

REFEREED ARTICLE

**EXPLORING THE STRATEGIC SKILLS OF FARMERS
ACROSS A TYPOLOGY OF FARM DIVERSIFICATION
APPROACHES***Gerard McElwee and Gary Bosworth*

Diversification, in its many forms, contributes an increasing proportion of income to farm businesses. With many interpretations of what constitutes diversified activity, this study uses findings from an empirical study of 3,000 farms to establish a typology of diversification based on the role of the farmer and the impact of new activity on the core agricultural business. Using this typology, the paper's key contribution is to establish essential business skills and strategic capabilities required by farmers to diversify successfully. These vary according to both the farmer and the farm holding, depending on the age, experience, skills and family situation of the farmer as well as 'external factors' relating to natural, spatial and economic influences.

Keywords: Diversification, skills, farmers, entrepreneurship, rural enterprise

1. Introduction

Traditional farming, especially small farms and those in marginal areas, is barely viable; farms have consolidated and farm workers have left to better jobs in the cities, so the agricultural landscape is at risk of losing the classic figure of the farmer. One solution that has been offered for this social problem is that farmers diversify, that they set up businesses which can augment their farm income and allow them to continue to live on the land. It is this 'solution' of farmers becoming entrepreneurial that provides the focus for this paper.

Farmers need to compete effectively and efficiently by utilising commercial strategies to ensure business survival. The European Common Agricultural Policy (CAP), for example, is increasingly geared towards benefiting consumers and taxpayers with the 2013 reforms expected to further reduce subsidies. The changing emphasis of policy away from production payments encourages EU farmers to produce what the markets want, helping to raise their market awareness. It also provides the opportunity for farmers to diversify without foregoing subsidy directly related to conventional production.

The UK Rural White Paper (DETR, 2000) set out a vision for agriculture that is 'competitive and responsive to market signals' while at the same time 'following practices which conserve and enhance the landscape and wildlife.' This approach forces farmers to enhance existing business skills and develop new business strategies in order to be competitive. Alongside the reduction of direct subsidies and protectionism for agriculture, the Rural Development Programme for England (RDPE) (Defra, 2007a) offers funding to support farmers with diversification plans, helping them to access the necessary resources. Furthermore, Business Link has recently created additional pages on their website (Business Link, 2009) focused directly towards farmers, recognising that they do not all have the range of transferable skills needed to

ensure survival.

In this paper, we begin by clarifying our definition of diversification, which is itself a somewhat inconsistent concept. From this starting point, the combination of attributes required by diversifying farmers is considered, with specific reference to strategic planning and entrepreneurial skills. Survey data are used to evaluate differences in attitudes and skills among farmers engaged in different forms of diversified activity. Farmers' personal attributes are examined alongside the external factors of farm size, location and ownership structure in an attempt to understand and predict the key issues influencing both the likelihood and potential success of diversification. The unit of analysis in this paper is the individual farmer and his or her motivations, aspirations and skills are viewed in the context of the farm holding and business.

This analysis leads us to a typology of farmers' diversification approaches based on farmers having different levels of involvement in new business ventures that are more or less associated with traditional agricultural activities. From such a typology, we can begin to understand the implications of different activity in relation to the landscape, the local economy, the farm holding and the farm business as a sustainable entity.

The direction and success of diversification will depend to a large extent on the skills of farmers and their ability to employ those skills in optimising the use of available resources. In order to reach the most insightful conclusions, the analysis is deepened to explore forms of business planning among farmers with different types of farm in terms of size, land use, ownership, employment and business organisation. The age and educational background of farmers is also analysed to identify whether this affects their business approach in terms of planning and advice seeking. The conclusions will then inform policy-makers, farmers and their advisers of the internal and external attributes that are required for different forms of diversification and, through the derived typology, we will also set out certain implications associated with different diversification paths.

2. Defining Farm Diversification

Around 50 per cent of farms in the UK supplement traditional incomes through farm diversification of some form (Defra, 2008) and the subject of farm diversification has attracted much attention among rural researchers for some considerable time (Heady, 1952, Johnson, 1967, McInerney *et al* 1989, McNally 2001, McElwee, 2006). However the focus on farm diversification from a management and entrepreneurship perspective is relatively recent. Further data from Defra (2008) shows an increase in the proportion of farmers' income derived from diversified activities since 2006. This increase was particularly evident through diversification into the food processing, retail and tourism sectors but not recreation or property rental. Such data demonstrates the importance of understanding the different skills required for diversified business activity and the relative success of each type of diversification among different farmers.

Reform of the CAP has meant that farmers need to take on new and

multiple roles, shifting some of their effort and resources away from food production towards acting as environmental and countryside managers and as rural entrepreneurs (Atterton and Ward, 2007). In a report on barriers to farm diversification (Defra, 2007b, p.2) it is noted that ‘many in the industry regard farm diversification as an adjunct to the core business of farming’ and they fear that ‘government regards diversification as an alternative to creating the environment in which efficient agriculture is viable’. In attempting to provide a functional definition of farm diversification, this duality should be addressed so as not to alienate the farming community with top-down policy but to provide the widest opportunities for those farmers who are seeking alternative sources of income.

