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Explaining Variation in Farm and Farm Business Performance in Respect to Farmer Segmentation Analysis

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Abstract

Results from a pilot application of Defra's segmentation model applied to the Farm Business Survey for England are presented. Interviews with 750 FBS co-operators during 2010, using a discursive approach, classified co-operators into one of five segmentation groups: Custodians (14.0%); Lifestyle Choice (7.2%); Pragmatists (53.3%); Modern Family Business (21.1%); Challenged Enterprises (4.4%). On average, Modern Family Businesses operated the largest land area, achieved the greatest farm financial (and agricultural) output, and Farm Business Income (FBI), whilst the Lifestyle Choice segment returned the lowest average FBI. Variation in regional tendencies across the segmentation groups was observed, with variation also noted for forms of business, LFA and lowland classification, organic, farm assurance and tenure status. Pragmatists and Modern Family Businesses recorded the greatest proportion of co-operators with college, or higher level, qualifications, drew more heavily upon external technical and business advice supplied for a charge, had higher level skills in management accounting and use of IT, and were associated with younger co-operators. Qualitative findings signify a range of comments which reinforce the quantitative analysis. Future research should seek to more explicitly account for a range of business and personal factors, and explore the potential for using a structured questionnaire based approach.

Keywords: Behaviour, Segmentation, Income, Output, Agriculture

JEL codes: D22, Q12, Q14, Q15, Q16, R52

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Introduction

Many agricultural policies have been implemented to achieve behavioural change through economic incentives and signals, be these positive (e.g. production subsidies; payment for environmental activities) or negative (e.g. penalties for compliance failure). However, assuming that all farmers and horticulturalists are driven by economic factors alone may lead to incorrect targeting or implementation of policies by ignoring the multi-objective nature of individuals operating these businesses. Hence, more fully understanding the drivers, goals and actions of farmers and horticulturists, in addition to monitoring farm physical and financial performance, may facilitate policy delivery (Defra, 2008). The physical and financial performance of businesses are also dependent on combined drivers (e.g. internal to the individual, physical constraints and financial structures) which suggests that any understanding of farmer or horticulturalist behaviour will be most effectively framed within a context which examines the goals, drivers and actions of producers against the physical and financial performance of the businesses associated with these individual managers.

Understanding behaviours in a farming context has previously received considerable attention in academic literature, a substantial focus of which has been centred around understanding farmer behaviour towards environmental or animal health and welfare actions. Gasson's (1973) seminal work considers the goals and values of farmers. Reporting results from a pilot study in the Cambridgeshire area, Gasson finds a host of reasons why farmers farm, and associated differences between the actions and drivers of 'small' and 'large' farmers. Ilbery (1985) considers the relative importance of decision making through behavioural perspectives when examining horticulturalists in the Vale of Evesham. Ilbery notes that physical characteristics of the holding dominate the ranking of key drivers towards decision making, whilst socio-personal factors also rank highly with particularly important aspects of own experience, independence and undertaking work that is found to provide satisfaction to the operator. Shucksmith's (1993) analysis of farmers in the Scottish uplands, argues that values and motivations play important roles in any changes in behaviour amongst farmers, concluding that there will be considerable diversity in farm household behaviour in response to policy and market changes and signals, with reluctance to change being observed for many farm households across the survey area. Beedell and Rehman (1999) focus upon understanding farmer behaviour towards conservation actions, using the Theory of Planned Behaviour (TPB) approach, with an application to Bedfordshire farmers. The authors note that conservation minded farmers felt under more social pressure to manage their hedges, but also were more likely to value the conversation benefits that hedges provided, than those farmers who were 'less conservation minded'. Burton (2004) argues that previous behavioural research, using questionnaire based approaches, has potentially led to an over simplification of understanding models of attitude-behaviour relationships and concludes that understanding agricultural behavioural actions could be enhanced by using approaches from the TPB, in particular focusing upon self-identity and perceived self-efficacy. Kings and Ilbery (2010) used a modified behavioural approach to assess environmental attitudes and understanding of conventional and organic farmers. Through stakeholder and farmer interviews and a focus group, they found differing attitudes, behaviours and characterisations of organic and conventional farmers to be present. Garforth and Rehman's (2006) Defra-funded research undertook a comprehensive review of literature in this area, combined with

primary survey research and modelling analysis of farmer adaptations to the introduction of the single payment scheme. They collated a series of statements relating to farmers' values and objectives derived from five key previous studies (Perkin (1992), Fairweather & Keating (1994), McGregor *et al.* (1996), Willock *et al.* (1999) and Bergevoet (2004)). Utilising these statements within their own survey they derived statements of objectives and values using Likert scale approaches. Their results from a postal survey of 683 respondents generated the following five segmentation types: Lifestyler (21.5%), Business / entrepreneur (25.9%), Family Orientated (29.6%), Enthusiast / hobbyist (16.6%), and Independent / small farmer (6.4%). Dwyer *et al.* (2007) investigated best possible routes for policy advice delivery to 'encourage and enable long term positive behavioural change', focusing upon environmental behaviour of farmers. Undertaking a comprehensive literature review complemented by interviews with key stakeholders, Dwyer *et al.* produced a "Good Practice Guide" from their Defra-funded research, aimed at policy makers seeking to influence behavioural change. Within government, the above approach to understanding farmer behaviour and actions has grown in importance with an examination of the potential of using such approaches (Defra, 2008) and in reviewing the theoretical and applied evidence in the field (Defra, 2011). Defra's (2008) review of evidence recognised that the borders of the five segmentation groups are not neatly defined boundaries, but that many farmers and horticulturalists will sit across more than one group meaning divisions across these groups may be "fuzzy". Results from a telephone survey with 750 respondents (Defra 2008), using a selection of objective and value questions, resulted in the following classifications: Custodians (23%); Lifestyle Choice (6%); Pragmatists (22%); Modern Family Businesses (41%); Challenged Enterprises (7%).

Variation in farmer actions, behaviours and characteristics are potential drivers for differences in economic or physical / productivity farm performance. Within a UK context studies in this broad area include Dawson (1987) who examined technical efficiency in the dairy sector, and Mukhtar and Dawson (1990) who presented an investigation of costs in dairying. Within a cropping context Wilson *et al.* (1998) analyse the variation in technical efficiency in potato production, encompassing aspects of managerial biographical aspects in the explanation of efficiency variation, whilst Wilson *et al.* (2001) examine the impact of managerial and biographical factors in explaining variation in technical efficiency across wheat producers in Eastern England. Hadley (2006) provides an empirical analysis of English and Welsh agricultural technical efficiency over 1982-2002, finding similar drivers of technical efficiency to Wilson *et al.* (1998; 2001) in that farm or enterprise size, farmer age and specialisation in production are determinants of the variation in technical efficiency. Barnes *et al.* (2009) apply a technical efficiency approach to investigating the scope for implementing regulatory incentives to drive higher efficiency of input use by farmers, finding that the approach offers opportunities to influence behaviour, for example through a pollution charge or providing effective information and advice. Wilson (2011) examines managerial inputs alongside financial and physical factors in dairy production, concluding that the most profitable producers are more likely to regularly undertake financial benchmarking in their businesses, and be "specialist" dairy farms.

