A contingent taxonomy of sustainable business

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Working Paper 37
2009
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Desert Knowledge CRC Working Paper #37

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ISBN: 1 74158 111 7 (Web copy)
ISSN: 1833-7309 (Web copy)

Citation


The Desert Knowledge Cooperative Research Centre is an unincorporated joint venture with 28 partners whose mission is to develop and disseminate an understanding of sustainable living in remote desert environments, deliver enduring regional economies and livelihoods based on Desert Knowledge, and create the networks to market this knowledge in other desert lands.

Acknowledgements

The Desert Knowledge CRC receives funding through the Australian Government Cooperative Research Centres Program. The views expressed herein do not necessarily represent the views of Desert Knowledge CRC or its Participants.

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Contents

Abstract .................................................................................................................................................. 2
1. Introduction ......................................................................................................................................... 3
2. Purpose of taxonomies ................................................................................................................ 3
3. What is a business? ......................................................................................................................... 4
4. Business taxonomies ......................................................................................................................... 5
  4.1 Why are we in business? .............................................................................................................. 6
  4.2 What is the business doing? .......................................................................................................... 6
  4.3 Where is it the business going to conduct its operations? .............................................................. 7
  4.4 How is the business conducted? .................................................................................................. 9
  4.5 When is the business operating? .................................................................................................. 10
  4.6 Who is going to be involved? ......................................................................................................... 10
5. Integration ........................................................................................................................................ 12
6. Conclusion......................................................................................................................................... 12
7. References ......................................................................................................................................... 15

Tables
Table 1: Basic business models and archetypes ...................................................................................... 7
Table 2: Remoteness............................................................................................................................... 8
Table 3: B2B electronic market structures .............................................................................................. 9
Table 4: Legal form of business ........................................................................................................... 10
Table 5: Business types ......................................................................................................................... 12

Figures
Figure 1: Taxonomic pathways ............................................................................................................. 13
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Abstract

This paper is developed as a conceptual contribution to the Desert Knowledge Cooperative Research Centre’s (DKCRC) analysis of the success of business enterprises in desert Australia. Developed within the paper is a model of the main dynamic taxonomic pathways for approaching sustainable business. Several points of discussion are developed. First is a consideration of the nature of taxonomies and the need for an integrated approach to taxonomy in the context of sustainable business. Second, attention is drawn to the varied understanding about the notion of business in the eyes of different stakeholders. Third is the development of a set of pragmatic questions that a taxonomy of business needs to address: Why are we in business? What is the business doing? Where is the business going to conduct its operations? How is the business conducted? When is the business operating? and Who is involved in the business? A basic taxonomic model that integrates these fundamental pragmatic questions is then developed as a pro forma and aide memoire for DKCRC participants concerned with exploring desert businesses and identifying issues on which many researchers converge as a basis for cooperative research: the intertwining and interrelationship between the social, environmental and economic.

Key words: Sustainable business, taxonomy, business models, remoteness, contingencies
1. Introduction

The Desert Knowledge Cooperative Research Centre’s (DKCRC’s) Core Project 3, Desert Biz™, seeks to understand how small businesses and associated networks can effectively deliver livelihoods for desert people, based on natural and cultural resources and service delivery and in ways that are environmentally sound and socially appropriate (DKCRC 2007). The Desert Biz™ web site advises (DKCRC 2007) that three streams of work are brought together in the project: first, an audit of the work and business situation in desert Australia to determine business-readiness and determine the needs of desert Australia in relation to small to medium enterprises (SMEs) development; second, an analysis of the impacts of businesses on the community and the local economy to determine multiplier effects of businesses and identify high impact areas for investment; and third, action research relating to business aspects of other core projects and SMEs emanating from the other streams.

Here the aim is to contribute towards two points emanating from the Desert Biz™ agenda. First, business is a central concept to each of the research streams, and an understanding of the different facets of business and their integration across the core projects would contribute towards the achievement of the overall outcomes of the DKCRC, especially the sustainability of remote desert settlements. Second, researchers in the different core projects have varied backgrounds and use different methodologies and methods in their research; hence, development of a taxonomic model of contingent pathways towards sustainable business provides a pragmatic way of drawing the attention of researchers to common facets of business. Such a model is developed here. Several taxonomies referred to in relevant environmental, social and economic literature are considered below by way of illustration and an integrated contingent taxonomy is proposed.