One such definition is provided by Ilbery (1992, p.102) where farm diversification is ‘the development of non-traditional (alternative) enterprises on the farm.’ In this sense it can encompass new activities that are both agricultural and non-agricultural in nature. For McNally (2001), however, farm diversification is ‘the development of non-food production enterprise on the holding’, a definition which excludes new crops and new farming techniques and will exclude farmers diversifying within the definitional bounds of agriculture. In the widest sense, farm diversification could be interpreted in relation to increasing farm incomes rather than farm activities. Defined as ‘the generation by farm households of income from on-farm and/or off-farm sources in addition to the income obtained from primary agriculture’ (Ilbery and Bowler 1998, p.75), diversification can include off-farm employment, investments and state benefits or subsidies. From these three interpretations alone, it is apparent that a more consistent definition is required.

Defra use the following definition: ‘any activity, excluding mainstream agriculture and external employment by members of the farm family, which makes use of farm assets to generate additional income’ (Defra, 2007b, p.3). By referring to ‘the farm family’, there is an assumption that the principal farmer does not have to participate in diversified activity. This definition also excludes new methods that relate to the business of “mainstream agriculture” and excludes all new employment or business activity that does not make use of farm assets. It also excludes diversification into agricultural consultancy, haulage or outside catering as they do not employ the tangible assets of the farm. Farmers’ contacts may provide haulage work, their professional expertise could lead to a consultancy business and the identity attached to the farm might support outside catering business so arguably these should be included in a broad definition of farm diversification. We should also raise the question of whether a move from one form of “mainstream agriculture” into a different form of “mainstream agriculture” or “para-agricultural” activity (Rattin, 2000) constitutes diversification. These are all issues that will be addressed through the course of this paper.

Rather than seeking to define diversification in relation to observed practices, we should base a definition on the rationales for diversification in order to explore the outcomes for the farmer and for the farm business. Woods (2005, p.55) explains that ‘farm diversification seeks to reduce the

dependency of farm households on agricultural production so that farms remain viable as an economic and social unit even as production is decreased'. The key aspect of this definition is the central objective of retaining the viability of farms as economic and social units. Diversification is not the straight substitution of less profitable agricultural activity with more profitable alternatives but it is the exploitation of income-generating opportunities that can support the income of the farm household and in turn, the viability of the agricultural business.

The purpose of starting with this broad definition is to ensure that we develop an inclusive typology to inform subsequent analysis. An open ended questionnaire is expected to draw a wide range of responses as to what farmers define as diversification and while we will seek to identify the more entrepreneurial features of diversification, it is wrong to narrow the potential scope of the study at this stage.

3. Who Diversifies?

In this section we summarise the findings from a survey of 3,000 farms across the East Midlands and Yorkshire and Humber government office areas in the UK which generated 609 usable returns a return of 20% , which is comparable to similar response rates from voluntary questionnaires. The data confirmed that farmers with larger holdings are more likely to be involved in diversification activities with 65% of the largest quintile currently involved in diversified activities. For smaller categories around 45-48% of farmers were involved in diversified activities and this dropped to 41% for the very smallest quintile of farms. Larger farms were also more likely to host two or more diversified activities.

The survey also confirmed previous findings relating to the type of farms involved in diversification with 54% of arable compared to 41% of livestock and 45% of mixed farmers indicating that they are currently involved in diversified activities. In terms of business organisation, sole traders are least likely to diversify, with only 40% currently involved compared to approximately 50% for both family businesses and partnerships. Further analysis shows that these tend to be the smaller farms, confirming that scale is an important factor.

Looking at the farmers themselves, of those over the age of 55, only 44% were actively engaged in diversified activities compared to 54% of younger farmers, (Chi square test: $p < 0.016$; $n=594$) indicating the significance of age as a determining factor. The same data showed that those who had been farming for longer were most likely to use property development as a means of diversifying, an activity which would reduce the size of the agricultural holding and often create little additional work for the farmer or farm business. By contrast, younger farmers were more likely to develop tourism or new farm-related activities. Each of these points confirms evidence from a survey of non-agricultural rural businesses (Bosworth, 2009) which suggests that older business owners are less growth oriented.

In terms of education 26.5% of the respondents indicated that they had no formal qualifications and over 80% had no other occupation before farming.

Having a degree or professional qualification was strongly associated with diversification as 30% of diversifiers have one or the other compared to just 20% of non-diversifiers. The data also showed that farmers who had previously worked outside of agriculture were more likely to diversify.

