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Factors Related to Capital Formation in Pre-Cooperative Farmer's Groups

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Abstract

The monthly proportional rate.of change in capital formation by six farmers' groups in the Ile-Ife area was taken as a measure of economic growth and studied over time and in relation to certain group features.

There were seasonal fluctuations in the rate of contribution, with the more successful groups being those which varied their rates according to the availability of money. Economic growth was not related to group size, group farm size, or *per capita* contribution, but was related to meeting attendance. Thus, it is questionable whether existing registration requirements such as group size, size of operations, or amount of capital are appropriate at a time when government aims to develop cooperatives as instruments of agricultural growth. A methodology for examining the issue on a wider scale, and desirable alternative government approaches are suggested.

Introduction

The Third National Development Plan stated the government's objective of fostering "the growth of cooperatives more consciously as instruments for achieving increased agricultural productivity and rural transformation" (Federal Republic of Nigeria, 1975). It also mentioned small group size as a major limitation in the growth of the cooperative movement in Nigeria, noting that this precludes adequate capital formation for undertaking major revenue-yielding projects.

The above underscores a dilemma faced by small farmers' groups in Nigeria. While sharing with the government the goal of increased productivity, they can hardly meet the standards set by government for approving major revenue-yielding projects. These standards include prescribed limits in terms of group size, size of operation and capital before registration can be granted. This paper examines whether these parameters are appropriate for judging the eligibility of a group to participate in a growth process such as increased agricultural productivity.

Growth, particularly economic growth, has featured as a major component of many definitions of development and in the operationalization of most development plans. Recently, the use of economic growth as a parameter for measuring development has come under heavy criticism. This is because it has been measured at the national level, usually as GDP, which does not reflect growth at the level of the common man (McNamara 1973: Olatubosun *et al.*, 1975, Ogunfiditimi and Olawoye, 1979). In a healthy economy, national economic growth would be a composite of local level growth.

This study focusses on growth at the local level of six pre-cooperative farmers' groups. the objectives were:

1. To observe the characteristics of the groups in terms of group size, attendance at meetings, contribution per person, and size of group farm;
2. To determine the rates of capital formation of the six groups;
3. To observe seasonal patterns in the rate of capital formation;
4. To determine whether rate of capital formation is related to any of the group characteristics; and
5. To examine the implications of the findings for government registration requirements and management activities.

The groups were initially two large groups located at Isoya and Akeredolu; and had as members, the farmers participating in an integrated rural development project (University of Ife Isoya Rural Development Project) set up in 1969 to cover nine cocoa-growing villages in Ile-Ife area of Oyo State.

The farmers already had considerable experience with cooperatives. expecially in cocoa marketing as well as thrift and credit groups. In 1972, Western Yellow maize was successfully introduced as a cash crop; and by 1974, it was apparent that organizing the farmers into cooperatives would facilitate the management of the maize programme. Two groups were therefore formed with the following objectives:

1. To facilitate improved maize production
2. To establish capital for agricultural activities
3. To gain government recognition for credit worthiness.

Government recognition would take the form of registration as cooperatives. Groups working towards this recognition are known as pre-cooperative groups.

The two groups had their bases respectively at Isoya with 95 members, and Akeredolu with 87 members. They were informed about

the State Ministry of Trade and Cooperatives' registration requirements for multi-purpose cooperatives which include :

1. Keeping of records and accounts.
2. minimum membership of 50.
3. Holding of regular meetings.
4. Operating a savings scheme.
5. Operating group orojects such as crop production or marketing.
6. Establishment of a bank deposit of at least N10.00 per member or a minimum of N500.00 for a group of 50.

Thus, in terms of membership requirements, both groups were sufficiently large. However, as the groups began to function, it became clear that all objectives except gaining government recognition could be realize more easily by smaller groups. The majority of the farmers had to travel considerable distances over bad roads and this affected meeting attendance, group farm work and group marketing activities. Inter-village distrust and lack of over-all leadership had negative effects on rates of share payment and loan repayment. Although the groups were granted Agricultural Credit Corporation loans soon after formation, there were so many problems in supervising the repayment among several villages that most members felt relieved when loan priviledges were withdrawn. Arising from the above problems, the two groups had to be split into smaller and smaller units. This was first done by establishing many local group farms. Next, meetings were held in many, rather than two locations. Subsequently, the finances were separated. By 1978, after the subdivisions and with the addition of new participating villages, there were nine farmers' groups.

