

GROWTH ASPIRATIONS AND THE PARTICIPATION-PERFORMANCE NEXUS: THE CASE OF U. K. PRODUCER COOPERATIVES

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INTRODUCTION

The purpose of this paper is to examine performance in the guise of growth aspirations of manufacturing cooperatives in the U. K. The theoretical literature on cooperative firms has in the past concentrated on distinguishing them from their capitalist counterparts by means of differing objective functions. In the main this has involved neo-classical analysis of aspects such as membership adjustment (Ireland and Law, 1982), finance (Furubotn and Pejovich, 1970) and efficiency (Ichiishi, 1977). The seminal work of Vanek (1970) and Ward (1958) examines an "Illyrian" firm by assuming that members of the firm seek to maximise the net income per worker. The supply-side tendencies which this approach implies has been the subject of much debate (see for example Ireland and Law, 1982 and Bonin and Putterman, 1987). This paper sets out to examine the basic objectives of a group of cooperatives and link these to issues surrounding growth and performance.

The questionnaire-based survey used in this research represents an attempt to answer some of the points raised in the theoretical literature from an empirical stance. The survey was sent to 216 manufacturing cooperatives listed in the National Directory of new Cooperatives and Community Businesses (C. D. A. 1986). Seventy-eight questionnaires were returned completed, thirty-five were returned marked 'gone-away' and eight returned not completed. This represents a return rate of 56% and a response rate of 36%.

THE PARTICIPATION-PERFORMANCE NEXUS

The paper attempts to make a contribution to the participation-performance nexus to which much attention has been paid in recent years, and to further examine the supply-side constraints assumed of the labour-managed firm by Illyrian analysis. Work by Estrin, Jones and

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Svejnar (1987) for example, finds that in general, for Western Economies, that the overall effect of participatory schemes in producer cooperatives is positive, although growth is not examined specifically.

Whilst the analysis here concentrates specifically on one aspect of performance, namely growth, it is indicative of the attempt to examine the theoretical claims made of the labour-managed firm. From a purely neoclassical stance the issue of growth within the cooperative firm based on a restrictive analysis by Ward (1958) and others is the one which may have damaged the cooperative movement amongst academics. Research is still needed to discover the reality behind the theory.

As Estrin, Jones and Svejnar (1987) point out there has been very little formal modelling of key relationships associated with worker participation. Central here is the question as to whether cooperatives will plan to grow as fast as their capitalist counterparts or whether there may be reasons to believe that productivity effects will have a negative or positive influence on growth aspirations.

On the positive side participation is likely to generate superior labour morale, greater team spirit and consequently an increased incentive towards effort. It may also improve a firm's organizational efficiency, flexibility and willingness to innovate. Moreover, as Jones and Svejnar (1985) argue participation may also result in lower absenteeism, better workmanship, superior information flows and superior monitoring of effort and quality. This may all manifest itself as optimism with regard to growth.

On the negative side, the strongest case is made by Jensen and Meckling (1979) who see participation as always having negative effects on productivity. The focus tends to be associated with trade-offs between efficiency and joint-decision making because of problems of group preference formation. Even if this can be overcome, it is suggested that decision-making will be slow and cumbersome.

The assumed lack of managerial leadership and the nature of that management within a cooperative enterprise has also been cited by some (for example even as early as 1920 by Webb and Webb) as a reason for inefficiency in the participative firm. Although, the assumed restrictive nature of management, (eg. the requirement that management in a cooperative should rotate which is stressed by Williamson, 1980) may not always resemble that which occurs in the real world.

THE OBJECTIVES OF THE COOPERATIVE

In the analysis of the traditional capitalist firm the dominant assumption has been the maximisation of profits. Of interest in itself is the relaxation of this assumption in favour of other objective functions such as sales maximisation, growth maximisation and managerial utility maximisation. In the case of worker cooperatives two common characteristics may lead us to challenge the assumption of profit maximisation even more. Firstly, many cooperatives have been established for political and ideological reasons often as a rebuttal to capitalist values. For example, the exclusive aim of profit maximisation may be seen as

undesirable. Secondly, Estrin (1985) notes that the modal size of a U. K. cooperative is about four members and we are left with the question as to whether small firms, however organised, do or are able to maximise profits. The results of this research indicates that the modal size is five with a mean of about fifteen. Excluding the two largest cooperatives in the survey with memberships of 400 and 600 this mean falls to nine.