4. Generating a Typology of Diversification

From the literature and survey data, we have identified certain characteristics associated with diversification. The statistics suggest that a younger farmer, working in a partnership or family business with a larger arable farm and with a university degree and some form of non-agricultural work experience would be the most likely candidate for diversification. These features have significant implications for policy as we can identify certain resources in terms of skills and land or capital assets that are important influences. It is these features that are considered to be the most useful means of categorising activity as this can enable policy to focus on identifying potential diversifiers and enabling more farmers to achieve diversification.

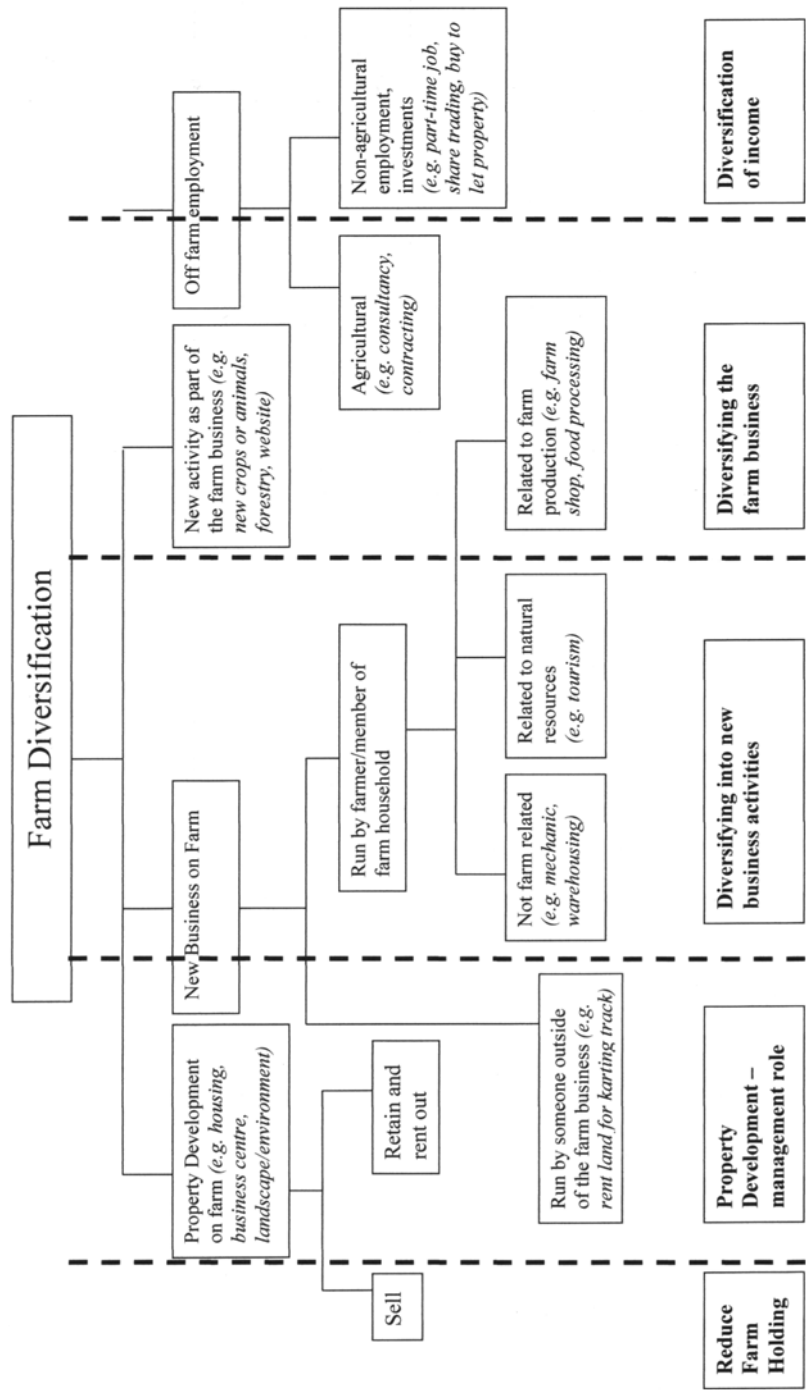
Figure 1 illustrates our typology of diversification activities based on the activity of the farmer and the impact that the activity has on the core farm business. In each case, the implication for the farm is apparent whereas other typologies have not had the same practical, purposive approach.

While previous work has attempted to categorise farm diversification, the purpose of this classification is less descriptive but more specifically to enable an assessment of the associated business skills and entrepreneurial qualities. For example, McInerney *et al.*, (1989) analysed 7,000 farms and derived 5 diversification categories, namely: services; contracting; miscellaneous; speciality products; and processing and sales. While we can detect some activities that are more closely related to agriculture, there is little distinction between the business characteristics of other forms of diversification.

Slee, (1987) promotes four categories of alternative enterprises on farmland as: Tourism and recreation; adding value to conventional products; unconventional agricultural enterprises; and the use of ancillary buildings and resources. This is a useful description of the business opportunities available on a farm but off-farm activity is excluded and the skills required by the farmer and the intensity of activity and its impact on the farm business may still be very different.

