Abstract This paper explores the future sustainability of farm animal veterinary practice in light of changes in both the farming and veterinary sectors. The paper makes a valuable contribution to the rural enterprise and veterinary business literatures, finding that future sustainability of farm animal veterinary practice is dependent on vets being prepared to change with their clients, develop supportive partnerships and create effective marketing strategies. We use our findings to propose a model for the future sustainability of farm animal veterinary practice. Given that the future of this sector depends on the stability and growth of the livestock industry, we provide context for our discussion by briefly reviewing the farm animal sector. The potential impact of the gender shift towards a predominately female veterinary profession is also considered. Some policy implications are discussed alongside avenues for future research.

Key words rural, farm animal veterinary practice, sustainability, gender.
1. Introduction

The farming sector has experienced considerable change in recent years. For example, there has been a dramatic reduction in the number of dairy farms and dairy cattle. In addition, the pig population has been halved over the past 15-years, due to changes in welfare legislation, disease problems and a strong pound-euro exchange rate. The sheep sector has also suffered considerable reduction as a result of depopulation during the 2001 Foot and Mouth Disease (FMD) outbreak and changes in subsidy payments. There are now fewer family-run farms, a greater number of large corporate holdings, and a growth in ‘hobby-style’ farm enterprises (Department for Environment, Food and Rural Affairs - Defra, 2009; Rushton & McLeod, 2006).

In terms of the veterinary business landscape, this has also witnessed considerable parallel change. Traditionally characterized by small, owner-managed, private practices, there has been a steady growth in corporate practice, with large practice groups replacing small independents in some areas. Alongside this, the focus of veterinary care has moved toward small and companion animals, with the provision of rural farm-animal veterinary services now considered to be in decline (Lowe, 2009; Royal College of Veterinary Surgeons/Institute for Employment Studies - RCVS/IES, 2010).
Existing farm-animal veterinary practices face a number of challenges, including, but not exclusively so, increased competition, a lack of marketing expertise, recruitment of appropriately trained staff, the remoteness of rural locations and the perceived unattractiveness of farm-animal work to women (Henry, Baillie & Treanor, 2010; Jensen, English, Menard & Holland, 2009; Lowe, 2009; RCVS/IES, 2010; Villarroel, McDonald, Walker, Kaiser, Dewell and Dewell, 2010).

At the same time, changes to government policy, the impact of disease outbreaks, the recession and increased competition all suggest that the needs of farmers remaining in the agricultural sector have changed significantly (McElwee & Bosworth, 2010) and now require greater attention if farm animal practices and the valuable services they provide are to be sustained into the foreseeable future (Lowe, 2010; Rickard, 2010).

In light of the above, this paper explores the future sustainability of farm animal veterinary practice in the context of changes in both the veterinary and farming sectors. Our overarching research question relates to how small rural veterinary practice enterprises can meet the needs of farming clients while ensuring their service offering is both viable and sustainable. To address this question, we employ a single case method and apply selected elements of Scott’s (2008) 7-P sustainability framework to construct an innovative model for the future sustainability of farm animal veterinary practice. In
so doing, we make a valuable contribution to both the rural enterprise and veterinary business literatures, highlighting some of the current challenges facing small farm animal veterinary practices and offering valuable insights into good practice farm animal veterinary service provision. Consideration of the current gender shift towards a predominately female veterinary profession provides an additional valuable dimension to the paper, highlighting the potential role for women veterinarians to contribute to business sustainability in a rural setting.

Following this introductory section, the paper proceeds as follows: section two discusses the recent changes in the farming sector and provides context for our discussion. Section three focuses on the veterinary sector, outlining recent trends, including the gender shift towards a predominately female profession, and discussing the changing role of veterinarians. The methodological approach adopted is detailed in section four, and the case study is presented in the subsequent section. In section six we discuss the future sustainability of farm animal veterinary practice in the context of the literature and case study analysis, and we apply elements of Scott’s (2008) 7-P sustainability framework. Finally, section seven presents our conclusions and suggests avenues for future research.
2. The Farming Sector

Farm animal veterinary practices in the UK represent an important service sector to livestock farmers, and act as means to detect disease and enforce animal health and welfare legislation. Changes in the structure and workings of the livestock industry will have an obvious ripple effect on veterinary practices. Thus, by way of context setting, and to help lay the foundation for our discussion, this section provides a background to the recent evolution of the livestock sector in the UK.

