



## **ROLE OF URBAN TRANSFORMATION IN SOCIAL SUSTAINABILITY - A CASE OF INDORE CITY**

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### **Abstract:**

*Urban Transformation is an irreversible process and is bound to happen. The urban spaces also witness change in Social Sustainability with time. The question aroused out of this situation is that whether there is any linkage between Urban Transformation and Social Sustainability. The research paper is about Urban Transformation of Indore city and variation of Social Sustainability therein. Researcher's aim is to analyze the level of social sustainability which persists along with the Urban Transformation faced in four distinguished locations of Indore city. The four areas are identified according to their social status. The researcher wishes to identify that process of Urban Transformation can make Social Sustainability better or worse despite of having citizens of similar background. Participation of the community, social bonding, cultural homogeneity and many such factors complement the process of Social sustainability. The paper is an effort for creating consciousness among designers of urban environment focusing upon their role as a social human being towards society. Cities should be designed in a manner so that they have proper interaction spaces and promote involvement of citizens for their own safety and security. Social bonds among neighbors develop a sense of responsibility in citizens. It should be taken care of and monitored as the conditions of society change along with Urban Transformation.*

*To achieve the above objective, researcher has discussed various experts' points of view regarding Urban Transformation and Social Sustainability. Then a field study is prepared complementing the theory review. The study comprises of ground observations and analysis of questionnaire, which is prepared to have residents' view regarding Urban Transformation and Social Sustainability. The questionnaire is weighed in five point Likert scale. Later the results are subjected to statistical analysis for testing the hypotheses.*

### **Keywords:**

*Urban Transformation, Social Sustainability, transformation, Urban Planning*

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## 1. INTRODUCTION

### ***URBAN TRANSFORMATION***

The term ‘transformation’ refers to an act, process or instance of transforming or being transformed {Webster’s Dictionary} Urban transformation is not just a passive resultant of societal order and societal change, rather it depends upon relations between individuals and the groups they form in society. The transformation that build cultural identity through distinguished design features and building types, have power to introduce new urban life and give new identity and build new concepts in the field of architecture. (Lefebre, 1996).

It has been observed that, citizens experience Urban Transformation over a certain time period with slow or rapid change in the city growth and changes in architecture. Impact of global culture is very important as cities compete to become global cities, mirroring global behavior and having new identification of global cultural significance.

From the various researches this is inferred that Urban Transformation takes place due to human participation. Transformation is very difficult to be predicted as every individual has specific interest for being a participant in social, political and economic decision making. Societal interest has to overpower individual interest for the participant stake holders of Urban Transformation.

Transformation tells the changes in a city over a time period; hence it is an appreciation of the significance of the history of any city’s development procedure, pattern and outcome. The urban fabric of present time period is the resultant of successive generations of settlers, who keep on leaving mark in both the physical structure and in the political, economic and social institutions. (Thorns, 2002).

Over the years, the term ‘transformation’ has developed several meanings which are overlapping with ‘transition’, ‘change’, ‘innovation’, and ‘evolution’, break through etc. (Murphy, 1995) Urban Transformation evolves from the wave of urban political economy. Urban Transformation encompasses several fields in view of global-local links within and between cities. Some among them are accelerating urban spatial restructuring, public service distribution and political restructuring. Hence it links overall urban outcomes of changing work patterns, residential differentiation, social & political life. (Smith, 1984).

Moreover, Urban Transformation concerns the expression of social structure and physical structure’s relationship within cities. It is a long term changing process within an urban system. (Keltreop, 1997).

The above definitions add on to the generation of five parameters of Urban Transformation. The process of transition under the influence of several factors in social & economic sphere, which with interaction evolve urban from, is known as urban transformation. To understand the urban transformation of an urban space, one has to analyze the achieved level of urban development in



light of the dominating aspects creating urban phenomena, continuation of existence in space and time, also the dynamic of change.

With analysis of contextual conditions, the present level of urban development is understood. This opens way for recognizing the capacities and possibilities of future changes. (Milojevic, 2012) Main factors of urban transformation are:-

- 1) Population
- 2) Policy
- 3) Economy
- 4) Architectural and Urban Planning
- 5) Legislation

## ***SOCIAL SUSTAINABILITY***

Sustainable development is the thought process behind well-being of humanity. It expects the sustenance of mankind on earth. As per the idea of sustainable development lays stress on encompassing all the three parameters of sustainability, meaning balance between socio-economic activities with environment ultimately, the process should enhance the quality of human life. (Berke & Conroy, 2000) There exists three strands of sustainable development, which are environmental, social and economic sustainability. For sustainable development, respect for all the three areas is necessary. (Cozens, Hillier, & Prescott, 1999).