One clear distinction that exists in terms of the definition of farm diversification is whether the farmer's income, the farmer's activity or the employment of other farm resources is being diversified. In part this will depend upon the pressures or opportunities faced by the farmer in question. In a developed economy, demand no longer exists for increasing levels of food production and as the ability to supply food increases, so the proportion of spend on food is decreasing. This leaves farmers facing an income problem but equally, the growing wealth of consumers provides opportunities for farmers to exploit emerging markets that can satisfy demand for luxury or niche product but these forms of diversification often require different skills to those associated with conventional agriculture and it is these skills that are the focus of the remainder of this paper.

Figure 1. A Typology of Farm Diversification



5. Entrepreneurial Skills and Strategic Planning

Farm diversification is seen by some as a survival strategy, especially since abandoning farming is seldom considered as a viable solution to problems of low income. This leads to calls for policy to offer both financial support and a ‘serious effort to provide farmers with access to expert information and with opportunities to improve essential skills’ (Meert *et al.* 2005, p.96).

This study of entrepreneurial characteristics among farmers is of particular importance with rural economies undergoing a period of re-structuring. Recent decades have seen a shift from an economy based on production to one based increasingly on consumption (Woods 2005; Slee, 2005). Agricultural policy has traditionally been production-led, so diversifying farmers will be those who recognise that they need additional skills.

The literature would suggest (McElwee and Robson, 2005; McElwee, 2006) that there are three types of skills that farmers have, and it is the enterprise skills depicted in Table 1 that make the diversified farmer more likely to be successful. As Carter, (1999) recognises, the core competencies of a small firm often lie in the entrepreneurial and managerial skills of the business owner and there is a clear difference between production and technical efficiency and entrepreneurial skill.

Smilor, (1997) and Kilby, (1971) see entrepreneurial skills as referring to those activities, or practical know-how needed to establish and successfully run a business enterprise. These may comprise such areas as finance, accounting, marketing or production. Others want to make a distinction between managerial and entrepreneurial skills. For example, Chen *et al.* (1998, p. 296) write that many business school courses, ‘focus on commonly identified management skills, but often ignores entrepreneurial skills such as innovation and risk-taking’. Yet Timmons (1999, p. 27), says ‘Entrepreneurship is a way of thinking, reasoning and acting that is opportunity obsessed’. Surely this is much more than merely managing? In this context then it is useful to analyse the theoretical relevance and nature of the entrepreneurial skills concept in the context of farming (see Jack and Anderson, 1999, p. 119).

Table 1 Farmers’ Skills		
Technical & Professional Farming skills	Information Technology Marketing and Selling Accountancy Finance People Management	Cooperation and Net- working Strategic Awareness Opportunity Recognition Entrepreneurial Qualities and Values Self-efficacy Need for achievement Personal control Alertness

According to some studies, conventional farmers are not as entrepreneurial

as non-farm business owners, or other farmers involved in business diversification (Carter, 2001; Vesala and Peura, 2003). Conversely, it has also been emphasised that entrepreneurial behaviour is quite possible to identify among conventional farmers (Salamon, 1992). Pyysiainen *et al.*, (2006) suggest that entrepreneurial tasks are considered to be somewhat different in conventional farming than in a diversified business. This does lend some support for our argument that different kinds of entrepreneurial skills are needed in diversified business particularly when the economic pressures upon the farm sector are becoming more acute.

The core of this difference seems to be in the area of understanding the market. Functional skills such as salesmanship and marketing, as well as meta-task-level skill of gaining access to resources are necessary for a successful enterprise. These skills are directly connected with social resources, social ties or networks (clients, customers, employees, sales promoters and so forth). Hence, the questions of - not only social skills - but of skills implied by the perspective of social embeddedness (Jack and Anderson, 2002; Granovetter, 2000) and of social capital (Markman and Baron, 2003) and human capital (McElwee, 2008) are most relevant in this connection.

As well as person-skills, business owners require distinct strategic capabilities. Strategies facilitate the development of new business models which allow the business to create value and remain financially viable. Accordingly, strategies for change are numerous and include: growth by expansion of land use, growth of animal and crop production or moves into external business (McElwee, 2006). However, without some form of either formal or informal planning, these strategies are not systematic. Formal business planning can enable farmers to identify the opportunities open to them, recognise the commitment that is required in resource terms, demonstrate to others the viability of the idea and identify the milestones necessary to reach the desired outcome. Although the production of a business plan is not always related to subsequent business performance, formal business planning has the advantage of legitimising the business activity of a nascent entrepreneur (Honig and Karlsson, 2004).

To ensure success in any of these business survival opportunities necessitates following specific strategies. These can be grouped as follows: competition through either quality or price (Porter, 1985); product and service innovation (Storey *et al.*, 1987); market niche domination (Birley and Westhead, 1990) and 'entrepreneurial alertness' (Kirzner, 1979).

