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ABSTRACT

In their attempts to further the adoption of productivity increasing ideas and practices by third world peasants, diffusion researchers have paid insufficient attention to the factors acting as constraints to their efforts. An examination of one of these constraints, the lack of an equitable system for delivering knowledge and skills to rural populations, reveals the erroneous assumptions and methodological mistakes of diffusion researchers, including (1) preoccupation with already diffused innovations; (2) unrealistic proliteracy bias; (3) focus on the individual as locus of change; (4) media effects approach; (5) propersuasion bias; (6) proinnovation bias; (7) favoring of in-the-head variables of receivers over manipulable ones; (8) prosource bias; (9) inadequate researcher self-examination; (10) one way message flow bias from top to bottom; and (11) a lack of interest in field experimentation. Given these inadequacies, one can predict that a diffusion campaign would result in few peasants gaining systematic knowledge about innovations and their applications, even fewer with sufficient knowledge to act effectively, and some whose knowledge was distorted. And the communication constraint is only one of many constraints that need to be overcome before successful implementation of rural development projects will be possible. (JL)

INTERNATIONAL COMMUNICATION DIVISION

IN SEARCH OF ALTERNATIVE COMMUNICATION STRATEGIES FOR RURAL DEVELOPMENT IN THE THIRD WORLD: A CRITIQUE OF THE DIFFUSION OF INNOVATIONS RESEARCH

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IN SEARCH OF ALTERNATIVE COMMUNICATION STRATEGIES FOR RURAL DEVELOPMENT IN THE THIRD WORLD: A CRITIQUE OF THE DIFFUSION OF INNOVATIONS RESEARCH

New Conception of Development

There has been a clear shift in the definition of development of the Third World nations from the earlier concept of viewing it as a process centered on materialistic and economic growth patterned along the lines of Western industrialized nations. Some of the newer conceptions of development define it "as a widely participatory process of social change in a society, intended to bring about both social and material advancement for the majority of the people through their gaining greater control over their environment" (Rogers 1976b:225). In other words, the ultimate objective of any development process is now interpreted as the raising of the quality of life(1) of people in the Third World.

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(1) The factors that would contribute to a better quality of life are elaborated in later sections of the paper.

Non-Adoption of Innovations by Peasants

One way of substantially improving the quality of rural life, as emphasized in diffusion research, has been through the adoption of new ideas and practices by the peasants which would enable them to increase their productivity. As Ascroft and others (1980:1) note, "the paradigm was simple enough to comprehend. The agricultural sciences showed over and over again that where five bags of grain were yielded using traditional seeds, techniques and implements, twenty bags were possible using scientifically improved seeds, techniques and implements. All that remained was for the peasant masses to adopt them."

However, agricultural innovations which promised to improve peasant productivity have not penetrated very deeply into the small-scale sector of rural economy. Ascroft and Gleason (1980) point out that adoption rates were generally so low that they produced incomplete adoption curves when the cumulative percentage of adoptions were plotted against time. The S-shaped curve denoting complete adoption of an innovation, commonly struck in the Western communities, was seldom found in the rural Third World, particularly within subsistence communities (Ascroft et al. 1980).

Misaligned Research Focus

As much of the classical diffusion research was a post hoc preoccupation with already diffused innovations, the reasons for the apathy of peasants in developing nations to adopt innovations, unlike their counterparts in Western countries, gave rise to theoretical generalizations on their social-psychological characteristics. These peasants were labeled as lacking in achievement motivation, empathy, innovativeness, deferred gratification, etc., and at the same time, afflicted by traditional ills such as fatalism, familism, limited aspirations, and so on, all of which were synthesized into a "subculture of peasantry" (Rogers 1969). "The researches grew increasingly long on generalizations and diagnostics, and correspondingly short on practice and prescriptions ..... There were few insights about strategies for 'pushing' the process, for 'causing' it to occur more rapidly, reliably, efficiently, and completely" (Ascroft and Gleason 1980:3). The diffusion researchers, therefore, steered clear of field experimentation leaving the onus of applied diffusion in the hands of practitioners such as agronomists, nutritionists, family planning workers, etc. These professionals experienced limited success in their campaigns but found little of use in existing diffusion literature to help them remove or overcome the obstacles

impeding the adoption process. Quite clearly, there was a misalignment between what the diffusion researchers chose to examine and what development professionals actually needed (Ascroft et al. 1981:36).