There must be balance among socio- economic and environmental values. The human values may be complementary in the society among citizens and sometimes they may compete with each other, whatever is the situation, balance should be maintained to achieve the process of sustainable development. (Kaiser, Godschalk, & Chapin, 1995).

As addressed in the UNU Global Seminar – Kanazawa Session 2001. Social Sustainability focuses on the development of human being in all areas. It includes safety, security, employment, economic, social and health conditions of human beings within bearing capacity of planet earth. Urban Social Sustainability is the term which denotes a city having improved quality of life including ecological, cultural, political, institutional, social and economic components without leaving behind a burden on future generations.

Socially Sustainable is a city in which, gains in social, economic and physical development are not short term, and they are made to last long. It is a city that promises a lasting supply of the natural resources which help in its development and a long lasting security from environmental and safety threats.

Socially Sustainable settlement enables its citizens to live a good quality of life by using minimal natural resources. (Mansell & Wehn, 1998) Hence sustainable city is one that is capable of providing the basic needs of the citizens along with the required civic amenities infrastructure including housing, education, transportation, employment, good governance, social comfort and



equity, health, medical care, economic development and prosperity for future generations. Review of various experts' view adds on to the six parameters of Social Sustainability, they are:

- 1) Basic Needs
- 2) Safety
- 3) Health
- 4) Gender Equality
- 5) Participation
- 6) Justice and Welfare

## 2. RESEARCH DESIGN & OBJECTIVE

As per literature reviewed, Urban Transformation affects the thresholds of human well-being, socio-cultural status of society and established life-style of citizens. Sometimes Urban Transformation has to defend repulsion from the social values of society and their set norms. (Dunlop,R.E; Calton,W.R Jr. 1994) According to Simel G.1971, Urban Transformation has lead to greater scale and complex relationships, replacing informal life styles by formal ones. This gives the possibility of individual choice and freedom but can reduce the quality of life.

Wirth Louis in 1938 analyzed how increase in size, density and heterogeneity of neighborhood generates transformation of social relations, giving rise to more diversity and detachment from primary family relations to secondary, more segmental relations arising from formal associations.

As per Ines Omann and Joachim H Spangenberg, 2002, multi-criteria evaluation has to be applied to this kind of scenario. Indore is a city with high pace of Urban Transformation and being a city with varied social structures; Dependent variables of Social Sustainability will be evaluated and compared with the independent variables of Urban Transformation, finding how Urban Transformation affects Social Sustainability of a particular place.

The two parts of this objective are evaluated separately viz. Urban Transformation and Social Sustainability, then their values are compared through statistics. A comparative analysis for Urban Transformation and Social Sustainability has been done. The following hypothesis is framed for the purpose.

Ho There is no relationship of Urban Transformation and Social Sustainability at four places of Indore city.

## 3. RESEARCH METHODOLOGY

Quantitative research design is developed. This is an effort of exploration of Urban Transformation of Indore city on identified four locations- Bhagirathpura, Nehru Nagar, Sapna Sangeeta and Zanjeerwala. The results of this research can be used for further research of any other city of a developing nation.



#### 4. RESEARCH DESIGN

The research deals with multi- case analysis to situate the research and take it to intended study. As identified by (Yin 2003), to cover contextual conditions, which are pertinent to the phenomenon of study, one must use case study method. Case- study method is an inquiry which copes with technically distinguished situation where there are many variables of interest; the method relies on various and different sources of evidence with data which converge in triangular fashion; benefited from the previous enhancement of theoretical propositions which forms guidelines for data collection and analysis.

Yin stress that data collection is a comprehensive research strategy covering logic of design, techniques for data collection and specific approach towards data analysis.

Architecture cannot and has not yet produced general, theory which is context independent, hence nothing else can be offered rather than strong context dependent knowledge. Hence case study method rightly suits to produce further knowledge.

Multiple case studies have been used in the research. Again advocated by (Yin 2003) that evidence from multiple case studies is more justifying and compelling that makes the overall research more robust. Moreover the phenomenon being investigated i.e. how Urban Transformation affects Social Sustainability of any urban space, justify the use of multiple case studies technique.

