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Examining the nature of resource-based processes in new venture development through a business-duality lens: A farming sector taxonomy

Helen Perks and Dominic Medway

University of Manchester, UK

Abstract

This article investigates the nature of resource-based processes in the development of new ventures, adopting a business duality lens. Business duality occurs where a new venture is developed alongside an established business. The research employs a multiple case study methodology situated in the farming sector. Detailed processes of resource assembly and deployment are examined and presented through four stages of the entrepreneurial process: initiation, experimentation, mature and late stage. The findings offer insight regarding the manner in which resource ties between the businesses relate to processes of resource assembly and deployment. A final business duality-based taxonomy depicts three generic approaches to managing resource-based processes in the development of new ventures in the farming sector: holistic innovators, reactive innovators and cautious innovators. In conclusion, these findings have implications for new venture activity in other business duality contexts.

Keywords

duality, farming, new entrepreneurial ventures, resources

Introduction

This article investigates the nature of resource-based processes in entrepreneurial ventures through a business duality lens. An entrepreneurial or new venture is understood as one that is substantially differentiated from existing business activity. The terms ‘new’ and ‘entrepreneurial’ venture are used interchangeably. Business duality occurs where a new venture is developed alongside an already established business: this creates resource ties whereby the new venture is linked through the exchange and use of key resources to the existing business. The research proposition underlying this article explores the extent to which business duality impacts upon the processes of resource

Corresponding author:

Helen Perks, Manchester Business School, University of Manchester, Booth Street West, Manchester M15 6PB, UK.

Email: Helen.perks@mbs.ac.uk

assembly and deployment that occur throughout the development of the entrepreneurial venture. While the nature of resource assembly and use has been studied extensively in stand-alone entrepreneurial ventures (Garnsey, 1998; Hoang and Antoncic, 2003; Kirzner, 1984; Kodithuwakku and Rosa, 2002), there are relatively few analyses of how such resource-based processes are influenced by business duality. Within this article, this issue is investigated through a study of duality within the farming sector.

We take the resource-based school of thought as a starting point, which places resources at the core of entrepreneurial venture development (Katz and Gartner, 1988). While an emerging set of scholars characterize the nature and activities of portfolio entrepreneurs managing several businesses (Ucbasaran et al., 2008), few offer empirical insight into how business duality, underpinned by resource ties, relates to new venture development over time. The development of theory relating to notions of resource-based processes in business duality settings is embryonic (Alsos and Carter, 2006; Westhead et al., 2004). Therefore, a case-based methodology is adopted in this article, allowing a richer understanding of emerging concepts. Structured intra-case and cross-case analysis of 10 cases unravels the dimensions of underlying resource ties and the resource-based processes of assembly and deployment. It is shown how these dimensions change in an evolutionary manner, as the cases progress through the new venture development process (NVDP). From this analysis a taxonomy of resource-based processes in the farming sector is developed, adopting a business-duality lens. This leads to implications for theory and management practice.

Resource-based processes in new ventures: resource assembly and deployment

The resource-based view of the firm conceives firms as different in terms of their productive resources, resulting in differing efficiencies and rents (Nelson and Winter, 1982; Penrose, 1959). Unique bundles of resources create competitive advantages that lead to wealth generation. Traditionally, such research has adopted a static view, centring on the attributes of resources such as rarity, uniqueness, inimitability and difficulty in substitution for something else, which account for superior performance (Barney, 1991). The possession and configuration of resources provide the core value for the firm (Peteraf, 1993). More recently, a process-based perspective of resources has argued that understanding resource possession and configuration alone is insufficient; it is how firms manage and transform resources into value that should be examined (Barney and Arikan, 2001; Hitt et al., 2001; Sirmon and Hitt, 2003). Such work focuses on delineation of internal resource transformation processes. Sirmon and Hitt (2003), for example, adopt a staged approach to the resource transformation process, consisting of resource evaluation, resource shedding and resource adding. It is also suggested that the dynamism of operational environments forces attention on the temporal aspects of resource management (Sirmon et al., 2007). By articulating the critical components of the resource management process, such work provides valuable conceptual advances in understanding the way that resources develop and create value for the firm.

The theoretical perspective of resources is also applied to entrepreneurship research (Brush et al., 2001; Kessler and Frank, 2009; Shane and Venkataraman, 2000). Resources are recognized as a core dimension of entrepreneurial activity (Katz and Gartner, 1988), with studies focusing on the importance of basic resources such as information, people and finance (Shane and Venkataraman, 2000). An evolutionary perspective points to resource assembly and deployment as critical resource-based processes in this context (Garnsey, 1998; Kirzner, 1984). Constructing a resource base is challenging for emerging ventures as they lack initial resource platforms (Brush et al., 2001; Venkataraman, 1997). In the context of lack of experience,

assembling resources becomes more complex: this impedes the effective assessment of resource needs, encouraging a trial-and-error process of resource assembly (Hoang and Antoncic, 2003) as well as minimum resource use for minimum cost (Starr and Macmillan, 1990). In addition, entrepreneurship research suggests that resource assembly requires examination of the entrepreneur and their social context (Gulati, 1998; Hung, 2006; Zhang, 2010; Zhang et al., 2011). In particular, creative access to networks as a means to mobilize financial and other resources for new venture establishment and growth is observed in several studies (Birley, 1985; Gulati, 1998; Kodithuwakku and Rosa, 2002; Starr and MacMillan, 1990; Viljamaa, 2011). Personal interactions with external individuals and firms can bring access to new knowledge and resources to hasten and improve the entrepreneurial process (Kessler and Frank, 2009).

Moreover, some studies investigate how the skills and capabilities of entrepreneurs impact on resource assembly processes (Haber and Reichel, 2007; Sirmon et al., 2007). The contribution of human capital is a key determinant of new venture success and human capabilities are strongly linked to skills embodied in a firm's personnel (Wright et al., 2001). Researchers point to the usually positive behavioural dimension of new venture employees, proposing their typically forward-thinking attitude to business development (Alvarez and Buzenitz, 2001). Others outline the specific skill sets required by entrepreneurial new ventures, such as communication and coordination (Lundberg et al., 1995), financial management and marketing (Hood and Young, 1993). Despite these needs, researchers point to the problem of attracting suitably skilled staff (Vossen, 1998) and commonplace under-investment in staff training (Hewitt-Dundas, 2006). Overall, there is increased interest in the role of human capital in new venture development and a recognition of the general and specific capabilities aligned to new venture needs. However, little is known about how human capabilities link to resource assembly processes in new ventures, and how such linkages change as new ventures develop.

In depicting entrepreneurial venture development, it has been suggested that new ventures develop through a sequential, stage-based process (Smith et al., 1985; Van de Ven and Walker, 1984). Stage-based models typically examine the changing business traits and sets of activities needed to move from one stage to the next, assuming a predictable pattern of development. Smith et al. (1985) showed how core characteristics, such as the cognitive styles of managers and senior management priorities, change as firms move through stages of their development. Cameron and Whetton (1981) demonstrated, in simulated experiments, how the criteria for effectiveness changes throughout the different phases of an organization's development. It is suggested that entrepreneurs assemble and reconfigure resources appropriate to these stage-based needs (Vohora et al., 2004). This echoes Quinn and Cameron's (1983) work, which is of value in its systematic integration of previous models. It proposes that the characteristics and needs of organizations shift as they sequentially go through the life cycle stages of entrepreneurial, collectivity, formalization or control and elaboration of structure. However, criticism can be made of adopting a prescriptive life cycle perspective of organizational development. The length of time that firms remain in each stage can vary, and stages can occur rapidly or be slow in emergence (Cameron and Whetton, 1981). There is also potential for non-linear development and fluidity across stages (Eisenhardt, 1989; Vohora et al., 2004). Despite such criticisms, a life cycle perspective of resource evolution has value in structuring and representing process-based phenomena. This is reflected in the frequent use of life cycle models in new venture development research, not least in this study.