The paper proceeds in Section 2 by briefly addressing the purpose of taxonomies with their implicit focus on the integration of diverse categories, and Section 3 considers the key question: What is a business? The approach behind the posited contingent taxonomy of sustainable business is introduced in Section 4, with a set of questions forming the basis for analysis and discussion. Section 5 presents characteristics of the integrated model, while the paper concludes in Section 6 with observations and a discussion of facets of the contingent taxonomy of sustainable business in desert Australia.

2. Purpose of taxonomies

A taxonomy brings some certainty to discussion and analysis by providing a workable naming system upon which most can agree:

Taxonomy (from the Greek taxis meaning arrangement or division and nomos meaning law) is the science of classification according to a pre-determined system, with the resulting catalogue used to provide a conceptual framework for discussion, analysis, or information retrieval (SSMB 2007).

The development of a useful taxonomy takes into account the importance of separating elements of a group (taxon) into subgroups (taxa) that are mutually exclusive, unambiguous, and include all possibilities when taken together. In practice, according to Stewart (2007:49), a good taxonomy should be simple, easy to remember, and easy to use. Recent development of taxonomies for web-based information systems provides some useful lessons. Milne (2007:7), while considering ways to organise information within intranets and portals, advocates the relevance of applying records management techniques allied to the construction of business classification schemes. Likewise, Stewart (2007:46) points to the growing number of taxonomies providing a common terminology for the applications of information people wish to communicate to multiple stakeholders. The recommended starting point is contextual classification of business: by function, activity, task and sub-task. However, such an approach
initially tends towards the hierarchical and two dimensional. Stewart recognises this situation but suggests that movement beyond a two-dimensional world view for primary taxonomies (cf. double entry in accounting) towards a context or faceted-based view is becoming the norm (Stewart 2007:49).

One reason for developing a taxonomy of business is that information about different aspects of business activities can become entrenched in different functional silos. For example, economic aspects of business tend to be addressed by accountants and financial officers. Likewise, it has become the convention that the interrelationships between social issues and businesses are considered by human resource managers. Finally, environmental concerns and businesses receive attention from environmental management, based on knowledge of natural science and engineering. At the simplest level a contextual taxonomy for sustainable business is required to integrate these three aspects of business activities. This focus on three distinct forms of impact may represent an over-simplification which needs to be expanded upon in order to include further influences that affect sustainability – including the political, legal, technological and governance spheres (Schaltegger et al. 2003) – but the three forms of impact provide a suitable starting point for integrating the key economic, social and environmental spheres mentioned above.

Irrespective of whether a narrow or a broad set of spheres of influence over business is identified, one key facet of sustainability which is not applicable to any individual sphere is the need for and importance of integration of the spheres (Schaltegger & Burritt 2005), as exemplified by Linnaeus when providing an integrating taxonomy for varied botanical nomenclature. The importance of integration by taxonomies cannot be overestimated. A contingent taxonomy of sustainable business would assist the holders of these three major perspectives, who are perhaps representative of the specialities of different DKCRC researchers, to see through an integrated lens of sustainability, rather than through their own individual lenses. An important methodological challenge of sustainability is to bring these three different perspectives together by integrating environmental and social management into conventional economically oriented business management (Schaltegger et al. 2006:11). First, however, it is necessary to be clear about what business represents, as different stakeholders hold different views.

3. What is a business?

Business is a term which is used daily, written about frequently by academics and practitioners but which, invariably, is not defined. For business, a single generalised taxonomy is not available, and current taxonomies more often focus on one aspect of business, such as information handling, technology, e-business models and environmental commitment.

It is a challenge for a taxonomist that, for example, the *Oxford English Dictionary* (Simpson & Weiner 1994a: 694–696), reveals 24 different meanings for the word business. Most meanings provide generic interpretations ranging from the ‘state of being busily engaged in anything’ to ‘trade, commercial transactions or engagements’. The word ‘business’ tends to be used as a noun to describe ‘action which occupies time, demands attention and labour; especially serious occupation, or work, as opposed to pleasure or recreation’ (Simpson & Weiner 1994a: 695). A linkage is usually made to related concepts such as ‘commercial’ or ‘commerce’, ‘trade’ and ‘enterprise’.

The word ‘commercial’ reveals a circular reference to business as: ‘pertaining to trade or commerce, a matter of business’ (Simpson & Weiner 1994b: 552, 553). However, an important addendum is ‘looking toward financial profit’ (Simpson & Weiner 1994b: 553). Examination of the term ‘enterprise’ is somewhat unenlightening: ‘a design of which the execution is attempted; an undertaking’ (Simpson & Weiner 1994c: 293). Hence, the most
important notion common to the concept of business is ‘commerce which engages in activity for profit’. The economic characteristic of business appears to be at the forefront of the definition.

