

A MODEL FOR ASSESSING THE HOUSING SATISFACTION OF BENEFICIARIES IN PUBLICLY FUNDED HOUSING IN SOUTH AFRICA

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ABSTRACT

A model is proposed for predicting and measuring the housing satisfaction level of public housing schemes in South Africa, a case study of the Gauteng Province (economic hub of Southern Africa). The suggested model assumes the measurement of housing satisfaction both subjectively, in terms of beneficiaries' satisfaction with the housing environment; the adequacy level of the dwelling and its environment. It is hoped that such a model will help in testing different types of public housing provisions in South Africa and assist in identifying the most predictive and useful factors that need to be given proper consideration in the implementation of policy governing public housing provision. This paper introduces the model and its development process and the outcome of its testing and the validation programme will be reported later. It is important to note that the research model has been developed to fit the conditions of South Africa and its application in a different set of condition would need further alteration and adjustment to fit the specific context.

Key words: housing satisfaction, housing adequacy, beneficiaries' satisfaction, publicly funded housing, South Africa

Introduction

In South Africa, efforts to meet needs which include housing for the low-income and the disadvantage groups have been placed in the hands of the public sector. In the Gauteng province of South and in all other eight provinces, the provision of decent and affordable housing for the urban poor is undertaken by the provincial Departments of Human Settlement (DHS).

At present, the housing problem in Gauteng is not just concerned with supplying large numbers of new dwelling units; other matters need to be given high priority in seeking an overall effective lasting solution to the problem of housing. There are at least two concern about housing in the Gauteng province; one is quantitative – too few housing units for those needing them; that is, the number of housing provided through the present housing subsidy and policy systems do not meet the demands for the low-income group. The other kind is qualitative- the housing units being provided are unsuitable for the beneficiaries (the housing type not been satisfactory to the beneficiaries housing need, even though there is an improvement of comfort compared to former housing situation). Quantitative problems come and go cyclically, depending on the economy and on the extent of population changes. However, qualitative problems seem always with us. But their nature however changes from decade to decade. Qualitative concern is very important as it influences the quality of life and affects the psychosocial aspects of the inhabitants. Hence, solutions must recognize this, although rapidly changing circumstances reinforce the urgency of the problem and tend to overemphasize the importance of quantity at the expense of quality. There is therefore an exigent need to embrace an approach to housing programming, design and construction which is consistent with qualitative as well as quantitative considerations. This should include an emphasis on the satisfaction of functional needs, on environmental quality and on people's perceived residential requirements, in order to increase the effectiveness of housing provision and the ultimate satisfaction of the residents with the provided houses. Hence, this research will assess the housing satisfaction level of public housing schemes occupants' in the Gauteng province of South Africa that were constructed from the project-link subsidy of the Reconstruction and Development Programme (RDP). Government houses constructed through this programme since 1994 to date and are in close proximity to each other will be considered in the research. Public housing in close proximity will be considered in this study in order to eliminate the impact of variables that may arise due to difference in location. The objective of the research will be achieved by constructing a model to measure and assess the predicting factors of housing satisfaction level of beneficiaries of public housing schemes in terms of adequacy and satisfaction in South Africa.

According to Turner [1] and Falah et al. [2], satisfaction does not only exist when supply matches demand, but when the beneficiaries are satisfied with the product when needs are being provided for and are also fulfilled. Thus, this indicates that the

quality of housing provision in relation to the satisfaction of the users is imperative as it will provide certain guiding principles for the formation of housing policies and programmes for any particular entity. However, this is only one indicator of the overall success of a housing scheme. Therefore, housing satisfaction is defined as a measure of the adequacy of the living environment as evaluated by the residents. Literature has shown that a dwelling unit by itself is not the only determinant of residential satisfaction. It is only a part or a sub-system of the whole system that constitute residential habitability [3]. However, most of the literatures related to measuring of housing satisfaction confirms the view that it should be a multi-dimensional measure through the use of objective and subjective tools. To this end, the research attempts to measure the satisfaction of beneficiaries' in public housing schemes by combining both objective and subjective variables as will be discussed later. Before the proposed research model is built, an in-depth analysis of the existing housing satisfaction models will be discussed in the next section.