In essence, the concept of entrepreneurial alertness distinguishes between the decisions, which alert-and non-alert actors take in differing circumstances. Non-alert individuals are defined by Gaglio and Katz as individuals who, 'fail to identify or create entrepreneurial decisions because they misjudge their market environment and...behaviour demanded by the moment' (2001, p.98). By contrast, alert individuals, 'emphasise *objective accuracy* (italics added) apprehend the changing environment cues and realise that the appropriate behaviour at that moment requires reassessment of the situation and environment' (*ibid.* p. 98). It is only the concept of objective accuracy that is problematic in this definition. The notion that entrepreneurs do make objective

decisions routinely, assumes a level of rational decision-making has been effectively discredited.

To understand 'Personal Characteristics, the phenomena of 'entrepreneurial alertness' and 'motivation' to diversify is complex. As these phenomena involve psychological underpinnings such as 'perception' and 'cognition' and the personal beliefs/value systems on the part of the actors involved, they are difficult phenomena to investigate. All of the other phenomena lend themselves to relatively easy data collection techniques. The only similarly difficult phenomenon to quantify in the Business Segment is that of 'growth intention', whereas in the Business Activities and Processes segment it is 'Strategic Awareness'.

It might be argued that small farmers are not entrepreneurial, using the above definitions, for two main reasons, both of which need to be the subject of further extensive research. First of all many farmers have not had a history of entrepreneurial activity having occupied an economic stratum, which has hitherto not necessitated competitive activity i.e. Under CAP the market has been artificially constrained. Some sectors of the farming industry are of course competitive exhibiting inter-firm rivalry, however producers are often unable to influence prices, therefore they do not exist in a state of true competition. Secondly, they are unlikely, certainly in the case of small farms, to have leadership and managerial capability, formalised through structured employment hierarchies.

In economic theories of entrepreneurship three dimensions seem to be prominent. The first of these is risk-taking. The assumption is that an entrepreneur takes calculated economic risk, but also maximises profit by being aware of the state of uncertainty caused by the possibility of failure. The second dimension is growth orientation, i.e. the aim of maximising profits by expansion of business activities and growing the firm i.e. entrepreneurs are not satisfied with simply earning their own living, but are expected to aim for growth. The final dimension is innovativeness, i.e. searching, developing and trying new products, markets, methods and so on. Implicit in all of these dimensions there is an expectation that a 'proper' entrepreneur is engaged in active, dynamic and competitive economic striving, in a continuing pursuit of opportunity (Stanford and Curran, 1976; Carland *et al.* 1984; Stevenson and Jarillo, 1991; Vesala, 1996).

The emphasis on the demand for active striving, and success in it, is evident also in the psychological literature on entrepreneurship (see Brockhaus and Horwitz, 1986; Wärneryd, 1988; Stevenson and Jarillo, 1991). A number of models can be considered. Personal control is the central idea in the concept of locus of control, coming from Rotter's social learning theory (1966). When applied to the study of entrepreneurship, this theory asserts that belief in internal control is characteristic of entrepreneurs. Essential in the psychological orientation proposed by this concept is the entrepreneur's belief in his/her chances to personally affect or control the conditions and the outcomes of his/her pursuit. Secondly, borrowing from the social learning theory of Bandura, (1986), the concept of self-efficacy has been suggested to be relevant in describing the role of entrepreneur. Self-efficacy refers to a

person's belief in his/her capability of performing those actions and activities that are needed for achieving the desired outcomes and goals (Boyd and Vozikis, 1994). In addition to personal control and self-efficacy also optimism can be considered in social learning terms as an essential element in the psychological orientation connected with the role of entrepreneur. Belief in one's success is a psychological requirement for persistence in pursuit in general, and it has also been included in descriptions of entrepreneurial motivation.

The dimensions presented above do not cover all of those strategic and psychological elements that have been connected with the entrepreneur's role in the research literature nor have controversial aspects in interpreting these dimensions been discussed. However, it may be that they represent the core of the discussions concerning the nature of the entrepreneurial role. It seems reasonable to believe that also the actors in the field do recognise these as relevant dimensions for viewing and characterizing oneself as an entrepreneur.

Effective diversification does not specifically depend on the farm's external environment and the threats and opportunities, which that environment offers; to diversify farmers need to be externally aware and have the capability and capacity to diversify. Diversification should improve the economic viability of the farm businesses and reduce dependence on the production of subsidised primary agricultural commodities. Different strategic orientations in farming may require different skills. The segmentation framework will seek to determine what these skills are. In this way a gap analysis of the core skills which farmers possess and the skills and support that they need in order to become more entrepreneurially successful, is necessary.