The agricultural sector has experienced profound changes in recent years, partly as a result of policy reforms, which have drastically reduced the scale of support provided to farmers (Alsos, Carter, Ljunggren & Welter, 2011). Globalization, EU enlargement, the CAP reform, changing consumer demands and changes in the supply chain have also had a considerable impact (Rudmann, 2008). With specific regard to the UK, modernization processes such as intensification, specialization and concentration led to the industrialization of both arable and livestock farming, which involved the application of many of the strategies and practices typically found in the manufacturing sector (Ilbery & Maye, 2010). Thus, assembly-line production systems and division/specialization of labour were incorporated into farming practice, with the aim of boosting production and lowering costs. The UK’s post war Agricultural Acts paved
the way for further major reform and growth in the agricultural industry and, as a result, farmers were able to improve yields through advances in mechanisation, genetics and artificial inputs (Boulton, Roushton, Wathes & Wathes, 2011). By way of example, in the dairy sector, milk quotas had to be introduced in the ‘80s to address overproduction, and this was followed by the deregulation of milk markets in the ‘90s. The latter changed the pattern of milk prices and led to farmgate prices not following inflation for a period of 15 years. There has been a lagged response from the dairy industry, but in general, dairy producer numbers have declined, lactation yields per cow have increased and there has been a significant reduction in the number of dairy cattle. At the same time, herd sizes increased in an effort to spread fixed costs over a larger volume of production (Boulton et al; 2011). Initially, lactation yields kept pace with the reduction in cattle numbers, and overall production levels were maintained, however, in 2004 the UK became a net importer of milk for the first time. The impact of such a radical change on the veterinary profession was clear - fewer dairy clients and fewer ‘patients’.

The rural farming landscape

Currently, English farming is a mixture of both arable and livestock, with the majority of the larger arable farm holdings located in the Eastern regions, and livestock production concentrated towards the West. With regard to the UK as a whole, the total utilized agricultural area is almost 17.2 million hectares, with arable crops accounting
for 4.4 million hectares, and most of the balance representing permanent grassland for livestock (Defra, 2010).

Defra’s 2008 survey (Defra, 2009) reported that there were almost 327 thousand agricultural holdings in the UK, with the average farmed area reported to be 54 hectares, supporting the trend for the splitting of holdings into smaller units and the growth in hobby style farms. At June 2010, while the total number of cattle in the UK increased slightly from the previous year to 10.1 million, the number of pigs and sheep decreased to 4.5 million and 31.1 million respectively. Poultry numbers were reported to rise to 164 million (Defra, 2010). Overall, however, the sector has witnessed a gradual decline in livestock numbers over recent decades, as illustrated in Figure 1.

In terms of labour, as of 1st June 2010, there were an estimated 293 thousand people working on commercial agricultural holdings in England either as principal farmers or as employees, accounting for 0.5% of the nation’s total workforce. Of those working on farms, 170 thousand (58%) were principal farmers, with the balance being employees. In terms of the latter, 22% were part-time or casual workers (Defra, 2010).
While large farms still take up the majority of agricultural land, there has been an overall reduction in the number of farmers in the UK (McElwee & Annibal, 2010), with a growing trend towards very small farms (less than 5 ha). It must be remembered, however, that most farms are still primarily family businesses, transferred through family lineages and managed and worked by family members who also typically have their family home on the farmland (Jervell, 2011). As with other types of family business, succession planning has become a serious problem for farmers; the general
farming population has been ageing, with many farmers unable to retire due to potential loss of earnings, their reluctance to relinquish control or a lack of an appropriate successor (Ilbery, Ingram, Kirwan, Maye and Prince, 2009). As a result, many English farms are long established holdings, with some families reported to have been farming land in the same area for more than a century (Lobley, Errington, McGeorge, Millard & Potter, 2002).

The gradual decline in income from traditional farming activities means that many farming businesses are forced to diversify if they are to remain viable. Indeed, as a result of the drive for cost-efficiency and sustainability, being able to recognize business opportunities and developing appropriate plans to exploit them have now become major requirements for farmers (McElwee & Annibal, 2010). In this regard, Vesala, Perua & McElwee (2007) identify three main business sustainability strategies for farmers: cost price reduction, added-value strategy and diversification. Cost price-reduction recognizes that farms need to compete with other farms in the market place, thus, increasing volume to achieve appropriate economies of scale and reducing unit costs is essential. Adopting an added-value strategy involves farmers increasing product quality or enhancing the overall value of their offering so as not to compete directly on price. This may result in the production of products for higher priced but niche markets. Diversification requires farmers to combine other, typically non-agricultural activities
with their core farm business. In this regard, conversion of farm buildings for alternative, tourism related product offerings have become a popular choice. According to Defra (2008, as cited by McElwee & Bosworth, 2010, p. 820), about 50% of farms in the UK supplement traditional incomes through some type of farm diversification.

Notwithstanding the above, it must be recognized that farmers are not a homogenous group, rather, they differ not only in terms of the particular size and type of farm they operate, and the particular farming strategies they employ, but also with regard to their age, education and training, experience, skills set, family situation and personal perspective of their particular role in the rural locality (McElwee & Annibal, 2010). One thing we do know, however, is that the overwhelming majority of farms are still owned and managed by men, with farmers’ wives contributing vital and often ‘hidden’ additions to farm household income through administrative support or initiating some type of on-farm diversification (Warren-Smith & Jackson, 2004).