None of the nine groups had up to 50 members, but all continued to work towards registration. A major obstacle was the requirement for keeping various account books. This required a level of education which was rare among the farmers. An alternative to keeping their own records would have been to join the local cooperative union and pay the union secretary to keep the books. However, it was discovered that the union was not oriented towards agricultural production and that the fees would have taken all of the profits of the small groups.

Eventually, with the special assistance of inspectors from the Ministry of Trade and Cooperatives and with the help of the project staff, six of the group secretaries were able to master the account books. The groups with such secretaries and records stand a good chance of meeting other registration requirements and as such, are the only groups included in this study. They are located in the village of Erefe, Akeredolu, Aroko, Olorombo, Obere and Iyanfoworogi.

Methods

All data for this study were extracted from group records including enrollment records, attendance records, minutes, and financial accounts.

Data on cooperative group features were taken directly from records except for percentage attendance at meetings which was computed as a mean percentage, and monthly capital contribution per member which was also a mean.

Capital generation was determined by adding funds contributed as share payments, savings, and loan interest for each month. Income from group farms had been divided among the members and entered against each person's name as share payment, and so such income was indirectly included in calculating the total capital generated.

From the monthly capital generated, data on cumulative capital were compiled on a monthly basis. Cumulative capital was then used to compute monthly rates of capital accumulation.

The rate of capital formation is here used as a measure of growth, thus avoiding the problems inherent in using other parameters, especially social indicators for evaluating co-operative success (King, 1974; Widstrand, 1970). It is also used as a measure of effectiveness (Ijere, 1977), since capital formation is a major objective of the groups. The rate for a given month was calculated by subtracting the cumulative for the previous month from that of the given month and dividing the result by the cumulative of the previous month. In other words, the rate is the monthly proportional rate of change.

Monthly rates were graphed and examined over time to depict differences in patterns of capital accumulation among the groups and across the farming seasons.

Finally, mean rates of capital formation were computed for the six groups and linear correlation was used to determine whether the mean rates were related to any group features.

Data for this study cover the period from January 1978 through July 1979.

Results

A descriptive summary of the group features is given in Table 1. No group had up to the required 50 members as membership ranged from 19 to 45. Most groups included members from two villages and met twice monthly. The average attendance rates ranged from 25% to 98%,

and mean *per capita* monthly contribution ranged from N1.68 to N2.94. Farm sizes varied widely from 0.42 ha. to 2 ha. and there was no consistent pattern in the relative performance of the groups.

At the time the groups were fragmented from the two original groups, their starting capital ranged from N164 to N577. The groups did not all begin to function at the same time. Some began to meet and make contributions in January 1978, but three waited for some months. This is reflected in Table 2 which shows the monthly cumulative capital for the groups. The groups varied in their abilities to raise to minimum of N500. One group started with more than the requirement, others took five, eleven and fourteen months to raise N500, most of which they kept in productive use. By the end.of the study period, the Aroko group had the greatest capital and Iyanfoworogi had the smallest.

TABLE 1 – FEATURES OF THE PRE–COOPERATIVE GROUPS STUDIED

Village Base / *Features*	*Erefe*	*Akeredolu*	*Aroko*	*Olorombo*	*Obere*	*Iyanfoworogi*
Number of members	26	19	45	23	26	21
Number of constituent villages	3	3	2	2	2	2
Number of meetings per month	2	2	1	2	2	2
Percentage attendance at meetings	25	50	98	90	70	60
Mean capital contribution per member per month (N)	2.18	1.98	2.94	2.24	1.68	1.85
Hectarage of group farm in the last cropping season	0.42	2.0	0.8	2.0	1.08	0.9

TABLE 2 – CUMULATIVE CAPITAL ACCUMULATION (₦) OF PRE–COOPERATIVE GROUPS STUDIED

Month	*Erefe*	*Akeredolu*	*Aroko*	*Olorombo*	*Obere*	*Iyanfoworogi*
January 1978	472.00			270.00	207.00	
February	472.00			270.00	295.00	
March	482.00			270.00	318.00	164.00
April	495.00			270.00	341.00	181.00
May	520.00	275.55		270.00	364.00	202.00
June	533.00	275.55		304.50	387.00	217.00
July	545.00	300.67		327.50	410.00	227.00
August	558.00	325.80	577.00	350.50	433.00	246.00
September	570.00	351.85	611.75	373.50	456.00	246.00
October	593.00	377.75	660.75	396.50	479.00	246.00
November	601.00	377.75	874.65	567.00	501.00	296.60
December	610.25	397.75	1004.05	617.25	522.00	377.08
January 1979	641.25	426.00	1197.55	639.25	542.00	394.08
February	645.25	454.61	1264.75	784.25	576.50	470.08
March	645.25	483.77	1348.95	815.25	596.50	498.08
April	645.25	513.48	1378.45	837.25	614.50	507.08
May	645.25	562.35	1407.45	881.25	629.50	519.08
June	645.25	587.59	1441.45	940.25	653.50	536.08
July	645.25	612.34	1475.45	1005.25	667.50	547.08