A contrasting view is put forward by Allinson (1998: 1019) who suggests that ‘making a profit’ is not necessary for defining ‘business’, as it provides no idea about what is done or how. In Allinson’s (1998: 1019) view, any definition of business must include a reference to filling some kind of social need. His alternative, expanded definition is:

... the ownership or use of capital investment, labour or land to produce a product, or to provide a service that fills some existent social needs, or creates a new need to be filled, or creates some social value in order to generate revenue to the owner or owners

(Allinson, 1998) [emphasis added].

Allinson (1998: 1022) recognises that social aspects of a business are as important as revenue or distributed profit to the owners. There are a number of organisations which are commercially oriented, but which, at least from a regulatory perspective, would not be classed as businesses within the Allinson framework. For example, large non-profit organisations, such as motoring associations, may offer benefits to (paying) members with monies transferred between member and organisation not being treated as revenue. An alternative definition of a business is suggested, which replaces ‘revenue’ with ‘value’ and includes non-profit organisations. This ‘value’ may be profit or revenue for a commercial enterprise (such as sole traders), wealth optimisation (for investors in listed companies) or psycho-social fulfilment and member benefits (for non-profit organisations).

The challenge for promoters of the notion of sustainable small businesses, as appropriate to the work of Desert Biz™, is to recognise that checking for an exhaustive collection of characteristics of business is impractical and costly to institute, whereas sets of characteristics associated with sustainable performance can be identified and managed. For example, four contextual sets of characteristics, each with ten possibilities, are as easy to manage and improve as one contextual characteristic with ten thousand possibilities (Stewart 2007: 50). How then might sets of characteristics be addressed?

4. Business taxonomies

The onion analogy applies to taxonomies of business: each layer of the onion represents a new aspect of the business, and it is the sum of the layers which makes the business unique. As highlighted above, there are several spheres of influence that can be identified and a taxonomy developed. It is the purpose of this section to outline a selection of taxonomies proposed in available literature. These will be considered using three general classifications in line with the sustainability pillars: economic including legal, social and environmental.

Organisation of these taxonomies is in itself a challenge. Should it be by function of the business or its management (for example: planning, control, communication, leadership, motivation) or by other sets of characteristics which might correlate with the success of business? Following recent developments in information systems taxonomies (Milne 2007), functional pathways provide one feasible starting point. For example, functional characteristics of business are conventionally related to the value chain. Environmental and social impacts of business touch upon each aspect of the chain from the procurement of goods and services to sales and after-sales services for customers, including reuse or disposal of non-product output and products that are no longer wanted (Schaltegger et al. 2003: 31). Reduction of social and environmental impacts of business lead to improved performance, and such performance can enhance reputation, increase social legitimacy and add competitive advantage in the market place. How small businesses and small business networks can more effectively deliver livelihoods for desert people based on natural and cultural resources of business, can be discovered through an audit of the major functional characteristics of the
business, their activities, tasks and sub-tasks. This is essentially a top-down approach, whereby ever finer dissection of functions and activities is undertaken to reveal the status quo, and partial performance indicators are used as the base upon which improvement is founded (Schaltegger & Burritt 2006).

An alternative to the top-down functional perspective is to consider a pragmatic approach to typical problems associated with testing whether a business is self-sustaining (see for example Clark 1923: 17, 177). When considering a business and the totality of related issues, six normative forms of question arise: the why, what, where, how, when, and who of business. There is no logical starting and ending point, so integration across all question forms is necessary for a contingent taxonomy to be revealed, such as is needed for sustainable business. This set of questions is considered next.

4.1 Why are we in business?

One of the fundamental questions relates to the reasons for being in business. While the response is often ‘to make money’, there are a range of other reasons for businesses being established and continuing in a self-sustaining way. These may include improving the chances to earn a better living, being one’s own boss and feeling a greater degree of control, expressing personal creativity, building a legacy for children or pride in one’s own achievements (Walker & Brown 2004).

McMahon (2001) indirectly addresses the issue of motivations for businesses. He appears to adopt a purely economic perspective: the variables used are the business’s age, size and growth. However, upon further examination he brings into consideration issues such as lifestyle choices, which require financial constraints on a business in order to provide sufficient funds to pursue personal objectives, and owner’s personality or propensity toward entrepreneurialism. This then extends the objectives of the business from the realm of the economic and into the social. Likewise, it can be extended into the environmental.

