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Strategy Development in UK Higher Education: Towards Resource-Based Competitive Advantages

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Abstract

Britain's Higher Education Institutions (HEIs) face fundamental and unprecedented competitive pressures due to lower government funding (Cm 5735, 2003) and a government agenda focussed on a 'widening participation agenda'. We employ the Resource Based View (RBV) of strategy development to explore potential coping strategies. The RBV has not previously been applied to HEIs, partly because of limited relevant strategic data. The paper explores whether or not universities possess sustainable competitive advantages and concludes that they do, particularly knowledge-based, reputational, innovative and architectural related advantages. Further research is proposed into the competitive advantages of individual HEIs. The paper argues that a resource-based perspective could provide new and valuable insights for strategy development at UK universities and that these same principles can be applied in other parts of the world.

Keywords: Sustainable Competitive Advantage, Resource-Based strategy, Higher Education Institutions.

Introduction

UK HEIs have been increasingly been competing against one another (Kogan, 2003) for the best students, the highest quality staff and for research funding from the UK Government (THES, 2002) during times when government policy agendas have been continuously changing, particularly in relation to research funding. In the strategy development literature, sustainable competitive advantage has become an important concept to explore (Porter 1980, 1985). One (but not the only) method of examining competitive advantage increasingly proposed over the last twenty years is the Resource-Based View (RBV) of strategy development (Barney and Arikan, 2001, and Cool, Costa and Dierickx, 2002). As far as we can ascertain, the RBV has not yet been explored in relation to HEI strategy in UK HEIs.

In business, the RBV concept seeks to identify the special 'bundles of resources' possessed by an organisation that enable it to outperform its competitors, the underlying assumption being

profit maximisation (Barney 1991, Peteraf 1993, Kay 1994, Barney and Arian 2001). The RBV has sought to answer two related questions: “Why do some firms persistently outperform others?” and “What are the implications for business strategy development?” (Cool, Costa and Dierickx, 2002 and Barney and Arian 2001). The theory of superior competitive resources has come to play an important role in strategy development (see, for example, Wernerfelt 1984, Prahalad and Hamel 1990, Barney 1991, Rumelt 1991, Peteraf 1993, Kay 1994, Kay 1999, Hoopes *et al* 2003).

The strategy concept has previously been applied almost exclusively in a private sector context. If we accept that UK HEIs compete against one another, then it is possible that such questions are relevant in the HE sector, although we accept that HE institutions do not conform to the simple profit-maximising assumption of the RBV. Thus, the meaning and relevance of such questions needs to be re-interpreted in an HEI context. This paper therefore represents a fundamental shift in the strategic thinking applied to a specific area of the public sector.

It can be argued that during the 1990s, Cambridge University, Warwick University and Imperial College, London ‘outperformed’ other HEIs as these institutions gained a greater share of public and private funds per head of student than would have been justified on the basis of student numbers alone (Sunday Times 2003). The argument explored in this paper is that the reason for this superior performance is that such institutions had superior *competitive resources* to other UK HEIs as they had a higher quality student intake in terms of entry qualifications and a higher quality of staff in terms of higher quality teaching and research skills, and knowledge (Sunday Times, 2003). If the competitive resources thesis is correct – that institutions outperform others because they possess unique bundles of resources - then this would have significant implications for strategy development for all HEIs in the UK and in other countries where competition exists between HEIs.

This paper undertakes the first detailed application of the Resource-Based View to UK HEIs at a time when the UK government has decided on significant, controversial, changes to its higher education strategy (Cm 5735). The approach contained in this paper is to establish whether or not the RBV is relevant and, if so, to identify a strategy research agenda. We propose to answer such questions as: (1) Do HEIs possess competitive resources and, if so, what defines them? (2) Are such resources sustainable over time? (3) To what extent, if at all, are such competitive resources important in delivering the objectives of the HEI? (4) If such resources are important, can they be identified and assessed? (5) If such resources are important, how do HEIs enhance and maintain them? (6) Are such arguments exclusive to UK HEIs or can they be applied elsewhere in the world?

To explore the above questions, a review of the strategy literature has been undertaken concerning the RBV and the HEI strategic context. Then we attempt to identify and explore its relevance in relation to HEIs in the United Kingdom. There follows a discussion on sources of potential competitive advantage within the HEI sector and, finally, the above six questions are considered with some managerial implications and a future research agenda is outlined.