3. The Veterinary Sector

The role of the veterinary profession has widened in recent years to include greater involvement in production animals, public health, food hygiene and the protection of the health and welfare of diverse species such as laboratory animals, zoological
collections and wildlife (QAA, 2002:1). There is also growing recognition globally that veterinary science can contribute significantly to the understanding of human disease, prompting the creation of the ‘One Health’ movement and the forging of collaborations between physicians, veterinarians and other scientific-health and environmentally related specialists (Meisser, Schelling & Zinsstag, 2011; One Health Initiative). As a result of these new opportunities within the sector, there has been a considerable increase in the number of veterinarians trained and working in the UK, particularly over the last decade. According to Lowe (2009), in 1997 some 451 new UK veterinary graduates were registered; this figure rose to 628 in 2007, and was expected to reach around 800 by the end of 2010.

The veterinary sector has, traditionally, been characterized by small private practices, which have been mainly owner-run and managed. Large animal work, historically, has also been a key component of the workload. However, more recently, there has been a steady growth in the number of veterinarians working with small and companion animals (Lowe, 2009). Equine services tend to be offered by specialist providers, and farm animal veterinary services are now considered to be in decline, with concerns at the global level around the profession’s ability to recruit and retain large and farm animal vets (Jensen et al; 2009; Villarroel et al; 2010). The England Advisory Group on Responsibility and Cost Sharing (2011) suggest that around 5% of veterinary
surgeons in the UK work in farm animal practice (RCVS, 2010); interestingly, the majority of farm animal veterinarians are men.

The gender shift

In terms of gender balance, the veterinary profession was traditionally viewed as a male domain but, by 2006, 49 per cent of all working veterinarians were women, a figure that was expected to reach 51% by the end of 2010 (RCVS, 2006). Indeed, as reported by Henry et al. (2010), there has been an unprecedented increase in the number of women entering veterinary medicine in recent years (British Veterinary Association/Association of Veterinary Surgeons - BVA/AVS, 2008; Lowe, 2009), with females now accounting for more than 80% of veterinary student admissions in the UK (RVCS, 2008). While, in the US, the number of women attracted to the profession has been rising steadily since the 1970s, the marked gender shift is still seen as a fairly recent development (Maines, 2007). Several explanations have been offered for the feminization of veterinary medicine, including improvement in the chemical restraints available for large animals; the elimination of gender-based admission discrimination and the generally caring portrayal of veterinarians in both the literature and on television (Lofstedt, 2003:534). However, it must be noted that despite the fact that women now make up just over half of the veterinary workforce, most veterinary businesses are still led by men. This is especially the case in rural farm animal veterinary practice.
The changing role of veterinarians

Alongside changes relating to the make-up of the veterinary sector, veterinarians’ relationship with government has also been changing. According to Lowe (2009), for example, veterinarians were traditionally viewed as both experts in animal health and agents of the state, providing an extensive network of expertise suitably placed to take on an active and official role in disease control and eradication. However, in recent years, responsibility for animal welfare has gradually shifted to the farmer, suggesting a somewhat diminished role for veterinarians in the implementation of animal health and welfare policies. As government aims to achieve better management of animal disease risks through ‘responsibility and cost sharing’ (England Advisory Group on Responsibility and Cost Sharing, 2010), the veterinary profession faces uncertainties as to what their specific role will be and how their expertise will be accessed in the context of the broader animal welfare agenda (Dairy Herd Health Group, 2010). Lowe (2009) posits that the relationship between veterinary service providers and farmers will have to be renewed to facilitate farmers’ changing service requirements, suggesting that veterinarians will need to recognize farmers’ concerns relating to price transparency, and anticipate farmers’ expectations of a differentiated, more specialized and more competitive service offering (p.76). Furthermore, as commented by Atkinson (as cited in Wragg, 2011), farm animal veterinarians will need to communicate better with their farming clients, using their specialist knowledge to help farmers implement change. The
concept of the vet as ‘advisor’ and ‘change agent’ suggests that vets in the future will need to have a much deeper understanding of the issues facing farming businesses, and be prepared to communicate effectively to effect change; this is important if they are to make up for the loss of margin on pharmaceutical sales (caused by the growth in on-line pharmacies) and ensure sustainability for their veterinary practice (Wragg, 2011). All of these changes have implications for existing business models within the veterinary practice profession. Indeed, a move towards larger and more specialist farm animal veterinary practices, operating over larger areas, has been advocated (Lowe, 2009), however, this has been opposed by some commentators, with ‘quality’ rather than ‘quantity’ of veterinary services highlighted as the preferred emphasis for the future (Dairy Herd Health Group, 2010).