Hence, whilst a relatively large body of literature aims to capture data on agricultural performance, this is often restricted in respect to combining empirical analysis with

managerial factors due to lack of data that links farmer's goals, behaviours and actions with the physical and financial performance of their businesses. By contrast, previous research examining drivers, actions and behaviours of farmers has often been restricted in its analysis of agricultural performance. This paper seeks to address this research gap through a pilot application of Defra's farmer segmentation approach, linked to contemporary Farm Business Survey (FBS) data, to assess the financial and physical performance of different segmentation groups.

Methodology and Data Capture

The methodology drew directly on previous work into segmentation analysis (Defra 2008). Hence, this research did not seek to explicitly determine the descriptors used to classify co-operators. However, previous descriptors were determined to be too long for the purposes of discussion with FBS co-operators, who took part in this study as an additional part of their co-operation with the FBS research programme. Face-to-face, on-farm, discursive interviews were undertaken by experienced FBS Research Officers (ROs) during February to September 2010, across England. The discursive approach aimed to draw upon the self-identify of the co-operators (Burton, 2004), within the context of the descriptors used, on the two "show cards" that were produced to facilitate on-farm discussion. Show card 1 (Figure 1) represented the key descriptors associated with each group and referred to the different groups as letters only (A,B,C,D,E). Show card 2 (see appendix) represented a fuller summary of these descriptors and within this show card the segmentation names were provided together with "key quotes" derived from previous research. A data capture recording form was used to ensure consistent data capture across the sample. ROs recorded the agreed segment, plus any key comments that were forthcoming from their discussions with the co-operator. Additionally ROs noted where there was disagreement between the RO and the co-operator with respect to the co-operator's self-assessment of appropriate segmentation group. ROs provided comments on the process of undertaking this research to inform future research projects.

The sample size was set at 750 FBS co-operators distributed across the Government Office Regions (GOR) of England to represent the sample of coverage of the FBS. The farm types and sample framework coverage were set as: Cereals (18.4%), General Cropping (11.5%), Horticulture (11.1%), Dairy (15.9%), LFA Grazing Livestock (12.9%), Lowland Grazing Livestock (11.9%), Horses (2%), Pigs (3.3%), Poultry (3.7%), Mixed (9.3%).

Figure 1: Show Card 1: Summary of Key Characteristics of the Farmer Segmentation Framework

Group A

- Content with lifestyle
- Quality of life, peace and tranquillity for family
- Happy for children to inherit farm
- Farm and family life linked
- Less business focus - profit reinvested in farm
- Pride in farming heritage - proud to look after / enhance farm

Group B

- Group most distinct from average
- Farming not main income source; hobby farm / income off-farm employment [**Key discriminator**]
- Prefer traditional farming methods
- Farm provides enjoyment
- Passing farm to children not priority
- Not necessarily born into farming
- Farming is a joy, part of balanced lifestyle

Group C

- Well balanced - love of farming and needing to make money
- Most born into farming - farm run as family partnership
- Attempt to live balanced family lifestyle
- Indifferent to children farming
- Enjoy lifestyle (e.g. outside working); feel under-valued
- Focus on breaking even / staying afloat, but retaining farm
- Emotional connection with farming remains, but forward thinking on farming techniques
- In tune with their environment
- Becoming more business-focused
- Disillusioned but remain hopeful things will get better

Group D

- Farm passed on from previous generation
- Implicit pressure that farm will be passed to children
- Enjoy lifestyle – be own boss, work from home, outdoors and with family
- Chance to build strong ties with children / pass on knowledge; long hours a strain on family life
- Prefer working outdoors but there is a focus on business planning / management
- Believe business pressures lead to corners cut and profit compromised
- More future focused – look at growth opportunities; optimistic about future prices

Group E

- Farming a big burden on family - inherited farm is taking its toll
- Feel isolated; working alone
- Big concerns about how farm will survive - likely that the farm will end with current generation
- Falling out of love with farming
- Pressured from low profit; pessimistic about future
- Farming community / social life has broken down; no time for non farming activities.

Data Analysis

Data from the core FBS returns for the 2009/10 accounting year were used as the source of data for this study combined with the on-farm segmentation classifications. Average results are produced for the data set of 750 farms (555 farms relating to a subset of management practices data) and also the farmer segmentation groups to provide comparative data across groups. A series of descriptive and statistical tests (ANOVAs; Chi-squared) was undertaken. In addition, the qualitative comments that flowed from discussions between ROs and co-operators were analysed to draw out the main comments and themes. Moreover, qualitative data from ROs in relation to the process of undertaking this pilot study was analysed.

Results

Quantitative Analysis

Of the 750 co-operator returns, the breakdown by segmentation groups was: Custodians (105; 14.0%), Lifestyle Choice (54; 7.2%), Pragmatists (400; 53.3%), Modern Family Business (158; 21.1%), Challenged Enterprises (33; 4.4%). Table 1 provides the analysis of the average physical characteristics by group; for the main physical area measures the analysis is undertaken across the full sample, whilst for crop areas and animal enterprise size analysis, this has been undertaken as an average across businesses where the activity was present. Examining UAA (Utilised Agricultural Area) clear differences emerge across the groups, but in particular these differences are found between Modern Family Businesses (182 ha) and Challenged Enterprises and Lifestyle Choice with respective UAAs of 76 and 106 ha. Total area of the farm follows a similar pattern to UAA, and differences in means are again significant. The area of grass fodder averages 81 ha but is not significantly different. The average area of Full Agricultural Tenancy (FAT) and Farm Business Tenancy (FBT) was similar, at 32 ha each, with significant differences observed across the segmentation groups. Whilst the average area of organic land across the full sample was 13 ha, there was a significant difference across the averages for this factor, with the mean area of 40 ha for the Lifestyle Choice group being significantly greater than all other groups. The average area of registered organic land, over the 64 businesses with organic land in this survey, was 152 ha. Significant differences in the average area of crops grown exist for wheat, oilseed rape, potatoes and sugar beet. With respect to livestock numbers, significant differences were observed in herd and flock sizes for dairy cows, cattle, and lowland and LFA ewes. For breeding sows and laying flocks, analysis was only possible across the full sample and the Pragmatists segment group, whilst the small number of broiler enterprises in the survey restricted any analysis of this data.