Residential Satisfaction Conceptual Models

Previous models of residential satisfaction have been dedicated to three main components that constitute the environmental interrelationship between man and his environment, that is, the residents (the human part of the system) and the socio-physical environment and satisfaction (the regulator of this complex relationship). In explaining the residents' satisfaction, behaviour, choice and mobility, Michelson [4] came up with an integrated model.

Michelson's Integrated Model

Michelson [4] proposes an integrated model that explains residents' mobility and choice, user needs, and environment and behaviour. The major constructs of Michelson's model were: aspirations, primary demands, expectations, the physical settings, perception and culture, and residents' behaviour. The theoretical framework of the model focuses on residents' satisfaction as a major determinant in residents' mobility from their homes. In his model, Michelson [4] starts by supposing that residents have aspirations and primary demands in interacting with their housing environment. Through residents' expectations, residents' aspirations and primary demands influences the physical and social characteristics of the physical settings. After residents' experience the physical setting, an assessment occurs through perception and culture, and spatial, social and psychological factors. Successively, this evaluation shapes residents' foreseen and unforeseen behaviour according to Michelson [4]. The resultant behavioural pattern is a consequence of supportive or restrictive characteristics of the new physical setting [5]. Michelson's model likewise assumes changes in the users' primary needs, as a result of actual contact with the physical setting. These changes in the users' primary needs affect the evaluation of the housing environment. The users' evaluation may yield negative or positive

perception followed by an action in the physical setting. Actions related to negative perception, such as dissatisfaction, could be moving out of the neighbourhood, altering the use of space or adopting physical means to change or modify the design of the space. In addition, the model describes that the residents' action may not depend on the residents' evaluation of their housing setting, but rather on the ability to achieve their aspirations. In other words, a resident may not move because they cannot afford something better or it is not available at all. Michelson [4] further informs that the ability to achieve aspirations may lead to negative evaluation of present homes in favour of new or better ones. However, it can also be blocked by lack of affordance or absence of a better environment.

Onibokun 'Habitability' Model

Onibokun [3] postulated that assessing habitability means evaluating the satisfaction of a tenant living in a specific housing unit. This housing unit, according to Onibokun, would normally be part of a housing project located within a particular community under some type of institutional management. Onibokun [3] emphasized that the housing habitability systems usually involve four interacting subsystems, which include: the tenants subsystem, the dwelling subsystem, the environment subsystem and the management subsystem. In the Onibokun model, it was hypothesised that the adequacy of a housing unit, as determined by the internal space, the structural quality, the household services, and the amenities and the quality of the internal environment will impact the extent to which the resident is satisfied with the unit. It was argued that the housing unit by itself is not the only variable or the only determinant of housing need satisfaction. The unit subsystem according to the model is only a part of the whole system, which constitutes housing habitability. The habitability model thus emphasized that the variables that will affect the satisfaction level with a housing unit are: tenant, external environment, management and dwelling variables. In particular the model singled out the inhabitant as the recipient of all the feedbacks from the subsystems and is therefore the central focus of the conceptual model of habitability on which a study on housing habitability should be based [2]. However, this concept remains limited with respect to the real and complex situation of housing satisfaction.

