ASPECTS OF COMMUNICATION IN THE FARMING MILIEU: RESULTS OF AN EMPIRICAL RESEARCH IN GREECE

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Abstract

Communication is thought of as being a crucial factor in the modernization process and has been used in a wide range of development initiatives and problems as an element of a variety of strategies. The present paper tries to define the function of communication, especially of that provided by the Greek Extension Service, towards the modernization of the Greek agriculture. The use of survey data and the Multiple Correspondence analysis provides a categorization of farm households in the Study Area and their distinctive characteristics as far as communication and changes on farm level are concerned. Furthermore, while taking into account the organizational framework of the Greek Extension Service, an attempt is made to detect crucial elements of their functioning as change agents concerning the types of households identified as well as to propose a number of changes deemed as being necessary for the Service's improved effectiveness.

La communication est considérée comme un facteur jouant un rôle essentiel dans les processus de modernisation. Elle a été utilisée dans des nombreuses initiatives de développement comme un élément essentiel des stratégies. Ce présent article essaye de délimiter les fonctions de communication et plus spécifiquement celles qui sont offertes par le Service de Vulgarisation Agricole Grec. L'utilisation des données d'enquête et de l'Analyse des Correspondences Multiples offrent une classification des exploitations agricoles dans la région d'enquête et présentent leurs caractéristiques distinctes concernant la communication et les changements au niveau de l'exploitation. De plus en tenant compte du cadre organisationnel du Service de Vulgarisation Agricole Grec, on essaie de détecter les éléments critiques de leur fonctionnement comme agents de changement concernant les types d'exploitations identifiés, ainsi que de proposer un certain nombre de changements considérés comme nécessaires pour l'amélioration de l'efficacité du Service de Vulgarisation Agricole Grecque.

Communication is coming to be perceived generally as a social issue, «social interaction through messages», and constitutes the practice of social relationships (Fiske, 1992, p. 18). Communication plays a basic role in life, since every group, community or culture can be defined as «people in communication» (Cherry, 1987, p. 10). The study of communication, although a relatively new discipline, has undergone considerable development. In the farming milieu and — to be specific — in agriculture, extension «involves the conscious use of communication of information to help people form sound opinions and make good decisions» (Van den Ban and Hawkins, 1988, p. 9).

The process of communication was once conceived as a one-way, linear transmission of speech from the sender to the receiver (a formulation of Laswell) leading to a certain result, based on the stimulus-response approach of the behaviourist school of psychology (Maletzke, 1991, pp. 27-29). In the wake of Shannon and Weaver's mathematical model of communication (in Fiske, 1992, pp. 23-42) and Gerbner's model (1987), more refined and complex models were developed involving preceding and intervening variables and applying chiefly to mass communication (Rogers, 1986).

There are broadly speaking two main schools in the study of communication. The first, more conventional, is chiefly interested in the way in which messages are transmitted, focusing its attention on who influences what and how, regarding individuals as senders and receivers of messages and communication as a transmission process. The second approach, which may be referred to as the mainstream semiotic approach, places emphasis on the way in which messages interact with people to produce meaning. The first approach treats social interaction as a process of influencing the situation of whoever happens to be transmitting. Any deviation from the expected result is perceived as a communication failure, necessitating a re-examination of all elements in the process. The second approach is interested in the recognition of the meaning of signs as evidence of the operations of a code and a cultural context. Social interaction is defined as an operation which constitutes an individual as a member of his community, so that misunderstanding are seen as possibly attributable to cultural differences between the transmitter and the receiver, thus necessitating an examination of these differences (4).

Initial research concentrated chiefly on technically mediated communication, «ignoring» communication of the immediate interpersonal type. Later however the question was raised as to the relationship between these two types of communication. It was ascertained that under comparable conditions personal contact possesses certain advantages over mass communication, chiefly because of the reduced critical distance involved and the possibilities of immediate feedback between the two partners in the transaction (Maletzke, 1991, pp. 34-36).

Today, after this initial period during which mass communication was often thought to be a very powerful and direct force for development (Rogers, 1976, p. 134) it is generally agreed that in order for communication to be effective as a developmental factor it must be supplemented or accompanied by structural changes in the resource base and the broader environment (Hornic, 1977, Hirschman, 1981, Siardos, 1986, pp. 134-138). It is considered that the development of telecommunications and information technology constitute a valuable potential for improved availability of services in rural areas, not to mention improved cost-benefit ratios in agricultural activities and a more balanced distribution of economic benefits. To the extent, therefore, that information technology is a key resource in agricultural development there is a justified interest in the potential role of the mass media and information technology, both as support systems for agricultural/rural extension and as systems whereby farmers and their communities can communicate both with each other and with the urban centre. Modern technological developments offer alternative solutions almost inconceivable only a decade ago, which have nevertheless given rise to pessimistic forecasts to the extent that their use is dependent of power relations in the social, economic and political field. They may even be leading to a new «illiteracy gap» (Garforth, 1986, p. 195, (1) Department of Agricultural Economics, Agricultural University of Athens.