Notwithstanding the above, government continues to recognize that farm animal veterinarians have a critical role to play in the health and welfare of kept animals:

..... in terms of the number of animals they look after and the public significance of their work, no group of veterinarians is more important than those involved in farming and food production (Defra, 2009a).
It is clear that veterinarians are uniquely placed to help farm animal owners; however, as highlighted at the outset of this paper, there has been growing concern within the profession about the reduction in the number of veterinarians training to work in farm animal practice or related support roles. As noted by the England Advisory Group on Responsibility and Cost Sharing (2011, p.23), such concerns have been exacerbated by fundamental changes that have been affecting the demand for veterinary services which, in addition to the many changes within the livestock sector outlined above, also include changes to government policy, i.e. the review of government’s tendering process for official veterinary services, uncertainties surrounding the role of the newly established Veterinary Development Council and the impact of implementing ‘responsibility and cost sharing’ recommendations.

4. Methodology

Following a review of the relevant literatures, the authors employed a single case method to explore how one veterinary enterprise is approaching the provision of farm animal veterinary services and dealing with the sustainability issue. Case study methodology has been deemed appropriate when exploring new topics, novel examples or areas where existing theory seems inadequate, as it is a research strategy focused “on understanding the dynamics present within single settings” (Eisenhardt, 1989, p. 534).
A case study can also provide a rigorous methodology, particularly in SME settings, when ‘how’ and ‘why’ questions are explored (Chetty, 1996). A case study approach has historically been used to test theory (Pinfield, 1986; Yin, 1994), develop theory (Eisenhardt, 1989; Gersick, 1988; Harris and Sutton, 1986) or provide description (Kidder, 1982). Indeed, Yin (1994) contends that some of the best cases have been both descriptive and explanatory.

Paradoxically, the case presented in this paper was chosen to represent the ‘atypical’ as well as a possible ‘future norm’, given the current gender shift in the profession. The case - Evolution Farm Vets – is a young farm animal veterinary practice led by a female veterinarian and was recommended to the authors as a growing rural veterinary business that was passionate about the provision of high quality farm animal veterinary services. It was felt that the experiences of this veterinary practice could potentially offer invaluable insights into rural veterinary service provision and its sustainability. The authors acknowledge that accessibility and convenience were also considerations in selecting the case.

A visit to Evolution Farm Vets and an on-site, in depth interview with the case subject were used to construct this case. The interview questions focused on gathering data to construct both a business and personal profile of the veterinary practice
founder/entrepreneur, identifying the key business and veterinary challenges, and exploring how sustainability considerations are currently being addressed. In terms of methodological limitations, the issue of self-reporting bias must be acknowledged (Donaldson and Grant-Vallone, 2002). In addition, as with all case studies, the primary value is in the provision of rich and meaningful insights that can aid understanding and inform thinking; caution, however, must be taken when attempting to generalize findings.

5. Case Study – Evolution Farm Vets

*Business profile*

Evolution Farm Vets was established in rural Somerset in 2007 as a dedicated farm animal veterinary practice. The business, which is led by Glasgow graduate Sally Wilson, has a turnover of just under £500K; employs two full-time vets (in addition to Sally) – one male and one female - along with a part-time Veterinary TB tester. The practice also draws on considerable family support through Sally’s husband, who handles much of the administrative work, and her mother, who manages marketing and client billing.
Established initially as a ‘satellite’ of a larger veterinary group - Lambert, Leonard and May – Evolution Farm Vets is also able to avail of additional expert advice and discounted purchasing on veterinary supplies; this partnership arrangement has proved invaluable for Sally in helping her to get the practice up and running: “They [Lambert, Leonard and May] made me feel that I’m not alone and have even mentored me with difficult clients.”

The practice is strategically located in a new agribusiness park on a farm near Nether Stowey, within a dedicated commercial cluster of agricultural businesses. Branded signage and clever logos at the front of the practice’s premises clearly communicate a strong message of partnership between vet and client: “Evolution: working with you, changing with you.” Visitors are left in little doubt that this is a very commercially aware and client focused enterprise. The practice provides veterinary services primarily to dairy farmers. In addition to routine veterinary farm work, i.e. herd medicine, herd health and productivity, the practice also handles more progressive work comprising mastitis plans; Johnes control schemes and monitoring of herd health and productivity.

**Personal profile**

On meeting Sally, her passion, hard working and highly organized approach to running her business are clearly evident. An enthusiastic yet modest individual, Sally is in her
early 30s, married and is expecting her first child this summer. After graduating from Glasgow in 2002 and subsequently specializing in bovine reproduction (achieving the RCVS Diploma in Bovine Reproduction in 2008), she went to work for St David's Farm Veterinary Practice, a large veterinary group based in Devon. Her motivation for setting up the practice was twofold; firstly, she had always aspired to partnership level from early on in her career, and setting up her own veterinary practice was an inevitable career goal. Both her parents were in business so both actively encouraged her towards entrepreneurship. Secondly, as a veterinary surgeon, she had developed a passion for farm animal work during her time working in Exeter; she wanted to give more support to her farming clients with whom she had developed good working relationships.