Table 1: Physical Farm Characteristics by Segmentation Group

Variable	All	A	B	C	D	E	Sig	SED
		Custodians	Lifestyle Choice	Pragmatist	Modern Family Businesses	Challenged Enterprises		
Mean Area (ha) across full sample								
UAA	141	119	106	140	182	76	*	24.19
Total Area	146	124	113	146	188	79	*	25.48
Grass Fodder	81	88	73	82	82			16.91
FAT Area	32	24	16	41	23	14	*	12.35
FBT Area	32	17	30	29	56	12	*	12.68
UAA Organic	13	11	40	13	7	4	*	10.18
<i>No. in sample</i>	750	105	54	400	158	33		
Mean indicator across businesses where activity was present								
UAA Organic (ha)	152	-	-	160	-	-		85.10
<i>No. in sample</i>	64	-	-	33	-	-		
Wheat area (ha)	67	48	38	59	99	-	*	23.14
<i>No. in sample</i>	306	26	21	173	80	-		
Barley area (ha)	32	33	25	31	34	-		10.19
<i>No. in sample</i>	257	30	18	143	59	-		
Oilseed rape area (ha)	44	-	-	40	63	-	*	23.13
<i>No. in sample</i>	134	-	-	79	34	-		
Potatoes area (ha)	17	-	-	16	-	#	*	10.35
<i>No. in sample</i>	51	-	-	32	-	#		
Sugar beet area (ha)	26	-	#	16	43	#	*	8.47
<i>No. in sample</i>	57	-	#	33	18	#		
Horticulture area (ha)	20	-	-	18	34	-		15.89
<i>No. in sample</i>	127	-	-	65	36	-		
Dairy cows (no.)	131	-	-	120	181	-	*	40.48
<i>No. in sample</i>	130	-	-	68	38	-		
Cattle (no.)	168	123	102	169	248	105	*	30.38
<i>No. in sample</i>	429	71	29	233	76	20		
Lowland ewes (no.)	266	192	175	252	408	-	*	102.4
<i>No. in sample</i>	154	15	15	91	29	-		
Lfa ewes (no.)	491	343	-	562	-	-	*	165.2
<i>No. in sample</i>	108	26	-	59	-	-		
Breeding sows (no.)	204	-	#	209	-	-		126.1
<i>No. in sample</i>	39	-	#	21	-	-		
Laying flock (no.)	17193	-	-	15426	-	-		28604
<i>No. in sample</i>	33	-	-	19	-	-		
Broilers (no.)	-	#	#	-	-	#		
<i>No. in sample</i>	-	#	#	-	-	#		

Key: * =significant at 95% or greater; - =less than 15 observations; # =no observations

The financial and farm type characteristics are presented in Table 2. Statistically significant differences are found across the segmentation groups for all financial measures, with the exception of outputs from agri-environment schemes. For the most part total farm output follows the pattern of UAA across the farmer segmentation groups, albeit that this does not universally hold, with the Challenged Enterprises group returning an output of nearly £235,000 from an average of 76ha. Output from agriculture broadly follows the pattern observed for total farm output; note however that the proportion of total farm output accounted for by agricultural output for Custodians and Lifestyle Choice is 71% and 62% respectively, somewhat lower than the average of 83% and the results of 87% and 92% for Modern Family Businesses and Challenged Enterprises respectively. Output from diversified activities is smallest for the Challenged Enterprises group and greatest for Modern Family Businesses. With respect to output from agri-environment schemes, the Pragmatists segment group recorded the greatest output. Output from the Single Payment Scheme (SPS) was closely related to UAA of the holdings. With respect to income levels, the Lifestyle Choice segment returned the lowest FBI (Farm Business Income) of £14,400 compared with £88,000 for the Modern Family Businesses segment. From the FBI per hectare results it is instructive to note that the Challenged Enterprises segment recorded the second largest FBI per hectare of £397. The FBI has been disaggregated into the four cost centres of agriculture, diversification, agri-environment and SPS². The Lifestyle Choice segment generated 123% of total FBI from the SPS, whilst the agriculture cost centre made a loss equivalent to 76% of total FBI. Net Farm Income (NFI) provides an alternative income measure, and this broadly follows a similar pattern to FBI, with Modern Family Businesses recording the largest average NFI of £75,400 and Lifestyle Choice co-operators recording an average of £7,600. Co-operators' spouse off farm income varies greatly, with the Lifestyle Choice segment recording the greatest co-operator spouse off farm income across the groups, at nearly £22,000, with income from this source being lowest for the Challenged Enterprises group. Landlord type capital is greatest for Modern Family Businesses recording an average of just under £1.2m which is in large part driven by the differentials in farm size across the segmentation groups. Tenant capital also varies, with the lowest average tenant capital observed for the Lifestyle Choice segmentation group (£164,000), whilst the Modern Family Businesses segment records the greatest tenant capital measure of £600,000. Net worth varies from £515,000 (Challenged Enterprises) to £1.5m (Modern Family Businesses), with the remaining segmentation groups recording net worth that varies from approximately £900,000 to £1m.

Table 2 also provides farm type analysis by segmentation groups. The Custodians group were over-represented by LFA Grazing Livestock (23%) and Lowland Grazing Livestock (15%), whilst Cereals and Dairy farm types were under-represented in this group. Nearly 28% of Lifestyle Choice co-operators were Cereals farms, whilst just over 20% were Lowland Grazing Livestock farms, both being over represented in this group; LFA Grazing Livestock and Horse farms were also both over represented in this group. Pig and Poultry farm types did not feature in the Lifestyle Choice segmentation group. Amongst Pragmatists, the percentage of farms classified in each farm type broadly followed the overall sample breakdown with some small deviations from this overall

² For details of the methodological approach see:

<http://www.defra.gov.uk/evidence/statistics/foodfarm/farmmanage/fbs/documents/fbs-current-instructions.pdf>

average. From the analysis of the 158 Modern Family Businesses, Dairy (22%), General Cropping (15%), Horticulture (15%), Pigs (4%) and Poultry (over 4%) were over represented *cf.* the overall sample, whilst LFA Grazing Livestock and Lowland Grazing Livestock were substantially underrepresented. Of farms categorised as Challenged Enterprises, 24% were dairy co-operators (the highest of any farm type), with over representation amongst this segmentation group from Lowland Grazing Livestock farm types also. Cereals and Pigs were respectively under, and over- represented *cf.* the overall sample.