Resource-based processes and business duality

Some entrepreneurs remain unsatisfied with the development of a single business and seek a range of activities in addition to their original enterprise, which links to notions of portfolio

entrepreneurship (Hall, 1995; Westhead and Wright, 1998; Ucbasaran et al., 2001). Early research reported on the incidence and frequency of portfolio entrepreneurship (Scott and Rosa, 1996; Westhead and Wright, 1998), while more recent work focuses on characterizing and distinguishing distinct types of portfolio entrepreneurs (Ucbasaran et al., 2008) and understanding the diversity of motivations for portfolio activity. Motivations have included the movement of capital across several sectors, short-term personal goals, long-term stable aims and restricted choice for the survival of many small businesses (Carter and Ram, 2003; Carter et al., 2004).

A resource-based perspective can be afforded to portfolio entrepreneurship research. Unlike single venture development, resources can be transferred between businesses or purposefully developed for a range of new ventures. Alsos and Carter (2006) examined how specific resource bundles contribute to new venture performance by focusing on the resources transferred from the original to the new business. Nevertheless, examination of the processes underpinning the development of resources within portfolio entrepreneurship remains limited. Accordingly, studies have called for research into the processes of new venture development in order to clarify and explicate the linkages between the originating business and subsequent business ventures (Alsos and Carter, 2006; Carter and Ram, 2003). This study addresses this gap in knowledge via an examination of business duality.

As defined previously, business duality exists where a new venture is developed alongside an existing business. The business duality concept differs from similar notions of pluriactivity and portfolio entrepreneurship in its emphasis on resource ties between two businesses – the existing and the new. Resource ties are defined as the linkages or connections between resources in the new venture, and those in the existing business. The extant literature on portfolio entrepreneurship focuses on the nature and extent of the transfer of resources (e.g. experiential knowledge, physical and financial resources) from one business to another (Birley and Westhead, 1993; Carter, 1999; Westhead et al., 2004). Although research shows that resource transfer can enhance new venture performance, there is little examination of ongoing relationships between the activities and resource sets of existing businesses and those of linked new ventures. Business duality draws attention to the nature of these relationships. A close investigation of resources ties and their relationship with resource development in new ventures should add to knowledge on the process aspects of multiple business management.

A business-duality context is likely to identify particular challenges: in particular, resource-based processes may differ from those of stand-alone ventures. In expanding into new businesses, the need to access new resources and knowledge intensifies as risk and unfamiliarity grows (Sikes and Dunham, 1995). Yet, early resource assembly is likely to focus on mobilization of resources prevalent in the existing business; indeed, substantial benefits accrue from transferring resources from an existing business to the new venture (Starr and Bygrave, 1992). McGaughey (2007) found positive resource-based effects of portfolio entrepreneurship, including exploitation of valuable slack resources, positive legitimacy spillovers (attracting further resources) and flexible learning and adaptation effects. It was noted also that loose coupling between businesses allows for experimentation and greater creativity. However, resource exchange may be constrained by existing resource sets. Specifically, entrepreneurs can develop private resources that induce rigidities and a dogmatic approach that impedes resource transfer (McGaughey, 2007; Zahra, 1993). In developing a new venture alongside an existing activity, human capabilities are likely to be aligned to existing sets of resources. Developing and honing new capabilities for managing the new business venture is likely to require investment in training and education.

Further challenges lie in the use and development of networks to support resource assembly and deployment in business duality settings. By offering comfort zones where the entrepreneur feels

confident and experienced, existing networks may impede the entrepreneur's ability to create vital new networks for the assembly of additional resources. Conversely, existing networks also can offer rapid access to resources. Therefore, examining the role of networks in assembling resources within the business duality context is worthy of attention. Equally, as an entrepreneurial venture grows alongside an existing business, resource deployment may exhibit different characteristics to that in a single venture setting. Bryant (1989) contends that entrepreneurs characteristically move beyond the limits of directly controlled to new resources. Business duality may induce the efficient deployment and development of new resources, alongside utilization and adaptation of resource sets in the established business.

In summary, while existing studies of portfolio entrepreneurship have alerted scholars to the critical role of resources in the performance of new ventures operating alongside existing businesses, the work to date has taken a static perspective. There is little empirical evidence regarding how resources are assembled and deployed as new ventures develop over time. Furthermore, few studies have examined the relationship between resource linkages (between the new venture and the existing business) and resource assembly and deployment processes of the new venture. This study addresses these theoretical shortfalls.

The farming context: resource-based processes and business duality

While there are calls for further investigations of resource assembly and deployment in duality settings (Rosa, 1999; Ucbasaran et al., 2001), research on business duality in the farming sector remains limited. This is surprising, as the phenomenon is widespread in farming contexts. The European Union (EU) Farm Structure Survey identifies that 24 percent of UK farms exhibit some form of 'other gainful activity' related to the holding, but not comprising farm work. This approximate percentage is replicated in other longer-established EU Member States (Barthomeuf, 2008). Within agricultural economics and geography, business duality in farming has been considered but the focus has been primarily upon income-generating motivations and outcomes (Gasson, 1988) and the effects on family labour participation (Whatmore, 1991).

From a management perspective, duality in farming can be usefully considered by using the concept of pluriactivity. Pluriactivity has parallels with portfolio entrepreneurship in that it concerns the combination of farming activity with other businesses, and is seen as a way to generate additional income and value (Alsos and Carter, 2006). Some studies adopt the resource-based view to examine motivations for the new venture and to delineate the nature of resource transfer between farms and new businesses (Alsos and Carter, 2006; Alsos et al., 2003). This has led to characterizations of portfolio approaches in the farming sector, highlighting differences according to motivation (Alsos et al., 2003) and ownership or firm profiles (Carter, 2001). Thus, Carter (2001) developed a taxonomy of three groups of farmers (monoactive, structurally diversified and portfolio business owners) based on differences in personal and managerial characteristics. Alsos et al. (2003) similarly characterized pluriactive, resource-exploiting and portfolio-entrepreneur farmers based on their underlying motivations for the new venture. More recent work by Alsos and Carter (2006) has examined the relationship between resource transfer and new venture profitability in Norwegian farms, concluding that resource transfer can affect performance both positively and negatively.

Through such research it is evident that the specialized nature of farming resources makes their transfer to alternative businesses problematic (Starr and Bygrave, 1992). The extant research does not fully explain how complex resource linkages between the farm and new

Figure 1. Business development pathways on farms

Source: Adapted from Meert et al. (2005)

venture impact on the processes of establishing and developing the new business over time. This study addresses this gap by examining not only the nature of the relationship between resource ties and resource assembly and deployment processes, but also the changes in this relationship over time as the new venture grows.

There is clear overlap between business duality and the concept of diversification in agricultural economics (see Centre for Rural Research, 2003).¹ Understanding the positioning of new ventures studied in this article within the wider farm diversification picture is helpful. Meert et al. (2005) indicate that farm businesses can develop along one of three routes:

1. maintaining a full-time viable agricultural business;
2. pursuing non-agricultural business diversification by restructuring the farm's assets; and
3. marginalizing the farm as a business concern.
4. These three routes subdivide into six pathways (see Figure 1).

