

# THE ROLE OF BENEFICIARIES' PARTICIPATION IN SOUTH AFRICA LOW-INCOME HOUSING OCCUPANTS' SATISFACTION

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The purpose of this paper is to present findings from an investigation conducted in South Africa subsidised low-income housing, on how beneficiary's participation could influence residents' satisfaction with their houses. The study was conducted amongst South Africa housing practitioners' and the low-income housing occupants'. Data used in the study was obtained from a Delphi and field questionnaire study. Using Structural Equation Modelling software EQS, the influence of beneficiaries' participation was investigated. The finding was that beneficiary participation influence on the residents' satisfaction was statistically significant and hence exacted a direct influence in the prediction of the residents' satisfaction with their houses. The research was conducted in South Africa three metropolitan and one district municipalities. Therefore due to the idiosyncratic dataset used in the study, it remains to be seen if the evaluated relationships between beneficiary participation and residents' satisfaction can replicate to other cross-cultural datasets. If this is the case, the paper makes a significant contribution towards understanding residential satisfaction on subsidised low-income housing projects. This study provided significant insight into how beneficiary participation influence residents' satisfaction and how residents' satisfaction with their houses could be improved.

Keywords: residential satisfaction, beneficiary participation, influence, South Africa

## INTRODUCTION

The failure of many government housing projects is as a result of the lack of knowledge and understanding on the determinants of Residential Satisfaction (RS) concept (Salleh, 2008). The success of housing programmes does not only depend on merely provision of housing units, but also on other factors that should have been considered during the housing developmental process. The achievement of government housing programmes does not only depend on bulk quantitative delivery of housing units, but also on the understanding of the factors that influence's the needs of residents and the eventual satisfaction they derive from the housing product. Hence, RS deals with housing occupants' satisfaction with housing products, with the aim of informing housing policy and planning intervention (Yiping, 2005). RS has been credited as one of the most significant concept which should be considered in design

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and planning process for different nations housing policies. Nevertheless, RS is a subjective concept because of the multifaceted nature between other concepts (Ge & Hokao, 2006). Research in residential satisfaction is a valid way to assess the overall performance of the housing system (Francescato et al., 1987).

Despite the various measures to improve low-income housing satisfaction in South Africa state, the standard has remained a persistent and divisive social issue among the practitioners of social housing studies, academia, non-governmental organizations, government, and the affected citizens amongst others in South Africa (Aigbavboa & Thwala, 2012). The beneficiaries of low-income housing in South Africa desire to live in a conducive housing environment, but the housing condition has been gradually deteriorating without due consideration to the active participation of the beneficiaries by the housing providers in the development process. There is the continual formulation and implementation of housing policies and programmes without any meaningful consultation with the eventual beneficiaries of the low-income houses. The achievement of occupant's satisfaction in terms of their participation in the housing process is a key factor that contributes to the ultimate success of that project, as their contributions would highlight areas that need consideration during the development process thus leading to housing satisfaction.

Therefore, it is useful to explore the meaning of satisfaction from the residents' perspective in order to have a holistic view of the housing system. Studying satisfaction requires the real understanding of beneficiaries' meaningful participation, as housing issues affect an entire community or group of people who in the present context are the low income and disadvantaged groups of the South African society. Beneficiary's participation offers an opportunity to engage those who are affected by housing issues in a dialogue; defining problems and creating solutions. The inclusion of community stakeholders in the housing process helps ensure appropriate housing strategies and policies are developed through more efficient evaluation, development and implementation to guarantee the satisfaction of the beneficiaries'. Inadequate beneficiaries' participation in the process can lead to community conflict or as a worst case scenario, anti-development initiatives and ultimately housing dissatisfaction, which impacts on the quality of life of the beneficiaries. Successful beneficiaries' participation is important because a mixed cross section of the population that has a housing need can be involved in defining the housing problem and in crafting community sensitive solutions. However, there is disagreement among planners and professionals about the contribution of beneficiaries' participation in improving the lives of the people, particularly the poor and disadvantaged (Rifkin & Kangere, 2002). Some completely dismiss its value altogether, while others believe that it is the "magic bullet", (Rifkin & Kangere, 2002), that will ensure improvements especially in the context of poverty alleviation, and community ownership.