Table 3 provides analysis by EU region, forms of business, LFA and Lowland classification, organic, farm assurance and tenure status. Significant differences across EU regions by segmentation groups were observed. Almost 43% of co-operators surveyed were located in the East with the North (29%) and the West (28%) being equally split. Custodians and Lifestyle Choice were over represented in the North (35% and 39% respectively). Pragmatists were broadly representative of the overall sample, whilst Modern Family Businesses were over represented in the East (51%). Challenged Enterprises were over represented in the West (36%). Just over 52% of the sample were Sole Trader businesses, with Partnerships (39%) and Farming Companies (8%) accounting for the bulk of the remainder of the sample. Custodians had a slight over representation of Sole Traders (58%); Lifestyle Choice was dominated by Sole Traders (74%); Pragmatists had a slight over representation of Sole Traders (54%); Modern Family Businesses had substantially greater proportions of Partnerships (51%) and Farming Companies (15%); Challenged Enterprises were largely classed as Sole Traders (67%). The split between LFA and Lowland farms shows an approximate 20%:80% (LFA: Lowland) breakdown with significant differences across the segmentation groups. Custodians and Challenged Enterprises were over represented in the LFAs (29% and 30% respectively); contrasting these data, 86% of Modern Family Businesses were in the Lowlands. Significant differences between LFA and Lowland status were observed. Ninety-one per cent of the sample was defined as Non-Organic producers. However, 19% of the Lifestyle Choice segment was Organic; only 5% of Modern Family Businesses were Organic. The degree to which farm businesses are "farm assured" shows an approximate 80%:20% split (Farm Assured: Non-Farm Assured) with significant differences across the groups: Custodians (71% farm assured), Lifestyle Choice (72%) and Challenged Enterprises (58%) were under represented, whilst Pragmatists (81%) and Modern Family Businesses (91%) were over represented with respect to farm assurance status. With respect to ownership and tenures status, 46% of the overall sample were Mixed, 38% Owner Occupied and 16% Tenanted. Significant differences were observed across the segment groups with 53% of Custodians classified as Owner Occupied businesses, thus being over represented *cf.* the overall sample. Owner Occupiers were also over represented in the Lifestyle Choice segmentation group (48%), whilst Pragmatists were marginally over represented in the Tenanted (20%) category. Modern Family Businesses departed substantially from the tenure of the overall sample, with 58% operating Mixed tenure businesses; 30% and 12% respectively classified as Owner Occupier and Tenanted businesses.

Table 2: Financial Characteristics (£ per farm unless stated) and Farm Type by Segmentation Group

Variable	All	A	B	C	D	E	Sig	SED
		Custodians	Lifestyle Choice	Pragmatist	Modern Family Businesses	Challenged Enterprises		
Total Farm Output	297,893	148,498	109,246	264,760	558,718	234,739	*	68,480
Output from Agric	245,978	105,509	67,826	215,093	484,797	215,359	*	65,123
Output Diversification	14,188	13,354	19,119	10,572	24,855	1,524	*	7,516
Output Agri-Env	7,957	7,646	6,022	8,666	7,934	3,643		2,482
Output SPS	29,750	22,092	20,265	30,010	40,694	14,084	*	5,194
Total FBI	51,051	32,470	14,443	47,979	88,046	30,197	*	11,471
FBI (Per UAA Hectare)	362	273	136	343	484	397	~	~
<i>Agriculture FBI</i>	<i>10,522</i>	<i>581</i>	<i>-11,046</i>	<i>8,656</i>	<i>28,573</i>	<i>13,649</i>	*	<i>10,715</i>
<i>Diversification FBI</i>	<i>7,171</i>	<i>5,675</i>	<i>3,212</i>	<i>5,319</i>	<i>15,506</i>	<i>957</i>	*	<i>4,225</i>
<i>Agri-Env FBI</i>	<i>6,478</i>	<i>6,221</i>	<i>4,446</i>	<i>6,968</i>	<i>6,830</i>	<i>3,003</i>		<i>2,000</i>
<i>SPS FBI</i>	<i>26,879</i>	<i>19,992</i>	<i>17,830</i>	<i>27,036</i>	<i>37,137</i>	<i>12,588</i>	*	<i>4,723</i>
NFI	40,575	20,145	7,622	38,108	75,411	22,626	*	10,982
Farmer spouse off farm income	8,390	6,926	21,792	7,406	7,924	5,265	*	2,626
Landlord capital	862,316	755,983	862,946	795,774	1,199,177	393,344	*	180,859
Tenant capital	353,573	210,886	163,695	329,769	606,274	196,921	*	61,720
Net Worth	1,069,312	896,010	963,835	996,282	1,521,237	514,768	*	195,233
Farm Type γ								
Cereals	137 (18%)	12 (11%)	15 (28%)	78 (20%)	30 (19%)	2 (6%)		
Dairy	119 (16%)	12 (11%)	3 (6%)	62 (16%)	34 (22%)	8 (24%)		
General Cropping	86 (11%)	11 (10%)	3 (6%)	45 (11%)	23 (15%)	4 (12%)		
Horticulture	75 (11%)	11 (10%)	5 (9%)	39 (10%)	24 (15%)	4 (12%)		
LFA Grazing Livestock	97 (13%)	24 (23%)	9 (17%)	51 (13%)	9 (6%)	4 (12%)		
Lowland Grazing Livestock	89 (12%)	16 (15%)	11 (20%)	47 (12%)	10 (6%)	5 (15%)		
Mixed	71 (9%)	9 (9%)	5 (9%)	40 (10%)	14 (9%)	3 (9%)		
Pigs	25 (3%)	4 (4%)	0 (0%)	13 (3%)	6 (4%)	2 (6%)		
Poultry	28 (4%)	2 (2%)	0 (0%)	18 (5%)	7 (4%)	1 (3%)		
Horse	15 (2%)	4 (4%)	3 (6%)	7 (2%)	1 (1%)	0 (0%)		
<i>No. in sample</i>	<i>750</i>	<i>105</i>	<i>54</i>	<i>400</i>	<i>158</i>	<i>33</i>		

Key: * =significant at 95% or greater; ~ =some businesses record 0 UAA, thus calculated from totals in table 1 and 2. γ Unable to undertake Chi-Squared test due to number of expected cells<5

Table 3: EU Region, Business Form, LFA and Lowland Status, Organic, Farm Assurance and Tenure by Segmentation Group