Marans-Rodger Model

Another conceptual model of residential satisfaction is that developed by Marans and Rodger [6]. The model conceptualized that an individual's satisfaction with housing depends on their perception of the various neighbourhood characteristics and their assessment thereof. The neighbourhood attributes include several aspects of the physical environment and the quality of local or community services. The Marans-Rodgers Model conceptualized that both the perpetual evaluative process and the overall satisfaction level are related to the person's own characteristics, such as social class, housing status, amongst others. These socio-demographic variables involve a smaller portion of residential satisfaction that does the assessment of neighbourhood

features. However, when personal characteristics were combined with valuation variables as predictors of residential satisfaction, it was found that the former were largely taken into account through the latter, and did not have much independent influence on the level of satisfaction. Nevertheless, in spite of adding new factors that will have an impact on satisfaction (neighbourhood and community), Marans and Rodgers [6] assessed personal characteristics through the assessments of housing and neighbourhood attributes. The assessed variables were found to be insufficient to fully assess personal characteristics. This limitation in the model was what led to the development of the Path Analysis Model, which emphasizes the impact of other significant variables which are neighbourhood and community variables. The Marans-Rodgers [6] model measured satisfaction with the community, the macro-neighbourhood, and the micro-neighbourhood, and found that satisfaction with community related more to social factors, while satisfaction with neighbourhood related more to physical factors.

Path Analysis Model

The Path Analysis Model as proposed by Hourihan [7] hypothesizes that personal characteristics are inter-related. The principle concern of the Path Analysis Model is the relationship between the personal characteristics of residents and their levels of satisfaction. The model specifies that residential satisfaction begins with residents' personal characteristics. These comprise the measure of social class, local social attachments, residential experience, life cycle stages and housing type. For example housing type is dependent on social class, and social attachment in turn, may well be related to housing type. Only social class and length of residence were treated as being totally predetermined variables, and these would then influence all other personal indices. Neighbourhood attributes have also been found to have a direct contribution to housing satisfaction. Attributes, such as safety, design of dwelling unit, stability and friendliness, were found to form a fairly comprehensive profile of each resident's perception and assessment of the neighbourhood. The model confirms the importance of personal and neighbourhood variables.

Normative - Housing Adjustment Model

The Normative model was first proposed by Morris and Winter [8]. They introduced the notion of housing deficit to hypothesize residential (dis)satisfaction. In their Housing Adjustment Model of residential mobility, they theorize that individual's judge their housing conditions according to normatively defined norms, which are dictated by societal standards or rules for life conditions, and family/personal norms, which amount to households' own standard for housing. Thus, families evaluate their own residential situation and that of others using definite culturally derivative benchmarks as norms. Hence, a family whose housing does not meet these standards, experiences one or more deficits. The housing adjustment theory contends that if a household's current housing meets the norms, the household is likely to express a

high level of satisfaction with housing and neighbourhood. Thus, an incongruity between the actual housing situation and the cultural and/or familiar housing norms, results in a housing deficit, which in turn gives rise to residential dissatisfaction. Households with a housing deficit who are dissatisfied are likely to consider some form of housing adjustment to meet the known norm. Housing norms are standards related to the dwelling and its environment. They vary from zoning regulations that specify, amongst other things, the minimum distance a house must be set back from the street to very informal rules about having a quiet place to live in [2]. The Normative Model emphasizes, in addition to the many variables common to the previous models, the significance of culture which is a very important factor in satisfaction research and in all research involving developing countries. But the factor (culture) was not considered as a separate factor in the current study, since every subjective decision made by the occupants' is influenced by their cultural background. Although, the Normative Model postulates that a standard (good or bad) should be set according to the cultural environment of each country. Standards should be set in relation to local housing needs, which take into account cultural and ethnic factors, rather than using some universal standards set in different countries. In a developing nation, like South Africa, and in most developing countries where housing standards for the low-income are fully regulated, it is essential to measure, as objectively as possible, the physical quality of housing and its environment without predetermined ideas of housing standards derived from the developed nations of the world. However, a number of empirical studies have demonstrated that housing deficit is a useful notion in explaining residential satisfaction and mobility behaviour [9].