The development of the resource-based view and the HEI strategic context

The branch of strategy associated with identifying those resources which can bestow competitive advantage has been termed the resource-based view of strategy development (RBV). For profit-seeking companies, the RBV has been captured in the following:

“In summary, (the RBV) rests on the collection, development, enhancement, and exploitation of a deliberately chosen set of elemental, building block competencies and assets that are isolated from imitation and appropriation by competitors. Structures and systems are designed to nurture, protect, and exploit these key capabilities and resources in ways that enable a firm to create a deliberate, path-dependent future to achieve competitive advantage” (Lengnick-Hall and Wolff, 1999).

The economist, Edith Penrose, was amongst early writers exploring the principle that resources were important in bestowing competitive advantage on a firm (Penrose, 1959). Other early strategy writers also identified the significance of resources on strategy performance (e.g. Drucker, 1961; Ansoff, 1965; Andrews, 1971) and the general management capabilities that might deliver superior performance (Selznick 1959). Such work often focused on leadership and the ability of institutional leaders to create a vision for the organisation (Finkelstein and Hambrick 1996, Collins and Porras 1997). Resources have become increasingly important in HE where vision and leadership are important in defining a university’s differentiated position, particularly in an increasingly global marketplace and where the unit of resource is being reduced (Fram and Lau 1996, Jongbloed and Vossenstein 2001, Patterson 2001, Pidcock 2001, Harley 2002, Taylor 2002, Mazzarol *et al* 2003, Willmott 2003).

The orientation of strategy research changed from resource-led approaches to market-led approaches during the 1980s (Connor, 1991) with the publication of two seminal texts emphasising the importance of the structure of markets for strategy performance (Porter, 1980, 1985). However, it is now generally accepted that it is the *individual* resources of the organisation, rather than the firm’s position in the market place, that will deliver sustainable competitive advantage (Wernerfelt, 1984, 1989; Barney 1986, Dierickx and Cool, 1989; Prahalad and Bettis, 1986; Amit and Schoemaker, 1990, Rumelt, 1991, Peteraf 1993, Kay 1994). The empirical work supporting this approach has been derived from a large range of studies of companies in industries such as electronics and telecommunications (Hamel and Prahalad, 1994), pharmaceuticals and consumer goods (Kay, 1994) and other areas (see Barney and Arikan 2001, pp 147-169, for a listing of the main research studies). However, the resource-based view has seldom been applied in the public sector, and certainly not in relation to UK universities.

The RBV concept is now widely regarded as having some merit: “[It] has a coherence and integrative role that places it well ahead of other mechanisms of strategic decision-making” (Kay, 1999). However, there have been criticisms of this approach (Lynch 2000, Priem and Butler 2001). Such comments are mainly centred on the possibly tautologous nature of the RBV content and the tendency to produce long lists of possible competitive advantages. We have attempted to overcome any such difficulties in this paper by focussing on the application-based aspects of the RBV - such as core competencies (Prahalad and Hamel 1990, Mazzarol and Soutar 1999, Eynon and Wall, 2002) - as well as a fundamental discussion of the relevance of the RBV in a public sector context. Rebuttals to the RBV criticisms suggest

that an application-based approach is appropriate and relevant ([Barney 2001](#), [Hoopes et al 2003](#)).

The logical underpinning of the RBV is that the main purpose of strategy development is to identify and enhance the *sustainable competitive advantage* of an organisation. Thus, for competitive advantage to be sustainable, strategic resources must be unique to a particular company, difficult to imitate or substitute, be non-tradable or more valuable to an individual firm than others in the same industry and they must be either difficult to obtain or the associated risk of obtaining them must be uncertain and potentially expensive ([Peteraf, 1993](#)). This paper explores whether such an approach has any meaning in public sector HEIs within the strategic context of an increasingly competitive battle for student customers and for research and other funds ([Pettigrew and Whipp 1991](#), [Davies and Glaister 1996](#), [Thomas 2001](#), [Harley 2002](#), [Kogan 2003](#)).