A cautionary note may be added at this point. The above arguments suggest that diversification is normative. However, it may well be the case that for some farmers, it is high specialisation, which may be the most appropriate strategy. An initial position would be that there might well be similar constraints, pressures and barriers placed on farmers who wish to embrace this business strategy as there are for those who engage in a diversification strategy. Additionally, farmers may well engage in a diversified activity without a strategy at all.

6. Investigating the Proposed Typology

Having set out the typology of farm diversification above, the analysis that follows explores farmers' characteristics and their strategic planning approaches in each category. This is based on new statistical analysis of the postal survey responses¹. The questionnaire was compiled using a variety of open and closed questions with the survey being completed in September 2008. The questionnaire began with details about the farmer and his/her farm followed by questions of the nature of the core business and any diversified activities. For questions on farmers' attitudes towards business and marketing plans, networks and professional associations and other sources of advice and support a seven point Likert scale was used.

Through the analysis of the entrepreneurial aspects of each type of

1. A copy of the questionnaire can be obtained from the author.

diversification activity, we then suggest ways in which greater support might be provided to farmers, particularly during the critical decision-making periods. In any business, it is essential to assess a range of criteria that will determine the potential for success and with the ongoing development of this evidence base, farmers and their advisors will be better placed to assess the skills and planning requirements alongside the other resource and market implications concerning diversification.

In this study, 295 of the 603 (49.8%) respondents indicated that they were involved in diversified activity with a further 6% considering it. This sample of 295 active 'diversifiers' enables analysis of the characteristics that are associated with each type of diversification identified in Section 4 above.

Some 95% of the respondents were male with the youngest farmer in our sample aged 23 and the oldest aged 90. The mean age was 55 which is comparable with the national average in the UK (CRR, 2002) and most of the respondents (87%) have been responsible for running a farm for over ten years. Those farming for longer were most likely to use property development as a means of diversifying, while younger farmers were more likely to develop tourism or new farm-related activities.

Perhaps related to youth and education, those farmers who have business and/or marketing plans for their farms are more likely to be involved in diversified activities. Some 57% of farmers with business plans for their farm are currently involved in diversified activity compared to just 39% of those without such plans (Chi square test: $p < 0.000$; $n=603$). With formal, written plans, the same relationship is found; those that take a more business-like approach to their farm are most likely to have undertaken diversified activities.

The data also illustrate that formal business plans were more commonly used by farmers diversifying off-farm or into activities not directly linked to the core farm business. Those developing property on the farm and pursuing farm-related diversification, including equestrian activities, were least likely to use formal business plans. Another example of how diversification is associated with business modernisation is illustrated by respondents' views of the Internet. Using a 7 point Likert scale, those diversifying gave a mean score of 3.3 for the value of the Internet to their business compared to 3.7 for non-diversifiers (chi square test: $p < 0.06$, $n = 603$).

Similar Likert scale responses were collected to assess the value of different business relationships. While the majority showed few differences, it was noticeable that support groups were found to be less valuable for diversifiers. There are two possible interpretations of this which require further exploration but we could infer that diversification helps farmers to be less reliant on support or that the support available is not suitably tailored to the needs of diversifiers. Given the attention placed on diversification in the rural economy, this is an issue that merits attention.

Having set out some general findings from the study, the following section investigates differences between the 'types' of diversifiers as set out in the typology with a focus on their different strategic and skills needs.

Reduce the Farm Holding

Rather than a re-allocation of resources, this category is typified by the disposal of assets. Lobley and Potter, (2004) describe these farmers as “capital consumers” who withdraw assets from the farm, usually towards retirement, but who want to remain on the farm. This form of diversification reduces the size of the agricultural holding and often creates little additional work for the farmer. As such, this type of diversification does not stimulate latent entrepreneurship or strategic activity by the farmer. The sources of income and uses of land assets are diversified but the activity of the farmer, and therefore the associated skills requirements are not changed.

Property Management – Managerial Role

Approximately 16% of farmers who had diversified stated that this was their main form of diversification. They tended to be older farmers but there was a noticeable lack of property development among livestock farmers. In contrast the above category, these farmers retain an active role in the management of property developments and therefore require new skills to be successful.

A high proportion of land and property resources provide farmers with the opportunity to employ property resources for the development of commercial and residential properties or tourism and recreational facilities. In each case, these would not be considered to be a part of the core agricultural business as they signify a shift away from farming rather than a change in the intensity or practices involved. Over 75% of farmers in this category had a business plan for their farm, demonstrating the need for greater strategic thought and preparation compared to diversification activities that are more closely aligned to conventional agricultural business.

Diversifying into new business activities

This category includes non-agricultural work carried out on the farm by the farmer, a member of the farm household or a direct employee of the farm. Time or resources are shifted away from traditional agricultural activity into more profitable alternatives. This lends weight to concerns that farm diversification is viewed ‘as an adjunct to the core business of farming’ and that “government regards diversification as an alternative to creating the environment in which efficient agriculture is viable” (Defra, 2007, p. 2).