Francescato Model

In an attempt to understand the man-environment relationship, which was a question of an understanding of the 'users needs' by the Design and Planning Professions during the 1960s; Francescato et al. [10] began to examine residents' satisfaction with the housing environment. In that study, issues identified were thought to be important to residents of housing and developed self-report measures for these issues and for satisfaction. The empirically derived causal model revealed a range of issues to be direct and indirect predictors of housing satisfaction. The empirically derived causal model has been a prototype of later housing satisfaction studies and has been used as framework by several housing evaluation researchers. The Francescato model shows the multi-faceted character of the housing environment. The model identifies important predictors of residents' satisfaction with their housing environment, such as safety, physical convenience, and social interaction. Some of the predictors related to the physical environment, some to the social environment and some to the housing environment. This brought about the notion that residential satisfaction can be conceived in three levels, which are: the residential (physical) environment, the social environment and housing (individual) environment or characteristics. The Francescato [10] Model assumes a direct functional relationship between satisfaction and each of the above components, that is, residents' characteristics and socio-physical

components. Although the model includes all the basic components for measuring satisfaction, residents' behaviour and values were not included in the model [5]. The model also ignores the various levels of the physical environment, such as the home, neighbourhood and city. Another criticism of this model is that it focuses on satisfaction as an outcome of one side of the equation, while the human behavioural aspects were completely ignored.

Weidemann and Anderson Model

Weidemann and Anderson [11] seeking a more advanced understanding of resident housing satisfaction, developed a conceptual framework for housing satisfaction by drawing on other theories and models. This led to their development of a conceptual framework for the Residential Satisfaction Model. The model was based on the concept found in Fishbein and Ajzen's [12] general Theory of Reasoned Action. The conceptual framework makes explicit several of the theoretical orientations and the assumptions that underline housing satisfaction approach. The model explicitly recognizes the causative role of the physical and social environment by indicating these as categories of 'objective attributes' of the particular environment. The objective environmental attributes have an influence upon a person's satisfaction, which is defined as an attitude and affect on the physical and social environment – through the person's perceptions and beliefs about those environmental attributes. In addition, this model recognizes that the person's affective attitude toward the environment influences the person's intentions to behave with respect towards the environment. Subsequently, the occupant's intention to behave has an influence upon behaviour related to the environment [11]. They therefore, propose an interpretation of satisfaction in purely affective terms, informing that housing satisfaction is the subjective response to the dwelling, the positive or negative feeling that the occupants have towards the place they live in. Hence, it is a global representation of the affective response of people to the social-physical environment in which they live. The theoretical model explicitly includes personal and social information, which many social researchers' have neglected. However, the characteristics of the individual resident in relation to personal and social attributes should be considered as potential predictors of housing satisfaction. Therefore, with respect to housing satisfaction, inputs of resident's characteristics with personal and social attributes are important, and housing satisfaction cannot be properly interpreted without them, which have been considered in the present study.

Marans and Sprecklemeyer 'Inclusive' Model

Marans and Sprecklemeyer [13] further suggest a theoretical framework which attempts to clarify the relationship between objective conditions, subjective experience and residential satisfaction. The basic three components of the Marans and Sprecklemeyer Conceptual Model are: the physical environment, the perception and attitude of the residents towards their housing environment, and residents'

satisfaction. Marans and Sprecklemeyer [13] in their study, assumed a linear relationship between objective attributes of the physical environment, and residents' satisfaction. The model posits that satisfaction is a function of the physical environment through one's perception and beliefs of the physical environment. Hence, housing satisfaction is a result of an integrated relationship between environment and the human perception of beliefs. Additionally, the model assumes that human behaviour is a result of the satisfactory or dissatisfactory outcome of the relationships produce amongst the variables.

Measuring Housing Satisfaction

From all the conceptualised models discussed above, the work of Marans and Rodger [6] is the most comprehensive conceptual model of residential satisfaction [7] and many other studies have been based on it. The model hypothesized that the individual's satisfaction depends on his/her perception of three domains (the dwelling unit, the neighbourhood and community facilities). In disparity, the path analysis and the Onibokun models specify that housing satisfaction is based on the occupants' personal characteristics. Which thus informed that, the central focus of their models is the inhabitant. This is a limited assessment of the nature of housing satisfaction which in practice has several other dimensions. In addition, the Marans-Rodgers model also postulates that overall satisfaction should be related to the person's characteristics. However, according to Hourihan [7] these socio-demographic variables account for a small proportion of housing satisfaction level than do the assessments of the three domains of measurement. The normative and Marans-Rodgers models emphasized that as well as looking out from the inside, housing satisfaction should be evaluated by looking in from outside by measuring the eccentricities of actual conditions from norms or standards [4] [2]. Studying these previous satisfaction models leads to the conclusion that the essential variable that have an impact on housing satisfaction are contained within the following four main domains: Personal characteristics; Dwelling unit; Neighbourhood; and Community services.