TABLE 3 – RATES OF CAPITAL ACCUMULATION IN THE PRE–COOPERATIVE GROUPS STUDIED

Month	*Erefe*	*Akeredolu*	*Aroko*	*Olorombo*	*Obere*	*Iyanfoworogi*
January 1978	–			–	–	
February	–			–	0.43	
March	0.02	–		–	0.08	–
April	0.03	0.12		–	0.07	0.10
May	0.05	0.22			0.07	0.12
June	0.03	–		0.13	0.06	0.07
July	0.02	0.09		0.08	0.06	0.05
August	0.02	0.08	–	0.07	0.06	0.08
September	0.02	0.08	0.06	0.07	0.05	–
October	0.02	0.07	0.08	0.06	0.05	–
November	0.03	–	0.32	0.43	0.05	0.21
December	0.02	0.05	0.15	0.09	0.04	0.27
January 1979	0.05	0.07	0.19	0.04	0.04	0.05
February	0.01	0.07	0.06	0.23	0.06	0.19
March	–	0.06	0.07	0.04	0.04	0.06
April	–	0.06	0.02	0.03	0.03	0.02
May	–	0.10	0.02	0.05	0.02	0.02
June	–	0.05	0.02	0.07	0.04	0.03
July	–	0.04	0.02	0.07	0.02	0.02
$\bar{R}$	0.02	0.07	0.08	0.08	0.09	0.10

Table 3 shows that the group with the least capital had the highest average rate of capital accumulation. The table also shows that there were wide fluctuations in monthly rates of contributions within most of the groups. In order to study these fluctuations over time, the monthly rates were plotted on graphs. The average rate for all the groups (Fig. 1) went up markedly from October to February. This peak occurred when cash was received from sales of cocoa and also from sales of maize harvested in July and August. One would have expected to see marked increases in rates for July and August, but delayed payments for this cash crop lumped the effects of maize

profits with those of cocoa. In the year following the initiation of the groups, a very low rate of capital formation was found in the period from March to July. This period is characterized by heavy farm expenses and a dearth of crops for sale.

Concerning the performance of individual groups, the graphs (Figs. 2 to 7) show that the more successful groups (those with mean rates of 8, 9, and 10 percent) were those which maximized their contributions at the times when cash was relatively more plentiful. Thus, the behaviour of the groups in reacting to the opportunities provided by the growing seasons influenced their rates of capital formation.

TABLE 4 – MEAN RATES OF CAPITAL ACCUMULATION IN RELATION TO SOME GROUP FEATURES

Features	*Coefficient of Linear Correlation*
Number of members	-0.01 NS
Number of constituent villages	-0.56 *
Number of meetings per month	-0.25 NS
Percentage attendance at meetings	0.64 *
Mean Capital Contribution per member per month	-0.19 NS
Size of the group farm	0.34 NS

*Significant at the 25% level

NS = not significant

Table 4 shows the relationships between group characteristics and mean rates of capital formation. From the table, it is evident that rate of capital formation was not significantly correlated with group size ($r = -0.01$). However, it was significantly and negatively correlated with number of constituent villages ($r = -0.56$). Thus, a membership drive which would have sought participants from additional villages might not have resulted in an increased rate of capital formation.

The number of meetings held monthly was not significantly correlated with rate of capital growth. However, the rate of attendance at meetings was found to be a significant ($r = 0.64$). The average capital contribution per member was not significantly correlated with growth rate. This can be explained by the fact that the groups which grew slowly had a large portion of the per capita contribution in the initial

capital. rather than in the subsequent contributions which went into the computation of the rate.

There was a slight tendency for groups with larger farms to have higher rates of growth ($r = 0.34$), however, this relationship was not found to be significant. Compared with income from individuals' maize and cocoa farms, income from the group farms made a relatively smaller impact on group finances.