Too frequently, development initiatives have been designed by those who have no real knowledgeable understanding of the real needs of a specific community. Hence, most times, the produced 'housing plan' is based on the different stakeholders' perceived needs of the low-income groups instead of the beneficiaries' true needs. Kotze and Kellerman (1997) attribute this to the fact that the idea that development consists of a transfer of skills or information creates a role for the expert as the only person capable of facilitating the transfer of these skills from them to the community or society. In order to create developmental efforts that echo the real needs and expectations of specific groups, inclusive of development that will satisfy the people, a paradigm shift is needed in the current conceptualization of residential satisfaction research. This is a

shift from the so-called blueprint approach to development toward a more process and people-centered development that should produce beneficiaries' participation. According to Oakley (1991) the role of beneficiaries' participation in South Africa cannot be undermined or may not override economic, personal or technological aspirations in the South Africa public sector as the country's past governance situation should compel the government to correct injustices by actively involving the affected in policy development.

Therefore, this research present finding from an investigation conducted in South Africa subsidised low-income housing, on how beneficiary's participation could influence residents' satisfaction with their houses. The paper starts with an overview of the literature on this topic. Then, the methodology adopted for the study is presented followed by the results of the questionnaire survey analysis and findings of the research. Finally, the paper draws some conclusions. The paper makes a significant contribution towards understanding residential satisfaction in subsidised low-income housing developments. This study provided significant insight into how residents' satisfaction with their houses could be improved through the active involvement of the housing beneficiaries. Thus, the next section of the article presents an overview on the theoretical framework of beneficiaries' participation in housing development process.

## **BACKGROUND ON BENEFICIARY PARTICIPATION**

Participation is a rich concept that varies with its application and definition. The way participation is defined, depends on the context in which it occurs. For some scholars, it is a matter of principle; for others, a matter of practice; for even more it is an end in itself as described above. Most times, the term participation is modified with adjectives, resulting in terms such as community participation, citizen participation, people's participation, public participation, popular participation or even beneficiary participation as used in the current research.

The Macmillan English Dictionary (2002:1032) defines participation as "to have a share in" or "to take part in," thereby emphasizing the rights of individuals and the choices that they make in order to participate. Whilst, Arnstein (1969) states that the idea of citizen participation is a "little like eating spinach: no one is against it in principle because it is good for you". Also, Mathbor (2008) defined beneficiaries participation as a process by which beneficiaries' act in response to public concerns, voice their opinions about decisions that affect them, and take responsibility for changes to the community. Likewise, citizens' participation may also be referred to as a response to the traditional sense of powerlessness felt by the general public when it comes to influencing government decisions. This is because citizens often feel that housing development issues are beyond their control because the decisions are made outside their community by unknown bureaucrats and technocrats. Hence, beneficiary participation is the direct involvement of the citizenry in the affairs of planning, governance and overall development programmes at local or grass roots level.

Beneficiary participation requires recognition and use of beneficiaries' capacities and avoids the imposition of priorities from the outside. It increases the odds that a programme will be on target and its results will more likely be sustainable and satisfactory to meet the needs and expectation of the beneficiaries. Ultimately, participatory development is driven by a belief in the importance of entrusting citizens with the responsibility of shaping their own future. Likewise, participation is a process through which stakeholders influence and share control over development initiatives

and the decisions and resources which affect them. In this perspective, the benefits of participatory development are perceived to be self-evident.