Because of the disagreement between researchers as to the relative importance of these four different variables, this research will assess the entire housing satisfaction variable and measure all of them, and will also take into consideration the impact of cultural factors imposed by the South Africa context. Also to be considered in the new model to be developed will be the factors of government consultation with the beneficiaries prior to them being shortlist to be given houses and also the impact of needs and expectations of the beneficiaries'. Therefore, because of the reasons stated above, this research model will combine the essential variables of the residential environment together with the personal characteristics of the residents in the assessment of housing satisfaction.

Methodology

The aim of this paper is to build a model for predicting and measuring the housing satisfaction level of public housing schemes in South Africa, a case study of the Gauteng Province (economic hub of Southern Africa). A post occupancy approach has been adopted for the study whereby the occupants' perception of their housing environment is considered of utmost importance, and hence becomes the focus of the analysis. This study therefore measures the success of state provided in South Africa housing based on the satisfaction of the occupants' with their housing units and its environment. The suggested model assumes the measurement of housing satisfaction both subjectively, in terms of beneficiaries' satisfaction with the housing environment; the adequacy level of the dwelling and its environment. It is hoped that such a model will help in testing different types of public housing provisions in South Africa and assist in identifying the most predictive and useful factors that need to be given proper consideration in the implementation of policy governing public housing provision.

The first stage towards understanding residential satisfaction amongst the South Africa low-income occupants is the identification of satisfaction models. Hence, as part of the current model development, previous models were investigated which formed the basis for the second stage of the study which was a Delphi study (qualitative study). The Delphi Method was used for the second stage of the study to identify the main attributes that brings about residential satisfaction and to examine if the attributes that determine satisfaction in other cultural contexts as identified from the literature, is the same within South Africa. Also, the Delphi Technique was used to explore the extent of these main-sub attributes - factors impact / influence on residential satisfaction in South African low-income housing. The Delphi Technique was originally developed in the 1950s, as a tool for forecasting and problem solving of complex topics at the Rand Corporation by Helmer and Dalkey. The Delphi Technique is a qualitative methodology seeking to produce a consensus of a group of experts on an issue of concern [14] through a survey consisting of rounds. The Delphi Method is based on structural surveys and makes use of intuitively available information of the participants, who are mainly experts in their various fields. The method provides qualitative as well as quantitative results, and has beneath its explorative, predictive even normative elements [15]. The main outputs from the Delphi Study will be the identification of the factors of residential satisfaction in South Africa, with significant influence and a conceptual model defining residential satisfaction in South Africa. The conceptual model will be validated by results from the Field Questionnaire Survey.

Phase Three of the research involved collecting data from the field through the use of questionnaires in order to meet the general objectives of the research. Phase Three formed the pinnacle of the research. The research will study residential satisfaction as a multidimensional construct, which consists of the occupants' satisfaction with the

dwelling unit features, neighbourhood features, building quality, services provided by government, beneficiary participation and needs, and expectations. These factors will be collectively considered for the development of a holistic integrated residential satisfaction model in this study. Four of the factors have been previously considered in the development of residential satisfaction model in other cultural contexts, but none of the existing models to date have included both beneficiary participation and needs and expectations as factors to develop a model to assist housing authorities in the construction of houses that will be satisfactory to the poor and low-income group. Therefore, in order to validate findings from the Delphi Study, the specific objectives of the questionnaire survey will be to: identify the factors that had a higher influence on low-income housing occupants' residential satisfaction; to establish the influence of the identified factors on occupants' residential satisfaction; to determine the influence of the overall residents' satisfaction on subsidised low-income occupants' behaviour; and to determine the goodness-of-fit of the hypothesised integrated holistic residents' satisfaction model to the sample data.

