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COMMUNITY EVALUATION MEASURED BY THE NEIGHBOURHOOD SATISFACTION SCALE (NSS)

Abstract: The aim of this paper is to investigate the factors which influence community evaluation within urban and suburban settings. Regarded as one of the underlying components of neighbourhood attachment, community evaluation represents a rational assessment of the relative advantages and disadvantages of living in a particular neighbourhood. For the measurement of this component, a specific Neighbourhood Satisfaction Scale (NSS) has been developed, which shows internal consistency, i.e. reliability in measuring this component of attachment to either urban or suburban neighbourhood. The items of NSS are: 1) like of convenient location; 2) like of 'village feel' (friendly people); 3) like of presence of facilities, amenities and house values; 4) like of quietness and safety; 5) like of good neighbours; 6) like of public transport system; and 7) like of environmental quality and level of cleanliness. Expected results of the research will demonstrate which factor(s) show the largest correlation with community evaluation as to assess relative (dis)advantages of residential neighbourhood and development of attachment to it.

Keywords: community evaluation, attachment, NSS, neighbourhood

1. INTRODUCTION

Quality of life (QoL) is an all-encompassing concept that attempts to capture well-being. Though being somehow elusive and transcending the material concerns of everyday life, QoL is an important social indicator of the standard of living. Factors such as culture, belief, religion, history etc. influence QoL, and that brings even more difficulties in reaching a consensus over either QoL's definition or measurement. Researchers of QoL mainly agree that, for understanding of this concept, both 'objective approaches' and 'subjective analysis' are equally important since an objective condition can provoke myriad responses from different individuals as much as similar responses to different objective conditions can be obtained from different individuals. When evaluating QoL, one has to consider both the attributes of the environment in which people are living and their own personal characteristics, because QoL relates to individuals, their preferences, attitudes and

behaviour but also to the attributes of places in which they live their daily lives [1].

Among all dimensions of residential preference, neighbourhood attachment is regarded as the most personal one. Attachment to place is multidimensional and different types of people are attached to places for different reasons [2]. As people not only choose to live in places that match their preferences, but they also tend to adjust their view to favour current circumstances, attachment is seen as one of the resident's adapting mechanisms to the neighbourhood [3,4].

In context of globalisation and urbanisation processes, the neighbourhood plays an important role as a place of refuge. Through empirical research, attachment to the residential neighborhood reflects how emotion (community sentiment) and rational assessment of the relative advantages and disadvantages of living in a particular neighborhood (community evaluation) vary according to the socio-economic characteristics of residents as well as according to different types of living

environments [5]. People may value more urban or suburban neighbourhoods depending on a number of factors. However, in the focus of this paper is the proposal of a scale aimed to quantify (measure) neighbourhood satisfaction (community evaluation) regardless the neighbourhood type. The scale is developed for measurement of community evaluation in either urban or suburban neighbourhoods of Belgrade, Serbia, and can contribute to comparative and independent statistical analyses and tests on significant relationships between independent variables of ecological conditions and perception on those conditions in the neighbourhood, and the dependent variable of community evaluation in the neighbourhood.

2. PROBLEM STATEMENT

2.1 Basic assumptions

Community evaluation is the component of attachment which involves rational assessment of the relative advantages or disadvantages of living in a particular neighbourhood.

In various studies on community evaluation, it has been argued that individual social statuses, different cultural values and desired goals, influence this aspect of neighbourhood attachment. Some researchers suggest that the length of residence as a measure of neighbourhood stability influences community evaluation. Others substantiate that cultural values shared by population of certain social statuses have a strong effect on community evaluation. There are, however, studies, which underlie that in general, the effects of background variables such as race, income and tenure on community evaluation have relatively smaller effect than perceived neighbourhood attributes such as friendliness of neighbours, noise, safety or quality of shops and schools. The hypothesis to be tested here is that neighbourhood attributes are a much better guide than personal and housing background variables to understanding community evaluation.

3. CASE STUDY AREAS

The case study areas for designing a survey on community evaluation of urban and suburban residents in the city of Belgrade have been chosen in order to represent a high

contrast in terms of the respective physical environments.

Urban municipality of Stari grad represents cultural, historical, architectural and economic hub of the city of Belgrade. Its total area encompass is 650 ha, which is home to approximately 48,000 people. More than 1/4 of the population of Stari grad is older than 60 years of age. Typical residential developments in this area are multi-storey buildings (mainly up to 4 floors).