Business challenges
At the start up stage, while Sally was prepared for hard work and long hours, difficulties relating to the pricing of services and remaining competitive were key challenges. “It’s a rural area but certainly not a ‘sleepy’ one,” says Sally. “In fact, it can be quite a cut throat and highly competitive business environment. I wasn’t really expecting that. Farmers can sometimes expect an awful lot for very little. Setting up my practice forced me to see things from an employers’ perspective.” In this regard, Sally’s relationship with the larger veterinary group Lambert, Leonard and May proved invaluable, as they have worked with her to help her ‘listen’ to clients and provide an excellent service.”
Sally finds managing staff one of the major challenges and would admit to making mistakes in this regard: “Vets are quirky and complex individuals, strong willed and high achievers – they are not the easiest to manage. If I employ people and get it wrong, then I am left managing the problem. Recruitment is a real issue for the farm animal veterinary sector as a whole, and new graduates do not typically have enough practical experience. Farmers put vets under enormous pressure, so being able to communicate effectively with them and being comfortable around animals in a farm setting is crucial.”

A more recent challenge for Sally is the fact that she is a female sole trader who is about to have a baby, thus, how to manage maternity cover and keep the business going while she is off – albeit for a short period of time - is a real concern: “One big client actually left the practice when I said I was pregnant! On a personal level, I have actually taken more risks than I should have - lambing sheep, for example [risk of being exposed to pathogens that cause abortion in sheep and women] and I recall getting squashed against a wall at one point.” Her own experience has forced Sally to reflect, from a business perspective, on the difficulties she may well face when recruiting young female vets to the practice: “There is no doubt that the veterinary profession is going to be more female oriented in the future. Women do the job just as well as men, developing skillful techniques and being able to cope under pressure, however, the regulations
relating to employee maternity pay, illness, etc, are not entirely favorable to the small business, and this is bound to impact on recruitment decisions, which is something I really resent.”

**Entrepreneurial skills**

Reflecting on her own experience as a veterinary student, Sally is reminded that she receiving no entrepreneurship or business management skills training while at university. She advocates the incorporation of business skills into veterinary curricula so that students can fully understand how veterinary fees are calculated, the sorts of costs involved in running a practice and why it is so important to appreciate the financial aspects. Surprisingly, she does not consider herself to be an entrepreneur: “It’s a trendy term, but all I know is that when I do a job well, I’m really proud of it. I do, however, tend to look back sometimes when things have gone wrong and think about how I could have done them better.”

**Growth and sustainability strategy**

Sally has reflected on her business strategy and has a clear vision of how she sees it developing in the future. Her aim is to grow her business beyond what she calls the ‘early, vulnerable stages’ and increase her team to five clinical vets. This would allow her to organize a better rota system for the practice (Sally currently works a ‘one in two’
while the other vets work a ‘one in three’ for on-call i.e. nights and weekends). She recognizes that a business partner would be critical to the future sustainability of the practice, and would enable her to share some of the pressure and heavy responsibility she is currently experiencing.

Sally fully appreciates that marketing her services effectively is key to sustaining the business into the future. In this regard, she has developed a monthly newsletter which she circulates to both clients and non-clients; she also ensures the practice’s website is up to date with relevant news items; she promotes the practice through competitions and prize draws at various local shows and farming events, and attends local farmers meetings to contribute to debates on relevant veterinary and farm topics. Always on the lookout for potential new clients, whenever Sally drives past a farm that is not already a client, she makes a note and gets in contact. She also ensures her practice has a presence in the local press and advertises specific or new services regularly.

Managing the financial side of the business is clearly a priority for Sally, as she fully appreciates the need to plan ahead, calculate projections, understand how her services are priced, know where the profit is coming from and maintain an overall healthy cash flow: “It is important to keep on top of your debtors; cash flow can look good on paper, but ‘money is money’ and if it doesn’t come in, it can break a small business.” While
she has been able to avail of generous family support for her business by way of administration, bookkeeping and financial planning, she now realizes that the full cost of this support, and indeed of her own veterinary expertise, needs to be appropriately accounted for in the business.

