A NOTIONAL APPRAISAL OF THE BASES OF HOUSING SATISFACTION

C. Aigbavboa, W. Thwala
Department of Construction Management & Quantity Surveying
University of Johannesburg, Johannesburg
South Africa

ABSTRACT

This article reviews previous literature on housing satisfaction, with the specific aim of identifying the factors that plays the dominant role in determining occupants housing satisfaction. This is because the notion of residential satisfaction has attracted much attention in recent years and that researchers and research bodies, be it corporate or government that try to develop housing policies should begin with an understanding of the determinants of housing satisfaction. The study is mainly an extant review of literature survey on the determinants of housing satisfaction. Findings from the study reveals that previous empirical studies have identified a number of important determinants of residential satisfaction, such as income, tenure, life cycle stages, house size, and housing quality amongst others. For example, being older, having higher income, having a smaller family have been related to more housing satisfaction. Overall, the study explores the causes of housing satisfaction; and presents a robust background on the determinants and theories of housing satisfaction and interpretations.

Key words: Housing satisfaction, occupant perception

0146-6518/02/133-145, 2016 Copyright©2016 IAHS

Introduction

Residential satisfaction describes an 'end-state', where an individual or household is satisfied with the residential status they have attained. Because residential satisfaction is based upon perception, the determinant factors essential to attain it will certainly be different in each case. However, dormant factors influencing this perception are features such as expectation, history, demographic characteristics, and the employment situation. Hence, the formation of residential satisfaction is not simply based upon freedom from dissatisfaction; it is more complex according to Lu [1]; while Salleh [2] states that it multi-layered in nature. Residential dissatisfaction is a differently composed construct; the causes of dissatisfaction are more likely to be universal "source of discontent for everyone" [3], while the sources of satisfaction are much more diverse. For instance, the beneficiaries of the South Africa housing subsidy schemes were generally dissatisfaction with the initially provided 30 square meters housing unit which has since been increased to 40 square meters in 2010.

The main reason of dissatisfaction was because the area estimation of the housing units never took into consideration the housing life cycle of the beneficiaries and other dynamics that are relevant to the beneficiaries' optimal usage of the housing units. This paper presents a review of literature on housing satisfaction, with the specific aim of identifying the factors that play the dominant role in determining occupants housing satisfaction. This is because the concept of residential satisfaction has attracted much attention in recent years and that researchers and research bodies, be it corporate or government that try to develop housing policies should begin with an understanding of the determinants of housing satisfaction. This paper contains discussions on the theory of housing satisfaction and the approaches to the study of satisfaction and a discussion on the determinant of housing satisfaction before conclusion is drawn. The research was conducted with reference to existing theoretical literature, published and unpublished literatures. The paper presents a review of literature on housing satisfaction, with the specific aim of identifying the factors that play the dominant role in determining occupants housing satisfaction.

Theory of Housing Satisfaction Research

The study of 'satisfaction' started since the 1940s and is currently being used in many disciplines such as in housing, consumer satisfaction, marketing, landscape architecture and medical fields [4]. However, it has primarily been dominated over time by social psychology scholars. Residential satisfaction research deals with the housing occupant's satisfaction, and is inclined to inform housing policy and planning intervention to perform better than previously done. Over the past decades, much research has been conducted on residential satisfaction but in different housing aspects [5] [6] [7].

Previous scholarship evaluated housing environments and residents; satisfactions with their residential environment have had a tendency to focus on: research techniques, methods, and specifics design/planning frameworks for a specific site but not a more general theory. Most previous studies on housing satisfaction have used a direct theoretical approach in relating a person's beliefs, perceptions, or affect to his or her satisfaction with housing environment. From this perspective, any belief, idea, or fact is thus a potential predictor of housing satisfaction. Housing satisfaction has also been discussed in numerous empirical scholarships which studied "characteristics of the users (either cognitive or behavioral) or characteristics of the environment, both physical and social" [8]. However, there are two general approaches to empirical research about residential satisfaction according to the classification used by Weidemann and Anderson [7]. One approach is to view residential satisfaction as a criterion of evaluation of residential quality. Amerigo and Aragones [8] argue that methodologically speaking, the studies which fall into this category are categorized by their "treatment of satisfaction as a criterion variable and, therefore, it is evaluated as a dependent variable". The theoretical background guiding this type of research is shown by the work of Marans and Rodgers [9] [10] [11]. A second approach is to view residential satisfaction as a predictor of residential mobility. In this case, residential satisfaction is considered as a predictor of behavior and, therefore as an independent variable. The theoretical model developed by Speare [12] is a good example of empirical research belonging to this second approach.