(1) We wish to thank Mr G. Vlahos, Temporary Researcher in the Unit of Comparative Agriculture and Agricultural Extension at the Agricultural University of Athens, for his contribution to the initial data control and analysis.

(2) At the same time a third viewpoint has also been developed rejecting both these approaches as reflections of a dominant scientific tradition described as «foundationalism», and advocating a charge of paradigm in favour of a variation of what is called «constructionism».

(3) From this perspective «communication is the primary process. It is the means by which we come to know the world. It is the means by which meaning, values and social institutions are constructed» (Pennman, 1988).

In Greece, the Extension Service is the chief means whereby information on agricultural topics is transmitted to the farming community, utilising 800 extension agents located throughout the countryside as well as the mass media. The present study represents an attempt to contribute to the clarification of the position occupied by communication in the context of agricultural modernisation in Greece. The investigation focuses on only one part of the communicative nexus of relationships, placing chief emphasis on relations of interpersonal and mass communication, along with the factors which influence them and with the changes being carried out at the individual farm level.

Methodological approach

This study draws on some of the statistical data collected in the framework of a more wide-ranging programme of our Unit whose basic aim is the investigation and clarification of the modernisation process in Greek agriculture. The Prefecture of Phthiotis was selected as the general field of investigation because it was considered as being representative of the existing on National level - diversity among the types of natural environment on the one hand and the production systems on the other (Panagiotou 1974).

For the purposes of extracting the most representative sample of farmers from the viewpoint of our research needs, the rural commune (or community) was chosen as the basic unit of agricultural development. Indeed, as other studies have similarly confirmed, the Greek rural commune constitutes an outstanding social, geographic and to a large extent ecological entity, with quite specific structural characteristics and production systems.

The sampling procedure was completed in two stages: a) choice of communities representative of the prefecture, and b) determination of the sample farms in the chosen communities. In the first stage the 187 communities in the prefecture were divided into groups on the basis of their production system (4). Specifically, communities with a common productive system constitute a separate group from the viewpoint of farm development characteristics (Panagiotou, 1986). Six (6) relatively homogeneous groups of communities were identified and thirty (30) communities were designated as representative of the prefecture. In the second stage, in each of the 30 communities chosen, the farms belonging to permanent residents were graded on the basis of land area in hectares and random sampling was carried out at the level of each grading. A total of 738 farms were selected.

The data used refers to community characteristics (secondary data) and data from the 738 questionnaires which can be categorised in three broad groups:

- variables referring to the households (demography (4), succession), the farm heads (age, general and agricultural education, occupation, etc.) and the farms (owned, hired, cultivated and irrigated land),
- variables referring to communications aspects (both personal contacts with rural services and extension officers and the mass media - attendance and type of programmes in RTV, readership of newspapers), and
- variables referring to the knowledge of schemes related to farm modernization and variables referring to changes on the farm level (introduction of new crops and/or cultivars, and introduction of new techniques) (the definition of the variables is provided in the Appendix).

The statistical analysis of the data was completed in two stages: a) on the univariate level (analysis of frequencies) and on the bivariate level (analysis through crosstabulations and correlations) and, b) on the multivariate level for identification and analysis of the internal relationships between the groups of variables, employing the Analyse Factorielle des Correspondances Multiples (AFCM) (6).

Data analysis

1. General characteristics of the sample

a. Individual characteristics. The characteristics of the sample are, briefly, as follows: the average age of the heads of farm households included in the sample was approximately 55 years. Only 9% of them had attended school beyond the third year of junior high school. 76.5% of interviewees put farming as their chief occupation. 56% were engaged in no other occupation. Of the pensioners, (approximately 19% of the sample), 84% were engaged exclusively in farming whereas 86% of the interviewees employed chiefly in non-farming occupations (a category which constituted approximately 11% of the sample) farmed as a supplement to their main income.

Of the children remaining in the farming households 39% were exclusively occupied with farming, 20.5% were employed in other income-earning work and 9% performed housekeeping tasks. As for the demographic profile, 67.5% of households exemplified a good, 7% a medium and or .poor > characteristics (a category which constituted approximately 11% of the sample) farmed as a supplement to their main income.