Suburban neighbourhood of Kaluderica is the infamous example for comprehensive illegal construction which started in the second half of the 20th century. This formerly rural settlement became attractive for in-migrants because of its proximity (12 km) to the centre of Belgrade, favourable position – good road connections, and most of all, because of the lack of available flats in Belgrade. Its present population is approximately 27,000 living at the territory of 932 ha. Typical residential developments in Kaluderica are single or multi-family detached or semi-detached houses, up to 2 floors.

Methodological approach to analysis of community evaluation in case study areas involved data collection via questionnaire survey. The sample was 81 respondents in Stari grad and 91 respondents in Kaluderica. Once the data were collected and transferred to codes amenable to quantitative analyses, the statistical procedures of the SPSS Version 21.0 were applied.

4. DEVELOPMENT OF THE NEIGHBOURHOOD SATISFACTION SCALE (NSS)

The empirical research involving community evaluation was based on development of Neighbourhood Satisfaction Scale (NSS) for each of the two case-study neighbourhoods as a measure of their residents' community evaluation (total neighbourhood satisfaction). NSS consists of 7 items, each one of them ranked from 1 to 7 (1=strongly disagree; 2=disagree; 3=mildly disagree; 4=neutral/undecided; 5=mildly agree; 6=agree; 7=strongly agree). The 7 items of scale are: 1) LIK1: like of convenient location; 2) LIK2: like of 'village feel' (friendly people); 3) LIK3: like of presence of facilities, amenities and house values; 4) LIK4: like of quietness and safety; 5) LIK5: like of good neighbours; 6) LIK6: like of

public transport system and; 7) LIK7: like of environmental quality and level of cleanliness. When forming a scale like NSS, the most important fact is its reliability. There are many aspects of scale's reliability, but one of the main issues reliability concerns is the scale's internal consistency, or the degree to which the items that make up the scale 'hang together' [6]. All the items have to measure the same underlying construct, i.e. community evaluation, or otherwise the scale we developed is not reliable. The most common measure of internal consistency of scale is *Cronbach alpha coefficient*. This coefficient should be above .7 for considering a scale to be reliable with our sample. In the case of NSS, for either of the two neighbourhoods, Cronbach's alpha was above this critical value: for Stari grad (.796), and for Kaluderica (.708). Following is a thorough report on checking up of NSS reliability for both Stari grad and Kaluderica.

4.1 STARI GRAD: Reliability of NSS

Table 1 – Reliability analysis – Scale (Alpha) for NSS in Stari grad

Reliability Statistics				
Neighbourhood	Cronbach's Alpha	N of Items		
Stari grad	.796	7		
Item Statistics				
Item	Mean	Std. Deviation	N	
LIK1	6.33	1.107	81	
LIK2	4.57	1.491	81	
LIK3	5.89	1.225	81	
LIK4	4.37	1.721	81	
LIK5	4.30	1.608	81	
LIK6	5.07	1.539	81	
LIK7	3.67	1.844	81	
Item-Total Statistics				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LIK1	27.86	45.169	.320	.800
LIK2	29.63	38.036	.593	.757
LIK3	28.31	42.791	.429	.786
LIK4	29.83	35.020	.647	.744
LIK5	29.90	35.665	.672	.740
LIK6	29.12	38.110	.562	.762
LIK7	30.53	37.277	.466	.786

4.2 KALUDERICA: Reliability of NSS

Table 2 – Reliability analysis – Scale (Alpha) for NSS in Kaluderica

Reliability Statistics				
Neighbourhood	Cronbach's Alpha	N of Items		
Kaluderica	.708	7		
Item Statistics				
Item	Mean	Std. Deviation	N	
LIK1	4.64	1.609	91	
LIK2	3.99	1.623	91	
LIK3	3.92	1.662	91	
LIK4	4.00	1.832	91	
LIK5	4.92	1.607	91	
LIK6	5.32	1.652	91	
LIK7	2.40	1.381	91	
Item-Total Statistics				
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LIK1	24.55	38.628	.298	.704
LIK2	25.20	34.694	.515	.649
LIK3	25.26	32.974	.600	.625
LIK4	25.19	35.865	.363	.691
LIK5	24.26	34.574	.530	.645
LIK6	23.87	39.382	.244	.718
LIK7	26.79	38.323	.406	.679

5. DISCUSSION OF RESULTS

After developing the NSS for each of the case-study neighbourhoods, it is important to find out which of the independent variables correlate with community evaluation (total neighbourhood satisfaction) measured by NSS. Community evaluation is regarded as continuous dependent variable which can take values from 7 (because this is the number of variables forming the NSS) to 49 (since each variable of the NSS can also range from 1 to 7, where 1 is "strongly disagree" and 7 is "strongly agree").

First, it was tested how some personal and housing background variables, or the so-called variables of ecological conditions [7], e.g. "duration of living in a present home", and "ownership of home" correlated with community evaluation in each neighbourhood.