During the 1990s, writers identified some specific aspects of the individual resources of an organisation that provide it with sustainable competitive advantage. There has been a basic distinction between the *asset* resource-endowments of the business, such as land and financial resources, and the *capabilities* of the business, such as its skills and collective knowledge ([Day, 1994](#), [Grant 1996](#)). Sustainable competitive advantage can also usefully be considered as being delivered from three types of resource, i.e. tangible, intangible and organisational ([Itami 1987](#), [Prahalad and Hamel, 1990](#); [Kay, 1994](#), [Collis and Montgomery, 1995](#)). Application-based approaches have identified core competencies, architecture, reputation and innovative capability as being important resource attributes likely to deliver organisations competitive advantage ([Prahalad and Hamel 1990](#), [Kay 1994](#)). Unique knowledge has also been recognised as an important competitive resource, especially the way that it is developed, nurtured and disseminated ([Nonaka and Takeuchi, 1995](#), [Grant 1996](#)). This paper explores the above application-based typology of resource-types and the specific knowledge process in relation to UK HEIs.

Although the RBV *per se* has not been applied in any depth to HEI strategy development, researchers have not ignored the underlying resource issues involved. The strategic context in which Australian and British universities operate - with lower levels of funding, widening student access and increased competition - has been explored ([Macdonald and Stratta 2001](#), [Wood and Meek 2002](#), [Taylor 2002](#)). Increased market-focus ([Mazzarol et al 2003](#)), and performance-based funding of HEIs have both been explored in international context ([Jongbloed and Vossensteyn 2001](#)). Competitive criteria have been used to develop new strategies in Australian Higher Education, though not without criticism ([Stilwell 2003](#)). [Bellamy et al \(2003\)](#) researched why one key university resource – its staff – remained in the university sector. There has been some discussion of competence-based approaches in further education specifically with reference to professional training ([Eynon and Wall 2002](#)). [Mazzarol and Soutar \(1999\)](#) used a simple competence-based approach to HEIs as part of a broader-based strategy model. More generally, strategic planning and its implications have also been explored in HEIs ([Patterson 2001](#), [Pidcock 2001](#), [Thomas 2001](#), [Harley 2002](#), [Taylor 2002](#), [Willmott 2003](#)). In-depth exploration and application of the RBV to HEIs, though not yet considered within the strategy literature, represents an important next stage for the development of the RBV theory.

Application of the RBV: Definition and identification of the competitive resources of a university

In this section, we explore some of the assumptions that underpin the RBV in relation to public sector strategy in general and Higher Education Institutions in particular, examining whether or not such considerations allow the RBV concept to be applied to HEIs. It is convenient to identify three underlying main issues:

- The competitive market assumption.
- The replacement of the profit maximising assumption of the RBV.
- The meaning of the ‘competitive resource bundles’ of HEIs.

Competitive market assumption

An important underlying assumption of the RBV is that businesses compete against each other (Wernerfelt, 1984, Barney 1991). There are over 100 Higher Education Institutions offering university degrees and related qualifications in the UK. The market is growing steadily as the UK government moves towards its objective of 50% of all adults under 30 years old participating in higher education by year 2010 - currently around 43% (Tonks and Farr 2003). However, market shares are fragmented with even the largest institutions holding less than 5 per cent share of the market defined by student numbers. Although there are bodies that provide a mechanism for co-operation amongst the HEIs, such institutions compete against each other to attract UK and overseas students at both undergraduate and postgraduate level (THES, 2002) and thus competition, rather than co-operation, is the norm. Some UK Further Education Institutions and University Colleges are to be granted degree-awarding status from the academic year 2004/2005 (Hansard 2003). For this reason alone, there can be little doubt that UK Higher Education Institutions compete against each other for student customers and will continue to do so into the foreseeable future (Taylor 2002, Willmott 2003).

Businesses compete for customers but they also compete in other areas of the value chain, such as for preferential suppliers, cost-efficient financial resources and well-trained employees (Porter 1980, 1985). Using this broader definition of competitive activity, there is good evidence that Higher Education Institutions compete against each other for funds from the UK government: such funds may constitute a significant part – in some cases, the *major* part – of the total income of each HEI (Cm 5735, 2003). Three main sources of funds for such institutions need to be considered: research, teaching and other funds – denoted third core funding - from outside bodies. Although funds for UK university research will be increased by 30% in real terms between 2003 and 2006, such resources will be primarily directed towards some elite departments classified as internationally excellent in the 2001 UK Research Assessment Exercise (Harman 2000, Thomas 2001, Taylor 2002, Willmott 2003). Many institutions will see a significant decline in research income compared with the sums received in previous years in real terms (Harley 2002). Competition for the available research funds will increase.