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favour of one of the children of the family staying on the farm, an attitude chiefly attributable to uncertainty as to the possibilities of their securing a stable and satisfactory income (51.5%). Education is also a factor little conducive to children’s staying in farming (23%), as is land shortage (10%) and the fact that farming is a difficult occupation, requiring much hard work (6%).

Contacts with Agronomists and Rural Services. Around 39% of farmers declared that during 1988 they had an agronomist visit their farm, while 32% had attended some informational meeting featuring an agronomist (i.e. extension officer). 36% had visited the Farming Directorate of the Prefecture and 39% had visited the local extension officer. In addition to this 40% stated that they had visited the agronomist of the Agricultural Bank of Greece and 35% mentioned private agronomists (dealers in agrochemicals and/or machinery). A smaller number had visited either a research station (18%), or an experimental or demonstration field (8%). The periodicals of the Ministry of Agriculture enjoy a relatively limited readership (11.5%). It seems that the chief source of information is the announcements put up in local authority offices (60%). These contacts are made primarily for the purposes of acquiring technical information and directions as to how to go about obtaining a subsidy. Other — significantly less frequent — motives include curiosity and the need to take out a loan or acquire a permit to drive an agricultural vehicle.

e. Mass media influence. The influence of the mass media can be gauged from the following: as regards radio it seems that most farmers listen for less than two hours daily (56%) while a smaller number (13%) never listen at all. Television is the most popular medium (3% never watch, and 54% watch for less than two hours). On the radio the most popular programme are the news (48%), entertainment programmes (about 25%) and agricultural programmes (about 25%) while on television the corresponding figures are 58.5% for the news, 25% for entertainment and 12.5% for agricultural programmes. Radio and television are the chief means of communicating general information (77.5% in contrast to the figure of 21% for the metropolitan daily newspapers). About 30% of the sample claimed to read newspapers every day, while 44% read them rarely or did not read then at all. 42% never bought a newspaper to take home.

f. Information concerning the activities and programmes of the Ministry of Agriculture. As regards knowledge of the activities of the Ministry of Agriculture, only 52% stated that they often had news of such activities, while one in five (about 21%) said that they never heard anything. The chief sources of information are radio and television, agricultural co-operatives and village council offices. Information is also acquired, albeit to a much lesser extent, from Ministry of Agriculture periodicals, private agronomists (dealers in agrochemicals and/or machinery) and newspapers.

As for knowledge of the programmes/schemes managed by the Ministry of Agriculture: 62% have heard of the European Community’s improvement/modernization schemes (EC 797/85 Regulation) and 36% have heard of the special section of these plans dealing with young farmers. There is also a relative familiarity with the restructuring programmes (59%), manufacturing and marketing support programmes (23%) and agrotourism and handicrafts programmes (15%). Only 10% of those questioned had ever taken advantage of an improvement / modernization scheme. Somewhat more had made use of restructuring programmes, while there was only minimal utilisation of other programmes. More advantage is taken of schemes of subsidisation and compensation, which are more widely known.

g. Changes in the crop system. In the year the study was carried out (1988) only 15% of farmers had introduced, for the first time and since 1980, new crops for cultivation. An additional 2.5% had introduced a second new crop. The principal new crops introduced were cotton (2% of those questioned), kiwi (1.8%), durum wheat (1.6%), Virginia tobacco (1.5%), olives (1.5%), maize, almonds (1.1%) and smaller quantities of pistachio nuts, clover and tomatoes for industrial purposes. As regards changes of variety, such changes had been implemented by about 15% of producers, while another 10% of farmers had introduced a change of variety in their second crops. The main changes of variety were those entailed by the introduction of durum wheat (23% of those questioned), new varieties of cotton (2.6%), Virginia tobacco (1.6%), varieties of melon (1.4%) and maize (1.2%). Other smaller-scale changes occurred with the remaining cereal types and with beet.

The reasons most often cited for these changes included the greater yields of the new crop varieties, easier marketing and the availability of quite significant subsidies.

h. Changes in techniques of cultivation. At the same time quite a number of farmers implemented changes in their techniques of cultivation (23%). Most farmers confined themselves to introducing one new technique or practice (16.8%), but a relatively significant percentage introduced a second as well (6.2%). The main such practices cited included improvement of irrigation systems (7.2%), soil analysis (6.1%), drilling and water use (3.3%), mechanisation (3.8%) and new techniques of cultivation (3.5%). As significant factors discouraging experimentation with and adoption of such new practices the farmers cited lack of information and guidance (24.5%), the high cost of installation and implementation (25%), the complexity of the credit mechanisms (11.5%), the producers advanced age (22%), the complexity of the new techniques (12.2%).