Establishing the Reserch Model

Most residential satisfaction study models have combined both objective and subjective attributes for the assessment of residential satisfaction. For instance, Francescato, Weidemann, and Anderson [16] suggest that residence satisfaction with any residential dwelling depends on three elements, which are: the design of the house, (i.e. the dwelling space organisation, layout and facilities provided); the management practices; and the surrounding social aspects. Varady and Carrozza [17] acknowledge that residential satisfaction encompasses four distinct types of satisfaction, which include: satisfaction with the dwelling unit; satisfaction with the services provided, including repair services; satisfaction with the whole package received, as in the case of public housing, where no rent is paid (dwelling and service); and satisfaction with the neighbourhood or area.

These four constructs as proposed by Varady and Carrozza [17] is also supported and adopted for the current study. Furthermore, Husna and Nurizan [18] maintain that outside the facilities in the house, other basic facilities, such as shops, markets, schools, clinics, mailing system, community hall, playgrounds, and others are important to support the daily life of the occupants, and enhance their quality of life. Likewise, Oh [19] states that there are three main qualities, which bring about residential satisfaction, which are: the quality of the dwelling; the quality of the close environment; and the quality of the urban site, which impacts on the quality of housing. Therefore, based on the review of literature on variables that are likely to affect residential satisfaction, the present model considers the residential satisfaction bundle in a typical low-income housing development to contain the dwelling unit features; neighbourhood and environmental features; services provided by the government; building quality features. All these are the constructs that have been

frequently conceptualized in most residential satisfaction studies. However, the present model brings into focus the impact of needs and expectations features and beneficiaries' participation features. These two additions are the gaps identified from the review of literature, which were found peculiar to the South Africa situation (Figure 1).

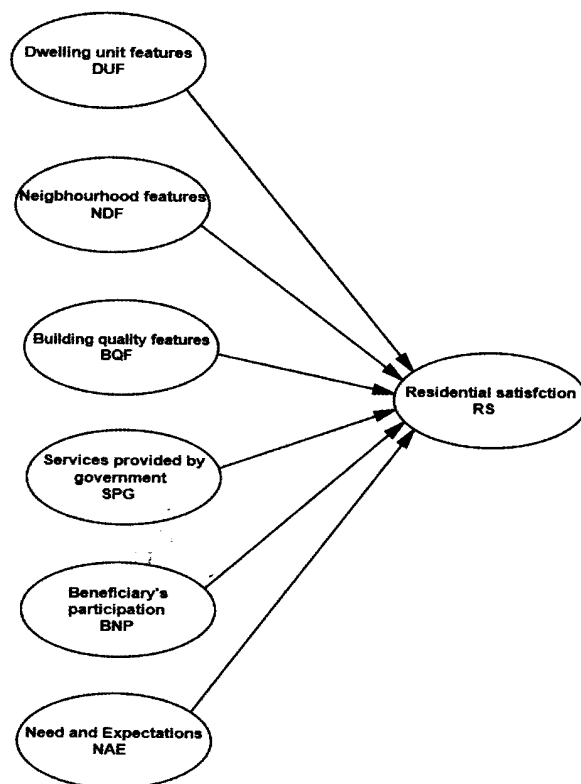


Figure 1 : An Integrated Conceptual Model of Residential Satisfaction

Model Specification and Justification

This study aims to build a conceptual residential satisfaction model centered on the subsidised low-income housing scheme. The theoretical conceptual framework for the current research builds on the work of Marans and Rodger [6] and Marans and Sprecklemeyer [13] models of satisfaction. Marans and Rodger [6] conceptualized that an individual's overall satisfaction with housing depends on their perception of the various neighbourhood characteristics and their assessment of them. Marans and Rodgers's [6] model also conceptualized that both the perpetual evaluative process and the overall satisfaction level are related to the residents' own characteristics, such