The classic paper by Ward (1958) advanced the idea that maximum income per worker might be the objective of the labour-managed firm. Firm size then being adjusted until income per person was at its highest possible level. The extent to which the maximisation of this objective makes the firm behave significantly different from its capitalist counterpart is well documented (see Ireland and Law, 1982, for example).

The survey attempted to elucidate the objectives of the cooperative. Respondents were asked about how important a number of factors were in the establishment of the cooperative. Table 1 summarises the responses. What can be seen clearly is the importance of the atmosphere at work, wanting to work for oneself, the provision of a particular product and a desire for equality with fellow workers. Whilst the establishment of the cooperative as a direct result of redundancy or as a means of job creation was relatively unimportant amongst the majority of cooperatives, for a significant minority it was the most important aspect of the cooperative's establishment.

Some authors have also argued that the effort expended by members is likely to be higher, and therefore productivity greater, than that expended by workers under capitalism (Tyson 1979, Ireland 1981). Of the respondents to the questionnaire nearly half thought that there definitely were productivity advantages. This may be due to reduced alienation (Reich and Devine, 1981) or a sense of loyalty or perhaps a result of the knowledge that the enterprise surplus will return to the members.

GROWTH AND THE COOPERATIVE FIRM

It is often claimed that the labour-managed firm will tend to grow at a slower rate than its capitalist counterpart. The work of authors such as Ward (1958), Atkinson (1973) and Bonin (1983) represents a theoretical demonstration that the labour-managed firm chooses a lower rate of growth than the profit-maximising firm in certain restrictive circumstances. On a level more related to the decision making machinations of the worker cooperative one may expect that growth which results in an expansion of the labour force and consequent diluting of the authority of original members, may be resisted, since the expansion of the workforce needs to result in a proportional expansion of the surplus if members are not to be made worse off by following a growth strategy.

The results of the survey certainly do not reflect the view that cooperatives will not want to grow. No respondents expected a decline in terms of the definitions of growth used: turnover; employment; and incomes of members. The distribution between those anticipating no

Table 1: *The Importance of Factors in the Establishment of the Cooperative*

| | Number of co-operatives reporting the factor to be: | | | | Number reporting this to be the most important factor |
|--|---|-----------|---------------|----|---|
| | Very Important | Important | Not Important | NR | |
| Religious reasons | 5 | 4 | 66 | 3 | 5 |
| Political reasons | 16 | 17 | 39 | 6 | 6 |
| A redundancy situation/factory closure | 19 | 15 | 38 | 11 | 9 |
| A job creation programme | 18 | 11 | 40 | 9 | 9 |
| The provision of a particular product | 31 | 19 | 21 | 7 | 5 |
| The availability of grants | 16 | 19 | 38 | 6 | 3 |
| The desire for a pleasant atmosphere at work | 35 | 27 | 12 | 4 | 7 |
| Wanting to work for oneself | 38 | 21 | 12 | 7 | 5 |
| Support of a C. D. A. | 9 | 21 | 39 | 8 | 3 |
| A desire for equality with fellow workers | 28 | 30 | 14 | 5 | 23 |
| Others | 5 | 0 | 0 | 61 | 1* |

