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PROFILES OF DAIRY COW FARMERS' MARKETING STRATEGIES IN THE COUNTY OF CORNWALL IN THE UK

Lambros TSOURGIANNIS

Prefecture of Drama-Kavala-Xanthi, Central Office
9 Kapnergaton Street,Xanthi,67100 Greece
Tel. No.: +30 25410 62861
E-mail: tgiannis@otenet.gr

Anastasios KARASAVVOGLOU

Kavala Institute of Technology, School of Business and Economy, Accountant Department,
Agios Loukas, Kavala, 65404, Greece
Tel. No.: +30251462193
E-mail: akarasa@teikav.edu.gr

John EDDISON

University of Plymouth, School of Biomedical and Biological Sciences
B430 Portland Square, Drake Circus, Plymouth, Devon, PL4 8AA UK
Tel. No.: +44 (0)1752 584621
E-mail: j.eddison@plymouth.ac.uk

Martyn WARREN

University of Plymouth, School of Geography
7 Kirkby Place, Drake Circus, Plymouth, Devon, PL4 8AA UK
Tel. No.: +44 (0)1752 585958
E-mail: m.warren@plymouth.ac.uk

Abstract. This study aims to profile the marketing strategies that dairy cow farmers follow in the County of Cornwall in the United Kingdom based on their distribution channel selection, farm and personal characteristics. The data were collected through a postal survey to 306 dairy cow farmers in Cornwall. Three marketing strategies were identified: (a) the opportunist strategy, (b) the return focus strategy and (c) the market orientation strategy. The main observed difference between the strategies is that the vast majority of the farmers who adopt the opportunist or the market orientation strategy allocate the greatest part of their farm land to their dairy cow enterprise and do not lease any milk quota from other farmers, whilst the majority of the farmers who follow the opportunist or the return focus strategy do not lease any milk quota to other farmers. Moreover, in market-oriented farms, average financial performance (compared to the performance of other dairy farmers operating in their region) was observed, while the financial performance of the return-focused farmers was not below average.

JEL codes: Q12, Q13, Q18.
Key words: Milk marketing, marketing strategies, milk marketing channels, strategic typology, dairy cow farmers.
Reikšminiai žodžiai: pieno rinkodara, rinkodaros strategijos, pieno rinkodaros kanalai, strateginė tipologija, pieninkystės fermeriai.

Introduction

The globalization of the economy, the internationalization of the market and the vertical integration of the human supply through the rapid development of supermarket chains during the last decades have forced agricultural producers to become more market-oriented. Most farmers within the European Union (EU) will be capable of responding to this change to varying degree. On the other hand, producers in geographical areas that are traditionally regarded as poor (e.g. EU Objective 1 regions)[1] usually have small farms, operate in regions which in most cases are isolated from the main urban centres and therefore will find difficulties in responding appropriately.

Hence, distribution channels are very important in the farming sector, since it comprises a large number of small agricultural holdings, most of the agricultural products are 'undifferentiated', and the farming enterprises are isolated from the final consumer (Ritson, 1997). Distribution channel choice is one of the ways in which an organization can achieve its marketing objectives within the framework of its marketing strategy (Fifield, 1992; Kotler, 1994). A marketing strategy that an organization follows aims to identify competitive and consumer advantages and therefore can be viewed as an integral part of a business strategy (Wind and Robertson, 1983).

In the business literature, there are many studies which develop business typologies and taxonomies. Miles and Snow (1978), with the aim of assessing the dominant culture of an organization, categorized organizations into three basic types according to the way they behave strategically: (i) defender, (ii) prospector and (iii) analyser. Porter (1980) identified three internally consistent generic strategies for creating a defendable position in the long run for competitors in an industry. The three generic strategies that a firm may adopt are: (a) overall cost leadership, (b) differentiation and (c) focus. Following on from this, four broad strategies based on the above generic strategies were suggested by Fearne and Bates (2000): (i) cost leadership strategy, (ii) differentiation strategy, (iii) diversification strategy and (iv) specialization strategy. Kohls and Uhl (1990) argued that in the food industry most firms mainly adopt the following two strategies: product differentiation and market segmentation.

Due to the nature of farm firms (especially their small scale and dependence on family labour and management) and the environment in which they operate, it can be difficult to use the abovementioned typologies of business strategies to describe adequately the way agricultural businesses behave. Generally, little is known about the decision-making process of farmers regarding marketing strategy selection and particularly about the factors and the farmers' characteristics that influence the choice of a particular strategic alternative. Some studies have sought to cluster farmers according to their strategic behaviour. Mitchell (1976) examined the extent to which farmers were influenced in their livestock marketing decisions by publicly available information on prices and supplies. He identified product-orientated, selling-orientated and market-orientated livestock producers. McLeay et al. (1996) identified five strategic groups of crop farmers in New Zealand, while Ohlmer et al. (1998) clustered Swedish farmers according to their decision-making. Carter (2001) examined the role of farms in the creation of new business in rural areas. Three groups of farmers were identified by Carter (2001) based on their relative engagement in additional business ownership activities: monoactive farmers, structural diversifiers and portfolio business owners. Distinctive group differences were found in their personal, farm business, managerial characteristics and in their perceptions of business opportunities and constrains. Vesala et al. (2007) explored the concept of entrepreneurial capability of farmers to diversify. Their main focus was on the entrepreneurial identity of portfolio farmers in Finland and the extent to which the differences between portfolio farmers, other farmers and non-farm rural businesses can be explained. They found that portfolio farmers have stronger entrepreneurial identity than conventional farmers as well as they have the perception that they are growth-oriented, risk takers, innovative, optimistic and having more personal control over their business activities.

Other studies have attempted to identify the factors that influence farmers to adopt a particular marketing strategy. For example, distribution risk is one of the factors that influence marketing decision-making in the agribusiness sector. Risks that agricultural producers face are linked with decisions about the prices, quantity, quality and the timing of delivery (Royer, 1995). Transaction cost was identified as another factor having a significant impact on marketing decision-making (Hobbs, 1996). Age, education and farm profit are also, according to Hobbs (1997), the factors that affect farmers' distribution channel selection. Mishra et al. (2009) investigated the fac-

[1] The Objective 1 regions are corresponding to Nomenclature of Technical Statistical Units (NUTS level II) and their per capita GDP calculated on the basis of Community figures for the last three years available on 26 March 1999 was less than 75% of the EU average. This Objective also covers the most remote regions such as the French overseas departments, Azores, Madeira and Canary Islands as well as the area eligible under the former Objective 6 for the period 1995-1999 pursuant to Protocol 6 to the Act of Accession of Austria, Finland and Sweden (Council Regulation (EC) No 1260/1999).

tors such as farm, operator and household characteristics, farm type and regional location of the farm, that affect the financial performance of new and beginning farmers. They found that there is an inverted U-shaped relationship between the age of the farmer and the financial performance as well as that increasing the number of decision makers, involving in value-added activities and having a written business plan can lead to higher financial performance. Furthermore, Escalante et al. (2009), aiming to introduce the application of sustainable growth challenge model in agricultural finance and therefore to understand the economic conditions and business decisions made by farmers in the U.S., found that farmers' tendencies to attain balance growth seem to be more influenced by asset productivity and leverage decision, which are given different emphasis by grain and livestock farmers due to different operational structures. According to Gong et al. (2007) there are significant relationships between economic and social variables and marketing channel selection for cattle distribution in China. They argued that transaction cost has a significant impact on marketing channel selection, while the information cost has a rather small influence on marketing decisions. Moreover, socioeconomic factors including collective ownership, younger age and experience tend to influence the farmers' choice of forward contract sales.