The significance of beneficiary participation is said to draw from three main factors. Primarily, it is alleged to allow for cost reduction through the utilization of local labour and expertise (Davidson et al., 2007). Secondly, it potentially leads to the implementation of appropriate responses through the involvement of locals in collective decision-making, through the assessment of their needs and expectations, (Davidson et al., 2007) thus guaranteeing housing satisfaction. Thirdly, it helps in directing scarce resources towards the more needy, identified by fellow locals (Davidson et al., 2007). Beneficiary participation is perceived as an undertaking that results in the empowerment of the local population. However, it also has numerous non-benevolent political significances. It is referred to as a curious element in the democratic decision-making process. While the roots of beneficiary participation can be traced to ancient Greece and colonial New England, its significance reflects a contemporary recognition that societies are simply too remote to be truly “of, by and for the people” without their involvement in the development that affects them. Beneficiary participation in the public sector organisation has undergone a significant change. Prior to this, people were more tolerant of poor service deliveries; more patient in long queues and enduring inefficient public administration than they are now (Olivier, 2003). Nowadays, people are expecting quality delivery of public services and are beginning to hold elected representatives increasingly accountable, when their expectations are not met. Hence, the origin of beneficiary participation can probably be traced to three root sources, which are: participation as good development project practice; participation as good governance and participation as political empowerment.

## **LEGISLATIVE FRAMEWORK OF BENEFICIARY PARTICIPATORY IN SOUTH AFRICA**

Since 1994, the South African government has put in place policy and legislative frameworks that seek to promote participatory governance. The notion of beneficiary participation is embedded in the South African Constitution. Recognizing the adverse impact of Apartheid on adequately housing the majority of South African citizens, the democratic government in 1994, from the outset, placed emphasis on the provision of housing, as a basic human right. The principles of citizen participation are clearly articulated in the Housing White Paper and further advanced in the Development Facilitation Act of 1995, of which the policy goals were later given legal effect by the 1996 Constitution.

In harmony with the Restructure and Development Programmes, the 1994 Housing White Paper committed the government “to a development process driven from within the communities” (Section 4.4.4.), which would promote “the participation of affected communities in the planning and implementation of new developments” (Section 4.5.1). This viewpoint was also advanced in the 1997 National Housing Act which emphasizes, in Section 2(1) that national, provincial and local spheres of government must: “give priority to the needs of the poor in respect of housing development; consult meaningfully with individual and communities affected by housing development; ensure that housing development ... is administered in a transparent and equitable manner, and upholds the practice of good governance”. The South African Government’s commitment to consultation, public participation transparency, and the adherence to agreed norms and standards is further evident in the 2008 Social Housing

Act (Act No. 16 of 2008), which, in Section 2.1, states the need to: “consult with interested individuals, communities and financial institutions in all phases of social housing development. Moreover, the South Africa constitutional requirements for beneficiary participation is further found in its mandate for local government, but more specifically in Chapter 10, Section 195, which states that: “public administration must be development-oriented; people’s need must be responded to, and the public must be encouraged to participate in policy making and good human resource management and career development practices must be cultivated to maximize human potential”.

## **METHOD**

The study was conducted using both qualitative and quantitative data collection methods. For the qualitative data, a Delphi technique was used, while field questionnaire survey was used for the quantitative aspect. The Delphi survey was conducted with 15 sustainable human settlement experts drawn from the nine provinces of South Africa. The output from the Delphi techniques was a refinement of conceptual variables for beneficiaries’ participation (BNP) features. With regards to the quantitative aspect of the study, a face-to-face administered questionnaire survey was conducted among 751 low-income housing residents’ in three metropolitan and one district municipality in the Gauteng Province of South.

SEM software- EQS software Version 6.2 was used to assess the factor structure of the constructs. The conceptual variables were thereafter tested as a priori using the questionnaire survey results. Due to the limited space in current paper, the Delphi process is not discussed.