**The changing role of the farm animal vet**

According to Sally, farm animal veterinary practice has changed dramatically in recent years, and has now become more about heard health and overall management rather than ‘bottom of the cliff’ or ‘fire brigade’ work (i.e. emergency call outs to individual sick or injured animals). Indeed, as Sally acknowledges, “Farmers tend to do a lot more themselves these days, phoning up the vet for advice. Essentially, it’s all about winning the trust of your farming clients so that they appreciate the value of your service. Of course, you always have to compete with other ‘vet advisory’ services, which may also be cheaper. Farmers will only value you as a vet if you do your clinical work well; it’s only then that you can start to develop the relationship towards a trusted advisor – and this takes time.” For Sally, listening to clients, acting on what they need and want, and managing their expectations will all be critical to the future sustainability of high quality farm animal veterinary services.
From an economic and operational perspective, the revenue streams that farm animal veterinary practices have come to rely on over the years have also changed. There are now considerable concerns regarding the potentially ‘squeezed’ margins on the sale of veterinary medications as fierce competition from online veterinary pharmacies takes hold in the marketplace. The traditionally charging model that has been applied within the veterinary sector, where core veterinary expertise has essentially been undervalued, will most certainly have to be reviewed with considerable cost implications. Furthermore, and on a more political level, there is considerable uncertainty surrounding Defra’s future tendering plans for TB testing. If implemented, such plans would not only impact on current revenue streams but could also open up Sally’s established client base to new business ‘predators’, as Sally explains: “If one of the tenders goes to a big local practice in my area, then this could potentially expose Evolution’s client base to new competition.”

6. Discussion

By their very nature, farm holdings and farm animal veterinary practices are an integral part of the rural landscape and, like other types of rural businesses, face sustainability issues. According to Pyysiainen, Anderson, McElwee, & Versala (2003), ‘what we know and think of as the ‘rural’ is essentially ‘agricultural’, with the farmer as the
central figure’ (p.3). Not surprisingly, rural enterprises experience particular challenges beyond those typically experienced by other types of businesses. For example, according to Stathopoulou, Psaltopulos & Skuras (2004), the elements of rurality with the greatest impact on enterprise development can be categorized under the physical, social or economic environment. With regard to the first of these - the physical environment - location is considered the most critical. Accessibility to customers and suppliers, alongside remoteness from networks and labour pools, can result in increased transaction costs and an uncompetitive product/service offering. In terms of the social environment, Stathopoulou et al. (2004) draw attention to social capital, business-clustering effect, sharing of information and a sense of trust in the ‘local’, elements which are sometimes underdeveloped in rural areas. Finally, with regard to the economic environment, underdeveloped infrastructures and lack of appropriately developed business networks can place considerable constraints on rural enterprises, limiting their competitive, and sometimes productive, capacity (Strathopoulou et al; 2004). Such concerns have been echoed elsewhere in the literature, as recognition of the barriers facing rural, particularly farm-related enterprises, grows (Lobley & Potter, 2004; McElwee & Annibal, 2010).

Sustainability, a term often related to, and sometimes confused with, the ‘green’ agenda, is a broad concept that embraces the legal, financial, economic, industrial, social and
behavioural aspects as well as the environment (European Foundation for Management Development - EFMD, 2010). Essentially, sustainability is all about longevity – ensuring that something is capable of being continued into the foreseeable future and, potentially, beyond; thus, it requires long-term rather than short-term thinking. In a business context, this invariably means reducing waste alongside focusing efforts on cost reduction and revenue maximization. However, such efforts cannot be confined solely to financial considerations. Rather, ensuring a capacity for continuance must also focus on “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).

In the context of our discussion on farm animal veterinary practice, Scott (2008) provides an appropriate model for analyzing how sustainability can be applied in a rural business context. While his framework, which focuses on resources maximization and cost minimization, has obvious application to farming enterprises, particular elements of it are also highly relevant to farm animal veterinary practice. Reflecting on the recent changes to both the farming and farm animal veterinary sectors, as highlighted in the literature, and using insights derived from our case analysis, we use Scott’s framework to suggest a possible sustainability strategy for farm animal veterinary practices. This is illustrated in Figure 2 below.
In particular, the ‘place’, ‘people’, ‘process’ and ‘product’ elements of Scott’s model highlight some of the key issues that might be considered by rural farm animal veterinary service providers in their efforts to work toward ensuring future sustainability for their businesses. For example, location – the ‘place’ element within Scott’s model –
has been highlighted in the literature as a particular concern for rural enterprises, and was clearly a key consideration for our case study veterinarian who strategically located her business within a rural business cluster. In addition, she ensured that her ‘place’ of work was open plan to facilitate staff communication. We would further posit that the difficulties of place may be offset in part through enhanced communication networks, achieved through greater use of internet communications and on-line client support, alongside partnership working, achieved through strategic alliances with larger practice groups. The benefit Sally derived from the latter strategy was clearly evident in the case study.