On this basis, audit and analysis of the ‘why’ question should identify and relate to at least the three dimensions alluded to above: economic, social and environmental facets of business.

4.2 What is the business doing?

‘What is the business doing?’ is conventionally seen as being an economic issue. At the commencement of any business, and throughout its lifetime, the issue of what the business is going to do is assessed as part of regular long-term planning: will it produce a physical product (such as those produced by a manufacturer, artist or florist) or will it provide a service (lawyers, dentists and labourers). The answer narrows, shapes and articulates with many of the related questions such as the ‘how’ and can determine issues such as the industry in which the business operates and its size.

In economics, recognition is given to the importance of size (number of sellers and buyers, cost structures, scale and scope of production, degree of conglomeration), extent of vertical integration and barriers to entry of the business in affecting the degree of competition. For example, in terms of size, the main taxonomy is that used by the Australian Bureau of Statistics (Trewin 2002: 1). It has five classes based on employee numbers: non-employing, micro (up to five employees), small (5–19 employees), medium (20–199 employees) and large (200 employees or more).

Malone et al. (2006) consider what businesses do and how they do it as a basis for their typology of four basic business models with 16 archetypes. The models are founded first, on what the business sells, specifically what rights the business is selling – ownership of the assets, use of the assets or matching services between buyer and seller (Malone et al. 2006: 6) – and second, on what assets are involved. In considering ownership transactions, Malone et
al. (2006) make the distinction between sellers who significantly transform assets and those that do not. Thus from these two categories (what is being sold and transformation of assets) four basic business models are defined: creator, distributor, landlord and broker. The first two models involve selling ownership of the assets; however, the creator, such as a manufacturer, buys raw materials and transforms them into another asset, whereas the distributor, such as a retailer, buys and resells the same assets.

The 16 archetype business models are derived by cross-referencing the four basic models with the assets employed: physical, financial, intangible and human (Malone et al. 2006: 7–8). Within the creator basic business models the four archetypes are entrepreneur, manufacturer, inventor and human creator. Of these, the last is the creation and sale of human beings, and as it is illegal in many countries, this is a null set (Malone et al. 2006: 10). The distributor basic models yield the archetypes of financial trader, wholesaler/retailer, IP trader and human distributor. The landlord basic models are categorised into financial landlord, physical landlord, intellectual landlord and contractor (Malone et al. 2006). There are two subtypes within the financial landlord archetype: lenders and insurers. Within the intellectual landlord archetype there are three subtypes: publisher, brand manager and attractor. Finally, in the broker basic model the archetypes are financial broker, physical broker, intellectual property broker and human resources broker, such as employment agencies (Malone et al. 2006: 12). These archetypes are outlined in Table 1.

Table 1: Basic business models and archetypes

<table>
<thead>
<tr>
<th>What is being sold?</th>
<th>Basic Business models</th>
<th>What type of asset is involved?</th>
<th>Intangible</th>
<th>Human</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership Rights</td>
<td>Creator</td>
<td>Entrepreneur</td>
<td>Inventor</td>
<td>Creator</td>
</tr>
<tr>
<td>Ownership Rights</td>
<td>Distributor</td>
<td>Financial Trader</td>
<td>IP Trader</td>
<td>Human Distributor</td>
</tr>
<tr>
<td>Usage rights</td>
<td>Landlord</td>
<td>Financial Landlord</td>
<td>Intellectual Landlord</td>
<td>Contractor</td>
</tr>
<tr>
<td>Matching services</td>
<td>Broker</td>
<td>Financial Broker</td>
<td>IP Broker</td>
<td>HR Broker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Broker</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Malone et al. 2006)

The message is clear: ‘what’ questions are not solely economic in their orientation. Business may be operated not for a profit; for example, it may be based on break-even in order to secure local produce to improve the health of local people. Hence, audit and analysis of ‘what’ questions again need to adopt a wider perspective that incorporates the social and environmental impacts of the business.