Alternative Strategies

Special Rural Development Program

The Special Rural Development Program (SRDP) conducted in Kenya in the early 1970's provided an opportunity for some researchers to examine the field problems critically in order to find out what was needed to realign the research focus (Ascroft et al. 1973). The SRDP was to come up with strategies which could cause widespread adoption of productivity-increasing innovations and also ensure equitable distribution of these innovations in rural Kenya. The idea of a SRDP actually came about as a result of government of Kenya's efforts at speeding up the process of rural development. Disappointed with its slow rate of development in its rural sector, the Kenyan government decided to experiment with new strategies for accelerating the process of rural development. Limited geographical areas were selected within which to conduct experiments that could produce strategies with a proven capacity for speeding up the process of rural development. Successful strategies in these limited geographical areas would then be

replicated on a wider scale in the country. To this end, six divisions out of 600 in Kenya were selected, representing an ecological and cultural cross-section of the country. The job of determining which experiments were successful and, therefore, deserving replication on a wider scale, was left to a multidisciplinary team consisting of evaluators specially created to evaluate the SRDP. This team was coordinated by Dr. Joseph Ascroft and was located at the Institute of Development Studies, University of Nairobi. After nearly three years of evaluation in the field, the SRDP team came out with substantial recommendations.

Ultimate Objective

After examining various strategies of change in many countries, the SRDP found that all development strategies have the ultimate goal of raising the quality of life in the rural areas. Quite often, this is also interpreted as raising standards of living of the rural people. But, it was realized that this goal is too ultimate and comprehensive. There are a number of other sub-goals which are more immediate and need to be met in order to achieve the ultimate objective of raising of the quality of life. These goals can be listed in descending order and will constitute intermediate and immediate objectives of any development strategy.

Intermediate Objectives

The quality of rural life could be improved through achieving all of the following objectives:

1. Increased incomes from sources within rural areas in agriculture, commerce and industry;
2. Improved levels of social, physical and mental well-being, such as better health, nutrition and sanitation practices; smaller families; eradication of social injustices; land reforms;(2) ensuring freedom of religion, speech, association, and political participation; provision of leisure and entertainment facilities like constructing community entertainment centers, holding village fairs, radio, television and other entertainment shows; etc.; and
3. Increased self-generating development of rural people through increased self-determinism, self-reliance and capacity to sustain continuing growth and development such as, for example, training rural communities to plan for themselves.

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(2) Land reforms such as reallocation of land to landless peasants is an important objective in many parts of Asia and Latin America. However, this would constitute a non-manipulable variable as far as the communication researcher is concerned.

All these objectives are still distant and more immediate objectives need to be fulfilled in order to meet the objectives listed above. For example, while many projects would put increased incomes as their aim, it is not really an immediate objective. There are earlier objectives such as, for example, increased productivity, because any increase in output would give rise to surplus marketable produce which would then directly contribute to increased incomes. So, there is an earlier set of immediate objectives which needs to be achieved before the intermediate objectives can be met.

Immediate Objectives

These would constitute:

1. Raised levels of surplus marketable or re-investment output in agricultural, commercial and industrial enterprises in rural areas;
2. Increased wage employment in public works and private enterprises;
3. Improved public services such as extension, training, education, social and health services;
4. Increased decentralization through effective field staff and local people participation in decision-making and project development.

Most of these objectives are usually attained to some extent due to the already existing methods and facilities in rural areas. The important point is how to achieve these objectives to a greater extent than would seem possible with existing techniques. In diffusion research, there was the assumption that there was no achievement of these objectives such as, for example, agricultural productivity, simply because the technological innovations it expounded were not found or adopted in rural areas. Hence, diffusion research recommended the replacing of traditional methods with technological innovations rather than improving the existing techniques and methods.