Discussion

This study which focussed on the internal generation of capital by six pre-cooperative farmers' groups is concerned at a broader level with the potentials of cooperative institutions for contributing to national development. The study is limited by its very small sample size. However, all of the types of data used are normally available to Cooperative Inspectors and Assistant Registrars of Cooperatives who prepare groups for registration, and could be studied using the same methodology.

The data presented here, although few, suggest that the records of farmers' groups should be judged by different standards from those of other multipurpose groups, particularly marketing groups. Marketing groups begin their work with a resource which is already several steps removed from the soil, which is salable, and which is gathered in central locations. Production groups begin their work with the soil and the costs of inputs needed to make the soil work in scattered places. Some of the problems inherent in these differences were highlighted in this paper and indicate the need for special governmental consideration.

First, the fact that the total amount of capital generated was quite small emphasizes that capital.is scarce and should be kept in productive use. Had the groups deposited N500 in the Bank as required, most would have had very little working capital available for agricultural activities. This suggests that the requirement for a bank deposit might better be abolished and replaced by an examination of how funds are being used.

Secondly, and related to the issue of productivity, it was found that the progress of the groups, when measured as growth of capital, did not correspond to *per capita* contribution. That is, growth was quite distinct from the economic power of the individuals. This suggests that for the purposes of assessing which groups will develop the furthest with a given amount of government aid, rate of capital formation might be a better criterion than total capital accumulation.

Thirdly, this study suggests that size of membership may be an inappropriate criterion for judging groups. Farming is an occupation which separates people into small scattered communities. The data showed that the two groups comprised of three villages had lower rates of attendance and capital formation than groups comprised of two villages. This may be explained by the difficulties members in these groups would have faced in getting to meetings as well as by a lesser degree of trust among members who do not see each other most of the time. The latter factor would have affected both contribution of savings and disbursement of loans. Looking at all of the groups, one finds that membership size was not related to rate of capital accumulation. However, participation, particularly attendance at meetings was related.

Finally, it should be noted that the basis for the growth of the groups' accounts was the individual's rather than the groups' farms. This is apparent from the fact that the size of the group farms was not related to rate of capital formation. However, this does not diminish the function of the groups as instruments of agricultural development. Rather, it indicates that farmers preferred to link the input supply and marketing functions of the group with the production of their own plots. This suggests that the size of individuals' operations may be more important than size of group farms in assessing groups for registration.

To sum up the points on registration requirements, this study suggests that in order to maximize the development potential of production cooperatives, government cooperative officials should consider developing a new set of requirements for farmers' groups. These requirements might be limited to a minimum rate of capital formation, a minimum rate of attendance at meetings, and a minimum level of farming activities on either group or individual plots.

Besides the issue of registration requirements, this study has pointed out the seasonal nature of capital growth. The pattern, which reflects seasonal variations in availability of funds, suggests that special bye-laws and activities could maximize capital growth rate. The size of monthly savings contributions could be set to vary over the year; share payment drives could be carried out from October to January; and government credit could be made available in February and made payable in November.

The findings of this study need to be substantiated on a larger scale. Fortunately the necessary data are already available in cooperative

records. If the suggestions made in this paper were to be carried out, many small farmers' groups would be eligible for registration. While this would be a boon to agricultural development, it would also incur heavy financial and manpower costs. The numbers of Cooperative Officials would need to be increased; transportation requirements would go up to cover more and more remote areas; more credit would have to be made available; and less bank interest would be collected. These are some of the costs which would measure government commitment to the idea of widespread agricultural development through farmer's cooperatives.