4.3 Where is it the business going to conduct its operations?

Many variables influence the decision about where to conduct business: location of customers in relation to the business, transport requirements, e-commerce options, personal preferences and the size of the business (Carod & Antolin 2004). Carod and Antolin (2004: 301) identify that large businesses use objective arguments about the pros and cons of different locations, taking into consideration issues such as labour availability, infrastructure and urbanisation economies. In comparison, small- to medium-size businesses tend to use arguments that are reflective of personal characteristics such as residence, experience, school-age children and avoidance of areas with poor economic or social reputations (Carod & Antolin 2004: 299).
Stam (2006) and Figueiredo et al (2002) have shown that most small businesses are established in the home region of their founders, and indeed are likely to stay in this region for as long as the owner. For desert Australia, therefore, most small businesses will be started by people already living in the region.

Whether the objective or subjective arguments are used, remoteness is an important issue for all desert businesses. An example of remoteness taxonomy is provided in Table 2. It shows the Accessibility/Remoteness Index of Australia (ARIA), which classifies Australia and its territories into six regions (Australian Bureau of Statistics 2003: 8).

**Table 2: Remoteness**

<table>
<thead>
<tr>
<th>Area</th>
<th>ARIA Index</th>
<th>Features</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Cities</td>
<td>0–0.2</td>
<td>Geographic distance imposes minimal restriction upon accessibility to the widest range of goods, services and opportunities for social interaction.</td>
<td>60.7%</td>
</tr>
<tr>
<td>Inner Regional</td>
<td>&gt;0.2–≤2.4</td>
<td>Geographic distance imposes some restriction upon accessibility to the widest range of goods, services and opportunities for social interaction.</td>
<td>24.6%</td>
</tr>
<tr>
<td>Outer Regional</td>
<td>&gt;2.4–≤5.92</td>
<td>Geographic distance imposes a moderate restriction upon accessibility to the widest range of goods, services and opportunities for social interaction.</td>
<td>11.7%</td>
</tr>
<tr>
<td>Remote</td>
<td>&gt;5.92–≤10.53</td>
<td>Geographic distance imposes a high restriction upon accessibility to the widest range of goods, services and opportunities for social interaction.</td>
<td>2.0%</td>
</tr>
<tr>
<td>Very Remote</td>
<td>&gt;10.53</td>
<td>Geographic distance imposes the highest restriction upon accessibility to the widest range of goods, services and opportunities for social interaction.</td>
<td>1.0%</td>
</tr>
<tr>
<td>Migratory</td>
<td></td>
<td>Offshore territories including shipping lanes.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics 2003

Remoteness or distance from customers is less of an issue for some businesses because of the advent of e-commerce as a basis for ordering and distribution. However, it is not only e-commerce that affects location, with Chan et al. (2003) acknowledging that trading location and business location may not be the same.

A given for desert business is classification into desert and non-desert regions based on climatic conditions. However, sub-regions within desert Australia will also influence where business is conducted; for example, closeness to the boundary of a desert region may be more attractive to some businesses (e.g. employment and training services), while others look for isolation as a selling point (e.g. outback tours). Large service centres such as Alice Springs are more attractive to some types of businesses, such as retailers and restaurants, where a larger population includes both residents and tourists. Much of desert Australia is also under the control of Aboriginal Land Councils, with access restricted by permit. This dictates to some degree not just where the business might operate but also who may operate it. A whole industry may have limited ability to choose the sites for business operations. The mining industry necessarily needs to locate where the resources are concentrated, with clusters developing around them, as seen in Mount Isa or Broken Hill. Bush food enterprises, like
mining, are located where the resources are. For example, wattle seed and bush tomatoes are harvested almost exclusively in central Australia by Aboriginal people (Morse 2005).

Audit and analysis of these and other ‘where’ questions draws upon the proximity to non-desert regions, their characteristics and potential for cross-over benefits between regions.

4.4 How is the business conducted?

How a business operates is one of the most complex problems. ‘How’ questions can extend from funding and investment arrangements, through the employment of human capital, to environmental management systems. ‘How’ questions can be linked to ‘where’ and ‘who’ issues, for example, transport (‘where’) may be linked with ‘how’ through environmental management systems. Likewise, socially responsible business (‘how’) may be linked to ‘who’ questions through management policy. Some desert business are deeply embedded in the social structure of Aboriginal communities; however, many businesses owned and operated by Aboriginal people are not community ventures (Foley 2006: 3). This has implications not just for ownership but also management and governance to ensure ethnically appropriate and inclusive approaches are established and maintained.

‘How’ questions are also linked with the visibility of operations. For example, Gunasekaran et al. (2002) stress the impact of the Internet on operations. Some businesses may be entirely e-commerce based with little physical infrastructure, whereas others may have simple intranet systems providing information. Mahadevan (2003) has extended this area by creating a taxonomy of business-to-business (B2B) market structures. His taxonomy encompasses 12 market structures as shown in Table 3.