Most often, the existing methods do not need a wholesale replacement. Usually, these methods are unable to raise productivity beyond an optimum level due to constraints whose removal is beyond the control of peasants. However, an attempt at identifying and removing these constraints has not been done by diffusion research.

One such attempt at identifying and removing some of the constraints was undertaken by the Tetu project.

Tetu Pilot Project

In addition to the evaluation of the SRDP, two of the members of the evaluatory team also conducted a field communication experiment in one of the SRDP divisions called

Tetu (Ascroft et al. 1971; Roling et al. 1976). The aim of this experiment was to find replicable strategies for speeding up the flow of income-generating innovations to less progressive farmers. A baseline pretest showed that many farmers (about 80 percent) showed no record for adopting innovations. This experiment thus focused on the "traditional" subsistence farmers who constituted the "subculture of peasantry." It deliberately set out to look for those who fitted the classical model of subculture of peasants. The experiment wanted to find out if there really was a "subculture of peasantry" with all its attendant internal constraints on the peasants such as lack of empathy, lack of aspirations, lack of innovativeness, lack of achievement motivation, etc.

The dependent variable was adoption of hybrid seed maize and allied practices. The treatment consisted of providing adequate knowledge and skills of the methods of growing hybrid maize in a manner the peasants understood, having regard to the fact that a majority of them were illiterate. Other inputs such as seeds and credit, with small amounts of the innovation for trial under supervision, were also provided. Thus the treatment consisted of manipulating variables such as the provision of knowledge, skills and credit. Non-manipulable variables such as

empathy, lack of aspirations, etc., were not studied in this experiment. An evaluation conducted after two years of the experiment showed that almost all the farmers had adopted hybrid maize. For every farmer trained, at least two others outside the sample also adopted the innovations.

This experiment indicated that these peasants did not lack empathy or innovativeness or need achievement or many of the other psychological variables that epitomized the "subculture of peasantry." What they lacked were information, knowledge, skills, financial and material inputs in order to adopt innovations. This experiment thus clearly indicated that diffusion research focus needs realignment to more basic issues. Ascroft notes, "perhaps the main development constraints were not located inside the peasant but outside in his environment. Perhaps it was not his attitudes and beliefs that needed so much changing. Perhaps subcultural perceptions were mainly in the eyes of the beholders" (Ascroft et al. 1980:6).

Major Constraints of Rural Development

In the larger SRDP, the findings of the Tetu experiment were not only substantiated but also expanded. The evaluation team examined the peasants' social, economic and physical environment in search of factors acting as constraints to their efforts at increasing the level of production. Six major constraints were identified:

1. Lack of an equitable system for delivering knowledge and skills to the rural folk prevents them from taking advantage of productivity increasing and, therefore, income generating, techniques and technologies;
2. Lack of an equitable system for delivering financial and material inputs to small-scale farmers leads to non-implementation of recommendations for improving their enterprises;
3. Inadequate market development prevents farmers from having a guaranteed outlet for their surplus produce;
4. Infrastructure underdevelopment deprives the farmers the means of conveying their produce to markets or of communications needed by them to make informed entrepreneurial decisions. (Also includes inadequacy of other facilities such as electricity, domestic and irrigation water schemes, education, health, and other social welfare amenities);
5. Lack of employment opportunities in rural areas to occupy the rural landless or those with farms too small to occupy them full time results in decreasing levels of income generation; and
6. Lack of people involvement in designing, planning and executing their own development leads to non-adoption of productivity increasing innovations.

To the diffusion practitioner in the field, these six factors are suggestive of the kinds of constraints that would need to be removed in some concerted fashion if development goals are to be given greater likelihood of attainment. That the action should be concerted cannot be overemphasized. Too often, one or another of these constraints are tackled by practitioners to the neglect of the others. In such an approach, whatever achievements are made by overcoming the constraint under consideration are soon nullified by the negative effects of other constraints which continue to prevail. To proceed, however, on the assumption that all of the above constraints always apply in any given situation and thus attack all of them simultaneously, is an inefficient method.