	All	A	B	C	D	E	Sig
		Custodians	Lifestyle Choice	Pragmatist	Modern Family Businesses	Challenged Enterprises	
North England	216 (29%)	37 (35%)	21 (39%)	125 (31%)	26 (17%)	7 (21%)	}
East England	322 (43%)	40 (38%)	18 (33%)	169 (42%)	81 (51%)	14 (42%)	
West England	212 (28%)	28 (27%)	15 (28%)	106 (27%)	51 (32%)	12 (36%)	
Sole Trader	392 (52%)	61 (58%)	40 (74%)	216 (54%)	53 (34%)	22 (67%)	}
Partnership	294 (39%)	38 (36%)	11 (20%)	153 (38%)	81 (51%)	11 (33%)	
Farming Company	62 (8%)	6 (6%)	3 (6%)	30 (8%)	23 (15%)		
Other	2 (<1%)			1 (<1%)	1 (1%)		
All or some land inside LFA	152 (20%)	30 (29%)	10 (19%)	80 (20%)	22 (14%)	10 (30%)	}
All Land outside LFA	598 (80%)	75 (71%)	44 (82%)	320 (80%)	136 (86%)	23 (70%)	
Organic	66 (9%)	11 (11%)	10 (19%)	34 (9%)	8 (5%)	3 (9%)	}
Non - Organic	684 (91%)	94 (90%)	44 (82%)	366 (92%)	150 (95%)	30 (91%)	
Farm Assured	602 (80%)	75 (71%)	39 (72%)	325 (81%)	144 (91%)	19 (58%)	}
Non Assured	148 (20%)	30 (29%)	15 (28%)	75 (19%)	14 (9%)	14 (42%)	
Mixed	344 (46%)	39 (37%)	19 (35%)	183 (46%)	91 (58%)	12 (36%)	}
Owner Occupied	283 (38%)	56 (53%)	26 (48%)	139 (35%)	48 (30%)	14 (42%)	
Tenanted	123 (16%)	10 (10%)	9 (17%)	78 (20%)	19 (12%)	7 (21%)	
<i>No. in sample</i>	<i>750 (100%)</i>	<i>105 (100%)</i>	<i>54 (100%)</i>	<i>400 (100%)</i>	<i>158 (100%)</i>	<i>33 (100%)</i>	

Key: * =significant at 95% or greater; γ Unable to undertake Chi-Squared test due to number of expected cells<5

Table 4 provides results of labour use, age, gender and education across the segmentation groups. Details of labour use activities, are divided into labour (direct, including contract, and overhead labour) for agriculture / horticulture, diversified activities and the total for the farm business. Whilst the Modern Family Businesses segmentation group recorded the total greatest average labour use (as expected given their larger farm sizes), it is the Challenged Enterprises group that records the second largest total labour hours, perhaps indicative of the greater proportion of dairy farms in this segmentation group. The Lifestyle Choice segmentation group recorded the lowest average labour input per business. Co-operator age profiles across the segment groups show that the average age varies from 53.41 years (Modern Family Businesses) to 57.61 years (Lifestyle Choice). The greatest contrast in relation to average co-operator age is noted when comparing Modern Family Businesses and Pragmatists against the other three segmentation groups, with the latter three groups recording an average age of approximately 57.5 years. The sample is dominated by male (95%) co-operators, however, differences across the segmentation groups exist. Eleven percent of Lifestyle Choice co-operators are female, whilst only 1% of Modern Family Business co-operators are female; the next largest percentage of male co-operators is in the Challenged Enterprises segment (97%). With respect to education, 35% of the overall sample had a college, national diploma or national certificate qualification, 28% had no formal qualification (School only), 15% had a degree qualification, whilst for 12% GCSE or equivalent level was their highest qualification. Substantially smaller numbers held A-level (6%), postgraduate (3%), apprenticeship (2%) or other (1%) forms of education. By comparison Custodians had a greater percentage of co-operators with School only education (34%), but greater GCSE (16%) and A-level (10%) qualifications; a smaller relative percentage held college qualifications (22%). For the Lifestyle Choice segment, 37% had School only education, with smaller numbers holding GCSEs only (7%) and in comparison to the full sample only 28% held college qualifications. As partly expected from the sample size of the Pragmatists segment, the pattern of education level broadly followed the overall sample. Modern Family Businesses recorded the lowest relative percentage of School only education level (21%), with 39% of this segment group holding college qualifications, and 12% degree level. The Challenged Enterprises segment recorded 36% of co-operators with School only level of education, 18% holding GCSEs, 30% college qualifications and 12% degrees.

Table 4: Labour, Age, Gender and Education Characteristics by Segmentation Group

Variable	All	A	B	C	D	E	Sig	SED
		Custodians	Lifestyle Choice	Pragmatist	Modern Family Businesses	Challenged Enterprises		
Total labour agriculture (hrs)	5,975	3,430	2,372	5,359	10,040	7,973	*	339.8
Total labour diversification (hrs)	486	632	598	436	538	192		202.7
Total farm business (hrs)	6,461	4,062	2,970	5,795	10,578	8,165	*	1,810
Age of co-operator (yrs)	54.56	57.40	57.61	53.62	53.41	57.48	*	1.610
Male	716 (95%)	98 (93%)	48 (89%)	382 (96%)	156 (99%)	32 (97%)	}	γ
Female	34 (5%)	7 (7%)	6 (11%)	18 (5%)	2 (1%)	1 (3%)		
School only	209 (28%)	36 (34%)	20 (37%)	108 (27%)	33 (21%)	12 (36%)	}	γ
GCSE / equivalent	88 (12%)	17 (16%)	4 (7%)	43 (11%)	18 (11%)	6 (18%)		
A-level / equivalent	42 (6%)	11 (10%)	3 (6%)	20 (5%)	7 (4%)	1 (3%)		
College / National Diploma / Certificate	259 (35%)	23 (22%)	15 (28%)	150 (38%)	61 (39%)	10 (30%)		
Degree	112 (15%)	14 (13%)	8 (15%)	61 (15%)	25 (12%)	4 (12%)		
Postgraduate qualification	21 (3%)	2 (2%)	3 (6%)	10 (3%)	6 (4%)	0 (0%)		
Apprenticeship	12 (2%)	1 (1%)	1 (2%)	4 (1%)	6 (4%)	0 (0%)		
Other	7 (1%)	1 (1%)	0 (0%)	4 (1%)	2 (1%)	0 (0%)		
<i>No. in sample</i>	<i>750</i>	<i>105</i>	<i>54</i>	<i>400</i>	<i>158</i>	<i>33</i>		

Key: * =significant at 95% or greater; γ Unable to undertake Chi-Squared test due to number of expected cells<5