### **Model analysis**

Confirmatory factor analysis (CFA) using EQS Version 6.2 (Bentler & Wu, 1995) was used to test the beneficiaries participation features priori which were determined from the literature and further validated via the Delphi survey. The construct parameters were estimated using the Maximum Likelihood method. Since psychometric data have a tendency to be not normally distributed, consideration was given to the Mardia coefficient. Meaning, if the Mardia values showed significant deviation from normality, the Satorra-Bentler Scaled statistics (Robust) would be used as these have been found to perform adequately under such conditions (Bentler, 1988). In establishing the score reliability, construct validity for the variables was conducted to demonstrate the extent to which the constructs hypothetically relate to one another. This is also referred to as the test of measurement invariance (MI) between indicator variables. Measurement invariance is a very important requisite in SEM. It attempts to verify that the factors are measuring the same underlying latent construct within the same condition. MI ensures that the attributes relate to the same set of observations in the same way. The MI for the BNP features was determined based on examination of the residual covariance matrix from the CFA output result as opposed to the correlation matrix. Covariance matrix establishes the variables that adequately measure the BNP construct.

Hence, preliminary Confirmatory Factor Analysis (CFA) was performed to measure the neighbourhood variable indicators to identify which items appropriately measures the neighbourhood features. Indicators variables with an unacceptably high residual covariance matrix ( $>2.58$ ) were dropped, because they do not sufficiently measure the BNP features regardless of their importance in other cultural context and past research

studies. Residual covariance matrix values greater than 2.58 are considered large (Byrne, 2006). Therefore, in order for a variable to be described as well-fitting in measuring a construct like BNP, the distribution of residuals covariance matrix should be symmetrical and centered around zero. This procedure was adopted as a means to ensure that the indicator variables were measuring the same latent construct.

## RESULTS AND DISCUSSION

### Measurement Model for Beneficiaries Participation (BNP)

The number of cases that were analysed for the BNP construct was 751 cases. No case was skipped. From the initial CFA statistical analysis one indicator variable (BNP5) had an unsatisfactorily high residual covariance matrix factor loading (2.60), hence it was dropped. Inspection of the Bentler-Weeks Structure representation for the construct revealed that the BNP construct has 4 dependent variables, 5 independent variables and 8 free parameters. The number of fixed non-zero parameter was 5. Therefore only four indicator variables passed the test and were used for further assessment of the measurement model goodness-of-fit. Analysis of the Mardia values showed that the data deviated significantly from normality (Mardia = 56.0118).

*Table 1: Robust fit indexes for beneficiary participation construct*

Fit Index	Cut-off value	Estimate	Comment
$S - B\chi^2$		2.104	
$df$	$0 \geq$	2	Acceptable
CFI	$0.90 \geq$ acceptable $0.95 \geq$ good fit	0.955	Good fit
SRMR	$0.08 \geq$ acceptable $0.05 \geq$ good fit	0.006	Good fit
RMSEA	$0.08 \geq$ acceptable $0.05 \geq$ good fit	0.008	Acceptable fit
RMSEA 90% CI		0.000:0.073	Acceptable range

The sample data on beneficiary participation measurement model yield the  $S - B\chi^2$  of 2.104 with 2 degrees of freedom. The chi-square value advocated that the difference between the sample data and the hypothesised construct was insignificant. From these values, the normed chi-square value was determined to be 1.052. The normed chi-square is the procedure of dividing the chi-square by the degrees of freedom. The normed values of up to 3.0 or 5.0 are recommended (Kline, 2005). The ratio of  $S - B\chi^2$  to the degrees of freedom was lower than the upper limit value of 3.0 suggesting an acceptable fit of the data to the construct. However, the chi-square statistics is only indicative of fit and therefore, other goodness-of-fit indexes were reviewed.

The goodness-of-fit indexes are presented in Table 1. The robust comparative fit index (CFI) of 0.955 was higher than the minimum value of 0.95 set for good fit criteria. A model is said to be a good fit if the CFI is above the cut-off value of 0.95 (Hu & Bentler, 1999). The robust root mean square error of approximation (RMSEA) with 90% confidence interval was found to be 0.008 (lower bound value = 0.000 and the upper bound value = 0.073). This value was below the maximum value of 0.08 for a good fit model. Hence, this was considered as an acceptable model fit. In addition, the absolute fit index, standardised root mean square residual (SRMR) was found to be

0.006. This value indicated a very good fit because a good fitting model is expected to have an SRMR index lower or equal to 0.05, whilst an index of 0.08 is sufficient to accept the postulated model. The absolute fit index SRMR accounts for the average discrepancy between the sample and the postulated correlation matrices and therefore, it represents the average value across all standardised residuals and ranges between zero and 1.00. Evaluation of the SRMR, RMSEA (90% CI), and the CFI fit indexes indicated an acceptable fit of the measurement model for the BNP features factor.