Teaching funding will also be subject to increased competition. All universities continue to suffer from a declining ‘unit of resource’ as the Higher Education Funding Council (HEFCE) has paid UK universities less in real terms per student per year and the government has supported variable fee-charging for university tuition (Cm 5735). This has precipitated outline

plans by a number of UK universities to charge top-up student payments for undergraduate courses from 2006 with unknown financial consequences (Baker 2003, Kogan 2003). In the current era of declining state support, an institution's ability to attract funds from other sources is becoming increasingly important (Grunig 1997, Taylor 2002, Willmott 2003). The decline in income for many UK universities will also contribute to "levels of unprecedented uncertainty" (Shattock, 2000) in the sector. In addition, UK Higher Education Institutions compete for well-qualified staff – the biggest single cost item in every institution (Cm 5737, 2003). There is some evidence that key staff members, even whole teams, have been poached by one HEI to join another (THES 2002).

In summary, we conclude that the competitive market assumption in the UK HE sector is valid. Some commentators have argued that such competition is not wholly desirable for the future of HEIs (see, for example, Stilwell 2003), but do not deny its existence.

Replacement of the profit maximising assumption of a business

The mission statements of UK HEIs suggest that they do not have the profit maximising objective that underpins business activity (Davies and Glaister, 1996, Patterson 2001). However, this does not suggest that such institutions seek a surplus of income over their costs, but rather that they are able to re-invest the results of such activities in future growth. It follows that the profit-maximising assumption of business can be applied to HEIs as 'funds surplus to costs' are retained by the HEIs to finance expansion programmes. It should be acknowledged that the profit maximising assumption oversimplifies the goals of HEIs (Patterson 2001) but the same oversimplification also applies to the profit maximising assumption applied to business activity (Penrose 1959, Kay 1994).

Competitive resource bundles of HEIs

According to the theory underpinning the RBV, the main purpose of strategy development is to identify and enhance those 'bundles of resources' that will deliver superior performance compared with rivals (Barney and Arkan, 2001). It is assumed that each organisation possesses different bundles of resources and such bundles persist over time (Barney 1991). For competitive advantage to be sustainable, the RBV argues that strategic resources in a company must be heterogeneous, possess *ex-ante* and *ex-post* limits to competition and be imperfectly mobile (Peteraf, 1993). If the RBV is applicable to HEIs, such bundles of competitive resources must be identifiable in such institutions.

Over the last few years, the UK government has developed a national educational methodology designed to compare the teaching ability (QAA 996-2002) and the research ability (RAE 1996 and 2001) of all UK HEIs. Without entering the debate about the merits and underlying validity of such surveys (Harman 2000, Thomas 2001, Harley 2002), the evidence has been gathered and used to show that different HEIs are superior to their rivals in some subject areas for the purpose of governmental resource allocation. Although the QAA and RAE are test conclusions, the detailed comments on each institution refer generally and specifically to the *resources* at that institution that have delivered the *outcomes* under test. Such resources include the teaching and research teams of UK HEIs together with many other resources that are explored in the next section of this paper. We identify these as the 'bundles of resources' that deliver the sustainable competitive advantage of individual HEIs.

To test for the sustainable competitive advantage of such resources, it is useful to consider Peteraf's four distinguishing features (Peteraf 1993):

