

POSSIBILITIES OF BEHAVIORAL CHANGES IN A
COMPLETED DEVELOPMENT PROJECT: SOME
CONCEPTUAL CONSIDERATIONS

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ABSTRACT

This paper presents a hypothesis that behavioral change may be used to evaluate government development projects. It defined behavioral change as change in man's generalized character and actions as a result of changes in income, education, land ownership and degree of urbanization. Different ways of affecting behavioral change were examined and a simple model for inducing behavioral change from a traditional to a modern direction was formulated.

I. *INTRODUCTION*

A. *Background*

The most common evaluation approach being used in many government housing projects is the Social Cost-Benefit Analysis which measures the return on investment to society. This looks into the increase in future income of a community, say, increase in land value or increase in structural value. This approach, however, is limited because it fails to consider an important area of social benefits, namely, the behavioral change that occurs as a result of the implementation of a development project. This behavioral change may be an increase in preference for future consumption, productive activities, e.g., studying or greater access to formal institutions, e.g., banks or health centers. Thus, failure to include behavioral change as a social gain in project evaluation implies an underestimation of the social benefits of the development project.

Analysis of behavioral change looks into the social benefits of a project qualitatively. But, existing studies have not included this. For example, the Tondo Foreshore Housing Development Project in the Philippines which introduced a land ownership program and

improved the area's educational, health and credit institutions was evaluated according to the following: increase in land value (National Housing Authority, 1982), increase in structural value (Jimenez, 1983), housing consolidation (Reforma, 1981), efficiency in serving the targeted population (Lindauer, 1981) and cost recoverability of the project and affordability levels of the residents (Loanzon, 1978). Thus, this is an area where little research has been undertaken and studies that aim to evaluate housing development projects by considering behavioral changes following its implementation can be a great contribution to the analysis of this little-known area of project evaluation.

B. *Significance*

Looking into the social benefits of behavioral changes occurring as a result of a housing development project will then be significant in the following:

1. It offers a new perspective to project evaluation. Examining project benefits through behavioral changes goes beyond the standard procedure of project evaluation.
2. It would complement the findings through Cost-Benefit Analysis, because of its failure to consider an important area of social benefits, namely, the occurrence of behavioral change due to the influence of a development project.
3. An empirical study on this could provide more indepth information to practitioners and theorists in the field of Urban and Regional Planning.

II. *REVIEW OF LITERATURE AND DEFINITION OF TERMS*

A. *Human Behavior and Behavioral Change*

Human behavior¹ has been defined in many ways by different disciplines. An economist would view human behavior as the preference patterns of individuals in response to external variables in the economy, e.g., market prices, wages and availability of resources (Squire, et. al., 1975). An environmental psychologist looks at the physical form of an individual's surroundings as influencing his behavior (Mercer, 1975; Craik, 1968). While a sociologist sees behavior as the manner of individuals in relation to other individuals within and outside their community which have both social and cultural considerations (Ehrlich, 1969).

This paper defines human behavior as the generalized character manifested by overt action in relation to one's environment. It defines behavioral change as change in human behavior due to changes in external factors, e.g., income, education, land ownership or some degree of urbanization.

B. *Traditional vs. Modern Behavior*

There are many types of individuals manifesting different actions but, schematically, human behavior may be classified into traditional and modern.

In Guthrie's (1971) study of the rural Philippines, traditional and modern behavior was described as follows: In the less advanced parts of the rural areas, he found that the major activity of the people revolves around the production and distribution of food. Each housewife makes daily purchases in small quantities because of no refrigeration facilities and because income is earned on a daily basis. With this habit, even rice which could be stored for a period of time is purchased in small quantities to meet one or two days' needs. Thus, each vendor, like the housewife-buyer, gets enough to keep him going until the next day. This results to having no large-scale nor wholesale marketing structure. In addition, because of poor transportation and roads, commodities may sell for virtually nothing since there is no mechanism to distribute them to nearby areas where demand may be greater. Thus, people often take to the market even part of what would have gone for their own diet. The shipments are small and profits are very little to cover the cost of the trip. Industries, as a rule, are small and cater only to local needs. Education is usually available only in the elementary level. The whole picture is of subsistence marketing in which individuals seek enough to carry themselves through the day. There is no savings nor growth in these enterprises, since, traditional behavior prevails.

In the more advanced areas where modern behavior was observed, many are land owners because ownership of useful land is the main source of wealth. Thus, one can be sure that owners of large modern houses in the town have land in the "barrios" (less developed areas in the province). Many of the people in the more advanced rural areas are professional and almost all encourage their children to seek advanced degrees. There are major roads which are usually the principal stops or terminals of major bus routes. With relatively better transportation system than the less advanced

areas, goods and people move much more quickly and cheaply, commercial and credit transactions are more advanced and exchange of ideas and news flourish.