This article is concerned with new ventures adopting pathways B, C, or B and C, in Figure 1. Agricultural diversification (B) is where the venture is still directly linked to agricultural production, but involves the production of non-traditional crops or livestock. Structural diversification (C) involves the redeployment or restructuring of farm resources into new non-agricultural products. However, such entrepreneurial ventures remain tied to agriculture in some way, not least in the fact that they are run on or from the farm. Here, the new entrepreneurial venture and farm business have mutual resource ties and interdependencies. The literature additionally discusses entrepreneurial ventures run off the farm and/or which do not significantly draw on resources previously committed (Bateman and Ray, 1994; Ilbery et al., 1996). Such ventures might be recognized as

examples of income diversification (D) or farm household ‘pluriactivity’, and are not the focus of this article; this article is unconcerned with definitional debates surrounding the concepts arising from Figure 1, and the fact that all the new ventures studied are examples of farm diversification is incidental. As such, the term diversification itself is used sparingly.

Method

Aim of the study

The overall aim of this article is to examine and depict the nature of resource-based processes in entrepreneurial ventures through a business-duality lens. There are two major objectives: to determine how resources are assembled and deployed over time within new entrepreneurial ventures as they develop alongside established businesses; and to develop a taxonomy of resource-based processes in new venture development in the farming sector, adopting a business-duality lens.

Specific research questions are posed:

RQ1: How do resource ties between the existing farm and new venture relate to processes of resource assembly and deployment?

RQ2: How do these relationships change over time as the new venture develops through stages of its evolution?

RQ3: Are there differences between farms in terms of resource assembly and deployment processes, and how can these be accounted for?

The study of resource-based processes through a business-duality lens is nascent (Parkhe, 1993). Yin (2009) indicates that case study research is suited to developing understanding in such emergent areas. A specific region of the UK provided the context for this case study investigation. The rural nature of the farming community means that spatial relationships are paramount in understanding the way in which networks operate and are utilized (Sligo and Massey, 2007). Thus, studies of resource-based processes in farming can focus usefully on discrete areas or regions, within which stakeholders have scope for close interaction. Accordingly, the area of investigation in this study is confined to the Peak District. This approach meets demands for more contextual qualitative research to investigate the complex human experiences involved in developing networks in duality-based business ventures within the farming sector (Alsos and Carter, 2006).

Within the study area, farm incomes have fallen by as much as 75 percent within recent years (Peak District Rural Deprivation Forum, 2004; Seabrook, 2002). This downturn reflects EU market reforms over the last three decades (Gellynck and Viaene, 2002), coupled with the economically marginal nature of farming in the area, which is based around hill-sheep and small-scale cattle production. These marginal conditions and resultant poor farm income also provide the sectoral background against which new business ventures are often developed, largely as a route to prosperity at times of financial challenge. This was a key rationale for focusing on the Peak District as a study area.

Sample

When building theory, cases should be used that fill theoretical categories or provide polar types (Eisenhardt, 1989, 2007). They should not be randomly chosen. Ten case studies of new ventures

allied to farms in the study area were selected. These were purposefully selected to extend emergent theory concerning resource assembly and deployment. Hence, operational farms that were actively developing (or had actively developed) a new venture were chosen. At the time of investigation, most cases were undergoing processes to procure and deploy resources in the new venture while concurrently operating the farm business. One case had recently terminated the new venture, but the new venture development process was recent in memory.

The multiple case study approach followed replication logic (Yin, 2009). The selected cases were situated in a common context in that they all showed clear evidence of new venture development, but which on initial observation suggested potentially contrasting outcomes regarding new venture performance. Hence the cases were selected based on tentative propositions in relation to variability in the performance of the new ventures. Details of the 10 cases and the new venture outcomes are provided in Table 1.

Emphasizing the importance of geographical proximity and connectedness, a variety of networks was used to identify, contact and access appropriate cases. Participant observation by one researcher in the activities of the Peak District Farm Development Network was particularly helpful here. The part-time farming activity of this researcher also appeared to engender trust and candour among study participants. The other project researcher had no prior connections with the farming industry, contributing to objectivity in the analysis stages of research.

Data collection

Fieldwork was carried out from 2007 to 2008 and involved up to a whole day visiting each case site and interacting with the new venture owners and their employees. In some cases this interaction was split over two time periods, with the return visit up to a month after the first. A mixture of data collection approaches was employed with every case.

As the primary source of data, 30 face-to-face interviews were conducted in total. First, and central to the building of each case, were interviews with the new venture owners. In all but one case the new venture was owned by two or more persons. In some instances these individuals were interviewed together, and others separately. The venture owner interviews lasted at least 1.5 hours, rising up to a half-day in some of the cases, and were semi-structured with questions built around themes and sub-themes gleaned from the literature on resource-based processes in entrepreneurial ventures. Themes and questions were refined slightly with each case visit, and often reiterated in a slightly different form on secondary visits to the same cases as a means of confirming previous observations.

Second, for the purposes of triangulation and furthering understanding, interviews were carried out with non-owner new venture employees. These lasted no less than 45 minutes and were usually carried out while the employee worked. Their comments added to the rich case pictures established. The questions posed to employees were different to those asked to new venture owners: rather than adopting a semi-structured approach around set themes, employees were simply encouraged to discuss the new venture as they saw it, with the interview taking a largely exploratory format.

In addition to interviews, researchers were given extensive tours around study farms and the new ventures. Tape recorders were left on and observational notes taken. A raft of documentation such as promotional brochures, leaflets, websites, business plans and accounts, adverts in magazines and other forms of communication material relating to the new business ventures, was consulted. This evidence allowed further triangulation with data from the interviews regarding resource procurements, investments and the cross-transfer of resources between farm and new venture.

Table 1. Details of case studies

Case study	Traditional farm sector	Nature of new venture	New venture outcome	Time in new venture	Comments
1.	Beef production and fodder dealing	Christmas tree growing and dealing	Divestment of new venture	1 year	A small amount of previous dealing of bought-in Christmas trees led to Christmas trees being planted with a view to developing a Christmas tree retail business
2.	Formerly dairy now sheep	Extensive rare breed lamb production and marketing	Divestment of new venture	1 year	A large 3000-acre country house estate. Respondent sold off dairy herd and turned the land to rare-breed sheep production to gain maximum subsidy. Additionally the owners sold rare-breed lamb through the farm's own butchery operation
3.	Sheep	Boxed lamb scheme and seasonal foliage production	Gradual growth and success of new venture	2 years	Following the initial set-up of selling lamb privately, this new venture has developed so that lambs are butchered to customers' requirements. Presentation of the product has improved only very gradually to incorporate separate bagging of meat joints. In 2008 100 lambs (3% of production) were sold in this way, which delivered double the normal profit margins. The foliage side of the business was built up through the development of Christmas holly and ivy orders with local florists and garden centres. Holly and ivy grow naturally on the farmland
4.	Dairy and sheep	Sunflower growing and selling for cut flower trade	Rapid growth and success of new venture	2 years	Following market testing and growing trials in first year, the second year of this new venture involved the growing and selling of 25,000 cut sunflowers from around an acre of land to local florists
5.	Sheep and beef	Caravan storage, boxed lamb and Christmas tree dealing	Slow incremental growth of new ventures	10 years	This case has evolved in stages, with the caravan side of the new venture reaching the mature stage several years ago, the Christmas tree side of the venture reaching this level in last two years, and boxed lamb still very much in the experimentation phase
6.	Sheep	Pudding production and wholesaling	Divestment of new venture	6 years	At its peak this new venture was producing 500 puddings per week for the wholesale trade. The venture did not progress beyond the experimentation stage due to resource constraints and a change in focus. As a result the venture was sold

