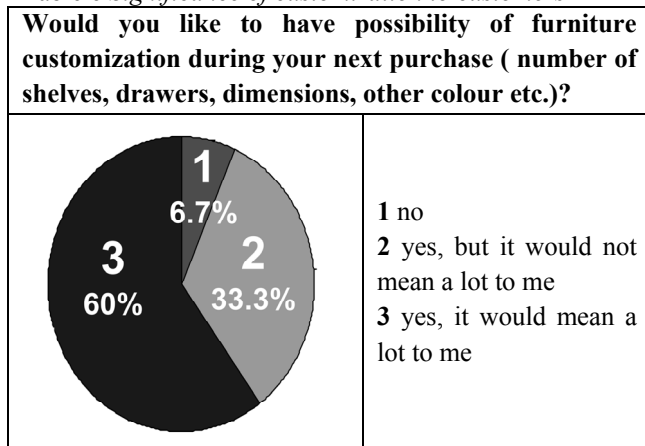
Table 5. *Properties of standard furniture offer that customers marked as inadequate*

Why standard offer of furniture did not meet your needs?	
colour	dimensions
	
quality	functionality of furniture (number of drawers, shelves, way of opening etc.)
	

After the questions that had intention of establishing if there is a need for customization in furniture industry, customers were directly asked if they would like to have option of customizing their furniture in next purchase, and in the end how much would that mean to them personally (**Table 6**). A great majority said yes to

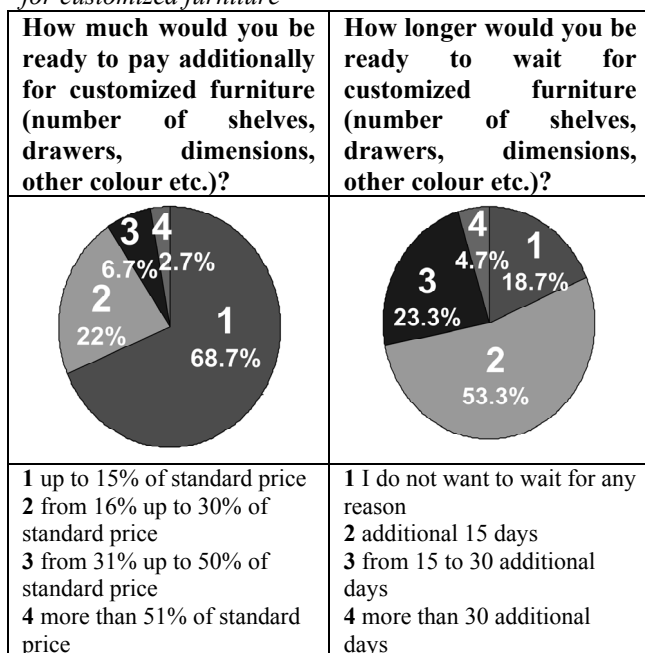
customization (93,3%), 60% of them said that it would mean a lot to them.

Table 6 *Significance of customization to customers*



In many cases customization brings with it higher prices and maybe even longer delivery deadlines in many cases, and question is if the customers are ready for new prices and deadlines. The main part of customers would pay 15% more than standard price (68,7%) and wait additional 15 days for their product (53,3%). But there was also a part of examinees that was ready to pay a lot more and to wait a lot longer to get the product they wanted (Table 7).

Table 7. *Readiness of paying more and waiting longer for customized furniture*

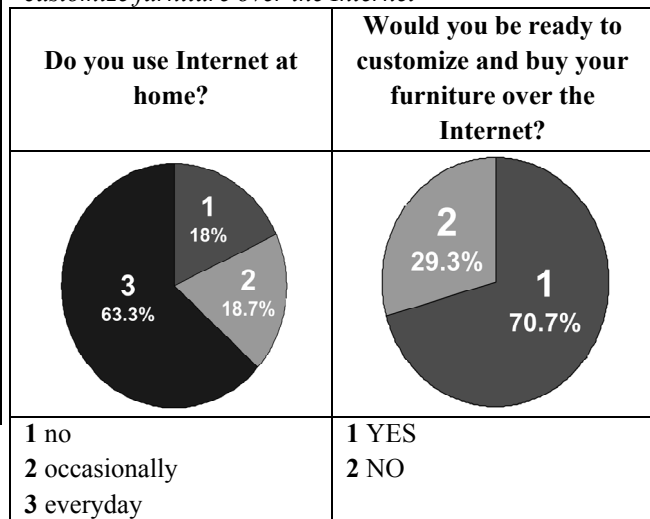


Further more the question is what would customer be ready to pay and what would be the range of customization in actual conditions. Even if the question is not so precise the results are accurate enough to give complete picture of furniture market and customers thinking.

The final part of questionnaire had intention of understanding what is potential of Internet and computers, and could they successfully be used buy

production company in selling furniture using configurator tools (Table 8).

Table 8. *Using Internet in home and readiness to customize furniture over the Internet*



Data gained from these two questions (Table 8) are encouraging. Percentage of potential customers using Internet on everyday basis is 63,3% and percentage of those who are ready to customize and buy furniture over Internet is even bigger (70,7%). Percentage of occasional users of Internet is also considerable (18,7%) and gets the sum of Internet user to 80% all together.

4. CONCLUSIONS

Analyzing the results of given research we come to some conclusions:

- Market of province of Vojvodina is oriented on panel furniture. Potential reasons are probably the economic situation in country and in whole Balkan region. Having this fact on mind we can assume that panel furniture will remain dominant choice of buyers in next period.
- Furniture store (saloons) are the place were most of buyers purchases their furniture, and every tenth buyer goes directly to carpenter.
- During the research a pattern which could almost be a rule was noticed. The buyer would go to furniture store in hope of finding a product that would suit his needs, but if he would not find what he was looking for he would go to craftsman (carpenter) and order exactly what he wants but for a more higher price. So we can say that potential for mass customization exists, and the fact that the customer came to our store should be used. If our standard offer does not satisfy him he should be offered with customized products who would have lower price than those of craftsman's products.
- Dimensions and functional characteristics of furniture are the main properties whit which customers were not satisfied in their past purchases. Mass customization can meet customers needs in these properties very successfully.
- Majority of buyers (60%) would like to have opportunity to change properties of furniture, and

33,3% would like to have that option even if that would not mean a lot to them.

- As for the readiness to pay more or wait longer for customized furniture, 68,7% of examined buyers would pay up to 15% more than standard furniture. The encouraging result is that 22% of buyers would pay 16 to 30% more and 9,4% of them would pay even more. As for a prolonged deadline for customized furniture 28% of buyers are ready to wait a lot longer (more than 30 days longer) to get it. So we can concur that there is a population that would agree on higher prices and longer delivery deadlines only to get exactly what they need.
- There are 82% of Internet users (63,3% of everyday users) among examined buyers, and 70,7% of buyers would buy furniture over the Internet.

If we would sum the complete research results we can say that there is a group of potential buyers of panel furniture (in province of Vojvodina) which would like to participate in creation of their products and is ready to pay a higher price for it. The only thing left is that production companies realize the potentials and take this part of furniture market.

5. REFERENCES

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