In dairy farming, farmers have several options in the use of their milk. They may feed it to calves, consume it in the farm household, separate it into skimmed milk and cream and sell the cream only, retail the milk direct to the consumers, or sell the whole milk to dairy processors, or they may process it themselves to produce cheese, yoghurt and ice cream (Kohls and Uhl, 1990).

In 1994, the arrangement for milk marketing in the UK changed. Previously, farmers had to sell the milk they produced through the Milk Marketing Scheme prepared by the operation of Milk Marketing Boards (MMBs) which, in reality, were statutory co-operatives linked by the Joint Committee to the processors and manufacturers of milk products (Hobbs, 1995; Fearne and Bates, 2000). There were five Milk Marketing Boards in the UK, one in England and Wales, one in Northern Ireland and three in Scotland. Since the Government disbanded the system of MMBs, farmers now choose to sell their milk through voluntary milk marketing co-operatives or direct to dairy processors under contracts (Hobbs, 1995).

After 1994, there were three options for most dairy farmers: (a) to sell milk to Milk Marque, (b) direct to a dairy, or (c) to joint a regional producer group which pools all its members milk so that the advantages of local collective strength can be realized (Walkland, 1994). With Milk Marque, the costs to the farms throughout the country were effectively shared, while local cooperatives maximized the advantages of location. Many medium-sized companies sourced their milk from Milk Marque, while some smaller processors were seeking to source their milk directly from farmers. Nowadays, Milk Marque has been replaced by three large milk marketing groups that are Milk Link, Zenith and Axis (Fearne and Bates, 2000). The milk producer groups can be distinguished, according to Fearne and Bates (2000), to quota-holding and non-quota holding producer groups. The quota holding groups sell processed milk on behalf of their members, arranging the collection, testing and transport of their milk. They also run their own systems for invoicing processors, making payments to their members for their milk and managing their members' quota. On the other hand, non-quota groups do not take the ownership of their members' milk and they are not involved in any distribution and administrative activities which are run by the processors who buy their members' milk. Moreover, they are suppliers dedicated to a single processor (Fearne and Bates, 2000).

Fearne and Bates (2000) tried to identify the appropriate marketing strategies relative to the classification of milk and dairy products as differentiated products or as commodities. The profit derived from commodities (which in volume terms comprises the major part of the overall profit) is declining; while that from differentiated value-added products is increasing. Commodity markets are characterized by a short-term planning horizon and adversarial trading relationships. Differentiated products, on the other hand, take more time to develop and work in a partnership trading relationship rather than in a conflict.

Agricultural economists, policy makers and farm advisers need to develop strategic programs and business plans in order to maintain farm incomes in regions where the agricultural sector comprises an important part of their economy. Therefore, it is very important to have a clear understanding of the marketing behaviour of farmers regarding the selection of livestock distribution channel and their response to the changes that occur across the supply chain. However, there is not much objective evidence regarding the strategic management process of farmers and, particularly, the factors that influence their choice of a specific marketing strategy. The present investigation aims to identify the marketing decisions made by agricultural producers in Cornwall and to provide insights into the reasons for making such decisions, with a particular focus on milk products. The results of this study will facilitate the improvements in agricultural production by promoting the recognition of the important part agricultural producers play in the structure of rural commu-

nities, especially nowadays when most of the economies within the EU face an economic crisis and fiscal problems. This study will also provide suggestions for the local authorities and rural stakeholders to help them make their proposals more useful for the programming period (2007–2013).

1. Methodology

1.1 Sampling method

The County of Cornwall in the UK was chosen as a study area because it has many similarities with the Region of East Macedonia and Thrace in Greece, where a parallel marketing survey (of sheep and goat farms[2]) has been conducted. Both regions have been designated as Objective 1 Regions by the EU, are situated conveniently close to the researchers and are quite isolated compared to the rest of their previously-studied countries: Cornwall is situated in the South West of the UK, and East Macedonia and Thrace are situated in the North East of Greece. Each of them has a population of about half a million people. They are also dominated by ruminant livestock production.

In the case of the present marketing survey, there were three possible sources of data. The first was the DEFRA lists of registered holdings. These lists hold the most comprehensive sampling for British agriculture; however, they are not generally available for researchers not working on DEFRA-sponsored projects. Furthermore, these lists are not openly accessible due to the protection of sensitive personal information. The lists of local farmers in the Yellow Pages of local phone directories can also be used as a useful source of data. However, there was much criticism about the use of such lists for random selection. Even Errington (1984) and Burton and Wilson (1998) criticized the examination of the local Yellow Pages as in this way it is extremely difficult to identify dairy cow farmers. The third possible sampling source was the National Farmers Union (NFU) database of South West England. Whilst this kind of sampling frame is criticized stating that not all farmers are members and there may be regional variations, Emerson and MacFarlane's (1995) farm study indicated NFU member lists being the most representative of farm businesses by area of farmland. Moreover, the problem with the protection of sensitive personal data was overcome by sending questionnaires to farmers through the NFU South West Office. Additionally, it provided the opportunity to obtain a meaningful industry support to increase the response rate.

Discussions with the NFU South West Office were held to determine the type of information that could be identified from the membership database before deciding on a selected sample. In the NFU lists, 340 dairy cow farmers operating in Cornwall were registered. Due to the fact that in postal surveys the response rates are normally less than 30% and a multivariate statistical analysis would be employed for the development of a strategic typology, it was not possible to exclude any farmers from the survey sample.

1.2 Survey methodology

For the present study, a postal survey was conducted, as livestock farmers in UK are familiar with this kind of research and their educational level is suitable for the use of this kind of survey method. Furthermore, the postal method was the most convenient as the researchers did not have access to the protected personal data of farmers in any of the possible sample frames such as NFU member lists, DEFRA lists. Besides, the disadvantages of a postal survey could be reduced by ensuring that the questionnaire was appropriate for the methodology used (e.g. an adaptation of the approaches of McLeay et al. (1996) and Davies (2001)) and rigorous (pre-tested and piloted).

The survey was initially pre-tested on farm management and business strategy academics, experts from NFU, a Cornwall Dairy Focus Group. As a result, minor alterations were made to the questionnaire prior to the pilot survey.

The pilot survey that was carried out in May 2003 (questionnaires were distributed to 34 dairy cow farmers operating in the County of Cornwall (10% of the sample)) indicated that the questionnaire was successful and no further changes were necessary.

The main survey was started in July and completed in September of 2003; the questionnaire was distributed to the remaining 306 dairy cow farmers. As in the case of the pilot survey, the corporate logo of NFU was applied to the survey, and a supporting letter from the same organization was photocopied on the back of the accompanying letter. The response rate before the reminder was 21%. However, the response rate after the reminder increased to 25%, while the productive response rate was 18% for the dairy cow survey. The ones who did not answer the questionnaires were the farmers who for the last two years sold their flocks/herds mostly due to the recent Food and Mouth outbreak.