(Continued)

Table 1. (Continued)

Case study	Traditional farm sector	Nature of new venture	New venture outcome	Time in new venture	Comments
7.	Sheep, beef and contracting	Tearoom and bed and breakfast	Rapid development and success of new venture	3 years	Very rapid development from experimentation stage to mature stage due to a significant strategic decision about future of the venture. Bed and breakfast operation incorporates four double bedrooms and, along with the tearoom, was set up following a barn conversion done in under a year
8.	Beef and sheep (formerly dairy)	Wedding service	Rapid development and success of new venture	4 years	Notable because the traditional farm business was radically changed from the outset to accommodate the new venture in terms of time and resources. Dairy herd was dispersed and sold in November 2003 and dairy sheds were converted into a wedding venue. Sixteen weddings a year were needed to break even. In 2006, 36 weddings took place
9.	Dairy and sheep	Ice-cream production, tearoom, farm visitor centre	Rapid development of new venture with broad product/service range	5 years	New venture developed very quickly with the significant strategic decision to make ice-cream. In 2008 the venture produced up to 600 litres of ice-cream per week. Other aspects of the new venture, such as the tearoom and associated visitor attractions, have been gradually added as the farm has become increasingly visitor-oriented
10.	Arable and former dairy unit	Holiday cottages and conference venue; rare breed sheep and alpacas	Rapid development and success of new venture	5 years	Moved from the initial idea to the full new venture in one major decision. Building holiday cottages took three years with substantial investment and required sale of the dairy herd to free up space, time and finance. The three cottages were busy most of the year in 2008; the conference venue has been less successful but has helped to attract family groups to the cottages who can use the conference facilities as a large communal dining area. Rare breed sheep and alpacas act as an added attraction for farm cottage users

Finally, cases were contextualized in a wider industry setting by researcher participation in several food producer and farming industry events.

Data analysis

Data collected through semi-structured interviews were transcribed and subjected to template analysis involving the coding of emergent themes. This was undertaken by both researchers independently before coding categories were compared and combined. This process aimed to ensure maximum reliability of the findings (Sykes, 1991). The analysis also included an element of credibility testing or member checking, involving return visits to five of the case studies, and allowing participants to reflect on first-cut findings and interpretations (Gabriel, 1990; Sykes, 1991).

The first stage of coding focused on the timing and evolutionary nature of the case studies. From this we discerned an emerging NVDP, which combined sequential and temporal dimensions whereby the new ventures generally start at one end of a development journey and move over time towards the other. The four-stage life cycle model, advocated previously by Quinn and Cameron (1983), loosely informed the analysis. Using this model as a guide, the researchers were able to discern a series of four typical (although not necessarily compulsory) stages through which the new ventures progressed. We term these initiation, experimentation, mature and late stages. From this analysis, we noted that some cases had not reached the later stages of the NVDP. Alternatively, some owners had divested of the new venture in the early stages. In addition, it was clear that the ventures had progressed through the NVDP at different rates: this indicates that the development of new ventures works within a flexible timeline. Thus, while the 10 cases included ventures of different ages, this did not align with the speed of progress or stage of the NVDP.

A second more detailed stage of analysis involved further collapse and integration of the researchers' coding categorizations: first, as a means of unravelling the nature of resource ties within and across the 10 cases; and second, as a means of examining the nature of resource-based processes in terms of resource assembly (concerning the procurement and development of resources for the new venture) and resource deployment (how resources were used in the new venture). Under the thematic categories of resource ties and resource-based processes, related core dimensions and sub-dimensions were identified via coding. Together, these dimensions and sub-dimensions indicate the significant and multifaceted manner in which resource ties and resource-based processes play out in a business-duality setting.

Finally, by grouping the case studies in terms of dimensions and sub-dimensions relating to their resource ties and resource-based processes, patterns of commonalities were identified. Three approaches to the new venture development process emerged. The cases clustered around these approaches to form a taxonomy of new venture development in the farming sector through a business-duality lens.

Findings

Tables 2 to 5 provide details of the nature of resource ties and resource-based processes (assembly and deployment), and their core dimensions and sub-dimensions, for the four stages of the NVDP. The manner in which dimensions and sub-dimensions vary across the NVDP stages for each case is demonstrated via indicators of strength of application (e.g. strong versus weak, or

Table 2. Nature of resource ties and resource-based processes in the initiation stage of the new venture development process

Resource ties	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
	Types of resource ties	Location ties	Strong	x	x	x	x	x		x	x	x	x
			Weak						x				
		Product ties	Strong			x						x	
	Asset ties		Weak	x	x		x	x	x	x	x		x
			Strong	x	x	x	x	x		x	x	x	x
			Weak						x				
	Visibility of resource ties		High								x		
			Low	x	x	x	x	x	x	x		x	x
Resource-based processes	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
Resource assembly	Resource investment		High		x					x	x		x
			Low	x		x	x	x	x			x	
	Role of networks	Geographical	Wide		x								x
			Constrained	x		x	x	x	x	x	x	x	
		Social	Diverse		x								x
			Narrow	x		x	x	x	x	x	x	x	
	Human resource (capability) development	Technical capabilities	High	x		x	x		x	x	x		
			Low		x			x				x	x
		Commercial capabilities	High	x	x	x						x	x
			Low				x	x	x	x	x		
		Communication capabilities	High		x			x		x	x	x	x
			Low	x		x	x		x				
Resource deployment	Efficiency of resource use		High	x		x	x				x		x
			Low		x			x	x	x		x	
	Resource adaptation	Farm	High		x						x		x
			Low	x		x	x	x	x	x		x	
		New venture	High										
			Low	x	x	x	x	x	x	x	x	x	x
			High										
			Low	x	x	x	x	x	x	x	x	x	x

high versus low). In the subsequent discussion the thematic categories of resource ties and resource-based processes are explained, and identified dimensions and sub-dimensions are elaborated.

Resource ties

Resource ties are defined as the linkages or connections between the new venture and the existing business. The core dimensions of this characteristic lie in the types of resource ties in existence

Table 3. Nature of resource ties and resource-based processes in the experimentation stage of the new venture development process

Resource ties	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
	Types of resource ties	Location ties	Strong			x	x	x		x	x	x	x
			Weak						x				
		Product ties	Strong			x		x				x	
	Asset ties		Weak				x		x	x	x		x
			Strong			x	x	x		x	x	x	x
			Weak						x				
	Visibility of resource ties		High			x	x	x		x	x	x	x
			Low						x				
Resource-based processes	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
Resource assembly	Resource investment role of networks	Geographical	High				x			x	x	x	x
			Low			x		x	x				
			Wide				x		x	x	x	x	x
	Human resource (capability) development	Social	Constrained			x		x					
			Diverse				x	x		x	x	x	x
			Narrow			x			x				
		Technical capabilities	High			x	x		x	x	x	x	x
			Low					x					
			High			x	x			x	x		x
			Low			x			x				
Resource deployment	Efficiency of resource use		High			x	x			x	x		x
			Low					x	x			x	
			High								x	x	
	Resource adaptation	Farm	High			x	x	x	x	x			x
			Low				x		x	x	x	x	
		New venture	High				x		x	x	x	x	
			Low			x		x					x

and the visibility of such ties. Type further divides into three sub-dimensions of location, product and asset.