From the survey data, this type of activity occurred more frequently among the 35-55 age group and most commonly among farmers who had always been in farming or had gone into farming straight from being a student. There is no clear relationship between the ownership or the core agricultural production of the farm and the likelihood of the farmer to engage in new business activities.

This group of farmers had the second highest incidence of business planning, but also the highest incidence of formal, written business plans. This may be associated with the requirements of funding bodies supporting diversification but it also demonstrates the perceived need for a plan that can be followed over time to guide the development of the new business. With property development, the unwritten plan covers a single big decision with the

future management viewed as a more stable issue.

Diversifying the farm business

As a broad category this includes the two subcategories of 'adding value to conventional farm products' and introducing 'unconventional farm products' (Slee, 1987) but may also include services provided to other farmers such as agricultural consultancy or animal transportation, certain aspects of farm-based recreation, including equestrian activities, or direct sales. The physical activity may therefore not take place on the farm holding but there is a clear link to agriculture in terms of skills and networks employed.

One of the 'unconventional' products described by Slee, (1987) might include environmental or landscape goods. Since the end of productivity-driven agricultural policy, there has been a shift towards sustainable environmental objectives which now sees farmers being subsidised to reverse some of these changes (Harvey, 1997). The creation of wildlife habitats or other natural features in return for compensatory income could be seen as a form of diversification on the grounds that it is the employment of farm resources (i.e. land and management of that land) to earn an income that is not related to food production. From our survey, a variety of other activities from building a website to rearing chickens were cited as forms of farm diversification. In the broadest sense, each of these falls under this category as they are enhancing the core farm business through the introduction of new activities.

In the survey data, farm-related diversification, including equestrian activities, was most popular among managers and tenants rather than farm-owners and was also more common among those who had a degree or professional qualification. As a result, diversified farmers under 35 in the survey were more likely to have developed new ideas related to the core agricultural business rather than engaging in activities from other parts of this typology. Despite the prevalence of younger and more educated farmers in this category, fewer farmers pursuing 'farm-related' diversification had business plans. This suggests that these farmers are using intuition and experience and they are able to test their business ideas alongside their core business without taking a big risk at an early stage.

These forms of diversification also help to reinforce the role of agriculture in the contemporary rural economy. Diversified business activity can be built around farming and this builds valuable links between farming and the local economy. It also valorises skills learned through agriculture and enables the farmer to combine these with other skills to develop innovative businesses in the rural economy.

Diversification of income

This is a fairly self-explanatory category describing individual members of the farm household taking alternative employment or making investments that are un-related to the farm in an attempt to augment their income. This can be done without impacting upon the farm business if it is seasonal employment or financial investments that require no major commitment of resources that

would otherwise be invested in the farm. Even small-scale diversification in this category, however, requires additional skills and planning to ensure that the activities are both compatible and profitable.

In many cases, these forms of diversified income sources are sought to support the traditional farm activity such as one farmer who operates a tree surgery business in the winter months. The two activities dovetail around the changing seasons and the additional income ensures that the farm is sustainable. Off-farm activities can also have positive impact for the farmer who learns new skills and develops new social networks. In terms of agricultural policy, however, it demonstrates that some farms are unable to provide a sufficient income and if the off-farm employment is forced, we need to focus on the types of farmers that are affected and identify solutions that can provide a more sustainable future for the farm holding.

In our survey data, only 12 of the 349 farmers who had pursued diversification referred to off-farm employment, suggesting that many of them did not recognise this as diversification.

8. Discussion and Conclusions

This paper identifies a number of key concepts which have been used to understand the farmer: personal characteristics, the characteristics of the farm enterprise and farm business activities and processes. We have identified a number of phenomena which may have a bearing on the farmer's ability to think strategically as evidenced by the use of strategic plans which are either loosely structured or formalised. The research has not considered personality traits or characteristics although developing more detailed and more robust considerations and characterisations of farmers is likely to generate greater insight into our understanding of how they perceive the world.

As Beaver and Ross have argued 'the management of small firms is unique. It bears little or no resemblance to management processes found in large organisations' (2000, p. 25). While this is not a comparison of the management of small firms to the management of the farm enterprise, it may be suggested that more detailed investigation is required because its characteristics are unusual. Farms may have been owned or managed within the same family for generations. Historically the motivators for farmers have often not been overtly financial: owning a farm and being solely responsible for the health of their own endeavour has been a major determinant of personal success. It has been suggested that the CAP reform will benefit farmers by allowing them for the first time to take responsibility for their businesses and theoretically, have more freedom to farm as they wish (European Commission, 2003). However, it is also widely argued that while farmers who have spent years relying on CAP subsidies have the ability to detect changes in national policy, they may well have subsequently lost the ability to critically look into their own individual farm businesses in order to monitor and anticipate the downstream effects of reform. Instead, a less pejorative interpretation may be that farmers have to adapt from being semi-reliant on quasi non-market forces to being attentive to market forces. The primary motivator for many farmers now is one of business and personal survival.