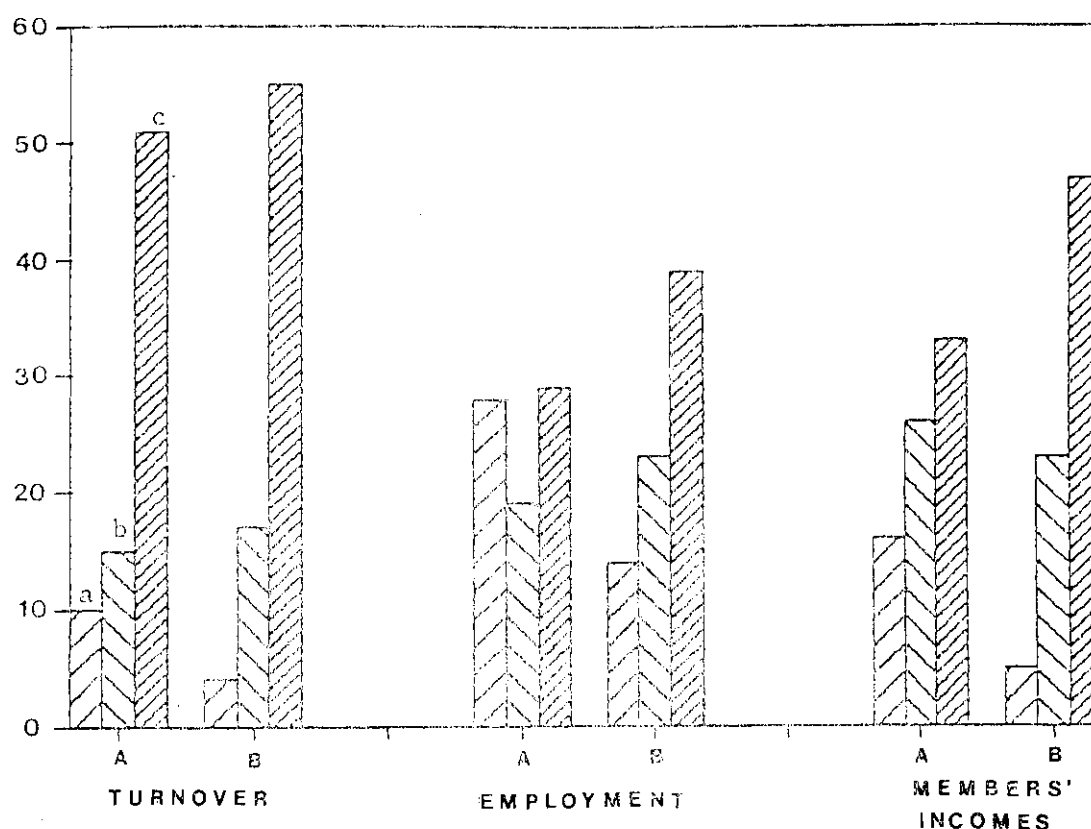
NR = No Response

NR = 7

* = Objective stated was the provision of shared childcare support

growth, a growth rate of less than 10%, over the next 12 months and three years, is shown in figure 1. In every case over each time period the majority of respondents expected growth by more than 10%. A relatively large proportion of respondents did expect employment not to change even though some of them expected turnover to increase by more than 10% even in the short term. This may lend support to the view

GROWTH ASPIRATIONS OF THE COOPERATIVE OVER A. 12 MONTHS AND B. 3 YEARS



KEY: a nil
b less than 10%
c more than 10%

that some cooperatives do not wish to expand employment. In the past the reason for this has been seen in terms of selfishness (ie. not wanting to dilute the shared surplus) but other rational reasons might include not wanting to risk losing a good atmosphere or the relationships between members (see for example Miyazaki, 1984).

We may categorise the growth aspirations of the 78 cooperatives in the survey into those expecting high growth (over 10% per annum) over a 3 year time period and those expecting low growth (less than 10%) or no growth. The distribution of cooperatives is then as follows:

ASPIRATIONS OF GROWTH OVER A 3 YEAR PERIOD

| | TURNOVER | EMPLOYMENT | INCOMES |
|--------------------------|----------|------------|---------|
| HIGH GROWTH | 55 | 39 | 47 |
| LOW GROWTH/ NO GROWTH | 23 | 39 | 31 |

Table 2

Allocating a 1 to a cooperative with high growth aspirations and a 0 otherwise it is possible to examine the determinants relating to the probability of being optimistic about growth or otherwise. This is a simple application of Probit analysis.

A priori we may hypothesise that growth aspirations may be linked to the objectives and reasons for existence of the cooperative. These are shown in Table 1. If we allocate a 1 to objectives which were very important, a 0 to those which were not important we have an index of the degree of importance of each objective.

It has already been suggested that those cooperatives who believe there to be productivity advantages associated with the cooperative form of organisation may consequently be more optimistic about growth. Thus by allocating a 1 to those cooperatives who believe there to be productivity advantages and 0 otherwise we have another index which can be used in the analysis.

Similarly we can index information about the members' capital stake K in the cooperative and the degree of managerialism in the following ways:

| Members financial stake in the company K | Value imputed |
|---|------------------|
| 100% | 1 |
| Between 50% and 99% | 0.67 |
| Between 1% and 49% | 0.33 |
| Nil | 0 |

Table 3

| Degree of managerialism | Value imputed |
|--|---------------|
| All members decide democratically on all decisions | 0 |
| Manager(s) responsible for day-to-day decision making | 0.5 |
| Manager(s) responsible for day-to-day decision making and policy decisions | 1 |

Table 4

PROBIT ANALYSIS

Since we might expect there to be different reasons for growth aspirations in terms of turnover, employment and members' incomes we will deal with each one in turn. Variable names are given in brackets.