The social scientific researcher should proceed carefully and systematically. He should, therefore, start by hypothesizing the existence of each constraint in a manner that would allow for empirical testability of the hypothesis. Such an exercise would indicate which of the above factors are indeed valid constraints likely to impede the progress of a project toward goal achievement. More important, it would allow the researcher to identify other sub-constraints which cumulate to constitute the constraint being hypothesized. Each of the sub-constraints may then be

formulated into an hypothesis to be tested before any field action begins. To the present day, however, such systematic efforts in regard to any field project have not taken place.

Any development project working for rural progress would have to start with the set of hypotheses outlined above in order to meet the ultimate goal of achieving a better quality of life for the rural people. The testing of all the six hypotheses illustrated above constitutes an integrated approach to rural development. This would require a multidisciplinary research team working in close coordination. However, this kind of a closely coordinated, multidisciplinary and integrated approach to development has been missing in most diffusion projects (Masani 1975; Ascroft 1973).

Among the six hypotheses listed earlier, the present study puts the spotlight on the first which deals with the diffusion of knowledge, information and skill inputs to the peasants. The study feels that one of the major constraints to non-adoption of innovations is: lack of an equitable system for delivering adequate information, knowledge and skills to the rural people of a quality they can understand and use to increase their productivity, and thereby, their income generating capacities. This does not mean, however, that the other five hypothesized constraints

are less important for an integrated rural development. The present study focuses on the communication constraint on the understanding that the other five hypothesized constraints(and sub-constraints, if any) are given similar, systematic attention by future research studies.

Lack of Adequate and Reliable Information Diffusion: Shortcomings of Diffusion Research

The diffusion of innovations research which sought to diffuse development support information, knowledge and skills to rural peasants, has been found to be lacking in several respects. In fact, diffusion research, due to many of its theoretical and methodological orientations, its explicit and implicit assumptions and premises, has generated sub-constraints which cumulate to constitute the major constraint: lack of an efficient system for delivering adequate and reliable information, knowledge and skills to the peasants.

Constraints Generated by Diffusion Research

Some of the constraints identified by this study are discussed in detail below. Again, for the diffusion practitioner, these are indicative of the types of constraints that he would have to overcome in order to achieve the goals of his diffusion campaign. The

researcher, however, should hypothesize each of the factors listed below for the existence of a potential constraint to the diffusion of adequate and reliable information, knowledge and skills to the peasants. The researcher should examine these factors, formulate hypotheses and test them to see if these constraints really exist before the launching of any diffusion communication campaign.

Post-Hoc Preoccupation

One of the major weaknesses of diffusion research has been its post hoc preoccupation with already diffused innovations. The use of one-shot, post hoc survey design has confined the focus of diffusion research to testing of strategies of "what-is" or reaffirming current practice rather than "what-might-be" or testing alternative strategies (Roling 1973; 1976). This approach which has replicated the status quo, has acted as a constraint to going beyond current practice and gaining knowledge of effective means to reach an alternative, desired state.

Pro-Literacy Bias

A majority of the rural people in the Third World are preliterate. Yet, there has been no effective strategy in diffusion research of communicating innovations to a preliterate audience. All strategies and innovations

presuppose literacy and some level of education, which are by themselves innovations in the rural areas. Thus, most development benefits have accrued to the large farmers and other elite groups since they possessed the necessary prerequisites such as adequate literacy, education, previous knowledge of innovations, etc., for exploiting all the new information, methods and techniques (Shingi and Mody 1976).

The pro-literacy bias has acted as a major constraint to diffusion of information to the preliterate audiences. It has prevented strategies of percolating information, knowledge and skills to an illiterate audience who, incidentally, form the bulk of the population in rural areas. Also, there has been an insufficient quantity of innovation information, knowledge, and skills reaching the disadvantaged sections of rural people either from mass media or interpersonal channels of communication (McAnany 1980a; Lenglet 1980; Roling et al. 1976). And, there has been a gross imbalance in the amount of information disseminated between the elite and disadvantaged audiences in rural areas (Shore 1980; Eapen 1975; Beltran 1974). The quality of the information, too, leaves much to be desired. The innovations handed down to the subsistence peasant have been, most often, irrelevant, and sometimes, even negative to the adoption process (Eapen 1975; Beltran 1974; Diaz-

Bordenave 1976). These critical constraints, therefore, have led to easier information access by large farmers leading to relative successes and greater efficacy, whereas, lack of adequate and appropriate information to the preliterate and subsistence peasants has led to relative failures.