To conceive farmers as a homogeneous group is a mistake and hinders policy development. Whilst Beaver and Ross may be correct to suggest that in smaller enterprises management is a personalised process which is characterised by the prejudices and attitudes of the owner owner/manager and that the 'nature of managed activity depends on the characteristics of the person fulfilling the role' (Beaver and Ross, 2000, p.26) it is perhaps more difficult to accept the thesis that expansion or contraction is dependent upon the needs and personality of the owner owner/manager at least in the small farms sector. In short the barriers preventing farmers needing to act and think strategically are multi-faceted; some of these have been explored here.

This segmentation framework developed in this paper is deduced from work by Atherton and Lyon, (2001) researching SMEs. It classifies farmers by their personal characteristics, the characteristics of the farm enterprise, activities and processes undertaken by the farmer and specific needs of the farm enterprise. This paper has outlined a segmentation framework and criteria from this framework are chosen to identify different types of farmers. It might be suggested that different strategic orientations in farming may require different skills. In this way a gap analysis of the core skills which farmers have and the skills and support, which they need in order to become more entrepreneurially successful, is provided. Clearly, for farmers to be successful, they need to have both strategic awareness and the capacity and capability to develop.

This paper has shown that this sector is a complex area. A framework has been provided which can be used as a basis for further empirical research. It indicates that farming is a heterogeneous sector operating in a complex and multi-faceted environment. The segmentation framework is not a model, as it does not have a predictive function.

Skills such as business opportunity recognition and strategic planning are major requirements for farmers. Through this, farmers are able to find ways and strategies to create a profitable business. Co-operation and networking skills, innovative abilities and risk-taking are important requirements to realise business opportunities. Business monitoring and reflection, team-working and leadership are necessary for farmers to develop and improve their business. As Burgess (2008) has implied the rural economy has tended to be marginalised as far as enterprise support is concerned. Support for rural entrepreneurs does need to become more mainstream as these entrepreneurs, as Winter and Lobley (2009) assert, play an critical part in the UK economy.

If farmers are expected to respond to the restructuring of productionist agriculture by diversifying into alternative enterprises and exploiting novel opportunities and markets (see, e.g. Phillipson *et al.*, 2004), it is probable that the strategies called for in these new ventures would resemble closely those discussed above and in addition meta-level skills related to market orientation and social networking.

The results indicate that different kinds of entrepreneurial tasks – and consequently skills – are relevant in conventional farming and in business diversification. In order to decide whether we should recommend that an enterprising farmer ought to develop his or her entrepreneurial skills, we might

benefit from the use of a proposed, holistic approach, in which the variety of entrepreneurial tasks are related to the situational factors and attitudes of the farmer/entrepreneur.

As argued elsewhere Pyysiäinen *et al*, (2006) by following this strategy we might be better able to discern the various alternatives in developing the entrepreneurial skills in the context of farming, and also to understand the choices which the farmer needs to make. Defining and stipulating which skills are necessary for farmers to effectively compete and survive is necessarily important as farmers the pressures on the farm enterprise increase.

Future research will seek to determine what the skills are which farmers need according to both farmers themselves and those who have a stake in the farm enterprise. Thus far, the paper suggests that farm entrepreneurship is a special case in the entrepreneurship discipline. The paper generates many additional questions,. These questions include: the effects of the changes in the CAP; the debates surrounding specialisation versus diversification; the barriers and opportunities which face farmers and how those barriers may be ranked and determine how farmers use networks. The longer-term goal is to attempt to map the skills and competencies of farmers with a view to informing policy.

Throughout developed economies a series of major trends affect farm-businesses and the lives of farmers: New technological developments characterise agricultural production. There is a growing demand for not only changes in food production techniques, but also in non-agricultural functions and services in response to climate change, a reduction in oil-based energy resources and a universal food crisis. These shifts in production, strong emerging new markets which represent both severe pressures and open new opportunities for farmers, requires adaptation strategies, increased innovation, and entrepreneurship.

Increased farm diversification is a necessary development requiring farm and rural business support schemes and policy not just in the UK but firmly integrated into the upcoming reforms to the CAP. As such, a major challenge for the agricultural sector is to enable farmers to develop their entrepreneurial skills. This requires economic support and a greater emphasis on education and training.

About the authors

Dr. Gerard McElwee (gerard.mcelwee@ntu.ac.uk) is Professor of Entrepreneurship at the Nottingham Trent, England, He is particularly interested in farmers' businesses and the ways in which they make sense of the world. He has published extensively on rural issues.

Dr. Gary Bosworth (gbosworth@lincoln.ac.uk) is a Research Fellow in the Enterprise Research and Development Unit at the University of Lincoln. Having completed his PhD at Newcastle University, he is now pursuing further research in the fields of rural development and small businesses.

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