This paper defines traditional and modern behavior with respect to savings and consumption patterns, preference on productive and non-productive activities and avail of formal and informal institutions. A modern individual tries to improve his savings and consumption patterns by having higher levels of monetary savings for his future. He gives higher priority to productive activities, say work and study, over non-productive activities like leisure. He understands the advantages of utilizing formal institutions, e.g., hospitals and banks over informal institutions, e.g., faith healers and piggy-banks. A traditional individual, on the other hand, gives priority to higher levels of consumption, greater time allotment to non-productive activities and more priority to availing of informal institutions.

C. *Direction of Change in Human Behavior*

Studies show that people's behavior changes towards modernization in the course of development. Bailey (1957), showed the effect of raising the economic status of castes with the opening of a new road because it, in turn, opened many farming areas of Far East Africa. Thus, castes which made use of the new road benefited from it while those which did not, did not benefit.

Maynard (1976) evaluated the Muong Phieng Cluster Program in Laos. The program provided improvements in physical and social infrastructure, e.g., roads, schools, medical facilities and rice mills. The following behavioral changes were seen:

1. Increase in school attendance;
2. Increase in pig and duck raising and livestock sales;
3. Means of transportation shifted from the use of horses to motor vehicles;
4. Monetization, use of money or credit, became important in purchasing fertilizers, insecticides, water pumps, buffaloes, etc.;
5. Villagers began to use radio communications, library and newspaper facilities and started to purchase radio receivers;
6. Villagers became more tolerant of their neighbors and the children were less intimidated by visitors; and

7. New standards appropriate to middle-class services and leaders of the community emerged and elections were accepted.

Leaf (1983), in his study of the development package in a village in Punjab known as the "green revolution" observed the following behavioral changes:

1. New varieties of crops have been adopted which responded more productively to larger amounts of fertilizers and water supplies than the old varieties of crops;
2. Farmers market more of their produce relative to their own consumption;
3. Greater willingness to adopt to institutions outside of the village, e.g., availing of well pumps in the fields;
4. Greater willingness to adopt to formal institutions for crime control, say, relying on the police;
5. Utilization of farm tractors;
6. Introduction of the flat rate system of work and wages which eliminated advanced negotiations before work is done in the field;
7. With a clearer definition of land ownership laws, villagers started to save money to buy extra land that was coming on the market from other nearby villages; and
8. Membership in the village cooperative became universal through which collections of credit were made.

Jere (1984) studied Lusaka in Zambia by examining citizen participation in planning and decision-making. He observed that the squatter families voluntarily dug water trenches for their communities in the early stage of the development projects. They received monetary credit from the government for this and made further investments for more modern societies:

1. Residents of Nyerere Compound used the amount of money to construct a clinic for the health education of the community members and other needs;
2. Residents of Desai Compound built a day care center; residents of Garden Compound built a clinic and self-help market; and
3. Residents of Chaisa built a clinic.

Silas (1984) studied the Kampung Improvement Program of Indonesia. He made a comparative study of Jakarta and Surabaya.

The program made improvements on general public works which included roads and footpaths. It was observed that after the footpaths were constructed, individual households along it started planting trees and flowers, provided garbage cans, installed street lighting using their individual houses' electricity as the source of lighting. In other areas, the residents provided community meeting halls and guard houses. They held periodic communal cleaning activities for the maintenance of environmental quality.

Hunter (1969) studied man's history in society and showed that the general trend of development is towards economic growth. He compared the peasant societies of Asia and Africa and summarized the different stages of development in terms of the following:

1. The first stage is the traditional society that has strong attachments to religion, primitive farming and low level of education;
2. The second stage is partial modernization which involves tension. This is because the society is split in half between the rewards offered by new ways and fears attached to old ways;
3. The final stage is the society's commitment to the rewards and risks of new ways and then, the rules and methods of developed economic and administration begin to fit.

III. *FACTORS THAT INDUCE CHANGE*

What are the factors that bring about a transition from traditional to modern behavior? Among these are the following: human interaction, mass media, land ownership, education, degree of urbanization and housing development project.

A. *Effects of Human Interaction*

In the world, people interact and influence one another causing changes in their behavior. In the process of behavioral change, traditional individuals learn a series of behavioral actions of modern individuals according to their own interpretations, as they interact with the latter. An interesting and somewhat mystifying aspect of this is that the learning of the acts of the other may, and usually does, take place without overt practice. That is, the acts of the other may be incorporated in incipient or latent behavioral mobilization that appear in overt manifestations only when

the situational context is so structured that A, say, finds himself in the position of B, whereupon he behaves as B did when A was acting his own position (Cottrell, 1969). This is commonly known as the influence of B over A. Such may, later, cause A to change preferences which could be similar to B's manner of living. Willingness to change will be defined as a manifested shift in behavior, assuming everything else is constant.

An evaluation of behavioral change by examining the effects of human interaction, nonetheless, is longitudinal and generalizations are difficult to make because this kind of approach will have to be done on a person to person basis.