Location ties are where the new venture is inherently connected to the location of the original farm. The findings showed that location ties were present in all but one instance (case 6), and that this endured as far as individual cases had progressed through the NVDP. For example, case 7 had strong location ties because the new tearoom and bed and breakfast venture could take advantage

Table 4. Nature of resource ties and resource-based processes in the mature stage of the new venture development process

Resource ties	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
	Types of resource ties	Location ties	Strong Weak					x		x	x	x	x
		Product ties	Strong Weak					x				x	
		Asset ties	Strong Weak					x		x	x	x	x
	Visibility of resource ties		High Low					x		x	x	x	x
Resource-based processes	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
Resource assembly	Resource investment role of networks		High Low					x		x	x	x	x
		Geographical	Wide Constrained							x	x	x	x
		Social	Diverse Narrow					x		x	x	x	x
	Human resource (capability) development	Technical capabilities	High Low							x	x	x	x
		Commercial capabilities	High Low							x	x	x	x
		Communication capabilities	High Low					x		x	x	x	x
			High Low							x	x		x
								x				x	
Resource deployment	Efficiency of resource use		High Low							x	x		x
								x				x	
	Resource adaptation	Farm	High Low					x		x	x	x	x
		New venture	High Low					x			x	x	x

of their central picturesque village setting in a national park tourist destination. Similarly, the new venture in ice-cream production (case 9) was able to exploit its existing location advantage, being situated next to a busy road.

Product ties occur when the new venture utilizes the output (product) of the existing farm. Product ties were mainly weak at the initiation stage. Only two new ventures relied on farm outputs at this point (cases 3 and 9 in Table 2). For example, case 9 (ice-cream production) loosely drew on product ties, incorporating just 4 percent of its dairy herd's output in ice-cream production.

Table 5. Nature of resource ties and resource-based processes in the late stage of the new venture development process

Resource ties	Dimensions	Sub-dimension (where applicable)	Indicators of dimensions	Cases									
				1	2	3	4	5	6	7	8	9	10
	Types of resource ties	Location ties	Strong								x	x	x
		Product ties	Weak										
			Strong								x	x	x
	Visibility of resource ties	Asset ties	Weak										
			Strong								x	x	x
			Weak										
Resource assembly	Resource investment role of networks	Geographical	High								x	x	x
			Low										
			Wide								x	x	x
		Social	Constrained										
			Diverse								x	x	x
			Narrow										
	Human resource (capability) development	Technical capabilities	High								x	x	x
			Low										
		Commercial capabilities	High								x	x	x
		Communication capabilities	Low										
			High								x	x	x
			Low										
Resource deployment	Efficiency of resource use		High								x		x
			Low									x	
	Resource adaptation	Farm	High								x	x	x
			Low										
		New venture	High								x	x	x
			Low										

Similarly, from the outset case 3 depended on the existing sheep farm for its boxed lamb venture. Over time, product ties strengthened in some cases. Case 5, for example, introduced boxed lamb (in an ad hoc manner) at the experimentation stage (Table 3), using farm-reared stock. However, cases 8 and 10 realized only in the late stage of the NVDP (Table 5) the potential of integrating the requirements of the new venture with the outputs from the farm. Thus, in the late stage case 8 began to use farm animals to enhance its established wedding service venture.

Asset ties exist where the new venture makes use of the farm's fixed and semi-permanent assets (land, buildings, machinery). All but one case (case 6) made use of such assets in the new venture from the outset of the NVDP (Table 2). These ties also stayed strong throughout the later stages (Tables 3–5).

Analysis suggests the importance of the core dimension of visibility in encouraging the use of resource ties. Frequently, linkages between the farm and new venture are outside the vision of farmers at the initiation stage. Indeed, Table 2 suggests that only case 8 illustrated the importance of resource ties at this point. However, visibility increases for cases in later stages of the NVDP (Tables 3–5) as ties become evident to the farmer: when such ties are visible, farmers are in a better position to leverage them. For example, in case 8 the visibility of asset ties was taken advantage of from the outset, as emphasized in the following comment: 'We realized we needed to keep the area around the wedding venue neat, mowed and topped to give the business a rural idyllic image' (farmer/business owner, East Cheshire). By the late stage the visibility of product ties also had come to the fore: 'It would be great not to have animals here, but we now have the foresight to see that it is one of the major attractions.' Without the leveraging of such visible ties this new venture would be a standard wedding service, but exploiting assets and, latterly, product ties, created a unique selling point. With other cases ties existed earlier in the NVDP but were only exploited fully at later stages as visibility emerged. Thus, in case 9, the farmer realized only in the experimentation stage (Table 3) the value of an area of woodland that was turned into a nature trail, an existing old tractor that was painted up for child visitors and the annual spectacle of lambing as a tourist attraction.

Resource-based processes: resource assembly

Within the thematic category of resource-based processes, resource assembly concerns the procurement and development of resources for the new venture. Management and manipulation of resources acted as a critical factor for the evolution of the new venture in the business-duality settings investigated. Resource assembly is defined as having three core dimensions: resource investment, the nature and role of networks in assembling resources and the development of human resources (capabilities).

Resource investment. Diverse investment levels occurred at early stages of the NVDP. Some farmers demonstrated high levels of financial and time commitment to their new ventures from the outset, whereas others appeared more reluctant to invest. This latter group shared resources (particularly labour) from the existing farm business. As those in case 3 noted:

The new business needed to fit with existing routines. I was available if Claire [the farmer] wanted me. I wasn't gone all day and was still available to do some farm work if necessary, and develop the business at the same time. (Farmer/business owner, High Peak)

Such entrepreneurs developed the new venture as a hobby at first, taking an experimental approach. For example, case 6, the pudding production venture, 'started off in one my friend's living rooms, using friends to help out' (farmer/business owner, Staffordshire moorlands). This negated the need for investment in labour and facilities. Of those cases making substantive investments from the outset, the conversion of farm buildings was a popular focus of activity, sometimes in the initiation stage (Table 2, cases 7, 8 and 10). Investment levels were high in all those cases that had progressed to the mature and late stages of the NVDP, as a result of incremental improvements in the built infrastructure and labour resources of their new ventures.

Role of networks in resource assembly. The scope and nature of networking activity for resource assembly evolved as ventures progressed through the NVDP. In the initiation stage (Table 2), all the cases except 2 and 10 had geographically constrained and socially narrow networking activity for the purposes of resource assembly. They kept within localized social boundaries drawn from the existing farm business. For example, case 1 felt that there was little point in talking to experts in other parts of the UK about the development of the Christmas tree growing venture; it was felt that few would appreciate the challenging aspect of its land. Reaching out beyond the farming community for resources in the initiation stage, even when it was desired, appeared problematic. As was commented by those from case 6: 'I had no idea how to find the right information' (farmer/business owner, East Cheshire). Despite this reluctance to draw on wider networks, there was evidence of high usage of local farming contacts to support the early development of the new venture and to access specialist resources. In case 9, it was stated: 'We used local farming networks at the start. It was difficult to get specialist advice but we found friends very useful.'