1. *Turnover (TO)*

As far as the objectives of the firm are concerned we may hypothesise that those cooperatives who see the provision of a particular product as important (PPRO) will wish to maximise the sales of that product and may therefore seek a high turnover. Similarly if an important objective is seen as working for oneself (YOU) then we may expect the same effect. Atkinson (1973) suggests that an important determinant to the extent of turnover is the degree of managerialism (MAN).

We may also expect that those who believe there to be productivity advantages (PROD) will expect higher turnover. The size of the cooperative (SIZE) may also be important. Thus if we estimate this hypothesised relationship using Probit we get the following results:

DEPENDENT VARIABLE: TO
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| CONSTANT | 0.0434 | 0.4232 |
| PPRO | -0.9749 | 0.4215 |
| YOU | 0.2703 | 0.4465 |
| K | 0.7134 | 0.3501 |
| MAN | 0.8065 | 0.5261 |
| PROD | 1.0313 | 0.3623 |
| SIZE | 0.0011 | 0.0047 |
| LOG LIKELIHOOD | -36.4268 | |
| AVERAGE LIKELIHOOD | 0.6269 | |
| CASES CORRECT | 61 | |

Table 5

Given this specification the only coefficients significantly different from zero are PPRO, K and PROD. Leaving out the least significant of the variables an alternative specification yields:

DEPENDENT VARIABLE: TO
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| PPRO | -0.7730 | 0.3020 |
| K | 0.5107 | 0.2003 |
| MAN | 0.4873 | 0.2217 |
| PROD | 0.6623 | 0.2814 |
| LOG LIKELIHOOD | -40.0262 | |
| AVERAGE LIKELIHOOD | 0.6054 | |
| CASES CORRECT | 62 | |

Table 6

All coefficients are significant at the 95% level. Thus if a cooperative has a high degree of managerialism, a strong capital stake on the part of members and believes there to be productivity advantages associated with cooperative organisation it is more likely to be optimistic in its growth aspirations regarding turnover. The provision of a particular product however, has a negative impact upon growth aspirations. This may lead us to assume that there is a trade-off between the production of a particular good and growth aspirations. For example in the survey, one cooperative producing cruelty-free cosmetics, clearly thought that they could expand into more traditionally produced goods but had decided not to in order to maintain vegan principles.

2. *Employment (EMP)*

Looking at the objectives of the firm first, our basic hypothesis must be that firms who value a good atmosphere (ATM) and equality (EQU) amongst the workforce will not be keen to increase the size of the workforce. But on the other hand managers may be keen on this since it increases their own prestige. We may also expect that where there is a high capital stake in the company workers will not want employment increasing policies for fear of it diluting membership surplus. Including our productivity variable and the size of the cooperative our estimation is as follows:

DEPENDENT VARIABLE: EMP
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| CONSTANT | -0.2680 | 0.4608 |
| ATM | 0.3676 | 0.6181 |
| EQU | 0.5531 | 0.5971 |
| MAN | 1.1988 | 0.5442 |
| K | 0.6897 | 0.5093 |
| PROD | 0.8842 | 0.3232 |
| SIZE | -0.0290 | 0.0201 |
| LOG LIKELIHOOD | -42.1251 | |
| AVERAGE LIKELIHOOD | 0.5827 | |
| CASES CORRECT | 60 | |

Table 7

The variables ATM and EQU are insignificant and have the wrong expected sign, K and the constant also insignificant. SIZE is insignificant but its negative sign is what might be expected from an Illyrian model and therefore it is left in the model. Thus our specification of the model yields:

DEPENDENT VARIABLE: EMP
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| MAN | 0.8848 | 0.4042 |
| PROD | 0.6550 | 0.2687 |
| SIZE | -0.0400 | 0.0188 |
| LOG LIKELIHOOD | -46.8393 | |
| AVERAGE LIKELIHOOD | 0.5485 | |
| CASES CORRECT | 53 | |

Table 8

All the coefficients are significant but the overall model is less satisfactory. The implication being that information has been lost in reducing its scope. Nevertheless interesting is the continued importance of managerialism and of productivity beliefs. The negative (now significant) sign on SIZE indicates that as the membership gets to larger levels the tendency to increase membership is further reduced.

Thus the Illyrian analysis arguing that the growth rate amongst cooperatives is likely to be low in terms of employment is given some support but there seems little evidence that workers will actively seek to restrict employment for reasons of self-interest.