Comparisons of the response rates of the present study and other recent UK postal farm surveys were made (for example, in the study of Warren (1989), the response rate was 45%, in Hobbs' (1996c) study—28%, in Davies' (1999) study—35% and in his study of 200131%). Even though the usable response rate of this study was lower compared to those of the abovementioned surveys, due to cost

[2] Sheep and goat farmers in Greece produce both livestock and milk. The milk is used mainly for cheese and yoghurt production.

constraints it was decided not to dispatch a second reminder, as a significant increase in the response rate was hardly likely; moreover, it was felt that the usable response rate was sufficient to meet the research objectives.

The representativeness of the sample was checked by comparing the characteristics of the sample with those of the total population following the methodology of Errington (1984b). A comparison between the characteristics of the selected sample and those of the total population of dairy cow farmers in the County of Cornwall is presented in Table 1. Hence, the samples represent 5% of the total population of dairy cow farmers operating in Cornwall according to DEFRA (2004a). The sample is reasonably representative of the total population of dairy cow farmers operating in Cornwall as its characteristics (Table 1) are consistent with the total population.

Table 1. **Evaluation of the sample**

	Sample	**County of Cornwall**	**Sample in % of the County of Cornwall**
Number of dairy cow farms	306	1,029[3]	30%
Number of dairy cow farmers who answered the questionnaire	54	1,029[4]	5%
Dairy cow population (heads)	7,748	81,460[3]	9%
Cow milk production (litres)	50,79 2,521	539,26 5,200[5]	9%
Average yield per dairy cow (litres per annum)	6,556	6,620[4]	

1.3 Statistical methodology

Multivariate analysis techniques were used to reveal the key information contained in the responses, and these analyses were applied in three stages. First, principal component analysis (PCA) was used to identify the variables that accounted for the maximum amount of variance within the data in terms of the smallest number of uncorrelated variables (components). In this study, PCA reduced the 39 key attitude variables, which relate to various aspects of marketing strategic activity, to a smaller set of 9 variables.[6] Second, factor analysis was conducted on these remaining 9 variables in order to reduce them to a smaller number of underlying factors (or strategic dimensions).[7] Factor analysis enables scores to be calculated for each underlying factor, and these are substituted for the original variables. These factor scores were then subjected to a cluster analysis of group farm businesses grouped according the patterns of scores and the strategic behaviour.[8] Stepwise discriminant analysis was performed to assess how accurately the identified key strategic dimensions that were derived from the factor analysis could predict and discriminate strategic group membership.

Statistical tests based on the outcomes of the application of the multivariate statistical techniques presented above (factor, cluster and discriminant analysis) were used to test four hypotheses:

H1: Dairy cow farmers in the County of Cornwall (the UK) can be classified into strategic groups according to their marketing activities and business orientations.

H2: The identified milk marketing strategies are significantly related to the selection of particular milk marketing channels.

H3: The factors that influence dairy cow Cornish farmers in the selection of a particular marketing channel are significantly associated with the selection of a specific marketing strategy.

H4: The farm and farmer characteristics do have a significant impact on the selection of a particular marketing strategy by the dairy cow farmers in Cornwall.

2. Results

2.1 Description of the identified marketing strategies

Principal components and factor analyses (through a varimax rotation) were conducted, and the latent root criterion (eigenvalue =1), the scree plot test and the percentage of variance were used to determine the number of factors. All the three criteria suggested that there were three factors in the first rotation.[9]

[3] DEFRA (2004a)

[4] DEFRA (2004b)

[5] The cow milk production was the product of the average yield per cow with the dairy cow population.

[6] The anti-image correlation matrix was used as well as Bartlett's test of sphericity and measure of sampling adequacy (MSA) in order to check the appropriateness of the data for subsequent factor analysis. The variables that had a high proportion of large absolute values of anti-image correlations as well as MSA less than 0.5 were removed before the analysis.

[7] An orthogonal rotation (varimax method) was conducted and the standard criteria of eigenvalue = 1, scree test and percentage of variance were used in order to determine the factors in the first rotation (Hair et al., 1998). Different trial rotations followed where factor interpretability was compared.

[8] In this study, both hierarchical and non-hierarchical methods were used according to the recommendations of Hair et al. (1998) and Punj and Stewart (1983) in order to develop a typology of the marketing strategies dairy cow farmers follow in Cornwall. A non-parametric Kruskal–Wallis one way ANOVA was conducted to validate the cluster solutions by examining if variables not used in cluster analysis differ significantly among the identified clusters.

[9] Several different trial rotations were conducted to compare factor interpretability as suggested by Tabachnick and Fiddell (1989), Child (1990), Malhotra (1996), Hair et al. (1998).

Table 2. **Results of the principal components analysis of strategy variables**

Components	Eigenvalues	% of variance	Cumulative variance %	Variables	Communalities
1	3.454	38.378	38.378	V22	0.748
2	1.217	13.522	51.900	V25	0.678
3	1.102	12.247	64.148	V26	0.721
4	0.888	9.867	74.015	V14	0.724
5	0.789	8.766	82.780	V35	0.750
6	0.480	5.330	88.110	V32	0.517
7	0.427	4.742	92.852	V28	0.537
8	0.349	3.876	96.728	V5	0.546
9	0.294	3.272	100.00	V18	0.553

Factor analysis identified three factors which explained 66% of the total variance (Table 2). The factor loading scores of the nine variables onto the three factors are presented in Table 3. The cut-off point for the interpretation of loading scores was 0.70 according to the suggestions of Hair et al. (1998) and Tabachnick and Fiddell (1989).

Table 3. **Key strategic dimensions derived from the principal component analysis**

	KEY STRATEGIC DIMENSIONS	Factor loading
	Market orientation	
V22	I meet market requirements by adapting my production methods	0.84
V26	I continually monitor market information other than price to plan sales and production decisions	0.73
V14	I use special techniques to gain the highest quality premium milk	0.72
V32	I increase my farm business success by understanding the needs and wants of the final consumer	0.64
V25	I understand detailed market requirements for the milk I produce	0.63
	Profit orientation	
V28	I deal with a minimum number of marketing outlets so that I can maintain a good relationship with these channel members, e.g. milk marketing cooperative group	0.70
V5	Maximizing profit is my most important farming goal	0.70
	Interpersonal relationships	
V35	Cornish farmers are my main competitors	0.84
V18	My most important production activity is continual monitoring of the quality of my milk	0.63

Determinant of Correlation Matrix: 0.006826
KMO MSA = 0.75
Bartlett test of Sphericity = 131.984, P <0.001

In the next stage, hierarchical and non-hierarchical clustering methods were used to develop a typology of the marketing strategies that dairy cow farmers adopt in Cornwall (Harrigan, 1985; Helsen and Green, 1991; Hair et al., 1998; Siardos, 1999). Cluster analysis differs from factor analysis in that the former groups objects (in this case, farms or farmers), whereas the latter is concerned with grouping variables. Factor scores are standardized (mean=0, standard deviation=1). Cluster analysis was conducted on 54 observations, as there were no outliers. It identified three clusters of farms/farmers that were named according to the business strategy that the farmers in each group appeared to follow (Table 4). These are: (a) the opportunist strategy, (b) the return focus strategy and (c) the market orientation strategy.