By the experimentation stage (Table 3), most cases had been able to rapidly expand the boundaries of their networking activity and interact with a broader range of actors. For example, those in case 6 attended fine food fairs in London and Birmingham, but admitted that this was 'scary' due to a lack of communication skills (highlighted below). Such activities resulted in benefits. Case 6 learned from visits to Birmingham that she needed to acquire new resources in order to adapt the packaging of her homemade puddings. Case 4 also demonstrated product changes inspired by wider networking activity in the experimentation stage: 'I took on board new ideas for product changes coming from florists' (farmer/business owner, Derbyshire Dales). This growth in networking confidence was echoed in other cases where visibility and exploitation of resource ties was high. However, the networking efforts of those in cases 3 (boxed lamb) and 5 (caravan storage) remained geographically limited to local contacts. This appeared to restrain the assembly of appropriate resources for their new ventures.

Development of human resources (capability). The assembly of human resources, specifically technical, commercial and communication capabilities, played a critical role in new venture development across the cases. Technical capabilities encompass the skills associated specifically with the new venture: for example, cooking skills for the pudding venture (case 6), skills in making ice-cream (for case 9). Commercial capabilities relate to the business skills needed to effectively manage financial and marketing aspects. Communication capabilities concern softer relationship-building skills, which appeared critical in new customer interactions.

In the initiation stage of the NVDP, levels of technical skills were mixed. Five cases already held appropriate technical skills, but other cases lacked the relevant skills for the new venture. Where technical capabilities were high, these often drove the choice of the new venture. For example, the sunflower and pudding business ideas (cases 4 and 6) were both sparked by a passion for, and technical excellence in, horticulture and cooking. In other cases the technical skill set had been partly developed through short-term and hobbyist experimentations within the new business domain. As case 8, the farm wedding service venture, commented: 'I've always been interested in music and worked as a part-time DJ. Then someone in the audience suggested doing weddings' (farmer/business owner, East Cheshire). Where the technical capabilities were low in the initiation stage, there was recognition of the need to develop such skills and most had identified mechanisms to do this. Thus by the experimentation stage (Table 3), all but one case had acquired capabilities commensurate with their new ventures, primarily through technical courses (e.g. a butchery course for case 3) and observation of analogous ventures (e.g. those in case 9 visited other farm-based ice-cream producers).

Commercial and communication capabilities showed mixed levels in the initiation stage, not necessarily aligned with technical capabilities. Thus, in case 6 high technical capabilities were unsupported by commercial and communication prowess: 'I love making puddings but was nervous when dealing with the first sets of customers. I didn't have a very clear cut idea on pricing – maybe £2.20 or £3.50 per pudding' (farmer/business owner, Staffordshire Moorlands). Where commercial and communication skills were high, this skill set was often dispersed across members of the farm household. In some cases this involved engaging non-farming family household members in the new venture. So, communication skills were high from the outset in case 9 because the farmer's wife worked in public relations, which facilitated the launch of the venture; however, in other cases (e.g. case 5) high communication skills, facilitating a good rapport with customers, were not paralleled by commercial skills, reflecting poor strategic decision-making for the new venture.

By the experimentation stage and beyond (Tables 3–5), most venture owners exerted considerable effort to develop appropriate commercial and communication capabilities. For example, those in case 7 attended a marketing course to develop commercial know-how, and case 10 attended a website design course. Case 4 admitted that she actually 'listened and learned' to develop communication skills. Only two cases failed to develop suitable commercial capabilities beyond the experimentation stage. Despite high communication capabilities sustained through to the mature stage, case 5 made no attempt to develop technical and commercial capabilities, as the owner explained: 'I'm not interested in attending courses because it's too much effort. I wasted a day on one – I didn't learn anything and it put me off going again' (farmer/business owner, High Peak)

What appeared important in assembling resources was knowledge of how to leverage the various networking mechanisms at the disposal of the farm businesses. In the initiation stage, the majority of cases were unsure how to use external networks, yet by the experimentation phase (Table 3) purposeful networking emerged in many instances. Respondents could often identify a specific role for their networking activity. Some used networks to endorse and justify their initial business idea (case 7), while others used them to develop and modify the business concept. In some cases, where resource ties were strong and visible from the experimentation stage (e.g. cases 4, 7, 8 and 10), networks were used to support the exploitation of resource ties in the resource assembly process. For example, case 8 (wedding service venture) visited farm-based theme parks to assess how to further use and develop an existing asset (farm land) for the new business.

Resource-based processes: resource deployment

Two core dimensions appeared to underlie resource deployment across the cases: efficiency of resource use and resource adaptation.

Efficiency of resource use. Across the cases, considerable variety occurred in the efficiency of resource use. By the experimentation stage (Table 3) case 7 (the tearoom and bed and breakfast venture) was able to implement a more time-effective service through minor adjustments, such as consolidating menu choice. Similarly, case 10 gradually adapted its product offering to target short group holiday breaks in its farm cottages rather than multiple single-night stays. This delivered labour efficiencies in terms of room servicing and cleaning, and financial efficiencies in terms of laundering costs. Cases showing poor efficiency failed to understand how to direct their limited resources effectively: this resulted in unexpected problems such as limited capacity to fill orders or grow the venture. For example, case 9 (the ice-cream production venture) often failed to properly

anticipate freezing requirements. This effectively capped ice-cream output and made inefficient use of the staff involved in ice-cream production and sales.

Resource adaptation. This core dimension concerns the extent to which the resources of either the original farm business and/or the new venture were adapted. A key feature of this core dimension was how the nature of adaptation of one business affected the other. In the initiation stage (Table 2), three cases (2, 8 and 10) showed high levels of resource adaptation in their original farming activity in order to fit in with the new venture. These three cases sold off dairy herds to release building and time resources, and there was evidence of changes to labour scheduling. Other cases showed low farm business adaptation in the initiation stage. Indeed, most new ventures were designed initially to complement existing farming resources and activities, thus limiting the need for early adaptation. For example, case 4 (sunflower production venture) explained how ‘sunflowers fit in well with the farming calendar, because lambing finishes just as the sunflower business requires manpower’ (farmer/business owner, Derbyshire Dales).

Adaptation was less relevant to the new ventures themselves at the initiation stage, as efforts were directed towards investment in new resources and activities. However, in the later stages new venture adaptations emerged and fell into two camps: those where the adaptation was geared towards the future requirements of the new venture, and those aimed at maintaining the existing farming business in its current state. The latter situation is exemplified in case 7:

The farming business has not adapted but the new business has had to. We are not able to do short or overnight stays as they are resource-intensive. So the new business has had to adapt to the resource constraints imposed by the farm. (Farmer/business owner, Derbyshire Dales)

By the mature stage (Table 4) some farms began to making substantial resource adaptations, not only in terms of labour but also in terms of reconfiguration of existing assets (such as land and farm stock). Equally, this stage also sees major resource adaptations in new ventures. This suggests that a tipping point exists at which farm adaptations become more oriented towards complementing the new venture. For example, case 8 landscaped the farmland and introduced ornamental features for better wedding photography shoots. Case 7 disposed of half of its beef herd in order to cut costs and free up labour for the new tearoom business. Four of the five ventures progressing to the mature stage of the NVDP also show elevated levels of adaptation. For example, in response to customer feedback, case 10 changed the layout of its holiday cottages to provide a spacious communal room for large-party dining. Equally, case 8 placed underfloor heating in the wedding barn so that the venture could operate in winter.