Skills in management accounting, IT, technical advice and business advice of the co-operators/supplied to the co-operator are presented in Table 5 from a sub-sample of 555 co-operators who took part in both the segmentation research (2010) and a management practices module in 2008. Overall, 42% of the sub-sample benchmark [level 4] (with or without other business management actions), whilst a further 26% use gross margins, cash flows and profit and loss accounts in their business planning [level 3]. Only 5% of Modern Family Businesses record no skills in management accounting for the business [level 1], whilst 53% frequently benchmark (with or without other managements actions). Within the Challenged Enterprises segment group, 38% record no skills in management accounting, the greatest of any group. Results for skills and equipment available in relation to IT use shows that whilst overall, 26% either had no PC or used this for non-business use, or only occasional farm business use [level 1], for the Custodians, Lifestyle Choice and Challenged Enterprises segmentation groups, this result increases to 40, 44 and 67% respectively; within Modern Family Businesses, this level of use was recorded on only 10% of businesses. Modern Family Businesses recorded the greatest level of IT use [level 4], with 75% using a computer for the greatest level of business activities. The level of technical and business advice received across different categories is also provided. Note that the "level" of advice received is incremental moving up the levels; hence a co-operator who receives technical/business advice supplied for no charge [level 3] may additionally receive talks from farmers [level 2], but it is the 'higher' level of advice that was recorded for that individual response [level 3]. Receiving no technical advice [level 1] is limited to only 3% of the sub-sample, albeit that for Challenged Enterprises segmentation group, this increases to 13%. Receiving technical advice supplied for no charge [level 3] was the most popular level of technical advice, at 48% for the sub-sample. Modern Family Businesses recorded the greatest level of technical advice supplied for a charge [level 4]. Business management advice results demonstrate that 16% of co-operators received no business management advice [level 1], whilst business management advice supplied for no direct charge was the most popular form at 44% overall [level 3] with this form of advice being consistently the most popular across all segmentation groups.

Table 5: Management Accounting, IT, Technical and Business Skills by Segmentation Group

			A	B	C	D	E
Skill	Level	All Farms	Custodians	Lifestyle Choice	Pragmatists	Modern Family Business	Challenged Enterprises
Accounting	1.	71 (13%)	15 (18%)	10 (28%)	31 (10%)	6 (5%)	9 (38%)
	2.	147 (26%)	31 (38%)	6 (17%)	78 (26%)	23 (20%)	9 (38%)
	3.	103 (19%)	10 (12%)	7 (19%)	59 (20%)	25 (22%)	2 (8%)
	4.	234 (42%)	26 (32%)	13 (36%)	131 (44%)	60 (53%)	4 (17%)
IT	1.	147 (26%)	33 (40%)	16 (44%)	71 (24%)	11 (10%)	16 (67%)
	2.	83 (15%)	12 (15%)	2 (6%)	50 (17%)	17 (15%)	2 (8%)
	3.	325 (59%)	37 (45%)	18 (50%)	178 (60%)	86 (75%)	6 (25%)
Technical advice	1.	18 (3%)	3 (4%)	1 (3%)	8 (3%)	3 (3%)	3 (13%)
	2.	98 (18%)	24 (29%)	7 (19%)	53 (18%)	8 (7%)	6 (25%)
	3.	269 (48%)	41 (50%)	20 (56%)	147 (49%)	49 (43%)	12 (50%)
	4.	170 (31%)	14 (17%)	8 (22%)	91 (30%)	54 (47%)	3 (13%)
Business advice	1.	88 (16%)	20 (24%)	9 (25%)	44 (15%)	11 (10%)	4 (17%)
	2.	112 (20%)	22 (27%)	7 (19%)	59 (20%)	19 (17%)	5 (21%)
	3.	245 (44%)	26 (32%)	15 (42%)	136 (45%)	54 (47%)	14 (58%)
	4.	110 (20%)	14 (17%)	5 (14%)	60 (20%)	30 (26%)	1 (4%)
	<i>No. in sample</i>	<i>555 (100%)</i>	<i>82 (100%)</i>	<i>36 (100%)</i>	<i>299 (100%)</i>	<i>114 (100%)</i>	<i>24 (100%)</i>

Accounting Skills Level: 1) None; 2) Gross margins, Cash Flows, Review Profit & Loss account (+1); 3) Partial / full budgets used (+2); 4) Benchmarks (+3). **IT** Skills level: 1) No PC, PC non Business use, PC occasional business use only; 2) Broad band access, MS office / web, internet to buy / sell, internet to improve business; 3) Accounts managed on PC, Submit forms (e.g. PAYE), submit SP5 on PC (+2). **Technical and Business** Skills levels: 1) None; 2) Talk to farmers, media, demonstrations, discussion groups and workshops; 3) Advice supplied for no charge (+2); 4) Advice supplied for a charge (+3). Unable to undertake Chi-Squared test due to number of expected cells < 5

Qualitative Analysis

ROs recorded comments from 39% of co-operators, with the summary analysis presented in Table 6. Custodians noted the need for profit, having an environmental focus, generating income from environmental activities, importance of off-farm income, and the importance of lifestyle. Some were unhappy with the purpose of the questionnaire or found it difficult to classify themselves into a specific group. With respect to the Lifestyle Choice segment, it was noted that co-operators identified with being a "hobby farm", enjoying the lifestyle, farming into retirement, with a key identifier being the inclusion off-farm/diversified income as an important income stream. Additionally, the co-operators may not have been born into it farming but enjoyed the work as part of a balanced lifestyle. Pragmatists represented the largest group, with comments noting restrictions of farming under Full Agricultural Tenancies, no alternative but to continue to farm, being forward thinking, optimistic, making a profit / difficulty making a profit, placing lifestyle above profit. Some co-operators were not happy with the segmentation approach, whilst several felt they could have been classified into another segmentation group; other comments included the approach not being suitable for people who did not have children or where inheritance was not possible. Comments from the Modern Family Businesses segment included optimism, expansion, planning, difficulty in choosing a segmentation category, business minded, investing for the future with respect to both business and environment, and succession aspects, with succession often being the trigger for new investment. The Challenged Enterprises segment commented upon isolation, long working hours, low product prices, lack of a successor, financial and health difficulties, reluctance to step away from the farm although it was costly to continue in the industry. From the analysis, only 4% of co-operators were noted to specify a segmentation category which the RO disagreed with.

RO comments on the research were also analysed, with summary points including the need to reduce the emphasis on children and inheritance issues, and explicitly account for: horticultural businesses, non family co-operators (e.g. farm managers) and large farming companies within the segmentation descriptors; place the descriptors in the context of contemporary economic conditions (many descriptors were felt to be too pessimistic); have clearer distinctions between the segments and to adopt a structured questionnaire based approach or flow diagram to data capture.