Table 4. **Characteristics of the three strategic groups**

Key strategic dimensions	Strategic groups			
	Opportunist strategy	Return focus strategy	Market orientation	P
Market orientation	-0.2052[a] *0.6490*	-0.5619[a] *0.5771*	1.4028[b] *0.6131*	0.0001
Profit orientation	-0.7884[a] *0.7114*	0.4478[b] *0.9693*	-0.0085[b,a] *0.9309*	0.001
Interpersonal relationships	-1.4417[a] *0.7438*	0.1120[b] *0.9040*	0.2794[b] *0.6884*	0.0001
Number of businesses (n=54)	**15**	**23**	**16**	

NB: *Means are reported in standard text and standard deviations in italics. Within rows, average ranks with different superscript differ significantly at P<0.05 according to the Tukey post hoc test.*

In particular, the farmers who follow the *market orientation strategy* comprise 29.6% of the sample. They scored highly on the market orientation strategic dimension as well as on interpersonal relationships. These farmers met market requirements by adapting their production methods and continually monitored market information other than price in order to plan their sales and to programme their production. They used special production techniques in order to gain the highest quality premium milk as well as paid particular interest to the needs and wants of the final consumer in order to increase the success of their farm business. They were also interested in examining detailed market requirements for their milk production. Furthermore, they had the impression that other dairy cow farmers operating in

their area were their main competitors. They also considered the continuous examination of the quality of their milk production as one of their most important farming goals. On the other hand, they were not interested in the strategic dimension of profit-orientation.

By contrast, the *return focus strategy* was preferred by 42.8% of the examined farmers. These farmers scored highly on the strategic dimension associated with profit orientation. They considered that their most important farming goal was the maximization of their enterprise profit. They preferred to deal with a minimum number of marketing outlets in order to maintain good relationships with their buyers such as milk marketing cooperative groups. Moreover, they scored positively on the strategic dimension regarding interpersonal relationships, which means that the return–focused farmers had the impression that other dairy cow farmers operating in their region were their main competitors. Furthermore, they considered that the continuous examination of the quality of their milk production was one of their most important farming goals. Besides, they scored negatively on the market orientation strategic dimension.

The *opportunist strategy* was adopted by 27.8% of the dairy cow farmers under investigation. These farmers did not score highly on any of the identified strategic dimensions. This means that these farmers were not interested in either meeting market requirements by adapting their production methods or in monitoring market information other than price in order to plan their sales and programme their production. They did not use specific techniques to gain the highest quality premium milk. Furthermore, they were not interested in understanding the needs and wants of the final consumer in order to improve the success of their farm business or understanding detailed market requirements for the milk they produce. They neither dealt with a minimum number of marketing outlets, as presumably they were not interested in personal relationships with their buyers, nor aimed to maximize their farm profits. In addition, they did not consider other farmers operating in their region as their main competitors. Also, the continuous monitoring of the quality of their milk was not one of their most important production activities. In other words, these farmers act opportunistically, what means that they do operate strategically regarding the marketing of their milk production.

Furthermore, the three identified clusters were validated using the Kruskal–Wallis non-parametric one-way ANOVA with five (5) strategic variables not used in factor analysis, as this test is more robust in the cases of ordinal data (Kinnear and Gray, 2000).

Table 5. **Miscellaneous characteristics of the three strategic groups according to the Kruskal–Wallis test**

Strategic variables	Strategic groups			
	Opportunist strategy	**Return focus strategy**	**Market orientation**	**P**
Awareness of the exact cost and returns of the milk production	24.73[a] *4.000*	25.11[a] *4.000*	33.53[b] *5.000*	0.150
Extremely flexible production plans	24.37[a] *2.000*	22.48[a] *2.000*	37.66[b] *3.000*	0.005
Production of special niche market products, e.g. organic	28.03[a] *1.000*	23.50[b] *1.000*	32.75[c] *1.000*	0.028
Breeding dairy cows, what requires special knowledge and equipment that other farmers do not have	18.90[a] *1.000*	27.28[b] *1.000*	35.88[c] *2.500*	0.002
Personal involvement in off marketing activities	22.00[a] *1.000*	26.52[b] *1.000*	34.06[c] *2.000*	0.043
Number of businesses (n=54)	**15**	**23**	**16**	

NB: Within rows, average ranks with different superscript differ significantly at P<0.05 according to a Q non-parametric test. Average ranks are reported in standard text and medians in *italics.*

As Table 5 illustrates, the validity of the three clusters solution found to be good because the four of the five variables are significantly associated with marketing strategy selection.

Moreover, an analysis to evaluate the prediction of group membership by the predictors derived from the factor analysis was conducted. Initially, the normality of the key strategic dimensions was checked. The Box's M test statistic (Box M=24.111 approx F=1.828, df =9517.314, P=0.038) indicated that the variance–covariance matrices were violated.

Thus, the Bartlett Box F statistic and the Levene's Test were conducted additionally using Minitab to assess the homogeneity of variance for each depended variable (Siardos, 2000). The results of both tests are presented in Table 6 and indicate that the equality of variance for each strategic dimension was not violated and, therefore, stepwise discriminant analysis was performed using SPPS v.9.

Table 6. **The results of the Bartlett Box F and Levene's statistic**

Key strategic dimensions	Bartlett Box F	P	Levene's statistic	P
Market orientation	0.236	0.889	0.143	0.867
Profit orientation	1.574	0.455	1.082	0.347
Interpersonal relationships	1.432	0.489	1.419	0.251

As Table 7 shows, all the three predictor variables were significantly discriminated across the three strategic groups (Λ=0116; x^2=107.859; df=6; P<0.001). Additionally, the high eigenvalues indicated a satisfactory level of discrimination. Two functions that explained the differences between the three strategic groups were identified by the discriminant analysis. The first function accounts for 69.3% of the explained variance and the second function explained 30.7% of the variance.

Table 7. **Stepwise discriminant function**

Function	Eigen value	Percentage of variance	Canonical Correlation	Λ	x^2	Significance
1	2.834	69.3%	0.860	0.116	107.859	P<0.0001
2	1.255	30.7%	0.746	0.443	40.665	P<0.0001

Moreover, the I^2 explained the 87.62% of the variance in the clusters and showed that the three strategic dimensions derived from the factor analysis (acting as a set) possessed large discriminating power according to the suggestions of Hair et al. (1998). The contribution of individual predictor variables and their interactions are presented in Table 8. Within the individual contributions percentages, *market orientation* was the best discriminator at 32.70%, followed by *interpersonal relationships* (14.07%).

Table 8. **Variance partitioning of strategic variables**

Predictor variables (strategic dimensions)	I^2	Contribution[10]	% Contribution[11]
Total set of variables	0.8762	0.3118	35.59%
(v1,v2, v3)			
Market orientation (v1)	0.9995	0.2865	32.70%
Profit orientation (v2)	0.2218	-0.0083	-0.94%
Interpersonal relationships (v3)	0.4414	0.1233	14.07%
v1, v2	0.7273	0.1196	13.80%
v1, v3	0.8844	0.2446	27.92%
v2, v3	0.5897	-0.2383	-27.20
Total		*0.8762*	*100.00%*

The interpretation of the overall discriminant model was evaluated by examining the standardized discriminant function coefficients and group centroids of the three predictor variables (Table 9). The relative contributions of the predictor variables to the discriminant functions derived from the discriminant analysis and their ability to classify predicted group membership are presented by standardized coefficients.