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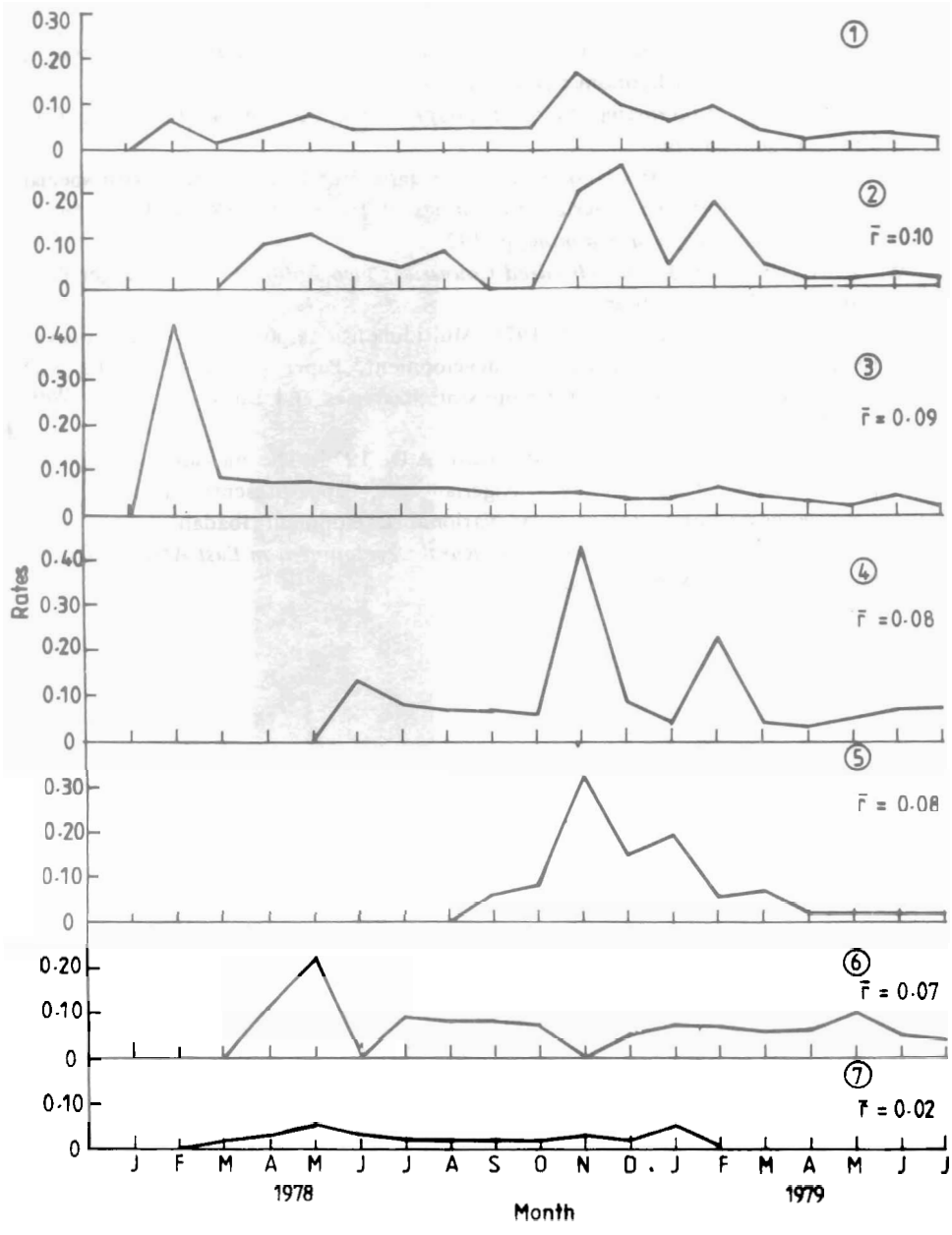

Figs. 1-7 Seasonal fluctuation in rates of capital accumulation: 1, average for five locations; 2,.Iyanfoworogi; 3, Obere; 4, Olorombo; 5, Aroko; 6, Aderedolu; 7, Erefe.

References

Federal Republic of Nigeria 1975. *Third National Development Plan,* Volume I, Federal Ministry of Economic Development, Lagos.

Ijere, M. 1977. *Modernizing Nigerian Cooperatives,* Fred Atoki Publishing Co., Ltdd., Lagos. 150 pp.

King, R. 1974. The role of cooperatives in agricultural.development with special reference to northern Nigeria, *Proceedings of the FAO/NORAD West African Seminar on Agricultural Planning,* p. 292.

McNamara, R.S. 1973. *One Hundred Countries, Two Billion People,* Praeger Publishers, New York. 140 pp.

Ogunfiditimi, O. and Olawoye, I. 1979. Multidimensional approach to the conceptualization and measurement of development, Paper presented at the SID Conference on Alternative Development Strategies and Lifestyles in the West African Sub Region, U.I., Ibadan.

Olatubosun, D.,.Olayemi, J.K., and Falusi, A.O. 1975. The measurement of real progress at the local level: The Nigerian case, Paper presented at the NISER Conference on Social Research and National Development, Ibadan.

Windstrand, C.G. 1970. *Cooperatives and Rural Development in East Africa,* African Publ. Corp., New York. 271 pp.