as social class, housing status amongst others. Similarly, Marans and Sprecklemeyer [13] further determined that residents' satisfaction is a function of the physical environment through one's perception and beliefs of the physical environment. In this particular model, housing satisfaction was derived as a result of an integrated relationship between the environment and the human perception of beliefs. The three basic components of the model were: the physical environment, the perception and attitude of residents toward their housing environment and residents' satisfaction. Based on the fundamental underpinning of these two models, and the incorporated theoretical perspectives, which has been adopted in other similar studies, they are therefore useful for conceptualizing the present study as a variety of satisfaction studies with urban housing living being conceptualized within the broad theoretical framework.

Therefore, the conceptual framework for the present developed is primarily based on the approach used by Marans and Rodger [6] when they view residential satisfaction as a criterion of evaluation of residential quality and, at the same time, as a variable predicting certain behaviour. In this regard, residential satisfaction was treated as a criterion variable and, therefore, as a dependent variable. The approach was also used by Galster and Hesser [20] and Weidemann and Anderson [11], which has also been adopted in the current study. Based on the fundamental factors and constructs associated with all the previous models, the present model or conceptual framework model for the study looks at the relationship of the dwelling unit, neighbourhood and environmental features, services provided by government, building quality, which are the essential variables that have been measured in a majority of the previous studies, with the inclusive consideration of the impact of needs and expectations and beneficiaries participation; which have been classified as the exogenous variables and their role in predicting overall beneficiary residential satisfaction, which is the endogenous variable. These will in turn, predict the beneficiaries' satisfaction towards the housing stock, behaviour to maintain the housing stocks and their overall responsibility in the low-income neighbourhood, or likelihood to move and eventually place attachment. The study aims to forecast the relative predictive power of these different variables for beneficiaries housing satisfaction in order to test/determine if residential satisfaction depends on the supposed features of the variables, taking into account the effects of the beneficiaries needs, expectations and meaningful participation prior to construction in alliance with the South Africa Housing Policy and Codes, and as emphasized by other frameworks. It is apparent that some of the variables discussed above should be measured by objective means, some by subjective means and some will include both forms of measurement. The reason for combining both objective and subjective indicators within the proposed model is supported by Falah et al. [2] who stated that: by themselves, objective indicators are often misleading and will remain so until indicators that human beings attached to them, are obtained. Likewise, by themselves, subjective indicators are insufficient as guides to policy.

Conclusion

The research is on-going and the current report is only on the procedure for building the holistic integrated model to study low-income housing satisfaction in South Africa. The constructs for the proposed model were chosen after an in-depth analysis of the existing housing satisfaction literatures and via a qualitative Delphi study. It is anticipated that the established holistic model will be an effective tool in assessing the housing satisfaction level of subsidised low-income housing in South Africa using the Gauteng province as case study. It is expected that the model will inform the South Africa Human Settlement Department on the idea variables to consider when planning the development of subsidised low-income housing in South Africa. Therefore, given that the previous models of residential satisfaction established in the developed countries cannot be relied on in developing countries, and the findings of what determines residential satisfaction in developing countries are rarely known from the previously conducted research, the lack of research into the overall impact and influence of the direct and holistic active involvement of residential satisfaction constructs, and the absence of a residential satisfaction model in subsidised low-income housing, the achievement of occupants' residential satisfaction is unlikely. Based on the analysis that will be generated from the questionnaire survey, a set of recommendations will be drawn which will a reference of guidance in developing countries' low-income housing policies. The factors that will be found to have impact in determining residential satisfaction, will be recommended for consideration in future planning. Consequently, housing planners, designers and other stakeholders will be advised to contribute to the ways of solving and improving the low-income groups' level of satisfaction by carefully regarding the factors that determine residents' satisfaction in housing when planning for new housing development.

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