Indore is one of the rapidly urbanizing cities in the state and the country as well. It is largest industrial, commercial and education hub of central India. It is largest job provider city of Madhya Pradesh. Socio-economic and historical factors are rich in the city, it is progressing in both formal and informal sectors, attracting more people. Lastly due to high rate of crime which is a matter of serious concern, it needs special attention from researchers, hence relevance to the subject of study.

#### 5. CASE STUDY AREA AND UNIT OF ANALYSIS

Selection of study area was a major challenge in the research, because the choice should ascertain the limit to which one can generalize and it needs to be justified proving case of Indore city as a whole.

In this study four neighborhoods were selected forming two sets according to economic and social status selected from census details of Indore city. The selected two areas of one set showing dominant mill-culture of the city are Nehru Nagar and Bhagirathpura.

The second set comprises of two new growing residential commercial areas, namely Sapna-Sangeeta area and Zangeer wala to 56 shops area.



The two areas in one set bear similar character in terms of social –cultural background economic and environmental contexts.

Unit of analysis has been a single respondent who has witnessed transformation over the period of two decades. Questionnaires have been the important sources of evidence in the case study strategy of inquiry in all four selected neighborhoods. Eighty respondents have been selected from each location, leading to total number of respondents being three hundred and twenty.

## 6. UNIT OF ANALYSIS

For conducting exploratory study and finding out Urban Transformation of individual location, citizens' viewpoints are very important, as found from previous research and researcher's experience. Hence individual citizen is taken as a unit of analysis. Data is collected from occupants of settlement who are staying there since last two decades. Twenty years can be considered as a module of human life. Also a person of fifteen years and above has developed judgmental sense; this is the reason behind keeping the respondent's minimum age as total of fifteen and twenty, which is thirty five.

## 7. SOURCE OF INFORMATION

Primary data is collected from the citizens with the help of a questionnaire.

### *SAMPLING DESIGN*

- (i) **Population:** All the citizens living in the identified four locations of Indore city are the universe of this study.
- (ii) **Sampling Frame:** All individual citizens of four locations of Indore city who live here since last twenty years.
- (iii) **Representative Sampling unit:** The study is carried out only at four locations of Indore city, which are- Bhagirathpura, Nehru Nagar, Sapna Sangeeta and Zanjeerwala. Representative Sampling Unit is an individual who has considerable experience of the city and is staying here since last twenty years.
- (iv) **Sampling Method:** Non probability convenient sampling method is used.
- (v) **Sampling Size:** The questionnaire was administered to 320 respondents; 80 citizens from each of the four locations of Indore city. Considering the whole of Indore city, the universe size is too large as the city can be demographically divided into many segments. The study is restricted to Bhagirathpura, Nehru Nagar, Sapna Sangeeta and Zanjeerwala. The respondents are selected from the age group of 35 years and above.
- (vi) **Sampling Media:** An exhaustive survey by method of personal interview was conducted for collecting data. This was carried out by student team comprising of sixteen students from B Arch course of School of Architecture, I.P.S Academy.
- (vii) **Questionnaire Design:** A questionnaire has been designed for the study. In first phase of design, a list of parameters has been prepared from previous research. For each parameter,



variables have been identified from literature review and researcher's experience. Each variable have been transformed into a research question. This list is then converted into a questionnaire for measuring the response of respondents on a Likert scale of 1 to 5.

**(viii) Measurement of variables:** The study finds the consent level in the relevance and importance given to the transformations in various parameters of development. Likert scale is being used to measure the responses of the respondents. This survey was conducted on general citizens, irrespective of their position in the neighborhood. Thus it was not expected that they will find too minute difference on the levels of each question. This is the reason that scale of 5 levels is used. This scale identifies consent level on each question from 1 to 5 as Strongly Disagree to Strongly Agree.

**(ix) Data Analysis Tools:** AMOS and Regression Analysis are used as tool for analyzing the data.

**Ho:** There is no significant relationship of Urban Transformation and Social Sustainability.

The above hypothesis is tested by regression analysis. The assumption here is that Social Sustainability is dependent on Urban Transformation. Simple Regression Analysis of linear relationship was carried out. The SPSS 21 outcome by using enter method of relationship analysis suggest that  $R^2$  value is 0.819. This value is good to accept the model and preposition that Social Sustainability is dependent on Urban Transformation. Thus further analysis of relationship is to be carried out. The  $R^2$  value represents the variance explained of the model. The maximum value of  $R^2$  can be 1 and value more than 0.7 represents acceptable model.