### Table 3: B2B electronic market structures

<table>
<thead>
<tr>
<th>Structure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extranet</td>
</tr>
<tr>
<td>2</td>
<td>Trading Partner Network (TPN)</td>
</tr>
<tr>
<td>3</td>
<td>Web Electronic Data Interchange (EDI)</td>
</tr>
<tr>
<td>4</td>
<td>Buyer-centric private market</td>
</tr>
<tr>
<td>5</td>
<td>Supplier-centric private market</td>
</tr>
<tr>
<td>6</td>
<td>Consortia market place</td>
</tr>
<tr>
<td>7</td>
<td>Seller-oriented (forward) auction sites</td>
</tr>
<tr>
<td>8</td>
<td>Buyer-oriented (backward) auction sites</td>
</tr>
<tr>
<td>9</td>
<td>Neutral auctions</td>
</tr>
<tr>
<td>10</td>
<td>Exchanges</td>
</tr>
<tr>
<td>11</td>
<td>Catalogue aggregators</td>
</tr>
<tr>
<td>12</td>
<td>Online community</td>
</tr>
</tbody>
</table>

Source: Mahadevan 2003

Audit and analysis of ‘how’ questions needs to address the visibility and invisibility of operations and services because business conducted electronically can notionally be successful in desert and non-desert regions alike given the appropriate infrastructure, for example, certain outsourced activities such as call centres and financial services.
4.5 When is the business operating?

‘When’ issues cover a range of time scales including pragmatic considerations, such as hours of operation, which could be imposed by regulators. Other possible ‘when’ characteristics include, for example, short-term versus long-term time horizons, regular versus ad-hoc arrangements and the business life cycle.

Hanks et al. (1993) and McMahon (2001) examine organisations from a business life-cycle perspective. Hanks et al. (1993) in analysing high-technology organisations, identify business life-cycle stages and associated characteristics (the mean number of employees, mean annual sales revenue and mean age). Based on cluster analysis, six business stages (and firm types) are formulated: start-up, expansion, maturity and diversification (as development stages) and life-style and capped growth (as disengagement stages). McMahon (2001) considers enterprise age, size and growth variables as the basis for a taxonomy of small to medium manufacturing businesses in Australia. Three categories were developed: traditional or life-style, capped growth and entrepreneurial SMEs. What is significant about this taxonomy is the incorporation of owner aspirations and intentions. The traditional or life-style SME, which is characterised by low or few growth aspirations, is that the growth is deliberately a low priority for the owners (McMahon 2001: 210). The business is to provide a source of income to support a chosen life-style. The capped growth SME typically has growth forced upon it by external factors such as competitive environment, or reluctance to engage with external financing (and potentially a loss of control) (McMahon 2001: 210). The entrepreneurial SME is reflective of the owner’s personality, may be innovative and international (McMahon 2001: 211).

Again, this illustrates that audit and analysis of business needs to be of economic, social and environmental considerations to capture the essence of ‘when’ questions.

4.6 Who is going to be involved?

The conventional ‘who is involved’ emphasis is on ownership of the business. Ownership is largely determined by legal form. Legal forms of business can include sole traders, partnerships and various corporate forms (see Table 4). This taxonomy of business can be segmented into two main categories: corporate and non-corporate. The corporate categories have separate legal identity from the owners. The non-corporate categories include sole proprietorships, partnerships (both unlimited and limited), unincorporated associations, franchises, some trusts and unincorporated joint ventures – a myriad of possibilities. Corporate forms reveal a greater variety of types.

Table 4: Legal form of business

<table>
<thead>
<tr>
<th>Corporate</th>
<th>Non-corporate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal charter</td>
<td>Sole proprietorship</td>
</tr>
<tr>
<td>Corporation sole</td>
<td>Partnership (unlimited)</td>
</tr>
<tr>
<td>Joint venture</td>
<td>Partnership (limited)</td>
</tr>
<tr>
<td>Special statute (public sector)</td>
<td>Unincorporated association</td>
</tr>
<tr>
<td>Cooperative</td>
<td>Franchise</td>
</tr>
<tr>
<td>Incorporated association</td>
<td>Trust</td>
</tr>
<tr>
<td>Trade union</td>
<td>Unincorporated Joint Venture</td>
</tr>
<tr>
<td>Company</td>
<td></td>
</tr>
<tr>
<td>Limited by shares (public – listed)</td>
<td></td>
</tr>
<tr>
<td>Limited by shares (public – unlisted)</td>
<td></td>
</tr>
<tr>
<td>Limited by shares (proprietary – small)</td>
<td></td>
</tr>
<tr>
<td>Limited by shares (proprietary – large)</td>
<td></td>
</tr>
<tr>
<td>Limited by guarantee</td>
<td></td>
</tr>
</tbody>
</table>
However, legal form is not the sole determinant of ownership, although it is the dominant form. For example, traditional ownership is decided by social or geographic (environmental) characteristics. In an address to the Central Land Council, David Ross (2003) notes three key points about traditional ownership:

- Traditional ownership is not static or rigid. There are no traditional owner lists set in concrete. Traditional ownership is fluid and evolving, and firmly rooted in Aboriginal law.
- There is not a single ‘level’ of traditional ownership. As Peter Sutton explains, ‘It is also a false pursuit to consider that there is one level at which Aboriginal people hold rights and interests in land under their traditions … rights and responsibilities in country, under Aboriginal tradition and in current practice, are not vested in or derived from any single ‘level’ of grouping but are rooted in a complex machinery that coordinates different kinds of persons and groups of different types and sizes, and calls on different sets of people to deal with different kinds and scales of decisions about land as they arise.’ (Sutton 1999: 48–49)
- There are checks and balances in Aboriginal systems of land tenure, which provide for traditional owners and custodians to share responsibilities. In this region an example is the Kirda-Kurdungurlu relationship (Williams 1999: 54).

The decision regarding who will be involved in the business is influenced by social as much as economic issues. The choice of employees – family or non-family members – may refer back to some of the ‘why’ issues discussed previously. If the business is started to provide employment or income to family (especially children) then the choice is already made by the objectives. In family businesses, ‘who is involved’ can be a crucial milestone for the business, particularly when referring to succession. As Burkart et al. (2003: 2167–2168) point out:

*For nearly every ... firm that does not fail, there comes a moment when the founder no longer wishes to manage it. This can happen at the very beginning, when the founder seeks professional managers to run their firms ... Alternatively, a founder can retire or cut [their] work load later in life.*

Olson et al. (2003: 639) note that owners of successful businesses tend to sleep less and hire more temporary (non-family) help than those with less successful businesses. The involvement of family members in the business affects the family itself, with the potential for family stress and tension through issues arising over hours worked, location of the business (particularly home-based business and non-family employees), personal relationships, health and short- or long-term decision making (Olson et al. 2003: 647). It is possible that businesses have a variety of people involved, some voluntarily such as family, employees, legal owners and traditional owners, and some resulting from jurisdictional requirements, remoteness or necessity, such as regulators and specialists.

Carsrud et al. (1996) provide a taxonomy for these characteristics. Family involvement and values are a significant factor in their work, which develops a taxonomy of closely-held businesses. The taxonomy covers 16 business-types based on three variables: bonding, values and control (see Table 5). Four bonding types are highlighted: biological, emotional (including defacto and married couples) legal and event. Values were either strongly shared or weakly shared, and control was either internal or external. The taxonomy provides one
example of integrative work by incorporating issues of control which may be both economic and social.