### **Analysing the influence of beneficiary participation on residents' overall satisfaction**

In order to determine the internal consistency of the composition of the measurement model the Rho Coefficient and the Cronbach's Alpha Coefficient were examined to establish reliability. According to Kline (2005), the reliability coefficient should fall between zero and 1.00, while values close to 1.00 are desired. The Rho Coefficient of internal consistency was found to be 0.939. This value was above the minimum required value of 0.70. Similarly, the Cronbach's alpha was above the minimum acceptable value of 0.70 at 0.938. Both of these values indicated a high degree of internal consistency and homogeneity. Therefore, the neighbourhood factor satisfied both internal reliability and the construct validity criteria.

*Table 2: Reliability and Construct Validity of BNP Model*

Indicator Variables	Standard Coefficient ( $\lambda$ )	Z-Stats	R <sup>2</sup>	Total Variance	Factor Loading	Sign. @ 5% level
BNP1	0.835	**	**	0.698	62.55%	Yes
BNP2	0.922	41.280	41.280	0.850	64.84%	Yes
BNP3	0.924	40.218	40.218	0.854	64.89%	Yes
BNP4	0.888	36.359	36.359	0.788	63.98%	Yes
RS1	0.797	**	**	0.635	61.45%	Yes
RS3	0.510	13.527	13.527	0.260	50.50%	Yes
RS5	0.391	9.122	9.122	0.153	43.88%	Yes
RS7	0.617	14.956	14.956	0.381	55.24%	Yes

*Cronbach's Alpha = 0.938; Rho Coefficient = 0.939;  $p < 0.05$*

*(Robust Statistical Significance at 5% level)*

*\*\* SEM Analysis Norm (Kline, 2005) - One variable loading per latent factor is set equal to 1.0 in order to set the metric for that factor. \*Parameter estimates are based on standardized solutions*

Similarly, the construct validity was determined by examining the magnitude of the parameter coefficients. High parameter coefficients of greater than 0.5 indicate a close relation between the factor and an indicator variable. A parameter coefficient of 0.5 is interpreted as 25% of the total variance in the indicator variable being explained by the latent variable (factor). Therefore, a parameter coefficient has to be greater than 0.5 - 0.7 or greater to explain about 50% of the variance in an indicator variable (Hair et al., 1998). Hence, the inspection of the standardized factor loadings revealed that all values were generally large and statistically significant (values ranged from 0.835 to 0.924). The estimate of 0.835 suggested that the measured factor accounts for 62.55% of the variance in predicting RS. The total variances accounted for in each indicator variables by the endogenous variable revealed that the scores were significance at 5% level.

Also, the interfactor correlation (R<sup>2</sup>) values were large and statistically significant (values ranged from 0.698 to 0.854) as shown in Table 2. The interfactor correlation

( $R^2$ ) test statistics need to be greater than 1.96 based on the probability level of 5% before the hypothesis can be rejected. The test statistics is the parameter estimate divided by its standard error and therefore, it functions as a Z-statistics to test that the estimate is statistically different from zero. Inspection of the correlation values, standard errors and the test statistic, reveal that all standardized coefficient correlation values were not greater than 1.00; all test statistics (*Z-values*) were greater than 1.96 ( $p < 0.05$ ) and the signs were appropriate (positive) and found to be statistically significant. Therefore, the score results suggested that the influence of beneficiary participation in determining beneficiaries overall satisfaction with their subsidised dwelling units was direct and statistically significant.

## DISCUSSION

The finding was that BNP variables satisfied both internal reliability and the construct validity criteria. The Rho value was above the minimum value of 0.70 and the construct validity criteria was justified by the magnitude, and statistical significance of all parameter coefficients.