However, the concept of satisfaction has been used in at least four different ways: as a key predictor of an individual's perception of general quality of life [5]; as an indicator of incipient residential mobility, and hence altered housing demands and effected neighborhood change [12] [13]; also as an ad hoc evaluative measure for judging the success of housing developments constructed by the private sector [14] [15], and by the public sector [9] [16] and also to assess residents' perceptions of inadequacies in their current housing environment so as to direct forthcoming private or public efforts to improve the status quo [17].

Nevertheless, the broad view on housing satisfaction is provided by Campbell, Converse, and Rodgers [5]. They look at housing satisfaction as one of the predictor's of life experience, where satisfaction with that variable might contribute to a person's quality of life. Developing from this were the more specific studies of a resident's housing satisfaction and the development of theoretical models explaining the sources of satisfaction [9]. Together with these studies of housing satisfaction as a predictor of a person's quality of life, satisfaction was seen as a criterion for evaluation of housing environment. The initial work by Francescato et al. [18] and Kim [19] investigated the concept of users' satisfaction and focused primarily on a specific housing type: subsidized multi-family housing units. Weidemann and Anderson [7] noted that past models developed by numerous researchers reflect the use of both approaches and include affect, cognition, and behavior. The two approaches were first combined by Weidemann and Anderson [7] based on Fishbein and Ajzen's [20] model of reasoned

actions that considers how attitudes reflect beliefs and evaluations of residences [21] [22]. Others have also supported integrated approaches [17]. Francescato et al. [18] proposed an all-inclusive model of relationships among the environment, satisfaction, and behaviour. Amerigo and Aragones [8] attempting to understand how the residential environment, the house, the neighborhood, and neighbors are related developed the systematic model of housing satisfaction. However, the integrated model as proposed by Weidemann and Anderson [7] deals with the complicated nature of housing quality. The integrated model embodies three basic components of housing quality evaluation: objective attributes of the physical environment; residents' perception and beliefs regarding their housing quality; and satisfaction with the housing environment. These integrated models according to Weidemann and Anderson [7] can serve as a framework for research on relationships that have not been empirically tested. Integrated models can also mean organizing existing literature that many feel is disjointed and unorganized.

Nonetheless, the theories of housing satisfaction are based on the notion that housing satisfaction measures the difference between households' actual and desired housing and neighborhood situations [10]. Housing occupants make their judgment about residential conditions based on their needs and aspirations. Satisfaction with their housing conditions indicates the absence of complaints as their needs meet their aspirations. On the other hand, they are likely to feel dissatisfied if their housing and neighborhood do not meet their residential needs and aspirations. Furthermore, housing satisfaction as a measure has been criticized by some scholars as being subjective [5]. Others have acknowledged the criticism but informed that all measures have limitations and satisfaction should not be dismissed as a measure because it is a useful concept [4]. Another criticism of satisfaction is that operational definitions vary greatly because they are defined as cognitive, emotional, and/or conative.

Approaches to the Study of Satisfaction

The foundation for satisfaction lies in "mankind's ability to learn" from previous experiences [23]. Likewise, user's preferences are constantly being updated by way of the learning process. Learning theory posits that "... a given response is strengthened either positively or negatively to the extent that it is followed by a reward. Reward, in turn, leads to an evaluation that the purchase or achievement was satisfactory... and hence it can exert an effect on brand beliefs and attitude. The probability of engaging in a similar buying act or continuance in a housing scheme will be increased if there are positive consequences in the act of purchase", use of the unit and vice versa [24]. Satisfaction is a concept that has been studied in many fields such as in office evaluation by employee satisfaction [25] [26], hospital evaluation by patient satisfaction [27], and site evaluation by visitor satisfaction [28] amongst others.