Table 9. **Summary of standardized discriminant function coefficients and group centroids[12]**

Predictor variables	Discriminant function	
	1	**2**
Market orientation	**0.989**	-0.329
Profit orientation	0.046	**0.739**
Interpersonal relationships	**0.601**	**0.732**
Group centroids		
Opportunist strategy	-1.367	-1.502
Return focus strategy	-0.848	1.131
Market orientation strategy	2.500	-0.218

As Table 9 shows, the first discriminant function is dominated by market orientation (0.989) and the second discriminant function is dominated by the other two strategic dimensions: profit orientation (0.739) and interpersonal relationships (0.732). The examination of group centroids suggests that the first function appeared to discriminate between the market orientation strategy (mean 2.500) and the other two strategies (means -1.367 and -0.848); the second function discriminated between the return focus strategy (1.131) and the opportunist strategy (-1.502).

To aid interpretation, group centroids and discriminant functions are displayed graphically in Figure 1. It indicates that discrimination has been achieved. The interpretation of the standardized coefficients suggests that the first function might represent the market orientation dimension, while the second function might represent the profit-orientation dimension.

[10] For example: the unique contribution of v1 is equal to $I^2_{v1,v2,v3} - I^2_{v2,v3.}$

[11] The percentage of contribution of a variable is the contribution as a percentage of the overall I^2 e.g. -0.2865 / 0.8672 = 32.70%

[12] Coefficients greater than 0.3, in **bold** are deemed significant (Hair et al., 1998).

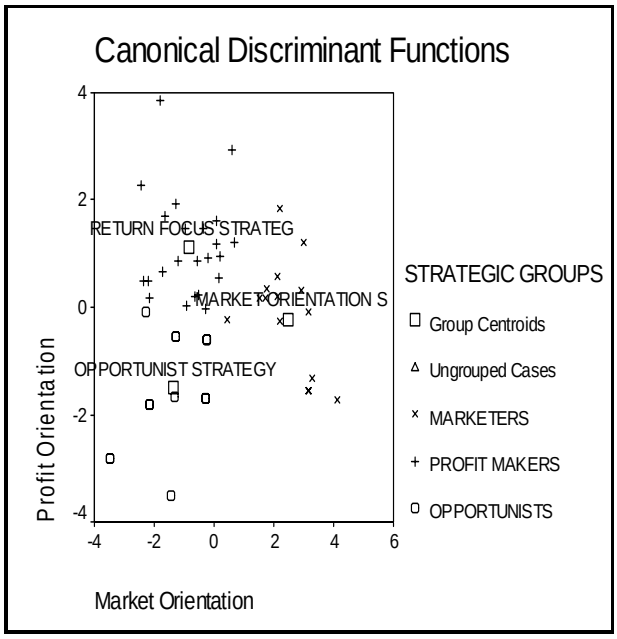

Figure 1. **Group centroids in the attribute discriminant space with territorial map overlay**

The random split reliability test was applied to evaluate the predictive accuracy of the discriminant model. The predictive validity of the discriminant function was supported by a number of tests that are summarized in Table 10. The analysis and holdout samples were used to compare the hit ratios before the examination of the final overall hit ratio (Morrison, 1969; Hair et al., 1998; Davies, 2001). The score of the analysis sample test was 92.59%, and the score of the holdout sample test was 92.59%. Both tests outperformed the Cmax (maximum chance criteria), and the Cpro (proportional chance criteria) increased by 25%, as Hair et al. (1998) suggested. The overall sample hit ratio of 85.19% also exceeded this criterion. Furthermore, the classification matrix was statistically better than would be expected by chance (Press Q statistic = 42.66, P<0.001). Hence, confidence in the predictive validity of the discriminant function is supported.

Table 10. **Classification results of the overall discriminant model**

Actual strategic group	Number of businesses	Predicted group membership		
		Opportunist strategy	Return focus strategy	Market orientation strategy
Opportunist strategy	15	14 (93.3%)	1 (6.7%)	0 (0.0%)
Return focus strategy	23	0 (0.0%)	23 (100.0%)	0 (0.0%)
Market orientation	16	0 (0.0%)	1 (6.3%)	15 (93.8%)
strategy				
Percentage correctly classified:				
Analysis sample	92.59%			
Hold out sample	92.59%			
Overall sample	96.30%			
Cmax	51.85%			
Cpro	34.64%			
Press Q	42.66			

In conclusion, the results of the discriminant analysis indicated that the three strategic dimensions could accurately predict and discriminate strategic group membership as well as signify the stability of the three clusters solution.

Therefore, the hypothesis *H1: Dairy cow farmers in the County of Cornwall (the UK) can be classified into strategic groups according to their marketing activities and business orientations* may be accepted.

2.2 Marketing channel selection and milk marketing strategies

According to the present survey, there are three main marketing channels that dairy cow farmers in Cornwall use (Figure 2).

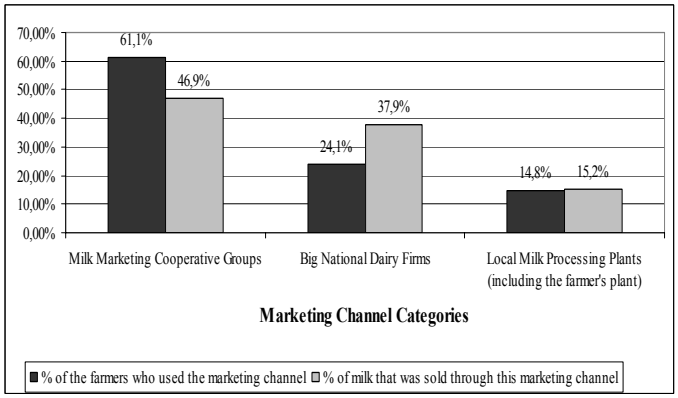

Figure 2. **Categorization of milk marketing channels**

The one sample chi-square analysis was employed to identify the marketing channel that is preferred by the farmers who adopt each of the marketing strategies discussed above. The analysis identified a significant association only between the adoption of the return focus strategy and marketing channel selection (Table 11). To be more precise, the vast majority of the return focused farmers sold their milk to marketing cooperative groups. Hence, the hypothesis *H2: The identified milk marketing strategies are significantly related to the selection of particular milk marketing channels* may be accepted.