Table 6: Qualitative Summary of Segmentation Commentary

Segment (number of comments)	Typical comments summarised	Selection of quotes from ROs
Custodians (50)	<ul style="list-style-type: none"> • Environmental • Need for profit • Financial support for environmental work • Off-farm income • Farming lifestyle 	<p><i>"Very environmentally focussed, involved actively in many schemes, but does see the economic attraction of the scheme working in harmony with good agricultural practice"</i></p> <p><i>"Likes to think that work enhances farm, and is business focussed alongside this. Very proud of farming heritage and feels like a custodian of the land"</i></p> <p><i>"Off-farm employment could easily have given a Lifestyle Choice classification"</i></p>
Lifestyle Choice (26)	<ul style="list-style-type: none"> • Farming lifestyle • Spouse's income important to farm • Hobby farm • Environmental • Farm into retirement 	<p><i>"Not a hobby farm as such but only possible because of other outside income sources"</i></p> <p><i>"Enjoys working outdoors - likes the flexibility to work round commitments and also works a lot with family members so is content with lifestyle."</i></p> <p><i>"[Segmentation group] Probably correct now, but has been a pragmatist and challenged enterprise at various stages of business"</i></p>
Pragmatists (132)	<ul style="list-style-type: none"> • Constrained by tenancy • Could be in another group • Optimistic / forward thinking • Have to continue to farm • Profit important • Children inherit / not inherit 	<p><i>"Optimistic prices will remain stable/improve as world wide demand increases. Would like to employ part time staff so able to enjoy some leisure time."</i></p> <p><i>"Struggling to make a decent profit, but have young family and want to make a go of it"</i></p> <p><i>"Verges towards Modern Family Business but decided Pragmatist as children not interested"</i></p>
Modern Family Businesses (64)	<ul style="list-style-type: none"> • Investment (for business & environment) • Planning • Optimism • Expansion • Business minded • Difficulty in choosing category 	<p><i>"Profit but not at expense of environment"</i></p> <p><i>"Decided couple of years ago on major expansion, once son showed interest of taking on farm, otherwise would have started to wind down."</i></p> <p><i>"Farmer said not one group exclusively - but Modern Family Business nearest but a lot of Custodian as well"</i></p>
Challenged Enterprises (19)	<ul style="list-style-type: none"> • Low prices • Long hours • Finance / health problems • Children not want to farm • Isolation 	<p><i>"Not sure how farm will survive. Would not continue with farm if they could afford to stay in the farmhouse without the farm income"</i></p> <p><i>"Pressure from supermarkets and intermediaries mean they sometimes sell below production cost"</i></p> <p><i>"Farmer working very long hours and is behind with paperwork"</i></p>

Discussion

The results indicate clear differences in structures and locational aspects, cropping and stocking activities, business performance, biographical, managerial and skill characteristics across the segmentation groups. With respect to total area, Modern Family Businesses operated a larger than average area, whilst Custodians, Lifestyle Choice and Challenged Enterprises operated smaller than average areas. Cropping and stocking patterns followed this trend with the exception of barley production, with Custodians and Lifestyle Choice segments growing similar areas to the average; for LFA ewes Pragmatists recorded the greatest average flock size. Building upon the difference in total area, total farm financial output was greatest for the Modern Family Businesses segment, whilst the Challenged Enterprises produced the third largest farm output (and second largest agricultural output) from the smallest average land area. Only Modern Family Businesses achieved an FBI greater than the average for the sample; it is instructive to note that the Lifestyle Choice segment returned both the smallest average FBI, and additionally a negative FBI return from the agriculture cost centre. Challenged Enterprises were most heavily reliant upon agriculture as a contributor to total farm FBI, whilst for the other segmentation groups, the Single Payment Scheme cost centre returned the greater proportional contribution to total FBI. Geographically there was a tendency for more Custodians and Lifestyle Choice businesses to be located in the North, with Modern Family Businesses and Challenged Enterprise featuring more heavily in the East and West respectively. Variations in business structures were observed, in particular with Lifestyle Choice and Challenged Enterprises dominated by Sole Trader arrangements, and Modern Family Businesses containing a substantial minority of farming companies. The Lifestyle Choice segment contained a greater proportion of organic businesses than the average. Custodians, Lifestyle Choice and Challenged Enterprises were under-represented with respect to farm assurance membership. Modern Family Businesses recorded a greater proportion of businesses operating under mixed tenure arrangements. Pragmatists and Modern Family Businesses were managed by younger than average co-operators, whilst these two segment groups contained the greatest proportions of co-operators with college, or higher, qualifications. Moreover, Pragmatists and Modern Family Businesses tended to have more skills in management accounting, IT and drew more upon technical and business advice supplied for a charge than the other three segmentation groups.

Custodians and Lifestyle Choice co-operators noted aspects of farming lifestyle, the environment, need for profit and payment from environmental schemes, together with off farm income (from spouse or another source) as important; the Lifestyle Choice co-operators additionally noted farming as a hobby and farming into retirement as key points. Pragmatists noted a wide range of positive and negative aspects of farming / growing, reflecting both optimism for the future and the challenge of remaining in the industry with little opportunity to leave; tenancy constraints also featured in this group. Modern Family Businesses noted expansion, planning, investment, optimism and a business minded approach. The Challenged Enterprises co-operators commented upon low prices, pressure from supermarkets, finance and health problems, inheritance issues and isolation as challenges in their activities.

The above overview reinforces findings from previous studies into explaining variation in agricultural performance, where a number of studies have indicated that larger farms,

operating more specialised businesses, with younger managers / owners, with greater levels of business management input, generally achieve higher levels of performance (e.g. Wilson *et al.* 1998, 2001; Hadley, 2006; Wilson, 2011). A comparison of Modern Family Businesses against the Challenged Enterprises or Lifestyle Choice segmentation group broadly demonstrates that the findings of this research correlate with findings from the above literature. With respect to comparison of the broad segmentation categorisations with previous studies, it should be noted that differences in the geographic and farm business type sample space across studies makes direct comparison not possible (Defra 2011). However, placing the results of this study in the context of previous work, Garforth and Rehman (2006) observed the following results: Lifestyler (21.5%); Enthusiast / hobbyist (16.6%); Family orientated (29.6%); Business / entrepreneur (25.9%); Independent / small farmer (6.4%). Defra's (2008) analysis categorised the sample as Custodians (23%); Lifestyle Choice (6%); Pragmatists (22%); Modern Family Businesses (41%); Challenged Enterprises (7%). Results from this pilot study observed the groups as: Custodians (14.0%), Lifestyle Choice (7.2%), Pragmatists (53.3%), Modern Family Business (21.1%), Challenged Enterprises (4.4%). Hence, the current study observed considerably greater numbers of Pragmatists and fewer co-operators defined within the remaining groups. In part this may be explained by the Pragmatists group offering a wide range of attributes with which co-operators could identify themselves; additionally this group recorded considerable comments that demonstrated that co-operators also felt they could be associated with other groups. Moreover, findings from this study indicate that the physical environment may be important in determining segmentation group (e.g. greater numbers of LFA business operators in the Custodians and Challenged Enterprises segments), concurring with Ilbery's (1985) observations. Methodologically this research adopted a discursive, rather than questionnaire, based approach to categorising the FBS co-operators. A number of studies have adopted a more formal, structured or semi-structured approach, to identifying goals and drivers (e.g. Ilbery, 1985; Beedell and Rehman, 1999). It is argued that the adoption of differing methodological approaches may lead to variations in the results, in particular where the boundaries of the segmentation groups overlap and are thus determined to be "fuzzy". Whilst the approach adopted within this research was explicitly discursive, the main advantage of integrating this within the FBS research programme has been the ability to link an empirical application of the segmentation model to the wealth of data flowing from the core and modular FBS research outputs. However, this model of combining the segmentation approach to the FBS could equally be achieved via the adoption of a more structured questionnaire based approach. Moreover, future research should consider embedding descriptors used within the contemporary economic conditions of the industry, reduce emphasis on children and inheritance issues, expand descriptors to explicitly capture horticultural units, allow for non-family businesses, revise or exclude the segmentation names and adopt a two-stage approach with segmentation definitions being devised post data-collection.