2. Multivariate analysis (7)

To ascertain which particular combination of variables was at work in the phenomena under investigation, 37 variables were employed in 110 classes or modalities. For the 27 variables relating to individual characteristics of producers, farm characteristics, community characteristics and communication, 82 classes or modalities were drawn up and taken to the active (les variables actives), i.e. the variables from which the factorial axes were extracted. The remaining 10 variables, in 28 classes or modalities, were not taken into account in calculation of the factorial axes but were employed as supplementary variables (variables supplementaires) and refer to knowledge and utilisation of programmes, aid and subsidies and, changes on the farm. In brief what was being studied was a table measuring 738 (cases) by 110 (modalities).

The overall inertia of the configuration of the points for the active variables is 2.057. In the process of analysis five chief axes are extracted, which account for 26% of the overall inertia of the configuration. In Table 1 it can be observed that the percentage inertia accounted for by the chief axes falls 9% for the first axis to 4% for the third, at which point it stabilises for the remaining two axes. Attention focuses on the first two axes, with the remaining axes being examined by way of supplementation, as auxiliary data.

The first axis expresses the «dynamism» of farming households, since the variables which account for it are as follows: (in descending series as regards the percentage of inertia accounted for in the axis): total area under cultivation (9.7%), total irrigated area (8.9%), area of owned land (6.8%), purchase of newspaper/frequency of newspaper reading (5.9% in each case), age of farm operator (5.8%), contacts with extension officers (5.6%), area of rented land (5.1%), household demography (5%), educational level of farm operator (4.6 percent) and agricultural training (4.5%). Percentages are lower for: chief occupation of

| Table 1 Table Eigenvalues and Percentage Inertia per Axis. |
|---|---|---|---|
| Axes | Eigenvalues | Percentage | Cumulative Percentage |
| 1 | 0.19 | 9 | 9 |
| 2 | 0.11 | 5 | 14 |
| 3 | 0.09 | 4 | 18 |
| 4 | 0.08 | 4 | 22 |
| 5 | 0.09 | 4 | 26 |

(*) The results of the bivariate analysis will not be referred to at this point in the present study, but will be introduced in the concluding chapter. This expedient has been adopted both for reasons of space and because these results are finally to be incorporated into the conclusions drawn from the multivariable analysis.
farm operator, visits to agricultural exhibitions, research centres and experimental demonstration fields, extent to which the subject's advice is sought by other farmers. From observation of the co-ordinates of the points of modality (class) on the graph of the two axes being examined (Graph 1), a transition can be detected from farm households characterised as «dynamic» to households characterised as «less dynamic». Connecting the ratings for the abovementioned variables, lines are formed, running parallel to Axis 1 such that three basic groups appear, or — otherwise expressed — three basic farm household profiles. On the right-hand side of Axis 1 there appear households characterised by large total areas under cultivation (AK4 = 12 ha. and above) and large total areas under irrigation (AR3 = 6 ha. and above), as well as high educational levels (ED3 & ED4 = at least 3rd year high-school lever education), and relative youth (AG1 = below 44 years) of farm operators. These households also possess large areas of owned land (AR1 = below 44 years) of farm operators. These households also possess large areas of owned land (ID4 = 10 hectares and above) and rent other large areas as well (EN2 & EN3 = 5 hectares or more). The heads of these households have frequent contact with agricultural services and with extensionists (GD4), visit farming exhibitions and research centres (EK1), buy and read newspapers on a daily basis (AF1 & FD1 respectively). Towards the centre of the axis there can be seen the households for which the figures for the abovementioned variables are in the medium range.

On the left-hand side of Axis 1 there appear the farms whose operators are elderly (AG4 = 65 years and above), pensioners who farm to a limited extent (AR3), small freehold farms (KAI = 3 ha. or less), farms not using rented land (EN0), farms without irrigation or with a negligible area of irrigated land (AR1 & ARO = 2 ha. or less). Because the axis to which we are referring corresponds to the highest level of overall inertia (9%) in relation to the other axes, the conclusion is that the differentiation between the tree farm profiles is quite pronounced, particularly for the two extreme categories.

As for the seconds axis, which corresponds to 5% overall inertia, this can be equated with the variables referring to the characteristics of the communities, i.e. distance from Lamia - the Prefecture capital (C), population (PO), distance from the provincial capital (K), and altitude (AL). This axis to some extent distinguishes the characteristics of the farms from the characteristics of the community. If the ratings for the abovementioned variables are connected, they form parabolical lines, an indication that these variables are not altogether independent of the variables of Axis 1, but are in a second-order correlation with them, i.e. a weaker correlation. Thus, as regards for example altitude, households in mountain communities tend to approximate the profile of the «less dynamic» households.