In terms of ‘people’, the literature highlighted difficulties in attracting suitably trained graduates to farm animal practice, a point reinforced by Sally, who had experienced difficulties recruiting and indeed retaining staff with the relevant skills set. While updating skills through training and education is a requirement of all practicing veterinary professionals, the changing needs of farmers now suggest that farm animal vets will need to have a much deeper understanding of the challenges facing their farming clients, adopt a more holistic view of their clients, and have the relevant skills to effectively listen and respond to their needs. Thus, being creative, adaptive and able to communicate effectively with farming clients will be critical to working in farm animal veterinary practice in the future.
With regard to the ‘process’ element of Scott’s framework, and directly linked to the above, matching service provision with customer demands, developing core capabilities and striving toward best practice are critical to the farm animal veterinary enterprise. The partnership model that Sally adopted clearly supported her business, but she also used a similar approach to support her clients. This was evidenced in her mission statement - ‘Evolution Farm Vets – working with you, changing with you’ – and cleverly marketed to all of her stakeholders. Indeed, marketing is clearly a critical element of Sally’s business strategy, evident from the clever signage on her premises, through to her regular client newsletters and engagement in local farmers’ meetings, providing appropriate opportunities for her to promote new services.

Finally, there is a clear indication from both the literature and the case study that the concept of the ‘veterinary product offering’ is changing, and that this will have to become significantly more enhanced in the future if rural farm animal veterinary practices are to remain sustainable (Lowe, 2009; Wragg, 2011). Adopting a holistic view of farm animal veterinary service provision that places the ‘farming client’ at the centre of an important partnership relationship and the ‘veterinary expert’ in the role of advisor – ‘working with you, changing with you’ – will facilitate farm animal veterinary practices in developing a broader product offering in the future. Revenues from veterinary medicines may well reduce in volume, making way for an increase in the
‘sale’ of expert veterinary services, which will potentially see a change to the range, price and perceived value of the service offering. Alternative product-related revenue streams may also have to be considered. In this regard, effective and competitive marketing strategies alongside supportive partnerships will underpin the implementation of such changes.

7. Conclusions and Avenues for Future Research

This paper has considered the future sustainability of farm animal veterinary practice in light of recent changes to both the farming and veterinary sectors. In this context, and in an attempt to address our key research question - how can small rural veterinary practice enterprises meet the needs of farming clients while ensuring their service offering is both viable and sustainable? - we reviewed the relevant literatures and employed case study method to examine the sustainability efforts of one small farm animal veterinary practice based in rural Somerset. We applied selected elements of Scott’s (2008) 7-P sustainability framework to construct an innovative model for the future sustainability of farm animal veterinary practice. In so doing, we make a valuable contribution to both the rural enterprise and veterinary business literatures.
The extant literature revealed significant changes to the farming sector, not least of which has been a reduction in livestock population, changes to animal welfare legislation, disease problems, a decrease in the number of family farms and an increase in corporate holdings (Alsos et al; 2011; Defra, 2009; Rushton & McLeod, 2006). Farmers’ income from agricultural activity and the support they receive from government has been gradually reducing over the years to the extent that farmers are now expected to adopt an entrepreneurial approach and implement a range of diversification strategies in order to supplement traditional income and remain viable (McElwee & Annibal, 2010; Vesala et al; 2007). Issues relating to succession planning, retirement and the ability to negotiate favorable rates for produce all combine to exacerbate the situation. In parallel, the veterinary sector, in particular the farm animal practice sector, has also witnessed considerable change, most notable of which has been the significant reduction in the number of farming clients, increased competition due to an increase in corporate practices, a trend toward companion rather than large animal work, and perceived difficulties recruiting and retaining suitably trained farm animal veterinary graduates (Henry et al., 2010; Jensen et al., 2009; Lowe, 2009; RCVS/IES, 2010; Villarroel et al., 2010). The impact of such changes was illustrated in our case study of Evolution Farm Vets and summarized in our model presented in Figure 2. While Sally Wilson is clearly a highly motivated, passionate and hard working farm animal veterinarian who recognizes the need to “work with and change with” her
farming clients, she also has a very realistic view of the difficulties she faces in sustaining her business into the future. The valuable family support of which she has availed in getting her business up and running reflects the strong family dimension of many of her farming clients and, to some degree, will help her better understand and relate to some of the difficulties her clients face in sustaining their farming enterprises. Indeed, we posit that some of the difficulties faced by the farming community are not entirely different to those currently experienced by rural farm animal veterinary practices. For example, many family farms are marginalized by a combination of disadvantages in bargaining power in input and output markets, as well as competition from large UK based production units and/or imports. In a similar vein, small rural veterinary practices are facing ‘squeezed margins’ on medicine sales as a result of increased competition from on-line pharmacies (Wragg, 2011). Furthermore, the gradual shift of responsibility for animal welfare from government to farmer also parallels the veterinarian’s reduced role as ‘agent of the state’. In this regard, the uncertainty surrounding veterinarians’ future role in disease control as a result of new legislation and the impact of the ‘Responsibility and Cost Sharing Report’ (England Advisory Group on Responsibility and Cost Sharing, 2010) leaves both farming enterprises and farm animal veterinary practices somewhat unclear about their future (Dairy Herd Health Group, 2010). Thus, the farming and veterinary communities have
much in common, suggesting that a partnership approach to managing their future sustainability would be mutually beneficial.