However, satisfaction has been fundamental to the marketing concept for over three decades; as the most extensive use of satisfaction has been in literature concerned with customer satisfaction. Wilton and Nicosia [29] informs that several models of satisfaction have emerged over time in this field and in others, such as service quality, effect of free banking on overall satisfaction and customer satisfaction. Kim [19] argues that the models developed to date all view satisfaction as a "consumer's or user's attitude in relation to the consumer's belief and evaluation about merchandise and buying behavior". This broad use of behavior demonstrates the "appealing validity of the concept" and its efficacy in explaining the success of a range of phenomena [30]. Day [31] states that while everyone knows what satisfaction means, it clearly does not mean the same thing to everyone. Initial conceptualization of user's satisfaction views it as a "single variable which involves a single evaluative reaction from users", which may or may not be related to pre-evaluation concepts [23]. Further conceptualization of satisfaction, notes that "... satisfaction is a kind of stepping away from an experience and evaluating it... one could have a pleasurable experience that caused dissatisfaction because even though it was pleasurable, it was not as pleasurable as it was supposed to be; so satisfaction is not an emotion, it is the evaluation of the emotion" [32].

However, the most generally acknowledged conceptualization of user satisfaction concept is the expectancy disconfirmation theory [33]. Expectancy disconfirmation theory was developed by Oliver [34], who proposed that a user's satisfaction level is a result of the difference "between expected and perceived product performance, and expectations as predictions of future performance". The inclusion of expectations proposes that products satisfying high expectations are predicted to generate greater user satisfaction than products that meet low expectations. Some other researchers employ perceived performance as an additional predictor of satisfaction [35] [26]. The theory of satisfaction has its origins in the discrepancy theory [36] and other scholars have, over the years, have used some "form of comparison" to model satisfaction [30]. A number of theoretical approaches have been developed to explain the relationship between satisfaction or positive disconfirmation and dissatisfaction or negative disconfirmation. According to Oliver [34], these approaches can be seen as variants of the consistency theories and focus primarily on the nature of the "user's post-usage evaluation process". Consistency theory conceptualizes that when expectations and the actual product performance do not match the consumer will feel some degree of dissatisfaction [23]. In order to relieve this dissatisfaction, the user will make adjustments either in expectations or in the perceptions of the product's actual performance. This theory was what informed the Morris and Winter [37] mobility theory of residential satisfaction. Over the years, a number of authors have used some form of comparison to model satisfaction. Some theoretical approaches which have been advanced amongst others include: assimilation theory, contrast theory, assimilation-contrast theory, and negativity theory. The most well-known descendent of the discrepancy theory is the expectancy disconfirmation paradigm [38], which states that, if performance exceeds expectations, users will be positively disconfirmed or satisfied. On the other hand, if performance fails to meet expectations, users will be

negatively disconfirmed or dissatisfied. Positive disconfirmation leads to increased satisfaction, with negative disconfirmation having the opposite effect, while zero disconfirmation occurs when performance matches expectations (no effect on satisfaction). Kotler, Siew, Swee and Chin [39] inform that this is because user's expectations are formed on the basis of past experience, statements made by friends and associates. Oliver [40] and Mastura, Noor, Osman and Ramayah [41], proposed that expectations could be exceeded in two different ways: the level of performance is within a normal range (product was better than expected); the level of performance is surprisingly positive (one would not expect that the product would have performed so well) and delight.

The expectancy disconfirmation model not only explains satisfaction with product performance, but also service satisfaction. There has been a strong support for the disconfirmation paradigm as a measurement of satisfaction, however, Churchill and Surprenant [35] found some inconsistencies in the model whereby neither disconfirmation nor expectations have any effect on user satisfaction with durable products. Satisfaction, according to Churchill and Surprenant [35] is determined exclusively by the performance of the durable good. This again puts the burden of a genuine evaluation result in the hands of the user's; because they are the ones that can determine if the service being rendered is durable in terms of how the different aspects helps to meet their needs.