Conclusion

This pilot study categorised 750 FBS co-operators into five pre-determined segmentation groups following a discursive methodological approach drawing upon the self-identify of the co-operator (Burton, 2004) permitting this data to be linked to the FBS data for England. The resultant combined data set demonstrates a breadth of findings which link segmentation group outcomes to physical, financial and managerial data. The results

reinforce previous studies into explaining variation in agricultural performance and additionally provide reference data for comparison with previous segmentation research. Whilst differences in the geographic and farm type sample space does not allow direct comparison with previous studies, the results from this study serve to reinforce the variation in farmer and grower self-identity and the associations between this perception and the physical business activities, financial performance and managerial behaviours and actions associated with the segmentation groups. The value of linking this research with the FBS has been highlighted and constructive methodological improvements identified.

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Appendix 1: Show Card 2: Key Characteristics of the Farmer Segmentation Framework

A: Custodians

- Segment most content with lifestyle
- Farming provides quality of life, peace and tranquillity for family that's hard to achieve elsewhere
- Happy for children to inherit / continue farm if they choose to do so
- Farm and family life are intrinsically linked; farming enables you to spend time with family
- Less of a business focus than other segments with profit reinvested in the farm
- Pride in farming heritage and feel proud to look after and enhance the farm.

B: Lifestyle choice (contains smaller hobbyists but not exclusively)

- Perhaps the group most significantly distinct from the average
 - Farming unlikely to be main source of income – either hobby or main income is off-farm employment
- [Key discriminator]**
- Preference for traditional farming methods
 - Running the farm provides enjoyment
 - Passing on farm to children not a priority and thus 'future' less of a focus
 - Not necessarily born into farming but often part of upbringing; entry to farming may be by marriage or personal individual pursuit and some may be late entrants, having forged 'own way'
 - Farming is a joy, not main means of income, and part of a balanced lifestyle with more free time

C: Pragmatists

- Overall, well balanced between love of farming, needing to make money and enjoy life
- Most born into farming and farm run as partnerships with other family members.
- Some attempt to live a more balanced family lifestyle
- Indifferent to continuing the family legacy with their children
- Enjoy lifestyle (e.g. outside working) but feel under-valued and becoming disillusioned and want recognition of the fact that it is a struggle and love for the farming lifestyle has been replaced with a more business / pragmatic approach
- Focus is more on breaking even / staying afloat, not making huge profits - prepared to diversify to keep farm going - *'We'd change the farming rather than give up farming'*
- Emotional connection with farming remains, builds on learning of past generations but also has forward thinking approach to farming techniques
- In tune with their environment
- Becoming more business-focused means being more customer-focused
- Although disillusioned, are stoical, and remain hopeful things will get better.

D: Modern family business

- Farming has been passed from one generation to the next
- Tends to be implicit pressure / assumption that farm will be passed to children - feel duty bound; less successful farmers worry that children won't farm
- Enjoy lifestyle – freedom to be your own boss, work from home, outdoors and with family
- Opportunity to build strong ties with children and pass on knowledge of running the farm but long hours can be a strain on family life.
- Although prefer working outdoors, there is a focus on business planning / financial management of the farm and typically on top of paper-work
- Believe business pressure on farmers lead to corners cut and profit margins compromised
- More future focused than other segments – look at growth / profit opportunities and are optimistic about future prices

E: Challenged enterprises

- Farming may be a big burden on whole family - inherited through obligation and farm taking its toll due to hard labour, long hours, poor financial return
- Tend to feel more isolated, be working alone and be self-sufficient (lack of support)
- Struggle / decline - big concerns about how farm will survive in future and more likely that the farm will end with current generation (Likely to discourage family from going into farming)
- Falling out of love with farming due to burden of work
- Resource constrained, cost sensitive and pressured from low profit; pessimistic about future
- Farming community and social life has broken down, feeling isolated and unsupported and have no time for non farming activities.

Key Descriptors of the Farmer Segmentation Framework

In their own words....

Group A: Custodians

Success to me is breaking even. It's all about the lifestyle. I imagine there are some farmers out there that do focus on profit but that's not me

Farming is a way of life for me. It's a 24/7 life and I don't mind that it stops me from doing other things. I'm happy to make that sacrifice

I'm a big conservationist. I enjoy looking after animals... I'm on stewardship schemes to help develop the wildlife

Group B: Lifestyle choice (contains smaller hobbyists but not exclusively)

I see success as doing my job properly. It's a passion for me. I do it for the love of it

I still have the time to go on a nice holiday with my wife. I just get someone in to look after the farm

On a personal level its the lifestyle, certainly at my time of life, it's much better than struggling on in the classroom

I think we do more than anyone else to protect the environment

Group C: Pragmatists

Although it's important to make money, you've got different aspects of the farm, and provided the overall package is making money and I can pay my bills at the end of the month, and the wages at the end of the week, I'm quite comfortable with that

Legislation and bureaucracy...

Yes, it's a pleasure to plant the crop and watch it grow and harvest it but ultimately, I guess, we're all there for the same motive, aren't we (i.e. for profit)

Group D: Modern family business

If you've got a son coming on... it's family, so you try to keep going and make a good enough business for him to carry on

Well when it comes down to something like spraying you spend a lot of money..., so it comes down to economics there as well as the environment. You don't want to be chucking it around everywhere

The lifestyle with farming, it's just a nightmare trying to balance family with it. Well, I find it tough in the summer trying to balance family with work time

Group E: Challenged enterprises

It's a lovely environment we're in but you don't have the time to enjoy it

It's all, as I say, it's just a way of life and... you don't have a bloody choice do you sometimes!

The trouble is now, to be honest you don't even know which side of the bloody law you are. There's that many rules and regulations coming through and half of them you can't take in

Had a successful year.. You've got to be joking!