Individual as Locus of Change

The unit of analysis in much of diffusion literature was predominantly centered within the individual recipient of innovations (Rogers 1976a). This has been largely due to 1) the survey research design which favored the individual approach and, 2) the individualistic bias in American diffusion research which was carried over to the Third World without making sure whether the individual was the appropriate unit of analysis.

In much of the Third World, however, individual decisions are not common and are frequently subordinated to the decisions of the group. So, the overuse of the individual as the locus of change has masked the fact that the unit of response and analysis could have been the group, such as the immediate family, clan, tribe, caste or some such other relevant subgrouping of individuals.

Media Effects Approach

A serious constraint of diffusion research has been its preoccupation with media effects on adoption behavior, leading to a predominant emphasis on increased media exposure (Rogers 1969). Little consideration has been given to discovering the type of media messages the audience is exposed to and the content and quality of information, knowledge and skills emanating from such messages. Thus, the spotlight has been on the behavioral dimensions of communication effects rather than on their cognitive dimensions, or how much they know about an innovation. This constraint has not directed research to the differential levels of cognition among receivers, particularly the disadvantaged sections of the audience, who are very low in their knowledge about innovations (Shingi and Mody 1976). The lack of such focus, therefore, did not reveal to the early researchers the potential inequality media exposure could breed by creating "knowledge gaps" among different sections of the audience, particularly the disadvantaged sections low on socioeconomic status (Tichenor et al. 1970).

Pro-Persuasion Bias

An important task for diffusion researchers has been to change the multitudes of ignorant peasants from a "traditional" to a "modern" way of living mostly through

persuasive communication. There is an implication in this approach that the peasants are resistant to change and hence there is a need for a persuasive approach to change them. However, this approach of wooing the "recalcitrant" peasants has not made sure whether the receivers have sufficient prior knowledge about an innovation. An examination of adoption behavior of peasants in much of diffusion research (Rogers 1962) would show that the laggards, or those who do not adopt innovations, are also very ignorant about the new methods. So, there has been an attempt to persuade people to change without checking if the prerequisites for that change have been fulfilled. Thus, the pro-persuasion bias has acted as a constraint to change by masking the importance of preceeding this approach by a pro-information strategy.

Pro-Innovation Bias

An implicit assumption running through diffusion research is that adoption of non-traditional innovations would be advantageous to all potential adopters. This assumption is true in a few adoptions. However, in a majority of cases, especially with the small farmers, the innovations are ill-adapted to their cognitive and material resources and the local conditions (Rogers 1976a; Roling et al. 1976). The pro-innovation bias, hence, has acted as a

constraint to the improvement of traditional practices which have been more relevant and compatible with the farmers' conditions and resources.

In-the-head Variable Bias

Much of the diffusion research has been preoccupied with in-the-head variables of the receivers such as empathy, familism, fatalism, and so on. Such an orientation has resulted in diffusion research dwelling at length on the relationships between variables which are not manipulable (Roling 1973). This bias, when coupled with the post hoc orientation of diffusion research, has acted as a serious constraint to the focusing of attention on manipulable variables. One such variable, for example, is the knowledge of innovations the lack of which has been a crucial barrier to adoption of innovations particularly among the lower socioeconomic status audiences.

Pro-Source Bias

Little attention has been paid to locate any deficiencies or shortcomings of the source of an innovation. The source has been considered to be faultless and blameless and any anomaly in the diffusion or adoption process has been attributed to the recalcitrance of the receivers. This conceptual bias has masked the fact that a few of the

weaknesses or shortcomings of the source could have been responsible for some of the anomalies in the adoption behavior of the respondents.