Contributing Factor of Residential Satisfaction

The emphases of most studies on housing satisfaction have been to establish the effects of various housing, neighborhood, and household features on residential satisfaction [42] [1]. Various studies have analyzed the correlates of observed housing satisfaction for specific population groups as already described above. Also, a host of variable individuals' representing housing and neighborhood characteristics, demographic attributes, as well as their perceptions of housing and neighborhood conditions have been analyzed in previous studies. They vary from the home size to personal collections. According to Lu [1] differences in "model specification and data type" collected prevented a direct comparison of the empirical results; but two features of those studies are worth nothing. Firstly, Weidemann and Anderson [43] promotes that the significance of the perceptual variables has been emphasized because of the belief that what is important in determining individuals' residential satisfaction is their perception rather than the actual structure of the residential surroundings. In other words, objective measures of housing and neighborhood attributes alone do not provide an adequate explanation of satisfaction. Secondly, Crull et al. [44] informs that "dwelling satisfaction and neighborhood satisfaction" are measured differently and are often analyzed separately. But, it must be noted that the two types of satisfaction are also interrelated. This is because the assessment of one's housing, for example, is likely to include its immediate surroundings, even one's relationship with neighbors [1].

Overall, most studies have identified a number of important determinants of housing satisfaction, such as income, tenure, life cycle stages, house size, and housing quality. For instance, being older, having higher income, having a smaller family have been related to more housing satisfaction [5] [10] [37]. Homeownership, particularly owners of single family homes, are almost always more satisfied with their homes and neighborhood than are renters. Also, available space in the house has a significant positive effect on residents' dwelling satisfaction. Neighborhood satisfaction has been found to be an important predictor of dwelling satisfaction; but there are also inconsistent and conflicting results in the literature on several other variables. Onibokun [45] further argued that the residential satisfaction (habitability) of a house is influenced not only by the engineering elements, but also by social, behavioral, cultural, and other elements in the entire societal-environmental system. The house, as informed by Onibokun [45], is only one link in a chain of factors that determine beneficiaries' relative satisfaction with their accommodation. According to the literature, housing characteristics, neighborhood characteristics, and household characteristics have also, been viewed as the essential determinants of residential satisfaction [8] [10] [1]. Housing characteristics include the age of houses [46], interior and proximal exterior environments, and other aspects of housing, such as, building quality and disrepair [8]. Sirgy and Cornwell [47] identified neighborhood, social, economic, and physical features as the major determinants of residential satisfaction. The social features most often regarded as important include interaction with neighbors, attachment of the communities, perceptions of privacy and safety at home, and others. Neighborhood socio-economic status and home values, and community cost of living are factors used to measure the economic features of neighborhood [46] [1]. Physical features are other infrastructural and equipment settings, and these regard the quality of environment of the community, such as lighting of streets as informed by Dahmann [48], crowding and noise level, hypothesized by Gomez-Jacinto and Hombrados-Mendieta [49] and Bonnes et al. [42], and green area or open space by Turner [50].

Furthermore, housing satisfaction is influenced by the numerous components in the housing system and the background characteristics of the occupants. Other factors that have been found related to housing satisfaction include: marital status, number of children and family size, socioeconomic status, education, employment and welfare, housing physical characteristics, satisfaction with housing physical condition and management services [45], social participation and interaction and past living conditions as well as residential mobility and future intention to move. However, there is little agreement on the effect of these factors on residential satisfaction. Lu [1] argues that the "inconsistent in most research findings may be attributed to the fact that such key variables as residential satisfaction are often defined differently. As well as the inappropriate statistical techniques that was employed in measuring the determinants.

Measuring Residential Quality and Adequacy

It is worth nothing that previous theories of residential satisfaction all centers upon the concept that residential satisfaction measures the difference between households' actual and desired (or aspired to) housing and neighborhood characteristics [10]. A significance issue in all models of residential satisfaction is how the housing attributes are measured. There are commonly two types of measurements available, namely objective and subjective measures of housing attribute found in literature. All previous models have assessed the level of housing satisfaction subjectively, which is only one indicator of residential satisfaction. Consequently, an objective measure of housing satisfaction is essential to have an all-inclusive model. Objective measures refer to the actual measurements, such as the presence, the lack of, or quantities of attributes while subjective measures refer to perceptions, emotions, attitudes and intentions towards the housing attributes. The objective measures of the attributes of housing satisfaction have been shown to be weaker predictors than the subjective measures [18] [7]. The main objective measure technique which has been used in assessing housing satisfaction was first adopted by Morris et al. [51] who classified three areas of housing quality: structural quality, which refers primarily to durability of the shell; service quality, which is concerned with the kinds of equipment, facilities and conveniences which the dwelling provides; and the state of maintenance and caretaking. The measure of quality used by Morris et al. [51] consisted of 26 items that measured these three identical areas. The presence or absence of a particular characteristic was used as the prime basis for the assignment of a score to the various items. Morris et al. [51] further emphasized that the procedure was based on traditional scaling techniques.