Table 11. **Marketing channels used by the farmers who adopt different marketing strategies**

Marketing channel selection		% of farmers	Standardized residuals
Opportunist strategy x^2=2.800, df=2, P=0.247	Sales to milk marketing cooperative groups	53.3%	n.s
	Sales to big national dairy firms	20.0%	n.s
	Sales to local milk processing plants including the plants owned by the farmer	26.7%	n.s
Return focus strategy x^2=14.113, df=2, P=0.001	Sales to milk marketing cooperative groups	69.6%	2.99[b]
	Sales to big national dairy firms	21.7%	n.s
	Sales to local milk processing plant including the plant owned by the farmer	8.7%	-2.05[a]
Market orientation strategy x^2=4.655, df=2, P=0.099	Sales to milk marketing cooperative groups	56.3%	n.s
	Sales to big national dairy firms	31.3%	n.s
	Sales to local milk processing plant including the plants owned by the farmer	12.5%	n.s

[a]P<0.05, [b]P<0.01 and [c]P<0.001

The Friedman one-way non-parametric test was used to identify the factors that influence the farmers of each strategic group in their marketing channel choice. As Figure 3 illustrates, the farmers who adopted the opportunist strategy were mostly influenced in their marketing channel choice by the sale price, their bargaining strength and the speed of payment. The farmers who preferred the return focus strategy were mostly influenced by their bargaining strength in regard to their buyers, sale price, transportation cost, the speed of payment and the loyalty of the buyer. Furthermore, the farmers who adopted the market orientation strategy were mostly influenced by the sale price, their bargaining strength in regard to their buyers, higher expected returns and the speed of payment.

Thus, the hypothesis H3: The factors that influence dairy cow Cornish farmers in the selection of a particular marketing channel are significantly associated with the selection of a specific marketing strategy may be accepted.

2.3 Profiling each strategic group according to farm and farmers' characteristics

A one-sample chi-square test was performed for each strategic group in order to develop the profile of the farmers who followed each marketing strategy according to their farm and their personal characteristics (Tables 12 and 13, respectively).

As Table 12 illustrates, the three strategic groups have similar profiles regarding their farm characteristics. More particularly, they rented from other land owners less than 50 ha of the land they cultivated as well as they rented a small part of their own land to other farmers in order to have an additional income. On the other hand, the vast majority of the farmers who adopt the opportunist or the market orientation strategy were found to allocate the greatest part of their farm land to their dairy cow enterprise and do not lease any milk quota from other farmers, whilst most of the farmers who follow the opportunist or the return focus strategy do not lease any milk quota to other farmers. Besides, the majority of the farmers who prefer the opportunist strategy own less than 50 ha of their farm land.

Furthermore, all farmers under investigation were found to have similar profiles regarding their personal characteristics (Table 13). Specifically, most of them are not involved in off-farm activities. They do not have any previous non-farm working experience as well as they do bnot hold any responsible position in a marketing cooperative group or in a non-farm business they do not own. Moreover, they derive more than 70% of their farm income from their dairy cow enterprise and were middle-aged farmers. On the other hand, some differences in the profiles of each strategic group regarding the farmers' characteristics exist.

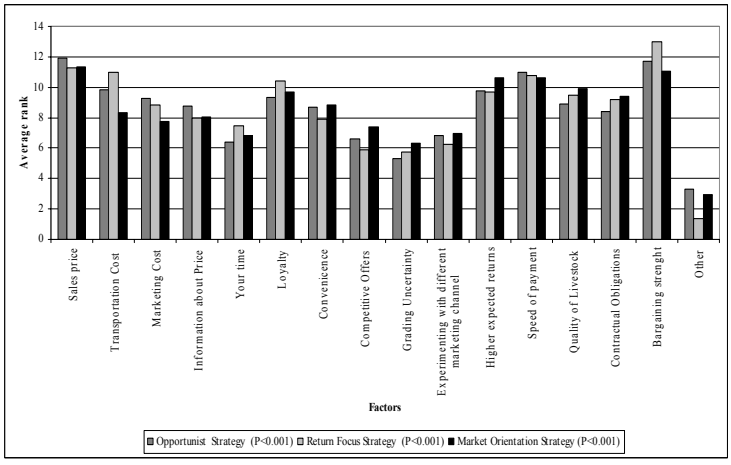

Figure 3. **The factors that influence dairy cow farmers in Cornwall in their marketing channel selection**

Table 12. **Profile of each strategic group according to the farms' characteristics**

Farm characteristics		Opportunist strategy			Return focus strategy			Market orientation strategy		
		x^2	% of farmers	Standardized residuals	x^2	% of farmers	Standardized residuals	x^2	% of farmers	Standardized residuals
Herd size	<80 heads	*n.s*			n.s			x^2=6.164, df=2, P<0.05	6.3%	n.s
	81-150 heads								56.3%	n.s
	>151 heads								37.5%	n.s
Farm Allocation	<30%	x^2=12.400, df=2, P<0.001	0.0%	-2.24[a]	x^2=9.697, df=2, P<0.01	4.3%	-2.41[b]	x^2=17.485, df=2, P<0.001	0.0%	-2.30[a]
	31%-60%		26.7%	n.s		39.1%	n.s		18.8%	n.s
	>61%		73.3%	2.68[b]		56.5%	n.s		81.3%	3.34[c]
Farm land owned by the farmer	<50 ha	*x^2=10.800, df=2, P<0.01*	73.3%	*2.68[b]*	x^2=6.581, df=2, P<0.05	30.4%	n.s	n.s		
	51-100 ha		13.3%	n.s		56.5%	n.s			
	>101 ha		13.3%	n.s		13.0%	n.s			
Farm land rented from other farmers	<50 ha	x^2=10.800, df=2, P<0.01	73.3%	2.68[a]	x^2=14.113, df=2, P<0.001	69.6%	2.99[a]	x^2=6.542, df=2, P<0.05	62.5%	2.04[a]
	51-100 ha		*13.3%*	n.s		21.7%	n.s		12.5%	n.s
	>101 ha		13.3%	n.s		8.7%	-2.05[a]		25.0%	n.s
Farm land rented to other farmers	<50 ha	x^2=30.000, df=2, P<0.001	100.0%	4.47[c]	x^2=45.801, df=2, P<0.001	100.0%	5.51[c]	x^2=32.202, df=2, P<0.001	100.0%	4.65[c]
	51-100 ha		0.0%	-2.24[a]		0.0%	-2.77[b]		0.0%	-2.30[a]
	>101 ha		0.0%	-2.24[a]		0.0%	-2.77[b]		0.0%	-2.30[a]
Milk quota leased from other farmers	NO	x^2=15.000, df=1, P<0.001	100.0%	2.74[b]	n.s			x^2=12.250, df=1, P<0.001	93.8%	2.47[a]
	YES		0.0%	-2.74[b]					6.3%	-2.47[a]
Milk quota leased to other farmers	NO	x^2=11.267, df=1, P<0.001	93.3%	2.37[a]	x^2=23.000, df=1, P<0.001	100.0%	3.39[c]	x^2=6.250, df=1, P<0.001	81.3%	n.s
	YES		6.7%	-2.37[a]		0.0%	-3.39[c]		18.8%	n.s

[a]P<0.05, [b]P<0.01 and [c]P<0.001

Table 13. **Profile of each strategic group according to the farmers' characteristics**