B. *Effects of Mass Media*

Mass media accelerates the rate of change and has brought about a change in the imagery of ambition. People can slowly learn to want more money as an end in itself, the new consumer "durables" of the last few decades, e.g., radios, refrigerator, bicycles, even cars, have greatly reduced traditional wantlessness of the impoverished and have brought women as well as men into the orbit of desire (Lerner, 1958). However, mass media does not discriminate the particular types of people it tries to influence. All income groups are exposed to the same kind of advertisement or news at the same time. Thus, isolation of behavioral changes, say, from traditional to modern, of a certain group of individuals may not be possible.

C. *Effects of Land Ownership*

In the evaluation of Tondo Foreshore through the Hedonic Pricing approach (Jimenez, 1983), it was found that the residents improved the quality of their housing units soon after land ownership. The author, however, did not go further into finding out whether such improvements have been considered as a social gain, say, in increasing one's financial stability and credibility and in turn, gaining access to other institutions. For instance, in the Philippines, collateral in the form of real estate is a prerequisite for obtaining loan from formal financing institutions. Thus, behavior in terms of increased savings and undertaking of productive investments may be observed.

D. *Effects of Education*

Education is believed to be a great factor in bringing about changes. First, in one's future income—higher education leads to

higher skill levels and in turn, higher income. The study of Psacharopoulos (1973) on the income earned by Filipinos with different levels of education showed that income levels of those with high school education were about 60% higher than those with elementary school education. Second, higher education allows greater access to a wider range of information, e.g., employment opportunities. Third, higher education may change in one's preferences, e.g., greater allocation of time to income-generating activities. Fourth, higher education may encourage better nutritional and hygiene habits, say, greater utilization of professional medical service, due to a better knowledge of its advantages. Better health, in turn, allows a higher productivity and thus, higher income.

From the above, education can induce behavioral change and can be examined with other variables, e.g., land ownership.

E. Effects of Degree of Urbanization

Degree of urbanization refers to the degree of availability of infrastructure say, electric and water supply systems, roads, drainage and sewer systems which may induce behavioral change over time. For example, electricity may encourage schooling individuals to study for longer hours; water supply, drainage and sewer systems may encourage better sanitary practices; and roads may give access to area linkages with more urbanized or developed centers around or near an undeveloped area, and may give access to market as sources of employment opportunities and information. There may also be greater contact with other members of the community, hence, more community involvement, etc. Thus, a certain degree of urbanization can also cause behavioral change.

F. Effects of a Housing Development Project

In a development project, say in housing, several improvements can be introduced in a package. That is, improvements in economic, physical and social institutions may be done simultaneously where the total social organization of the community can be changed towards modernization. For example, a housing development project may provide land ownership, infrastructure and basic facilities, proper amenities, e.g., schools and health centers, and job training programs. Thus, it is possible that particular types of behavioral changes may occur and its impact may be on the modernization of the residents of the community.

A housing development project seems to be a comprehensive and deliberate policy for bringing about change in human behavior. Thus, if the government of say, a developing country observes behavioral changes, from traditional to modern, after a housing development project has been implemented in say a squatter community, a policy of more investment on housing development projects will be undertaken.

IV. *BEHAVIOR IN AN URBAN SQUATTER AREA*

It is possible for traditional types of individuals to persist in a squatter area even if they stay in an urban area. This is because a squatter's area though situated in a city, is isolated by special conditions that prevent the dwellers from benefiting from the fruits of urbanization. As discussed above, the different factors related with modern behavior are lacking. In more concrete terms,

- A. Their incomes are much lower than the urban average;
- B. Their levels of education and skills are low and hence, income levels are low;
- C. They squat on land that is not their own and have very little stock of physical assets;
- D. The land they squat on is undeveloped where proper amenities and basic facilities are not provided;
- E. The area they live in is congested and uncondusive to healthy living; and,
- F. They live in an area that lacks the infrastructure and other facilities that characterize an urban environment.

Thus, one can expect that traditional behavior will prevail in an urban squatter area. Transition to modern behavior, however, may be induced by bringing about a change in the form of better and higher education, increase in ownership of physical assets, e.g., land, urbanized infrastructure including educational and medical facilities.

V. *CONCLUSION AND RECOMMENDATION*

From the above considerations, housing development projects which provide land ownership, infrastructure, basic facilities, proper amenities and job training programs may bring about behavioral changes among the residents from a traditional way of life to a modern way of life.

In other words, we conclude that behavior is a function of income, education, land ownership program and the degree of urbanization of the environment. This is formally expressed as:

$$B = f(Y, E, L, DU) \text{ where,}$$

B: Behavior
Y: Income
E: Education
L : Land Ownership Program
DU: Degree of Urbanization

It is recommended that post evaluation studies of housing projects on behavioral changes be given greater attention because of the long-run benefits that may be expected.

END NOTE

Studies have shown that human behavior is sometimes contradictory to human attitude (Kaji, Geronimo and Palma, 1981; Guthrie, 1971). That is, what individuals intend to do, many times are not reflected in their actions. However, if attitude is seen to include beliefs, intentions and actions (Ehrlich, 1969), human behavior could be a part of human attitude. Thus, behavior and attitude may not be contradictory, rather, complementary to each other.

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Addendum:

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