Also, it has become common; in measuring housing satisfaction with the use of an index of highly correlated items rather than a single-item variable of how satisfied are you with your housing; which is insufficient to illustrate satisfaction as a multifaceted construct. Francescato et al. [52] addressed this issue in two ways. First, they proposed a list or index of four questions reflecting overall satisfaction with housing: how satisfied are you with living here? How long do you want to live in this housing development? If you move again would you like to live in another place like this? Would you recommend this place to one of your friends if they were looking for a place to live? The authors conceptualized satisfaction as an attitude which has affective, cognitive and conative dimensions. However, the reason given by other authors [53] [7] who also used such an index suggests that it increases the reliability of the criterion since it would seem that an index is essentially better than a single item.

Conclusion

The paper presented a review of literature on housing satisfaction, with the specific aim of identifying the factors that play the dominant role in determining occupants housing satisfaction. Finding from the literature revealed that a whole lot of factors determines

housing satisfaction ranging from income, tenure, life cycle stages, house size, housing quality, being older, having higher income, having a smaller family, age of houses, interior and proximal exterior environment, building quality and disrepair, place attachment, perception of privacy, safety at home, home values and homeownership amongst others. However, homeownership is said to be a major determinant factor of satisfaction within the owners of single family homes, than renters. Also, available space in the house was found to be a factor that also influences residents' dwelling satisfaction. However, neighborhood satisfaction has been found to be a major predictor of housing satisfaction; but at times, there are inconsistencies and conflicting results in the literature on several other variables that also affects satisfaction of occupants. Likewise, housing satisfaction is also said to be determine by the social, economic, behavioral, cultural, physical features and other elements in the entire societal environmental system. This is because the house is only one link in a chain of factors that determine beneficiaries' relative satisfaction with their accommodation. Therefore, housing characteristics, neighborhood characteristics, culture, and household characteristics are the major essential factors that determine housing satisfaction.

Further findings revealed that the prime approach used in the study of satisfaction are all variants of the consistency theories and focus primarily on the nature of the user's post-usage evaluation process. Also, findings from the literature revealed that the concept of residential satisfaction has been used in at least four different ways: as a key predictor of an individual's perception of general quality of life; as an indicator of incipient residential mobility, and hence altered housing demands and effected neighborhood change; also as an ad hoc evaluative measure for judging the success of housing developments constructed by the private sector, and by the public sector and also to assess residents' perceptions of inadequacies in their current housing environment so as to direct forthcoming private or public efforts to improve the status quo. Lastly, literature reveals that the measures of satisfaction have been met with criticism. Though it is important to be aware of these limitations; however, it is clear that they do not preclude satisfaction from being a useful concept, as there are limitations to all research investigations. Thus, the criticisms point out the urgency for research that addresses them with a clear theoretical foundation.

References

- 1. Lu, M. (1999). Determinants of Residential Satisfaction: Ordered Logit vs. Regression Models. Growth and Change, 30 (Spring): 264-287.
- 2. Salleh Nor Aini, A., Yusof Nor Aini, Salleh Abdul Ghani and D. Johan Noraire (2011). "Tenant Satisfaction in Public Housing and Its Relationships with Rent Arrears: Majlis Badaraya Ipoh,Oerak, Malaysia." International Journal of Trade Economics and Finance 2(1): 10-18.