The remaining active variables, which chiefly concern the mass media (apart from newspapers) are not to be equated with the first two axes, but correspond very closely to the fifth. This, together with their positions on the graph — the ratings for them are to be found very close to the centre of gravity — lead to the conclusion that these variables are not involved in the differentiation of farming household profiles, i.e. have a low discriminating capacity.

Employing the technique of supplementary variables, a projection is made onto the graph of the variables for the two main axes referring to knowledge-use of programmes/schemes and subsidies and changes in farming during the period under examination. A projection of the ratings for the supplementary variables supplement the profile of the previously distinguished farming households. It is to be observed, therefore, that the households with the «less dynamic» profile are characterised by least knowledge and use of programmes/schemes and least, in fact negligible, changes in the system and practices of cultivation. By contrast, in the «dynamic» households there appear increased knowledge and use of programmes and changes both in the system of cultivation (introduction of new crops (ES1) and new varieties (EP1) as well as in practices (CV1)). In the intermediate profile the situation is unclear in relation to all the supplementary variables, precluding any differentiation of these variables.

Discussion-Conclusions

The basic aim of this study is the investigation and clarification of the position of communication in the context of agricultural modernization in Greece. The discussion that follows mainly focuses on the crucial findings of data analysis with the view of determining the role and the importance of communication in the realisation of changes on farm level. In this respect, the range of the existing communication interventions on the part of the extension service is also considered.

The study focused on analysing the relations between three types of variables, i.e. a) on characteristics of the farming communities, farming households and farm operators considered to be functioning as external («antecedent») variables, b) on communication variables (interpersonal and mass) occupying the position of intermediate variables influenced by the preceding group of variables and along with it influencing the third group, and c) on variables related to a spectrum of changes taking place in farming. At the bivariate level (X2 criterion, Kendall's Tau, etc.) it was ascertained that there is a positive correlation between contacts (interpersonal communication) with agricultural extension services and agronomists and certain characteristics of the farm (owned land, total area under cultivation, total area under irrigation), characteristics of the household (demography, arrangements for succession), and characteristics of the farm operator (youthfulness, general educational level, agricultural training). As regards the mass media, it was found that only the purchase and reading of newspapers is correlated positively with the abovementioned characteristics, as with the characteristics for the community (proximity to the plain, population). There does not seem to be any statistically significant relationship between these variables and either programme type or frequency of viewing.
or listening to television or radio. Agricultural programmes seem to be a singularly irrelevant factor. Knowledge and use of Ministry of Agriculture programmes/schemes is positively correlated with farm characteristics, characteristics of the head of the farm, and the farmers' contacts with agronomists and reading of newspapers. No such correlations exist in the case of the other mass media.

Finally, as concerns changes at farm level (in the system and techniques of cultivation), these present statistically significant but weak positive correlations, in turn, with characteristics of the farm, youthfulness and level of training of the farm operator, contact with agronomists and agricultural extension services, knowledge and use of programmes/schemes. As for the mass media, only in the case of the newspapers does there exist any correlation, positive, with changes in agricultural techniques.

Employing multivariate analysis (AFCM) three household profiles were identified. The first, described as «least dynamic» profile is characterised by large farm size, youthful farm operators of high educational level, in regular contact with agricultural extension services and agronomists, kept in touch with events through a daily reading of the city newspapers. The second, intermediate, profile presents an intermediate level of reading for the variables, while the third or «least dynamic» profile is characterised by elderly farm operators, for the most part pensioners, who also farm, on holdings the smallest of all those observed. Households in this category have only the slightest of relationships with the characteristics of farming communities, and it seems that the «least dynamic» group tends to be found in mountainous regions (19).

Moreover, through projection of the third group of variables onto the axes it was ascertained that the «dynamic» profile corresponds to increased knowledge and use of programmes/schemes and changes on the farm, while on the other hand, the «least dynamic» profile corresponds to minimal or negligible figures.

The key conclusions to the drawn from the analysis can be summarised as follows: In the conditions prevailing in the area a) interpersonal communication plays an important role in the implementation of changes in agricultural practice, and b) the mass media — with the exception of newspapers — do not seem to exert any influence in the direction of such change.

As regards the role of interpersonal contacts, this relation seems particularly relevant for extension agents at the persuasion stage in connection with the adoption of an agricultural innovation, especially in the case of «intermediate profile» farm operators. But the role of the mass media has also been recognised at the level of general dissemination of news, chiefly for «dynamic profile» farm operators, as has been the mutually supportive functional mass of communication and interpersonal communication (Lionberger, 1960, pp.42-51, Rogers and Shoemeker, 1971, pp.251-266).