Farmers characteristics		Opportunist strategy			Return focus strategy			Market orientation strategy		
		x^2	% of farmers	Standardized residuals	x^2	% of farmers	Standardized residuals	x^2	% of farmers	Standardized residuals
Farm-related activities	0 days	n.s			x^2=10.996, df=2, P<0.01	34.8%	n.s	x^2=9.938, df=2, P<0.01	6.2%	n.s
	1-3 days					60.9%	2.27[a]		68.8%	2.27[a]
	>4 days					4.3%	-2.41[a]		25.0%	-2.41[a]
Off-farm activities	0 days	x^2=19.600, df=2, P<0.001	86.7%	3.58[c]	x^2=25.282, df=2, P<0.001	82.6%	4.07[c]	x^2=12.957, df=2, P<0.001	75.0%	2.91[b]
	1-3 days		0.0%	-2.24[a]		13.1%	n.s		6.2%	n.s
	>4 days		13.3%	n.s		4.3%	-2.41[a]		18.8%	n.s
Dairy farming experience	<10 years	x^2=6.400, df=2, P<0.05	6.7%	n.s	x^2=8.658, df=2, P<0.05	17.4%	n.s	x^2=6.164, df=2, P<0.05	6.2%	n.s
	11-30 years		33.3%	n.s		69.6%	2.99[b]		37.5%	n.s
	>31 years		60.0%	n.s		13.0%	n.s		56.3%	n.s
Decision-making experience	<10 years	n.s			x^2=13.594, df=2, P<0.01	17.4%	n.s	x^2=6.164, df=2, P<0.05	18.8%	n.s
	11-30 years					69.6%	2.99[b]		62.4%	2.04[a]
	>31 years					13.0%	n.s		18.8%	n.s
Dairy farming experience in the current farm	<10 years	x^2=6.400, df=2, P<0.05	6.7%	n.s	x^2=9.697, df=2, P<0.01	4.3%	-2.41[a]	n.s		
	11-30 years		33.3%	n.s		56.5%	n.s			
	>31 years		60.0%	n.s		39.2%	n.s			
Decision-making experience in the current farm	<10 years	n.s			x^2=14.113, df=2, P<0.001	21.7%	n.s	n.s		
	11-30 years					69.6%	2.99[b]			
	>31 years					8.7%	-2.05[a]			
Holding of a responsible position in a marketing cooperative group	NO	x^2=15.000, df= 1 P<0.001	100.0%	2.74[b]	x^2=12.565, df= 1 P<0.001	87.0%	2.51[a]	x^2=9.000, df= 1 P<0.01	87.5%	2.12[a]
	YES		0.0%	-2.74[b]		13.0%	-2.51[a]		12.5%	-2.12[a]
Holding of a responsible position in an agricultural organization	NO	x^2=15.000, df= 1 P<0.001	100.0%	2.74[b]	x^2=15.696, df= 1 P<0.001	91.3%	2.80[b]	x^2=6.250, df= 1 P<0.05	81.2%	n.s
	YES		0.0%	-2.74[b]		8.7%	-2.80[b]		18.8%	n.s
Holding of a responsible position in a non-farm business owned by the farmer	NO	x^2=14.067, df=1, P<0.001	93.3%	2.37[a]	x^2=19.174, df=1, P<0.001	95.7%	3.10[b]	x^2=6.250, df= 1 P<0.05	81.2%	n.s
	YES		6.7%	-2.37[a]		4.3%	-3.10[b]		18.8%	n.s
Holding of	NO	x^2=15.000,.	100.0%	2.74[b]	x^2=23.000,	100.0%	3.39[c]	x^2=12.250,	93.8%	2.47[a]

a responsible position in a non-farm business the farmer does not own	YES	df= 1 P<0.001	0.0%	-2.74[b]	df= 1 P<0.001	0.0%	-3.39	df= 1 P<0.001	6.2%	-2.47[a]
Previous non-farm experience	NO	x^2=14.067 df=1, P<0.001	93.3%	2.37[a]	x^2=33.287 df=1, P<0.001	95.7%	3.10[b]	x^2=12.250, df= 1 P<0.001	93.8%	2.47[a]
	YES		6.7%	-2.37[a]		4.3%	-3.10[b]		6.2%	-2.47[a]
Farm income	<24%	x^2=14.800, df=2, P<0.001	6.7%	n.s	x^2=17.230, df=2, P<0.001	8.7%	-2.05[a]	x^2=16.730, df=2, P<0.001	6.2%	n.s
	25-69%		13.3%	n.s		17.4%	n.s		12.5%	n.s
	>70%		80.0%	3.13[c]		73.9%	3.35[c]		81.3%	3.34[c]
Financial performance	Below Average	n.s			x^2=8.918, df=2, P<0.01	4.3%	-2.41[a]	x^2=9.560, df=2, P<0.01	0.0%	-2.30[a]
	Average					52.2%	n.s		62.5%	2.04[a]
	Above Average					43.5%	n.s		37.5%	n.s
Farmer's age	<40 years old	x^2=11.200, df=2, P<0.01	20.0%	n.s	x^2=16.970, df=2, P<0.001	13.0%	n.s	x^2=6.542, df=2, P<0.05	12.5%	n.s
	41-60 years old		73.3%	2.68[c]		74.0%	3.35[c]		62.5%	2.04[a]
	>61 years old		6.7%	n.s		13.0%	n.s		25.0%	n.s
Membership in a marketing group	NO	n.s			x^2=15.696, df=1, P<0.001	91.3%	2.80[b]	x^2=9.000, df=1, P<0.01	87.5%	2.12[a]
	YES					8.7%	-2.80[b]		12.5%	-2.12[a]
Milk price	Below Average	n.s			x^2=9.438 df=2, P<0.01	30.4%	n.s	n.s		
	Average					60.9%	2.27[b]			
	Above Average					8.7%	-2.05[a]			
Use of value-added activities	NO	x^2=11.267, df=1, P<0.001	93.3%	2.37[a]	x^2=19.174, df=1, P<0.001	95.7%	3.10[b]	x^2=4.000, df=1, P<0.05	75.0%	n.s
	YES		6.7%	-2.37[a]		4.3%	-3.10[b]		25.0%	n.s
Debt level	<9%	x^2=8.400, df=2, P<0.05	26.7%	n.s	n.s			n.s		
	10-29%		66.7%	2.24[a]						
	>30%		6.6%	n.s						
Educational level	Secondary	x^2=7.600 df=2, P<0.05	53.3%	n.s	n.s			n.s		
	A levels / National Diploma		46.7%	n.s						
	Higher education		0.0%	-2.24[a]						

[a]P<0.05, [b]P<0.01 and [c]P<0.001

In particular, the farmers who follow the opportunist and the return focus strategy neither hold a responsible position in a farming organization nor in a non-farm business they might own, nor do they add value to their products by producing cheese, organic milk or ice-cream. The return-focused and market-oriented farmers were found to spend between 1–3 days per month in farm-related activities away of their farm, e.g. meetings in NFU, an agricultural cooperative. Furthermore, these farmers have around 11–30 years of decision-making experience related to dairy farming. Most of them are not members of marketing cooperative groups. The financial performance of the market-oriented farmers is average compared to the other dairy farmers operating in their region, while the financial performance of the return-focused farmers was not below average. Besides, the return-focused farmers achieve average milk prices compared to other dairy farmers in their area. They also have around 11-30 years of dairy farming experience in general, but less than 10 years in their current farm. On the other hand, the farmers who follow the opportunist strategy have medium debt service and did not attend any higher education courses.