The three ventures progressing to the late stage of the NVDP undertook substantial resource adaptations to both farm and new venture for the benefit of both businesses. Certain cases responded rapidly to the requirements of the new venture, sometimes in a seemingly reactive manner. For example, case 9 initially changed the way that lambs were sold from weekly markets to selling to a single buyer early in the season. This released time and labour resources for the new venture. It was then decided to stagger lambing throughout the Easter holidays to maximize revenue from the paying visitors watching lambing from a viewing gallery. Case 9 then expanded the new venture again, responding rapidly to changes in education funding, by offering farm visits for schools. These relatively minor adaptations amounted to a significant change in farming practice, yet were ad hoc in their uptake. Other cases took a more planned approach to adaptation. For example, case 8 was anticipating future needs for investment in disabled facilities.

Discussion

Development of a taxonomy

The findings demonstrate how the thematic categories of resource ties and resource-based processes (assembly and deployment) change as the new ventures move through the NVDP. Differences also emerge in the way that farmers manage the relationship between resource ties and resource-based processes. From this, patterns of commonalities among different cases can be discerned, leading to a three-cluster taxonomy. Each cluster is characterized by cases with a different approach towards the entrepreneurial venture development process, in relation to resource ties and resource assembly or deployment. The three clusters are termed 'holistic innovators', 'cautious innovators' and 'reactive innovators'. Table 6 shows the predominant features of resource ties and resource-based processes pertinent to each cluster of cases, signalling how such features change throughout the NVDP. Indicative examples are drawn from cases within the cluster.

Holistic innovators

This cluster of cases demonstrates an integrated approach to managing both farm and new venture. Critically, farmers make early identification and leverage of some resource ties, specifically location and assets, facilitating targeted, efficient and rapid resource assembly decisions from the outset. The new venture is much more than a hobby and is perceived as a future key income stream. Notably, strong communication skills from the early stages facilitate appropriate resource assembly, aligned to both farm and new business. This supports rapid and selective network expansion for access to targeted resources, supporting the development of both businesses and often requiring the disbanding of old networks as the new venture becomes mature. Technical and commercial capabilities are mixed at the start, but forward visioning means that capability deficiencies are recognized. Plans are rapidly put in place for their quick acquisition, overcoming the constraints of the existing skill set. This supports studies that identify the critical role of human capital in resource-based processes in new ventures (Haber and Reichel, 2007; Hood and Young, 1993).

Another feature of holistic innovators is efficient resource deployment, with thoughtful adaptation of farm resources at early stages. Here there was evidence of early severing of resource ties if existing resources proved inappropriate for developing both businesses. The early stages typically see incremental investments in resources dedicated to the new venture that remain high. In the later stages some farmers proactively strengthen product ties between the new venture and the farm by adapting both venture and farm-based resources.

Overall, the evolution of new ventures in this taxonomic cluster suggests a holistic approach. The existing farm and new venture are viewed as one business with a portfolio of products and activities. As a case respondent in this cluster noted: 'The business has different parts but the whole thing has to operate as a single entity to look as if it belongs and fits together' (farmer/business owner, Derbyshire Dales). Cases in this cluster are also beginning to develop unified values, such as environmental concern or a local sourcing focus, which underpins resource development for both businesses. This reflects a high level of inter-business integration achieved by those operating as holistic innovators.

Cautious innovators

This cluster shows a careful approach to development of the new venture. From the outset, preservation of the farm business in its existing state appears to inhibit the growth of the new venture.

Table 6. Resource-based processes in new venture development through a business-duality lens: a farming sector taxonomy

Cluster	Resource ties and resource-based processes	Typical cluster features	Indicative examples from cases
Holistic innovators Cases 4, 7, 8, 10	Resource ties	Early identification and usage of location and asset ties Eventual development of product ties	Central picturesque location suitable for tea room (7) Farmland used for sunflower growing (4) Use of sheep to enhance wedding service appeal (8)
	Resource assembly	High resource investment levels throughout Selective and optimum use of networking Strong communication capabilities Rapid recognition of need for, and acquisition of, technical or commercial capabilities	Conversion of buildings in various stages (7, 8, 10) Networks used to modify original new venture concept (7 and 8) Effective dialogue with florists in experimentation stage (4) Attendance of marketing and website design courses (7, 10)
	Resource deployment	Efficient use of resources over time High levels of farm and new venture adaptation	Consolidation of menu choice for time efficiencies (7) Short-term holiday breaks induced better use of financial resources (10) Sale of dairy herds in initiation stage (8, 10) Adaptation of land to provide car exit in experimentation stage (8) Late stage redesign of farm cottages to provide communal dining room (10) Boxed lamb venture used product output from farm in early stages (3)
Cautious innovators Cases 1, 3, 6	Resource ties	Mixed nature of ties at the outset	Failure to convert farm buildings for use in new venture (6)
	Resource assembly	Ties are not proactively exploited over time Cautious investment in new venture throughout Constrained networking activities Skill base dominated by existing or rapidly acquired technical capabilities but poor communication capabilities	Insufficient investment in labour for new venture (3) Poor consultation with other farmers/growers regarding new Christmas tree venture (1) Pudding business incorporates high technical capabilities, but poor communication skills (6)
	Resource deployment	Minimal adaptation of farm	Farming resources unchanged, as new pudding venture grows (6)

(continued)

Table 6. (Continued)

Cluster	Resource ties and resource-based processes	Typical cluster features	Indicative examples from cases
Reactive innovators Cases 2, 5, 9	Resource ties	Few or minor adaptations of new venture	Small, gradual improvements in presentation/packaging of boxed lamb (3)
		Piecemeal exploitation of ties	Farmer only realised in experimentation stage the value of a woodland area to the new venture (9)
	Resource assembly	Loosely established/fabricated resource ties	Production of 'farm' ice-cream, which in reality uses a large percentage of off-farm ingredients not emanating from farm outputs (9)
		Inconsistent approach to investment and procurement of resources	Deciding to enter the rare breed lamb venture on a whim (2)
	Resource deployment	Undiscerning but extensive networking activity	Taking advice from a variety of networking sources and using this to develop a variety of new ventures (5)
		Strong communication capabilities	High communication skills, facilitating a good rapport with customers (5)
		Ad hoc and reactive adaptation of farm and new venture	Multiple adaptations of the new venture to shifting business opportunities from ice-cream to meat sales, through to educational visits (9)
			Wide portfolio of products and services, e.g. caravan storage, over-the-gate meat and Christmas tree retailing (5)

Findings indicate that such farmers are often reluctant to engage in the new venture, despite being happy for other family members to participate. Thus, while there may be necessary adaptation of the new venture in the early stages, the farm business remains unchanged. The new venture may be initiated as development of an existing hobby or interest related to the farm business. Hence, inherent linkages between farm and new venture often exist at the outset.

However, there is reluctance among farmers to make the necessary adaptations and investments as the new venture grows. They stick to the original business idea, with some incremental developments, but show unwillingness to assemble sufficient levels of novel resources for the new business. Also, while they understand the need to network beyond existing communities for resource assembly, they are reluctant to do so. The imposition of narrow locational and social boundaries develops Johnsen's work (2004), which draws attention to the limitations of micro-geographical networks of traditional farming communities. Further, their skill base is dominated by technical capabilities. There is an unwillingness to exploit any existing commercial capabilities, limiting further development of the new venture. An unwillingness to allow any impact on the farm operation induces a high risk of new venture failure in the mature stages.