- 3. Hourihan, K. (1984). "Context-dependent models of residential satisfaction: An analysis of housing groups in cork Ireland." Environment and Behavior 16: 369-393.
- 4. Potter, J. J., Chicoine, J. L., and Speicher, E. K. (2001). Predicting Residential Satisfaction: A Comparative Case Study. EDRA 32, Proceedings, University of Nebraska Lincoln.
- 5. Campbell, A., Converse, P.E., Francescato, S., and Weidemann, S. (1976). The quality of the America life: Perceptions, evaluations, and satisfaction, New York: Russell Sage Foundation.
- 6. Francescato, G., Campbell, A., and Weidemann, S. (1987). Residential satisfaction: its uses and limitations in housing research, in: Housing and Neighbourhoods: Theoretical and Empirical Contributions, Greenwood Press: New York.
- 7. Weidemann, S. and. Anderson, J.R.A. (1985). A conceptual framework for residential satisfaction. In Home environment. I. Atman and R. Werner, Plenum Press, New York. Wilton, P. and Nicosia, I., 1986, Emerging paradigms for the Study of consumer satisfaction. European Research, 14(1): 4-11.
- 8. Amerigo, M. A. and I. J. Aragones (1997). "A theoretical and methodological approach to the study of Residential satisfaction." Journal of Environmental Psychology 17: 47-57.
- 9. Marans, R. and Rogers, S. (1975). Toward an understanding of community satisfaction, New York: Halstead Press.
- 10. Galster, G.C. and Hesser, G.W. (1981). Residential satisfaction: An empirical critique. Environment and Behavior 13(6): 735-758.
- 11. Cutter, S. (1982). Residential satisfaction and the suburban homeowner. Urban Geography, 3(4): 315-327.
- 12. Speare, A. (1974). Residential satisfaction as an intervening variable in residential mobility. Demography, 11: 173-188.
- 13. Varady, D. (1983). Determinates of residential mobility decisions. Journal of the American Planning Association, 49: 184-99.
- 14. Lansing, J.B., Marans, R.W and Zehner, R.B. (1970). Planned Residential Environments, Institute for Social Research, Michigan.
- 15. Zehner, R. (1977). Indicators of the quality of life in new communities. Cambridge, Ballinger.
- 16. Rent, G.S. and Rent, C.S. (1978). Factors related to residential satisfaction. Environment and Behavior 10: 459-488.
- 17. Michelson, W. (1977). Environment Choice, Human Behaviour, and Residential Satisfaction, Oxford University Press: UK.

- 18. Francescato, G.S. and Weidemann, S., Campbell, A. (1989). Evaluating the built environment from the users point of view: An attitudinal model of residential satisfaction, Plenum Press (New York).
- 19. Kim. S. (1997). Outdoor environment satisfaction: contributions of landscape design to multi-family housing residents' satisfaction. Environmental Design and Research Association: 75-83
- 20. Fishbein, M. and Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and Research, Reading Mass.: Addison-Wesley.
- 21. Amerigo, M.A. (1992). A model of residential satisfaction. Socio-Environmental Metamorphoses: Builtscape, landscape, ethnoscape. euroscape. A.M. and K. Karaletsou, Salonica: Aristotle University of Thessaloniki. V.
- 22. Kim, S. and Anderson, J. (1997). Modeling residents' satisfaction: comparison of the Francescato and Fishbein and Ajzen models. Environmental Design and Research Association.
- 23. Peyton, R.M., and Pitts, S., and Kamery, R.H. (2003). Consumer Satisfaction/Dissatisfaction (CS/D): A review of the literature prior to the 1990s, Proceedings of the Academy of Organizational Culture, Communications and Conflict, 7(2) (pp. 41-46).
- 24. Engel, J.F, Kollat, D.T., and Blackwell, R.D. (1968). Consumer Behavior, New York: Holt, Rinehart and Winston.
- 25. Brown, W. A. and Carlton. F. Y. (2003). Mission Attachment and Satisfaction as Factors in Employee Retention. Non-profit management and leadership 14(1-Fall 2003).
- 26. Tse, D.K. and Wilton, P.C. (1988). Models of consumer satisfaction formation: An extention. Journal of Marketing Research, 25(2): 204-212.
- Pascal, G.C. and Attkisson, C.C. (1981). The Evaluation Ranking Scale: A New Methodology for Assessing Satisfaction. University of California. San Francisco. 36.
- 28. Ritchie, B., Mules, T., Uzabeagu, S. (2008). Visitor attraction satisfaction benchmarking project. Retrieved 3 April, 2016, from http://www.sustainabletourismonline.com/awms/Upload/Resource/90069_Richie _AttSatbenchmarking%20WEB.pdf.
- 29. Wilton, P. and I. Nicosia (1986). "Emerging paradigms for the Study of consumer satisfaction." European Research 14(1): 4-11.
- 30. Parker, C. and Matthews, B.P. (2001). Customer satisfaction: contrasting academic and consumers' interpretations. Marketing Intelligence and Planning, 19(1): 38-44.