The Fischer's test and ANOVA analysis at 95% of confidence limit shows that F value is 1436.095 at total degree of freedom of 318. The significance value reported is 0.000. The magnitude of significance value is less than 0.05. This reflects that linear relationship exists between the variables. The co-efficient of the regression as calculated by SPSS reflects that constant value is 1.060 and co-efficient of Urban Transformation is reported as 1.231.

$SS$  (Social Sustainability) =  $1.060 + 1.231 UT$  (Urban Transformation)

The relationship as expressed by these values is very significant as small change in Urban Transformation will bring out larger change in Social Sustainability.

Thus we can conclude that the Social Sustainability is dependent on Urban Transformation.

## 8. IMPORTANCE OF OUTCOME FOR VARIOUS STAKE HOLDERS

In the study it has been found that Urban Transformation is an inevitable and dynamic process. The control of this process and streamlining it in proper direction is in the hands of professionals. The practices and outcome fit with the theory reviewed. In the study it has been found that social interaction must be fostered, which is possible through proper planning and designing of the



settlements. Hence it is the duty of architects, urban designers / planners and policy makers to give proper direction to this growth.

## 9. FURTHER RESEARCH

The areas for further research can be – to find out whether social values are changing due to urbanization or urbanization ways are changing due to social values. Happiness of life creates value systems and value systems generate Urban Transformation; or does the process of Urban Transformation create value systems.

## 10. CONCLUSION

The research has been carried out to compare Urban Transformation and Social Sustainability of Indore city and analysis of four locations the city. It was revealed that that there has been noticeable change in citizens' standard of living due to urbanization and people are satisfied being parts of their neighborhoods.

Their basic needs are fulfilled with convenience. There has been educational upliftment and noticeable rise in life standard and socio-cultural change due to urbanization. Citizens are satisfied with social justice system of neighborhoods.

Health facilities are also sufficient to satisfy the citizens of Indore city.

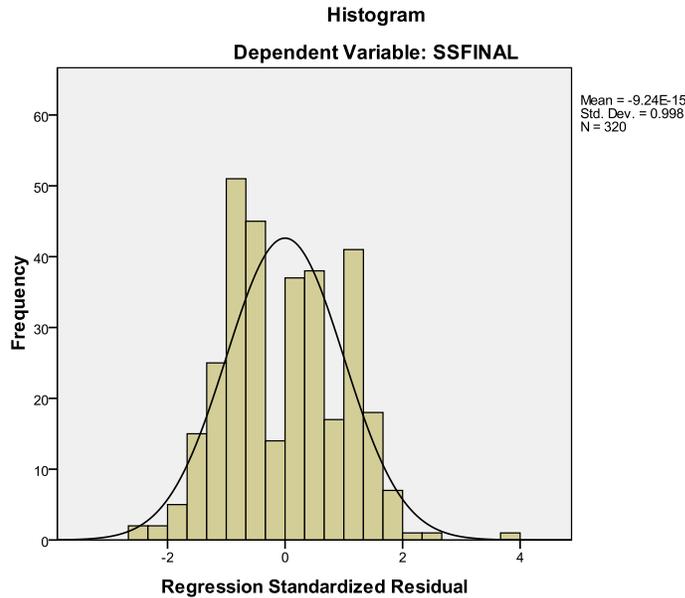
Although crime records tell that crime rate in Indore city is high, but citizens of locations under study feel that frequency of theft, burglary, chain snatching and eve teasing have reduced over the period of twenty years.

This brings to the conclusion that one cannot make absolute judgment on the basis of F.I.R. Population has increased in higher rate, crime rate has increased in lower percentage; and the assumption is that 100% crimes are reported. There is overall reduction in fear of crime, hence better Social Sustainability.

It has been proved in the research through statistical analysis that Urban Transformation has strong impact on Social Sustainability.



**Appendix**



**ANOVA<sup>b</sup>**

Model		Sum Squares	of df	Mean Square	F	Sig.
1	Regression	105.962	1	105.962	1436.095	.000 <sup>a</sup>
	Residual	23.464	318	.074		
	Total	129.426	319			

a. Predictors: (Constant), UT

b. Dependent Variable: SSFINAL

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.060	.059		17.997	.000
	UT	1.231	.032	.905	37.896	.000

a. Dependent Variable: SSFINAL



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