For testing the relationship between

duration of staying in the present home (independent variable of 2 categories: staying of less and equal 5 years, and staying of 6 years and longer) and community evaluation (dependent variable), a statistical T-test was applied. Since Sig. (2-tailed) value of this test in Stari grad was .315, and in Kaluderica it was .905 (both of which are above the required cut off of .05), it can be concluded that in either of the two types of neighbourhoods there was not a statistically significant difference in the mean scores of community evaluation between residents who have been living in their present home for less and equal 5 years and those who have been living in their present home for 6 years and longer.

For testing the relationship between ownership of home (independent variable of 2 categories: owner occupiers, and non-owner occupiers) and community evaluation (dependent variable), also the statistical T-test was applied. Since Sig. (2-tailed) value of this test in Stari grad was .848, and in Kaluderica it was .539 (both of which are above the required cut off of .05), it can be concluded that in either of the two types of neighbourhoods there was not a statistically significant difference in the mean scores of community evaluation between owner-occupiers of homes and residents who are not owner occupiers.

Second, it was analysed how the variables of neighbourhood attributes, or the so-called variables on perception of ecological conditions, e.g. "happiness with neighbourhood contacts", "feeling of safety", "satisfaction with public transport system", "satisfaction with overall facilities provided by the neighbourhood", and "perception on lack of facilities" correlated with community evaluation. For these analyses in each of the two case-study neighbourhoods, Pearson Correlation was applied in order to describe the strength and direction of the linear relationship between two variables.

The results of Pearson Correlation in Stari grad showed there was large positive correlation between satisfaction with public transport system and community evaluation

($r=.70$); between satisfaction with the overall facilities provided by this neighbourhood and community evaluation ($r=.568$); and between feeling of safety and community evaluation ($r=.529$); then, there was a medium positive correlation between happiness with contacts with neighbours and community evaluation ($r=.48$); and small negative correlation between perception on the lack of facilities in Stari grad and community evaluation in it ($r=-.195$).

The results of Pearson Correlation in Kaluderica showed there was medium positive correlation between satisfaction with the overall facilities provided by this neighbourhood and community evaluation ($r=.467$); between satisfaction with public transport system and community evaluation ($r=.464$); and between happiness with contacts with neighbours and community evaluation ($r=.429$); then, there was a small positive correlation between feeling of safety and community evaluation in Kaluderica (.296); and small negative correlation between perception on the lack of facilities in Kaluderica and community evaluation in it ($r=-.258$).

6. CONCLUSION

In attempt to perform an objective approach to assessing QoL at the neighbourhood level regardless of the type of environment (urban/suburban), the NSS was designed with proper reliability for measuring community evaluation. The presented research has proven a hypothesis that perceived neighbourhood attributes (overall facilities provision, and especially public transport system organisation; feeling of safety; and happiness with contacts with neighbours) are better predictors of community evaluation (total neighbourhood satisfaction) than personal or housing background variables. With that in view, qualities encompassed by the variables on perception of ecological conditions, which influence community evaluation in both case-study neighbourhoods introduce locally contingent perspectives on the meaning of QoL and means to achieve it.

REFERENCES:

- [1] Rogerson, R. (1997). *Quality of Life in Britain*. University of Strathclyde: Quality of Life Research Group, Department of Geography.

- [2] Fischer, C.S., Jackson, R.M., Stueve, C.A., Gerson, K., McCallister Jones, L. & Baldassare, M. (1977). *Networks and Places: Social Relations in the Urban Setting*, Free Press, New York.
- [3] Talen, E. (2001). Traditional Urbanism Meets Residential Affluence. An Analysis of the Variability of Suburban Preference. *Journal of the American Planning Association*, 67 (2), 199-216.
- [4] Brower, S. (1988). *Design in familiar places: What makes home environments look good*. Praeger, New York.
- [5] Petrić, J. & Bajić, T. (2015). Variability of Suburban Preference in a Post-socialist Belgrade. In M. Mokrys, & S. Badura (Eds.), *Proceedings in Human and Social Sciences at the Common Conference*, Zilina, October 5-9, 2015. Zilina, Slovak Republik, EDIS – Publishing Institution of the University of Zilina, 134–139.
- [6] Pallant, J. (2001). *SPSS Survival Manual: A step by step guide to data analysis using SPSS*. Open University Press, Buckingham, Philadelphia.
- [7] Adams, R. E. (1992a). A tale of Two Cities: Community Sentiments and Community Evaluation in Indianapolis and Pittsburgh. *Sociological Focus*, 25(3), 217–240.