In the field of the agricultural extension service in Greece what is most striking is that it is the «dynamic profile» producers that are the most dependent on contacts with agriculture-related services and extension agents, despite the fact that the role of the latter has been significantly downgraded and is largely confined to functions of a bureaucratic type and not to advisory tasks with a developmental orientation (Panagiotou and Louloudis, 1984, p.23). This finding in the existing circumstances only goes to emphasise what a decisive modernising role agricultural extension agronomists can play. Farmers continue to regard the extension officer, whatever his very real shortcomings, at the most trustworthy source of information (20).

As regards the role of newspapers in comparison to radio and television, this interpretation may be a reflection of general considerations to the effect that these media, and television in particular, suffer from certain limitations which detract from their value as means of transmitting information when compared to the press. As a general rule, individuals who derive their information from newspapers display superior levels of comprehension and general knowledge. Fleeting visual or auditory impressions provide a weak basis for cognition in the absence of a semantic framework which could lend significance to these impressions, and it is unusual for such a framework to develop purely from watching television and listening to the radio i.e. without carefully programmed pedagogical intervention (Robinson and Davis, 1990).

It is surely to coincidence that «dynamic profile» households are characterised, among other things, by relatively young farm operators with a high level of general education who keep in touch with events through daily reading of the metropolitan press. These are the people, moreover, who have the necessary financial resources for taking commercial risks and introducing innovations. Their relatively high economic potential also makes them favoured customers of the agricultural extension programmes, within the general logic of the «progressive farmers’ strategy» that is the norm for the extension services (Roling, 1976 & 1988, pp.67).

The absence of appreciable influence of radio and television in effecting change at the individual farm level may be attributable, among other things, to the fact that three groups of factors rarely coexist: a) a suitable communicative environment, b) planning of communication and information transmission, and c) the appropriate communication technology.

It has been found that many communication programmes fail because of the assumption that the transmission of information on itself can, if the means of expression are suitable, bring about changes in behaviour. This assumption fails to take into account the educational function of the wider environment, the relation, that is, between the behaviour of individuals and their environment. Without changes in the environment and changes in the availability of resources, however (equipment prices, farm credit, research priorities conducive to the development of suitably adapted technology, agricultural extension services, etc.) there is nothing to reinforce any such changes in behaviour. Thus, particular attention must be paid to developing systems of communication in the framework of the specific social environments in which they function (Bordeneuve, 1976). It has also been found that the effectiveness of the mass media is enhanced when the transmission of messages is followed by group activities, discussion and decision making (Hornic, 1980, Ploman, 1975).

Research into communication and the spread of innovation has chiefly concerned itself with communication in the sense of the transmission of new skills, tools and farm improvement materials independent of the objective situation (farm size, available capital etc.) of those being addressed, a consideration which decides whether acceptance is possible or impossible for the majority of farmers. For communication to be effective, however, it has to be appraised not on the basis of how capable it is of influencing individuals’ opinions but on the basis of how much effect it can have on their behaviour, such that the individuals in question might, for example, be encouraged to introduce basic changes into the environment in which they live (Beltran, 1975, Fliegel, 1984, pp. 77-88).

In any case, it has been shown that intellectual factors (in the form of education) can broaden the field of action and enhance receptiveness to information. At the same time social factors (individual and social interest, participation in informal and formal groups, individual role expectation) shape and condition the informational model. Thus the model adopted by an adult in exposing him/herself to information will be a product of the combined action of all

(19) As emerges from the findings of a relevant typological study, research data used in the present work, the «least dynamic» group typifies an economically marginal type of farm, located principally in mountainous areas and characterised by the practice of extensive agriculture activity and by increasing independence on non-farming income sources (chiefly the state, either through employment or the receipt of a pension) for its subsistence. Households of the «dynamic» type constitute the most professional kind of farming units to be found in the area covered by the study, i.e. primarily lowland areas, where a highly developed and high intensive farming is practised (Kazakopoulos and Panagiotou, 1992).

Table 2 Variables and modalities used in the multivariable analysis (AFCM).