The SEM results revealed that the standardized factor values and interfactor correlations for the beneficiary participation latent factor were large and statistically significant. Inspection of the total variances accounted for in each measure by the BNP variable revealed that the scores were also significant. The relationship between beneficiary's participation indicators and residential satisfaction is found to be statistically significant. The parameter with the highest standardised coefficient for this factor was the indicator variable BNP3. The indicator variable BNP3, which asked the beneficiaries of their level of agreement, if owners should be consulted about the construction of their houses, was found to be mostly associated with overall residential satisfaction than all other indicator variables. Thus, the overall results suggested that the influence of beneficiary participation in determining beneficiaries overall satisfaction with their subsidised dwelling units is direct and statistically significant.

Findings suggest that when beneficiary participation is incorporated into the housing development process, the outcomes are more likely to suit local circumstances, ensure community 'ownership', and increase the sustainability and eventually the satisfaction with the housing development. Developing and maintaining the participation of beneficiaries can often be a challenge requiring various strategies and considerations. However, participation can encompass many activities. It can be beneficiary involvement in the initial planning stages of a project, the development of action plans, or being a member of working groups, reference groups and focus groups. It could mean receiving project updates in the form of a newsletter, or providing reflections or feedback about the implementation of a project strategy from a project recipient's point of view. Most times, the promotion of beneficiary participation in both project planning and implementation are implemented especially with regard to: project location; type of land tenure; type and level of services; house design; position of the house within the housing location; choice of material supply; and house construction methods, etc.

The SEM results advanced that the beneficiaries' participation in a housing development project that concerns them, could potentially lead to the implementation of appropriate responses through their being consulted about the housing location, house design, house construction and selection of the internal finishes of the house, which can be incorporated into the development process and eventually lead to their



satisfaction and sustainability of the housing project. Hence, the findings from the study did not concur with the work of Lizarralde and Massyn (2008) where it was found that the performance (satisfaction) of low-cost housing projects does not depend on community participation. Also, Davidson et al. (2007) previously found that community participation can easily become rhetoric in its implementation if it is not well guided. However, in the study done by Lizarralde and Massyn (2008), it is further reported that community participation was wrongly implemented in the reported case studies. In other words, the principle is 'good' but the implementation failed, hence the statement that the performance of low-cost housing projects does not really depend on community participation. In reality, the performance of low-cost housing projects depends on a complex interaction of participants' interests, objectives, resources and processes that go beyond the benefits of the participation of the beneficiaries alone. Hence, it should be stated that the participation of the beneficiaries is not positive; in fact it is crucial. The SEM results thus suggest that when beneficiaries have control over resources affecting their lives, it can lead to changes in knowledge and skill and their needs and expectations would have been taken care of through their activate participation in the development process.

## CONCLUSIONS

This paper presented findings from an investigation conducted in South Africa subsidised low-income housing, on the influence of beneficiary's participation in the prediction of residents' satisfaction with their houses. The finding was that beneficiary participation influence on the residents' satisfaction was statistically significant and hence exacted a direct influence in the prediction of the residents' satisfaction with their houses.

The findings further revealed that when the beneficiaries' are made to participate in the housing process, they will understand what the housing project entails and it will limits misunderstandings with regards to the overall project aims. Hence, in order for subsidised low-income housing development to be truly sustainable in South Africa, it is recommended that the government and other stakeholders should practically encourage participation in the housing development process; educate the beneficiaries' on various issues such as sustainability, empowerment, capacity building, self-reliance and effectiveness. Government support is critical in starting any form of beneficiary participation policies; which should be drafted to create a regulatory framework and an enabling environment that facilitate active participation in line with the principle of democracy as have been firmly entrenched by legal frameworks in South Africa.

Also, it is recommended that municipalities, who mostly are responsible for the housing development, should develop a culture of public participation by building the capacities of local communities as specified by the Municipal Property Act of 2004.

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