3. *Incomes of Workers (INC)*

To the cooperative member the opportunity to reap the full rewards of the enterprise surplus rather than see it syphoned off by the owners of capital must be important. Thus we may expect those who see working for oneself as an important objective of the cooperative to strive for higher incomes. Those with high capital stakes may also expect proportionately higher returns and managers may strive for higher incomes for members as a way of maintaining their position. Including productivity and employment variables for the same reasons as stated above our model becomes:

DEPENDENT VARIABLE: INC
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| CONSTANT | -1.0163 | 0.4003 |
| YOU | 1.0156 | 0.4077 |
| K | 1.2931 | 0.5348 |
| MAN | -0.2452 | 0.4792 |
| PROD | 0.6678 | 0.3251 |
| SIZE | -0.0039 | 0.0036 |
| LOG LIKELIHOOD | -40.2115 | |
| AVERAGE LIKELIHOOD | 0.5971 | |
| CASES CORRECT | 57 | |

Table 9

MAN and SIZE are significant. Interestingly whilst highly important before MAN even has the wrong sign. Re-estimation of the model yields:

DEPENDENT VARIABLE: INC
OBSERVATIONS: 78

| VARIABLE | COEFFICIENT | STANDARD ERROR |
|--------------------|-------------|----------------|
| CONSTANT | -0.9429 | 0.3492 |
| YOU | 0.9009 | 0.3914 |
| K | 1.2889 | 0.5339 |
| PROD | 0.6250 | 0.3108 |
| LOG LIKELIHOOD | -40.9345 | |
| AVERAGE LIKELIHOOD | 0.5917 | |
| CASES CORRECT | 56 | |

Table 10

The constant remains highly significant and negative indicating that expectations of significant increases in incomes in the cooperative sector are generally low. This is often confirmed by anecdotal evidence.

DISCUSSION

The hypotheses on which the models are based are clearly highly subjective. Others may agree or disagree with much of the a priori reasoning. But what is significant is that much of this reasoning with regard to the objectives of the firm has proved to be very weak. Indeed only in one case, that of wanting to work for oneself when examining income aspirations, do we find that an objective of the cooperative is important. On fundamental issues such as equality in the cooperative no significant evidence of this influencing growth aspirations is found. Elsewhere (Welford 1988, Daudi and Sotto 1985) it is suggested that much of the reason for this is to do with a large section of the cooperative movement not adhering to traditional "cooperative" principles.

What seems very important, and somewhat surprising to the purist, is the importance of managerialism in the growth aspirations. With regard to turnover and employment a high degree of managerialism tends to lead to a higher probability that the cooperative will have high growth aspirations. This may be because managers want to be seen to be successful, especially in an environment where they can be replaced and are answerable to the workforce, and therefore adopt growth strategies. What is clear is that strong and effective management is possible in a cooperative environment. Those cooperatives which did display significant managerial tendencies, moreover, did not see a need to rotate that management which many (eg. Williamson, (1980) see as a weakness.

Some may look at these results and see only small differences between them and what we may expect from a sample of small capitalist firms. This in itself is a reflection on large parts of the U.K. cooperative sector. The positive relationship between wanting to work for oneself, the capital stake of members and aspirations towards higher incomes may be seen as a capitalist result by many.

CONCLUDING REMARKS

As ever there is a need for further research. But what is increasingly apparent is that the U.K. cooperative sector is a very disperse one. Neither traditional Illyrian theories nor sociological descriptions are able to describe the behaviour of this fast growing movement. There is a need to examine the constituent parts of the cooperative sector in order to gain a fuller understanding of it.

But on the subject of growth, it can no longer be assumed that the cooperative firm will have a slower growth rate than its capitalist

counterpart. This research has shown that cooperatives do want to grow and are not bound by the various conventions and behaviour which have traditionally been put forward as reasons for a slower growth rate. But clearly many cooperatives are willing to sacrifice some degree of growth in favour of the maintenance of other political principles. We saw for example that there may be reason to believe that the provision of a particular product in some circumstances may be more important than seeking a growth in turnover.

The particular type of cooperative which is likely to have the largest probability of high growth aspirations will be one which has some managerial leadership, where members have a large capital stake, where the members want to work for themselves and where it is believed that cooperative organisation has productivity advantages.

The probability of a large cooperative growing as fast as a small one in terms of employment is probably less. Thus we cannot cast Illyrian economics completely to the wind.

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