In summary, such new venture owners take a 'separatist' approach. Resource ties are insufficiently leveraged to allow the new venture to flourish, and new ventures must be operated akin to stand-alone ventures. While some authors have shown the positive effects of loose coupling between business ventures in portfolio entrepreneurship contexts (McGaughey, 2007; Zahra, 1993), this study indicates this approach can impede appropriate resource assembly use and new venture development. Lack of adaptation can even lead to deterioration in the value of resource ties. Resource sets, which remain dedicated to the existing business, are unlikely to remain appropriate for the new venture.

Reactive innovators

This cluster of innovators displays flexible traits, with the early new venture initiation decision often founded on exploitation of an opportunity. Additional resources are included incrementally as opportunities arise. McGaughey (2007) identified the positive effects of flexible adaptation in portfolio entrepreneurship scenarios. Indeed, in the early stages reactive innovators are able to exploit ties between the new venture and the existing business. In the longer run, the findings suggest that this is a risky strategy. Weak forward planning for resource assembly and deployment leads to fluctuating investments, lacking consistency. This results in exploitation of resource ties in an ad hoc manner in the later stages, inducing severe impact on the farm business as the new venture draws excessively upon existing resources.

Forms of resource assembly and deployment are undertaken in a reactive manner throughout, often accompanied by good communication skills. Owners turn to an array of advisers to help inform the procurement and use of resources to support a range of products and services. Networks are used extensively rather than selectively, reflecting a low understanding of the role of specific networks to support venture development. Farmers also fail to extend capability sets beyond those already existing in the family unit. This approach leads to a disparate resource mix supporting a wide portfolio of products and services with few unifying elements. Sometimes, resource ties are loosely established as a means of differentiating the venture from non-farm competitors. Such resource ties even can be fabricated and may not reflect reality. These outcomes are a result of unplanned exploitation of resource ties and ad hoc new venture resource assembly and deployment processes.

Conclusion

Implications for theory

This study advances our understanding of resource-based processes in the farming sector through a business-duality lens. Throughout the generic clusters of the above taxonomy, understanding emerges of the critical role of resource ties as a distinguishing feature of the new venture development process within a business-duality framing. Existing taxonomies in the farming sector offer characterizations based on the motivation for multiple ventures (Alsos et al., 2003), structural dimensions (Carter, 2001) or levels of resource transfer (Alsos and Carter, 2006). This study adds to this literature by developing a process-based taxonomy that captures the complex processes inherent in dual business ownership in the farming sector. The taxonomy offers new knowledge by characterizing three approaches to the new venture development process. Each approach depicts specific ways of managing, over time, the relationship between resource ties and resource-based processes of assembly and deployment. This addresses RQ3, which was concerned with delineating and explaining different approaches towards resource assembly and deployment in a business duality setting.

Responding to RQ1, the study shows how ties between the new venture and the existing business can act both as a constraint and an opportunity for resource assembly and deployment. In terms of resource assembly, the conscious exploitation of existing ties can provide immediate access to critical resources. Understanding the nature of resource linkages between both businesses can help to pinpoint resource deficiencies and direct assembly effort. Across the cases, resource ties provided the impetus and opportunity for the embryonic new venture. While a number of authors have pointed to the advantages of resource transfer between existing and entrepreneurial ventures (McGaughey, 2007; Starr and Bygrave, 1992), this study's findings confirm that resource linkages provide an early platform from which new ventures may grow. In addition, it has been shown how resource ties are related to processes of resource procurement, and how resource linkages between the originating and new businesses inform and influence resource use and adaptation processes.

By adopting an evolutionary perspective of venture development, this study indicates that in terms of the relationship between resource ties and resource-based processes, initial conditions do not remain stable as the new venture grows. In this regard, the findings address RQ2 concerning changes in resource ties or resource-based processes over time. This adds to the scholarly body of knowledge concerned with processes of resource management and transformation (Sirmon et al., 2007; Vohora et al., 2004) in entrepreneurial ventures (Brush et al., 2001; Hoang and Antonicic, 2003). The findings also contribute specifically to emergent research interest on resources in portfolio entrepreneurship (Alsos and Carter, 2006; Carter and Ram, 2003; McGaughey, 2007), where significant advances have been made in understanding the nature of resource transfer between businesses, but where explanations of the way in which resource linkages (between businesses) influence the process of new venture development are lacking. As the new venture grows, resource ties should remain ideally at the centre of resource assembly and deployment processes to allow the effective growth of both businesses coherently, commensurate with the holistic category in the above taxonomy. This does not mean a requirement for continual leveraging of such ties. Some ties may be severed if they are no longer valuable and fitting with the needs of both businesses. Yet, for the greatest performance of both businesses, ties should inform and influence resource assembly and deployment strategies. This requires intended and planned resource assembly and deployment to align with the needs of both businesses.

This article demonstrates that new ventures operating in a business-duality setting are likely to see greater success when resource ties remain at the centre of resource assembly and deployment processes. This proposition warrants further examination in other business-duality contexts, where new ventures have strong locational, asset or product ties with the existing business. Although the findings from this regional study can be generalized conceptually beyond the Peak District, future work might extend the geographical scope to include other regions in the UK and beyond. However, farming communities operate within close spatial proximity, which in turn influences resource assembly and deployment practices. Therefore, similar studies of the farming sector should continue to impose locational boundaries.

Implications for practitioners

This study has managerial implications for new venture owners operating in a duality context. Such individuals should note the characteristics and features outlined in the holistic innovator cluster of the taxonomy. Specific recommendations are made for action at particular points of the NVDP. For example, owners need to exploit existing resources, particularly appropriately skilled labour and facilities, at the early stages, while also carefully investing in new and dedicated

resource requirements. This should be accompanied by rapid forging of selective networks to access capabilities and resources tailored to new venture needs. Later stage resource investments should reflect integrated planning for a unified business (new venture and existing business together). This suggests a shift in mindset for some long-established businesses operating in traditional sectors such as farming.

The findings also have important messages for policymakers operating in sectors where business duality is emerging. Here, specific support should facilitate a holistic and integrated approach to resource-based investments in the new venture. Lack of knowledge and confidence by members of traditional sectors such as farming should not be mistakenly perceived as unwillingness to take on board new ideas and make necessary changes. Business duality is rife in farming communities, and likely to increase with future economic and structural upheavals in the industry – therefore, the development of new venture activity is important in sustaining this sector. This article highlights that ties between farm and new business make the new venture development process complex, yet worthy of considerable research attention.

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Note

1. The literature on farm diversification attempts to identify an accurate definition of the term (Ilbery, 1991; McInerney et al., 1989; McNally, 2001; Shucksmith and Winter, 1990), even though it has been recognized that the concept of diversification of farming activities is not amenable to precise definition (McInerney et al., 1989).

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Helen Perks is Professor of Marketing and Product Innovation at Manchester Business School, University of Manchester. She has research interests in product and service innovation. She is on the editorial boards of *Journal of Product Innovation Management*, *Industrial Marketing Management*, *R&D Management* and *International Marketing Review* and regularly publishes in these and other international journals. She is Chair of the EIASM International Product Development Management Conference 2012.

Dominic Medway is Professor of Marketing at Manchester Business School and a part-time sheep farmer. He is published in a variety of international journals, including *Environment and Planning A*, *Tourism Management*, *European Journal of Marketing* and *Journal of Business Research*, primarily on the subjects of place marketing and retailing.