### Table 5: Business types

<table>
<thead>
<tr>
<th>Class</th>
<th>Bonding</th>
<th>Values</th>
<th>Control</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biological</td>
<td>High</td>
<td>Internal</td>
<td>Traditional family structure with strong culture or religion</td>
</tr>
<tr>
<td>2</td>
<td>Biological</td>
<td>High</td>
<td>External</td>
<td>Large company incorporating external control and non-family members in management</td>
</tr>
<tr>
<td>3</td>
<td>Biological</td>
<td>Low</td>
<td>Internal</td>
<td>Family members as shareholders</td>
</tr>
<tr>
<td>4</td>
<td>Biological</td>
<td>Low</td>
<td>External</td>
<td>Family and non-family members as shareholders incorporating external control via funding or management</td>
</tr>
<tr>
<td>5</td>
<td>Emotional</td>
<td>High</td>
<td>Internal</td>
<td>Husband-wife or family partnerships</td>
</tr>
<tr>
<td>6</td>
<td>Emotional</td>
<td>High</td>
<td>External</td>
<td>Large not-for-profit organisations and family foundations</td>
</tr>
<tr>
<td>7</td>
<td>Emotional</td>
<td>Low</td>
<td>Internal</td>
<td>Transforming or dying partnerships</td>
</tr>
<tr>
<td>8</td>
<td>Emotional</td>
<td>Low</td>
<td>External</td>
<td>Dying partnerships typically through divorce</td>
</tr>
<tr>
<td>9</td>
<td>Legal</td>
<td>High</td>
<td>Internal</td>
<td>Larger bureaucratic companies</td>
</tr>
<tr>
<td>10</td>
<td>Legal</td>
<td>High</td>
<td>External</td>
<td>Defence, emergency services and police may transform to class 5</td>
</tr>
<tr>
<td>11</td>
<td>Legal</td>
<td>Low</td>
<td>Internal</td>
<td>Investment banking, venture capitalist groups may be unstable</td>
</tr>
<tr>
<td>12</td>
<td>Legal</td>
<td>Low</td>
<td>External</td>
<td>Large bankrupt firms or those in administration, and unstable large firm</td>
</tr>
<tr>
<td>13</td>
<td>Event</td>
<td>High</td>
<td>Internal</td>
<td>Ad hoc committees, single purpose ventures and community action groups; may transform into an emotional bonding</td>
</tr>
<tr>
<td>14</td>
<td>Event</td>
<td>High</td>
<td>External</td>
<td>Not a useful class for the purposes of business taxonomies</td>
</tr>
<tr>
<td>15</td>
<td>Event</td>
<td>Low</td>
<td>Internal</td>
<td>Sole trader, merchant with no partners (family); may move to another class with biological or emotional bonding</td>
</tr>
<tr>
<td>16</td>
<td>Event</td>
<td>Low</td>
<td>External</td>
<td>Co-operatives, market tenants, tenants in an apartment complex; very temporary and expected to either cease or change</td>
</tr>
</tbody>
</table>

Source: Carsrud et al. 1996

Audit and analysis of ‘who’ questions reinforces the contingent nature of classes incorporated in taxonomies.

### 5. Integration

In summary, integration of business characteristics relating to these questions provides a pro forma and aide memoire mapping for sets of contingencies which, through indicators and measurement, will at worst provide a way of differentiating between leaders and laggards. At best, they might provide indications of sustainable and unsustainable business through contingent sets of taxonomic pathways which provides a summary of the main issues raised above in relation to the development of a taxonomy of business (see Figure 1). The taxonomic pathways in Figure 1 are contingent upon the questions being asked, the issues being addressed and the need for integration.

### 6. Conclusion

The pragmatic-normative approach to business reveals that there is no one best way to represent every aspect of business in a single taxonomy. The functional approach to business is founded on the notion that a single taxonomy of sustainable business could be derived based on a rigid, hierarchical view of the world, something which the richness of social, environmental and economic considerations in combination disallows. The pragmatic-normative approach illustrated leads to the conclusion that sets of answers to different questions – the why, what, where, how, when and who of sustainable business – are needed to help integrate the main social, environmental and economic contexts as well as reduce unnecessary complexity.
The notion of a contingent taxonomy of sustainable business holds a number of implications for DKCRC’s Desert Biz™ research.

- It highlights the difficulties of using a single taxonomy to classify businesses. The contingent nature of the taxonomy requires a highly individualised assessment of each business and this has implications for policy at all levels of government and regional economic development: where policy treats business as a homogenised collective rather than individual elements.
- The complex characteristics of a business are analysed using six questions; however, the range of facets in each is seemingly infinite. The contingent nature of the taxonomy provides flexibility for the inclusion and exclusion of a range of elements, and can be used to create and develop governance structures that are culturally and socially appropriate.
- Finally, the notion challenges stakeholders, regulators and business owners to consider their businesses from a sustainability perspective, emphasising the multiple roles of business, the reliance on them by community and local economies and the importance of a holistic analysis of business. An audit and analysis of these sets of contingent contexts will aid understanding of the different types of business in situ and reveal the leaders and laggards insofar as present (and possibly future) success in terms of sustainability is concerned.

![Figure 1: Taxonomic pathways](image-url)
Some of the contexts of this contingent taxonomy of sustainable business may be more aligned with non-desert businesses. However, the model remains a first step towards developing useful sets of characteristics for the audit of business in desert settings, with considerable scope remaining for expansion of the model presented.
7. References


Carsrud AL, Lara SEPT, Sachs RJ. 1996. *Exploring a Classification Scheme for Closely-held Businesses: Getting to a Workable Definition of Family Firms*, UCLA Center for International Business Education and Research, Anderson School at UCLA.