Absence of Researcher Self-Examination

Many of the concepts in diffusion literature have been inadequately operationalized, mostly due to the researcher's lack of in-depth knowledge of the adopter's social and cultural milieu. For example, the operationalization of role empathy did not adequately take into account the massive structural and political constraints acting against the upward mobility of rural peasants (Golding 1974). A lack of role empathy on the part of the peasant could well have been the result of frustrated experience rather than just his inert imagination. Thus, an absence of researcher self-examination has acted as a constraint to the formulation of alternative interpretations and operationalization of key concepts.

One-Way Message Flow Bias

The exogenous change orientation of diffusion research has acted as an effective constraint to an understanding of the flow of ideas as a multi-way process (Fjes 1976). Much of diffusion research has implied a one-way flow of ideas usually from the industrialized Western nations to much of

the Third World, and within the individual countries, from the elites, such as scientists and government officials, to the peasants. This lack of interest in a reverse flow of ideas and techniques from bottom to the top, i.e. from the peasants to the scientists, has resulted in many useful traditional techniques being replaced by incompatible innovations introduced by external sources (Rahim 1976; Bortei-Doku 1978).

Lack of Communication Field Expert

Apart from brief flirtations with radio rural forums and functional literacy programs, diffusion researchers have steered clear of field experimentation (Ascroft et al. 1980). So, much of diffusion communication in the field has been done by professionals not specifically trained for that purpose such as agronomists, nutritionists, health and family planning workers, etc. As a result of this shortcoming much of diffusion research has derived principles and generalizations from campaigns conducted by 'non-communication' experts. No attention, therefore, has been given to assess the expertise of the diffuser of innovations(in the field) and see if this might have had any bearing on the diffusion successes (or failures).

It is indeed a paradoxical situation when one considers the fact that while an advertising communication expert

would be required to conduct an advertising campaign, or a public relations expert needed to execute a public relations campaign, such an analogy does not extend to diffusion communication expert. No importance has been given to the training and emergence of the diffusion communication expert who has the theory-based confidence and possesses necessary communication skills to handle diffusion communication field campaigns. This has been a serious anomaly. In the absence of such a diffusion specialist, a majority of diffusion campaigns in the field are being conducted by non-communication experts.

Conclusion

From the foregoing analysis of the shortcomings of diffusion research, the present study is of the view that attention on constraints to diffusion of knowledge, information and skill inputs has been inadequate and inappropriate. All things considered, the lack of empathy, aspirations, innovativeness, etc., which constitute the subculture of peasantry, may not be the main constraints to adoption of productivity-increasing innovations by the rural peasants. Within the domain of communication, one of the crucial constraints has been the delivery of equitable, adequate and relevant cognitive inputs such as knowledge, information and skills to the peasants. And, diffusion

research, due to its many explicit assumptions as illustrated above, and some implicit theoretical and methodological assumptions and premises, has posed constraints to identifying and overcoming the communication constraint.

No study to date has examined the constraints generated by diffusion research as potential hypotheses for testing and verification. So to the present day there exists a lack of an equitable system for delivering adequate information, knowledge and skills to the rural folk of a quality they can understand and use to increase their productivity, and thereby, their income generating capacities.

Let us suppose there is a diffusion campaign in a developing nation, organized by a national or international agency, or the national government. The objectives of this campaign would be the effective dissemination of innovations and their application for improving agricultural production, or raising incomes, or encouraging adoption of better health, nutrition and sanitation practices, etc., for the people in the target areas of the campaign. Typically, campaigns such as the above have been conducted by international agencies (FAO, WHO, etc.), bilateral agencies (AID, CIDA, etc.), national governments and non-governmental organizations. These campaigns have ranged in size from

small projects to huge ventures encompassing thousands of people and spread over a very wide geographical area. Most of these diffusion campaigns have been conducted without sufficient knowledge of the potential constraints discussed in the earlier sections of the paper. As a result, these campaigns have not been based on the results of the testing of the hypotheses discussed earlier. Thus, they have not identified important constraints to diffusion of adequate and reliable information, knowledge and skills to the peasants. In such campaigns, given all the information provided in this study, the researcher is led to making the following hypotheses:

1. The absolute number of peasants with systematic knowledge about innovations and their application would be relatively few.
2. Among peasants who have knowledge about innovations and their application, this knowledge may be insufficient to effectuate an adoption decision.
3. Among peasants who have knowledge about innovations and their application, there may be distortion in that knowledge.