<table>
<thead>
<tr>
<th>Individual Characteristics</th>
<th>Children interested in agriculture</th>
<th>Community Characteristics</th>
<th>Agricultural programmes attendance in TV</th>
<th>Do other farmers take the interviewee’s advice</th>
<th>Vero often</th>
<th>Changes in crop system &amp; cultivation techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>44 (AG1)</td>
<td>No (DP2)</td>
<td>No (ET2)</td>
<td>No (ET1)</td>
<td>Yes (GH11)</td>
<td>Occasionally</td>
</tr>
<tr>
<td></td>
<td>45-54 (AG2)</td>
<td>N/A-N/R (DP3)</td>
<td>Semi-mountainous (AL2)</td>
<td>Main source of information</td>
<td>Yes (GH2)</td>
<td>Introduction of new crops</td>
</tr>
<tr>
<td></td>
<td>55-64 (AG3)</td>
<td>Farm Characteristics</td>
<td>Mountainous (AL1)</td>
<td>Press (PE1)</td>
<td>Yes (GH3)</td>
<td>Rarely-never</td>
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<td></td>
<td>Over 65 (AG4)</td>
<td>Owned land (Ha)</td>
<td>-750 (P01)</td>
<td>Radio-TV (PE2)</td>
<td>N/A-N/R (ES1)</td>
<td>No (ES0)</td>
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<td></td>
<td>Education Level</td>
<td>Population level</td>
<td>Agricultural education</td>
<td>EEC Schemes-subsidies</td>
<td>1 (PG1)</td>
<td>Expansion of crops</td>
</tr>
<tr>
<td></td>
<td>Illiterate (ED1)</td>
<td>-750 (P01)</td>
<td>Yes (AE1)</td>
<td>Cease of crops</td>
<td>1 (PG2)</td>
<td>No (BK1)</td>
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<td></td>
<td>4-6 Class of primary (ED2)</td>
<td>2.50-4.95 (ID2)</td>
<td>No (AE2)</td>
<td>Contraction of crops</td>
<td>2 (PG3)</td>
<td>No (BK0)</td>
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<td></td>
<td>Junior high school (ED3)</td>
<td>5.00-9.90 (ID3)</td>
<td>Yes (AE3)</td>
<td>Introduction of new varieties</td>
<td>3 (PG4)</td>
<td>Yes (BK1)</td>
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<td>Senior high school (ED4)</td>
<td>Over 10.00 (ID4)</td>
<td>Small (C1)</td>
<td>Number of subsides known</td>
<td>4 (PG5)</td>
<td>No (BK0)</td>
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<td>Renting land (Ha)</td>
<td>Distance from the</td>
<td>Medium (C2)</td>
<td>1 (EG1)</td>
<td>5 (PG6)</td>
<td>No (BK0)</td>
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<td>Agricultural education</td>
<td>provincial capital</td>
<td>Large (C3)</td>
<td>No (EG2)</td>
<td>6 (PG7)</td>
<td>No (BK0)</td>
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<td>Over 6.1 (EN4)</td>
<td>Distance from the</td>
<td>Number of personal contacts</td>
<td>1 (EG3)</td>
<td>7 (PG8)</td>
<td>No (BK0)</td>
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<td></td>
<td>Occupation</td>
<td>cultivated land</td>
<td>Scheme used</td>
<td>1 (EG4)</td>
<td>8 (PG9)</td>
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<td>Total irrigated land (Ha)</td>
<td>Contact with</td>
<td>Number of schemes for new varieties</td>
<td>1 (EG5)</td>
<td>9 (PG10)</td>
<td>No (BK0)</td>
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<td>Pensioner+other (AP3)</td>
<td>agronomists (extension</td>
<td>2 (EG6)</td>
<td>2 (EG7)</td>
<td>10 (PG11)</td>
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<td></td>
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<td>officers and</td>
<td>1 (EG8)</td>
<td>3 (EG9)</td>
<td>11 (PG12)</td>
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<td>rural services</td>
<td>1 (EG9)</td>
<td>4 (EG10)</td>
<td>12 (PG13)</td>
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<td>Mass Media</td>
<td>2 (EG11)</td>
<td>1 (EG12)</td>
<td>13 (PG14)</td>
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<td></td>
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<td>Hours radio attendance</td>
<td>Number of subsides known</td>
<td>2 (EG13)</td>
<td>14 (PG15)</td>
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<td>&gt;2 hours (TR1)</td>
<td>3 (EG14)</td>
<td>1 (PG15)</td>
<td>15 (PG16)</td>
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<td>1-2 hours (TR2)</td>
<td>4 (EG15)</td>
<td>2 (PG16)</td>
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<td>Demography</td>
<td>Number of visits</td>
<td>More than 3</td>
<td>5 (EG16)</td>
<td>17 (PG18)</td>
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<td>Good (DM1)</td>
<td>future in agriculture</td>
<td>6 (EG17)</td>
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<td>18 (PG19)</td>
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<td>Over 6.0 (AR3)</td>
<td>7 (EG19)</td>
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<td>Cultivated land</td>
<td>0-2.9 (KA1)</td>
<td>8 (EG21)</td>
<td>8 (EG22)</td>
<td>20 (PG21)</td>
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<td>Poor (DM3)</td>
<td>3.0-6.9 (KA2)</td>
<td>9 (EG23)</td>
<td>9 (EG24)</td>
<td>21 (PG22)</td>
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<td>There is future in agriculture</td>
<td>Hours TV attendance</td>
<td>10 (EG25)</td>
<td>10 (EG26)</td>
<td>22 (PG23)</td>
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<td>Yes (DI1)</td>
<td>&gt;2 hours (TT1)</td>
<td>11 (EG27)</td>
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<td>23 (PG24)</td>
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<td>No (DI2)</td>
<td>1-2 hours (TT2)</td>
<td>12 (EG29)</td>
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<td>N/A-N/R (DI3)</td>
<td>0-1 hours (TT3)</td>
<td>13 (EG31)</td>
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<td>25 (PG26)</td>
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<td></td>
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<td>Contacts with</td>
<td>14 (EG33)</td>
<td>14 (EG34)</td>
<td>26 (PG27)</td>
<td>No (BK1)</td>
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<td>private agronomists</td>
<td>15 (EG35)</td>
<td>15 (EG36)</td>
<td>27 (PG28)</td>
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<td></td>
<td>and rural services</td>
<td>16 (EG37)</td>
<td>16 (EG38)</td>
<td>28 (PG29)</td>
<td>No (BK1)</td>
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his/her previous cognitive and social experiences (Hirsman, 1981). Two further causes of failure in programmes related to the planning of communication and information transmission are: a) the fact that often exact knowledge of the field of intervention is not available, and no attention is paid to the principles concerning the definition of goals, based on individuals’ objective needs; and b) the credibility or lack thereof of the information source. Supplying very general information (mostly of a documentary nature) can help farmers to raise their aspirations and motivations, but it leaves them then with few clues as to how to do things and what to do. Furthermore, it has nothing to say about whether or not the people concerned possess the means to do what might be proposed. In general information transmission (apart from special farming programmes which — for a country such as Greece — could be said to be very few in number) is urban-biased, in the sense that the time allotted to urban vs rural news and information is biased in favour of the former. A certain prejudice has also been identified, particularly in rural areas (McAnany, 1978) against information originating in government services, unless the government has taken explicit measures to improve the situation.