- 31. Day, R. (1980). How satisfactory is research on consumer satisfaction? Advances in Consumer Research. J. Olson, Ann Arbor: Association for Consumer Research, 7: 593-597.
- 32. Hunt, H. (1977). CS/D: Bits and pieces. In R. Day (Ed.), Consumer satisfaction/dissatisfaction and complaining behaviour, (pp. 38-41).
- 33. McQuitty, S.A. and Finn, A., and Wiley, J. B. (2000). Systematically Varying Customer Satisfaction and its Implications for Product Choice, Academy of Marketing Science Review: 2000(10). Retrieved 30 March, 2015, from http://www.amsreview.org/articles/mcquitty10-2000.pdf
- 34. Oliver, R.L. (1980). Theoretical bases of consumer satisfaction research: Review, critique, and future direction, Chicago: American Marketing Association.
- 35. Churchill, G. A., Jr. and Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. Journal of Marketing Research 19(4): 491-504.
- 36. Porter, L.W. (1961). A study of perceived need satisfaction in bottom and middle management jobs. Journal of Applied Psychology, 45: 1-10.
- 37. Morris, E.W. and Winter, W. (1978). Housing, Family and Society, John Wiley and Sons (New York).
- 38. Oliver, R.L. (1981). Measurement and evaluation of satisfaction process in retail setting. Journal of Retailing, 57: 25-48.
- 39. Kotler, P., Siew, M.L., Swee. H.A. and Chin, T.T. (1996). Marketing Management: An Asian Perspective, Singapore: Prentice Hall.
- 40. Oliver, R.L. (1989). Processing of the Satisfaction Response in Consumption: A suggested Framework and Research Propositions. Journal of Satisfaction, Dissatisfaction and Complaining Behavior, 2: 1-16.
- 41. Mastura, J., and Noor, L.H., Mohamad, O., and Ramayah, T. (2007). The determinants of housing satisfaction level: a study on Residential development project by Penang Development Corporation (PDC). Assessed 12 February, 2016, from www.fppsm.utm.my/.../73-the-determinants-of-housing-satisfaction-level-a-study-on-residential-development-project-by-penang.html
- 42. Bonnes, M., M. Bonaiuto and A. P. Ercolani (1991). "Crowding and residential satisfaction in the urban environment: A contextual approach." Environment and Behavior 23(5): 531-552.
- 43. Weidemann, S. and J. Anderson (1982). "Residents' perceptions of satisfaction and safety: a basis for change in multifamily housing." Environment and Behavior 14 (6): 695-724.

- 44. Crull, S. R., M. E. Bode and E. Morris (1991). "Two tests of the housing adjustment model of residential mobility." Housing and Society 18(3): 53-64.
- 45. Onibokun, A. G. (1976). "Social system Correlates of residential satisfaction." Evironment and Behavior 8(3): 323-344.
- 46. He, X. (2009). Residential satisfaction with home location: examination of the relationship between location- embedded Benefits and risk perception, Texas State University-San Marcos. An unpublished doctoral dissertation.
- 47. Sirgy, M. J. and T. Cornwell (2002). "How neighborhood features affect quality of life." Social Indicators Research 59(1): 79-114.
- 48. Dahmann, D. C. (1983). Subjective assessments of neighborhood quality by size of place. Urban Studies 20(1): 31-45.
- 49. Gomez-Jacinto, L. and I. Hombrados-Mendieta (2002). Multiple effects of community and household crowing. Journal of Environmental Psychology 22: 233-246.
- 50. Turner, M. A. (2005). Landscape preferences and patterns of residential development. Journal of Urban Economics 57: 19-54.
- 51. Morris, E.W. and et al. (1972). Measuring the quality of housing. Land and Economics, 48: 383-7.
- 52. Francescato, S. and Weidemann, et al. (1986). Residential satisfaction and residential quality: An overview of recent applications. 21st International Congress of Applied Psychology, Jerusalem, Israel.
- 53. Carvalho, M., George, V.R., Anthony, K.H. (1997). Residential satisfaction in conominos exclusivos (gate-guarded neighborhoods) in Brazil. Environment and Behavior, 29: 734–768.