The present study feels that the above three hypotheses would be true in almost any diffusion campaign conducted in the developing countries. These hypotheses would be

increasingly rejected when researchers begin to formulate and systematically test the hypotheses discussed in the earlier sections and base the diffusion campaigns on the results of those tests.

Scope of the Hypotheses

The present study has isolated the three central hypotheses on the knowledge constraint faced by potential adopters rather than isolating the symptoms of non-adoption of innovations such as lack of empathy, lack of aspirations, lack of innovativeness, etc., as enunciated in earlier studies. However, the three hypotheses that have been proposed are fairly broad in scope and are essentially ballpark hypotheses. It is possible to subsume several more specific hypotheses from each of the above hypotheses. For example, the first hypothesis could generate sub-hypotheses on the efficacy of the extension machinery, the problems of bureaucracy, etc. Similarly, the second and the third hypotheses could also generate several more hypotheses. However, the formulation of these specific hypotheses would depend on the locale chosen for the study. The sub-hypotheses flowing from the three core hypotheses stated in the present study, would be different, for example, if the study were to be conducted in India, from the one conducted, for example, in Kenya. Therefore, this study has not

formulated more specific hypotheses at this stage as these would be largely dependent on local conditions and circumstances. However, wherever the locale might be, the three hypotheses stated above would constitute the core or lead hypotheses.

Integrated Approach

The present study feels that very limited purpose would be served by an isolated attempt to overcome one or two constraints to adoption of innovations such as, for example, lack of material and financial inputs while leaving the others such as inadequate market development, employment opportunities, etc., intact. This would provoke the fallacy of single-factor determinism(3) as was the case with much of earlier diffusion studies. The present study feels that careful attention to all the constraints would enable the preparation of an integrated package of projects, each supporting the others, and together contributing as a single orchestrated program toward the achievement of common goals. Hence, what is required is an integrated approach to rural development, requiring a multidisciplinary research team working in close coordination for the overcoming of all the

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(3) It is the practice of assuming the predominance of one factor such as, for example, lack of financial input as a constraint to development and neglecting all other factors.

known constraints.

The present study, given the constraints of time, expertise and resources, has put the spotlight on the communication constraint. It is hoped that future studies would look into other constraints to development. This would avoid the futility of trying to overcome one constraint while the others remain intact.

Utility of Present Study

The hypotheses of the present study are substantially different in their focus from those of the earlier studies.

Most of the earlier studies in the diffusion of innovations tradition have not investigated the fact whether the quantity of knowledge of an innovation gained by non-adopters was so insufficient that it might have accounted for their non-adoption. Another dimension where the earlier studies have shown scant attention concerns the quality of the knowledge flowing to the peasants. In the Third World, much of the adoptions of non-traditional innovations have not resulted in optimum results. This has been largely due to the inadequate application of the innovation and its allied practices. Yet, a majority of diffusion studies have not investigated whether knowledge of innovations and all its allied practices among the adopters has been of a reliable quality so as to get the most out of the adoption.

The present study, therefore, has focused on the information environment of rural peasants. It probed into the quantitative and qualitative dimensions of their information environment to see if these were acting as serious constraints to their adoption of non-traditional innovations. The study has revealed that diffusion researchers, far from identifying, understanding and removing the communication constraint, have posed constraints to removing it. The existence of a communication constraint to adoption of innovations is a painful reality today inspite of the innumerable research studies in diffusion of innovations. Very few studies, however, have attempted to examine this issue in detail. The present study, therefore, has investigated the issue of the communication constraint in fair detail. If future research studies would concentrate on the other constraints to adoption of innovations such as lack of financial and material inputs, lack of people involvement, lack of infrastructure, etc., then it might be possible to devise effective integrated strategies for rural development, benefitting from the proper understanding and overcoming of all the known constraints.

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