Therefore, the hypothesis *H4: The farm and farmer characteristics do have a significant impact on the selection of a particular milk marketing strategy by the dairy cow farmers in Cornwall* may be accepted.

3. Discussion and Conclusions

This study indicated that there was a significant association between the adoption of a particular marketing strategy, the factors that influence farmers to select a certain milk marketing channel as well as their personal characteristics and the characteristics of their farms.

The results showed that all three identified strategic groups have similar profiles in terms of the farm and farmers' characteristics and none of the groups employ activities in order to add value to their production and thus increase their financial performance. On the other hand, the financial performance of the market-oriented farmers is significantly better in comparison with the other two groups. This may suggest that, in order to increase their farm profitability and the sustainability of their livestock enterprise within an intensively competitive environment, especially when the consequences of an economic crisis are felt in most EU Member States, the dairy cow farmers in Cornwall should focus on a market orientation strategy. This would imply adding value to their products through processing a part of their production by themselves and selling it either directly to consumers through their shops or through local retailers and supermarkets. Alternatively, they may focus on producing niche market products such as organic milk, cheese, ice-cream. However, this is likely to add enterprise risk, which can be reduced by marketing a part of their milk production through cooperative milk marketing groups.

The comparison of the marketing strategies that dairy cow farmers follow in Cornwall indicated that, in order for the examined farmers to increase their farm profitability and the sustainability of their livestock holdings, they should breed animals that are characterized by high productivity and make investments in buildings and equipment in order to modernize their farms. They should further consider cultivating a large area in order to reduce the feeding cost. Furthermore, they should focus on adding values to their products through processing a part of their production by themselves and selling directly to consumers through the establishment of their own retail outlets (farm shops, shops in market centres) or by producing niche market products such as local or organic milk, cheese, ice-cream.

The recent food crises in the UK and the EU (particularly the Foot and Mouth Disease outbreak in the UK in 2001), growing awareness of climate change, carbon emissions and environmental protection increased the importance of the Local Food Agenda in the last few years. Local food is the food produced for local and regional consumption. For that reason, 'food miles' are small, the use fossil fuel as well as pollution are reduced. Furthermore, fresher production, less packaging and preservatives, food traceability and better return for local producers as well as the fact that money stays in the local economy are some of the benefits of local food (Thompson, 2007). Furthermore, the creation of a market for local food gives farmers an incentive to diversify, which might lead to the production of niche market products such as organic and P.G.O. products. Hence, the local food and organic products agenda which has been recently adopted by many UK regions, including the County of Cornwall, supports the suggestions of this study regarding the adoption of a market orientation strategy by livestock farmers through the creation of a farm market with niche market dairy products.

The financial cost for receiving bank credits in accordance with the high production cost the farmers face and the low prices at which they have to sell their products are among the main issues affecting the farmers' decisions regarding making investments in their farm business. On the other hand, livestock farmers within the EU can be supported from the European Agricultural Guidance and Guarantee Fund (EAGGF) through the measures and programmes of the Common Agricultural Policy of the

EU (CAP). in order to make investments to enlarge their farm, improve the structure of their livestock holding, modernize their farm buildings and machinery, process and the market of their livestock products as well as to develop niche market meat and dairy products. Hence, to support livestock farming in their area the rural stakeholders and policy makers from local and regional authorities should consider the supportiveness of making investments funded by the EAGGF in buildings, machinery, equipment and livestock in order to support rural development. They should also consider actions for making young people stay and work in rural areas and farming sectors. In particular, they should develop funding programmes that would support productive investments to create and safeguard sustainable jobs, investment in infrastructure and the development of endogenous potential by measures that encourage and support local development, employment initiatives and the activities of small and medium-sized enterprises.

Generally, many of the suggestions of this study could be used for the improvement of the livestock sector in the UK and other European areas which have been designated by the EU as Objective 1 Regions (poor regions), although similar research should be conducted for each specific case. Hence, in order for the livestock sector in those areas to have a better future (considering that most EU economies face economic depression and fiscal crises), the livestock farmers should aim to increase the efficiency of their farms by breeding animals characterized by high productivity and modernizing their farms. Moreover, they should focus on adding value to their production and developing a farm market. Besides, the establishment of agrotourism activities would generate additional sources of farm income and develop new livestock marketing outlets (e.g. restaurants, pubs, retail shops). Also, the involvement of farmers or other members of their family in off-farm activities would add an extra source of income and improve the quality of their lives.

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PIENININKYSTĖS RINKODAROS STRATEGIJOS PROFILIAI: KORNUELO (JK) PAVYZDYS

Lambros TSOURGIANNIS, Anastasios KARASAVVOGLOU,
John EDDISON and Martyn WARREN

Santrauka. Straipsnyje siekiama nustatyti pieninininkystės rinkodaros strategijas pagal fermų individualius bei kitokius požymius remiantis Kornuelo fermų pavyzdžiu. Išskirtos trys vyraujančios rinkodaros strategijos: a) konservatyvi, b) orientuota į įplaukas ir c) orientuota į rinką. Pagrindinis jų skirtumas tas, kad dauguma fermerių, taikiusių

konservatyvią arba orientuotą į rinką strategijas, daugiausia naudojosi nuosavomis žemėmis ir nesiekė perimti kitų fermerių kvotų, o orientuoti į įplaukas fermeriai neperleido kitiems fermeriams savo kvotų. Tačiau visų šių grupių finansinės įplaukos nelabai skyrėsi.

Lambros Tsourgiannis, Dr., Director of the Financial and Business Plan Department in the Prefecture of Drama-Kavala-Xanthi and Research Fellow in the Department of Accountancy, School of Business and Economy, Technical Education Institute of Kavala, Greece. Research interests: marketing strategies, consumer behaviour, marketing of public organizations, market segmentation.

Dr. Lambros Tsourgiannis yra Dramos-Kavalos prefektūros (Graikija) Finansų ir verslo planavimo departamento direktorius, Kavalos techninės edukacijos instituto Apskaitos departamento tyrėjas.

Anastasios Karasavvoglou, Prof. Dr., Head of the Accountancy Department, School of Business and Economy, Kavala Institute of Technology, Greece. Editor in Chief of the *International Journal of Economic Sciences and Applied Research*. Research interests: regional development, European economic policy, international economic relations.

Prof. dr Anastasios Karasavvoglou – Kavalos techninės edukacijos instituto (Graikija) Apskaitos departamento vedėjas ir tarptautinio žurnalo „Ekonomikos mokslai ir taikomieji tyrimai" vyr. redaktorius.

John Eddison, Associate Professor, School of Biological Sciences of the University of Plymouth, UK. Research interests: animal welfare; livestock production systems; quantitative analysis.

Dr. John Eddison yra Plimuto universiteto (Jungtinė Karalystė) Biologijos mokslų mokyklos pagrindinis lektorius.

Martyn Warren, part-time Research Fellow in the 'Rural Jobs' Framework 7 project; Visiting Fellow, School of Geography, Earth and Environmental Sciences, University of Plymouth, UK. Research interests: use of information and communication technology by farms, rural businesses and communities, farm and rural business management, education for sustainable development.

Martyn Warren yra Plimuto universiteto (Jungtinė Karalystė) Geografijos, žemės ir aplinkos mokslų mokyklos vizituojantis lektorius.