Our application of key elements of Scott’s (2008) 7-P sustainability framework (Figure 2) to the challenges now facing rural farm animal veterinary practice, as highlighted in the literature and further evidenced in the case study, identified a number of possible strategies worthy of consideration. Using ‘place’, ‘people’, ‘process’ and ‘product’ elements, we posit that strategic business location – possibly in the form of a business park or cluster; creative and adaptable staff – who can adopt a holistic view of their clients’ needs; partnership models that support both the veterinary practice and the client, and an enhanced, appropriately valued and competitive product/service offering – supported by an effective marketing strategy – are all key to the future sustainability of rural farm animal veterinary practice.

Notwithstanding the above, the authors fully acknowledge that farm animal veterinarians already offer a valuable service of immense public significance, as recognized by government (Defra, 2009a). Thus, the concept of an ‘enhanced’ service offering is not necessarily intended here to imply “must do better”; rather, it is intended to suggest “must do different.” In this regard, in terms of future sustainability, rural farm animal veterinary practices not only have much in common with their farming
clients, but also with many businesses outside of the veterinary sector that have to deal with significant changes to their external operating environment. It would seem that the mantra of Evolution Farm Vets “working with you, changing with you” is entirely appropriate to the sustainability agenda.

Our discussion of the changes currently taking place within the veterinary sector alluded to the gender shift toward a predominately female profession. While the impact of this shift is not yet clear in the workplace, it will undoubtedly change the makeup of the profession, requiring more women to take on practice management and leadership roles that are currently held mostly by men. Although a full consideration of the impact of the gender shift is beyond the scope of this paper, the feminization of the profession does have particular relevance in the context of rural farm animal veterinary practice, given that the bulk of this work is currently conducted by men, and that the overwhelming majority of veterinary farming clients are male. Based on our previous work (see, for example, Henry et al., 2010), and reflecting on our case study, we posit that farm animal veterinary practice could offer a valuable business opportunity that is more suited to women’s management style and accommodating of a predominantly female workforce, where family responsibilities, work-life balance are partnership working are of paramount importance (Henry, Treanor & Baillie, 2011).
Future research

Our literature review has revealed a dearth of both conceptually and empirically based research in this area. Thus, in the first instance, future research must focus on addressing this gap in the literature. At the fundamental level, there is a lack of robust statistical data relating to the farm animal veterinary practice sector. Thus, future studies should aim to provide a mapping of farm animal veterinary practices in terms of size, scope, location and services offered. Alongside this, while, mainly thanks to Defra, statistics on the farming sector would appear to be more accurate, current and accessible, our study suggests that the sector would benefit from learning more about the nature, size and activities of farming enterprises, particularly those enterprises that are still family run. Some consideration should also be given to the types of diversification strategy that family farms have had to adopt to safeguard their future sustainability, as such insights will be invaluable to farm animal veterinary practices as they attempt to improve their understanding of the challenges facing the sector, anticipate their clients’ needs and enhance their product/service offering to meet expectations.

Scholars in this area would also benefit from conducting further research into the various types of ‘partnership’ models that are being adopted by rural farm animal veterinary practices, both in the context of sharing expertise and resources with other
veterinary service providers and also developing supportive relationships with farming clients. In this regard, longitudinal research designs would help gather valuable insights into the effectiveness of such partnership arrangements, which in turn would prove valuable to those intending to pursue careers as farm animal veterinary service providers.

The gender dimension, admittedly only alluded to here, clearly requires further research. This is particularly important given the gender shift within the profession and would also help alleviate fears that future female veterinary graduates will not be attracted to farm animal practice. It may be that current veterinary educational curricula should also be ‘enhanced’ to accommodate changes in the sector and better prepare the predominately female graduate population for the valuable role they can play in leading rural farm animal veterinary enterprises.

Finally, although we have discussed changes to government policy in the context of animal welfare legislation and the ‘responsibility and cost sharing agenda’, future research will need to track the impact of such changes, considering the implications for bodies such as Defra, RCVS and the new Veterinary Development Council, as well as farm animal veterinarians and their farming clients. Indeed, the future role of rural farm animal veterinarians as ‘change agents’ for their farming clients still needs to be fully
explored, and the valuable contribution vets make to rural communities and to society in general needs to be fully recognized.

References


Defra. (2009), “Agriculture in the United Kingdom”, available from:


Defra. (2011), “UK cattle, sheep, pigs and poultry numbers 1866 to present”, available from:


One Health Initiative. www.onehealthinitiative.com