The present-day availability of communication technology means increased potential for supporting the work of Agricultural Extension personnel, and for feedback from those who have been stigmatised as passive recipients of messages. Thus the media, and particularly telecommunications, can play a significant role as bridges between groups and communities within agricultural districts themselves, instead of simply transmitting messages directly from the centre to the mass farming public. The new approach to self-development placing prime emphasis on participation, mobilisation and group effectiveness, provides a new function for the mass media. This may be summarised as the provision of information, at local request, on problems, potentials, and appropriate technology choice. It may however also include the provision on information concerning the achievements of different local groups (Rogers, 1976, pp. 140-141). Of course this is a decision that will depend on the operative framework of the Agricultural Extension Service and also on its general philosophy (Garforth, 1986, p.187).

On the basis of the aforementioned, some basic prerequisites for the success of communicative interventions in the agricultural field have thus been identified. Examining the role of the Agricultural Extension Service, the chief medium for the communication of information to the rural populations of our country, both through its extended network of local extension agents and through its central radio, television and press divisions, it is established that a great number of these prerequisites are lacking. Among other things mention could be made of the lack of adequate planning of media interventions, whether centrally or at the local level, in such a way that they might correspond to the real developmental needs of the variegated rural economic structure. This is also a consequence of the failure, chiefly at the local level, to establish comprehensive agricultural extension programmes. It is also due to a dramatic restriction of the developmental and advisory role of agricultural extension officers through their being burdened with administrative and managerial duties.

It is therefore necessary that there should be a redefinition of the role and the structures of the Agricultural Extension Service in the framework of contemporary needs, including all the complexity of the problems of Greek agriculture. It emerges also that there is a need for a more comprehensive study, including the use of field experiments and/or network analysis, with the aim of examining communication in relation to change in farmers’ behaviour and not merely to whether the messages of the mass media or agricultural extension are accepted or not. It is a question of conceiving the communication process as transformational (Freire, 1970). The role of communication has to be understood as being that of facilitating development in a rather indirect and contributory way, depending upon circumstances. In the course of such an undertaking particular attention must be paid to examining the critical factor of social structure and the way it determines the behavioural characteristics of the different categories of farmers as well as clarifying the relationships between communication and social, economic and political processes (Felsheusen, 1973).

References


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(43) Hatziparadessis A.: «Statistical Study of the Cohe­