1. *Heterogeneous resources*: The RBV assumes that organisations possess diverse resources that distinguish one institution from another. The QAA and RAE evidence quoted above suggests that the major reviewing bodies in these fields were able to distinguish one university from another. However, although such differences exist, it is difficult to argue that each UK law school that has obtained a five-star rating in the RAE (and there are some ten of them) is different from another school. This suggests that – just like many businesses – it is difficult to establish clearly the heterogeneous resources of each HEI. However, this does not mean that such resources are not heterogeneous. In practice, it is likely that the distinctiveness of each school will arise from areas of strength within its subject areas, e.g. specialist knowledge and research, distinguished scholars inside a specific university.
2. *Ex-ante limits to competition*: The RBV identifies felicitous resources that have been acquired by foresight or luck. In the case of HEIs, such resources might include some well-endowed older universities and colleges – some Oxford and Cambridge Colleges and Royal Holloway College for example (Sunday Times 2003). Foresight may also have encouraged other universities to invest in new educational areas – such as business studies - that have proved attractive to potential customers (THES 2002).
3. *Ex-post limits to competition*. The RBV has identified various types of resource – social complexity, causal ambiguity, economies of scale, etc. – that are difficult for competitors to imitate or substitute once they have become established at some institutions. For HEIs, such resources might include the reputation of certain departments, the grouping together of areas of specialist expertise, the development of technical patents and so on – the UK Government's White Paper identifies some of these differences (Cm 5737, 2003). The possession of some or all of these resources would enhance the competitiveness of an HEI so long as such resources remained relevant and attractive in the market place. In this area, HEIs do seem to have some competitive advantages that may persist over time.
4. *Imperfectly mobile*: The RBV argues that competitive resources must be difficult to trade between companies and/or more valuable to an individual company in an industry. While it is relatively simple to identify specific resource strengths at individual HEIs, there is significant evidence that there are attempts to attract such resources from one institution to another – the consequences of the Research Assessment Exercise being one example (RAE 1996 and 2001, THES 2002). This may be more easily undertaken where the main resource is a people resource that might be attracted by salary or investment facilities in another institution (Finkelstein and Hambrick, 1996). Thus, HEI resources may not be imperfectly mobile. The implication is that this is less likely to be a source of sustainable competitive advantage for HEIs.

Thus UK HEIs meet some, but not necessarily all, of Peteraf's distinguishing characteristics of competitive resources. Although we have not examined HEIs in other countries, we would expect similar considerations to apply elsewhere. Peteraf's distinguishing characteristics can therefore be used to distinguish some competitive resources at UK HEIs. It might be argued that the lack of clarity in distinguishing some competitive resources is a significant weakness

of such an approach. However in the business world, some businesses – especially those with a strong people content in service industries – also fail to meet fully the tests proposed by Peteraf, yet still have some competitive resources (Barney and Arkan 2001). In order to examine the usefulness or otherwise of the RBV approach, it is important to examine further the nature of the *individual* competitive advantages possessed by *specific* universities.

Definition and identification of the competitive advantages of a UK university

Methodology and research evidence

To undertake this task, we have used existing evidence on HEIs from the QAA Studies (1996-2002) and the RAE (1996 and 2001). Importantly, such data is not a *sample* of HEIs in the UK but a census of Higher Education Institutions in the United Kingdom. In this sense, such evidence does not require a discussion of the statistical validity of the data. Because such data are widely known and publicised, we do not describe it further in this paper. In addition, its broader strengths and weaknesses have been widely publicised and discussed elsewhere so we have chosen not to repeat those arguments in this paper (e.g. see Fram and Lau 1996, Harman 2000, Jongbloed and Vossenstein 2001, Harley 2002, Taylor 2002, Stilwell 2003, Kogan 2003). It can be argued that these data are simplistic with regard to the RBV and that other underlying resources predominate. We discuss this later in our conclusions to this paper.

We would however argue that both the QAA and the RAE studies were essentially aimed at making cross-comparisons of the main attributes of individual HEIs and therefore provide a useful starting point in the exploration of the competitive resources of such institutions.

Discussion of the evidence on UK universities

A basic definition of the competitive resources of a university identifies tangible, intangible and organisational assets (Grant 1996). If we start by exploring the resources of an HEI using this basic distinction, strategic tangible resources might include campus location, building capacity, conference facilities and medical research facilities. In a commercial context, intangible resources generally include such items as patents, service levels and technology and the geographical location of a service. In a university, such intangible resources might include some of the above and may also include employees/associates (e.g. eminent professors, renowned authors and distinguished teachers). Some of these competitive resources are summarised in the recent surveys undertaken by UK government institutions of teaching and research performance (THES 2002, Sunday Times 2003). However, the results tend to be generic: for example, both Southampton and Surrey Universities obtained 5* ratings in 1996 and 2001 in Electrical and Electronic Engineering, yet they have different strengths within this general subject area. It is our view that the QAA/RAE evidence is too broad for any real identification of the individual competitive resources of a university and further research is required to identify the nature of these resources and the true nature of the competitive advantage.

In addition to the basic classification of tangible, intangible and organisational resources, it is important to research other forms of competitive advantage if we are to identify those individual resources of a university that are most likely to prove truly competitive in the UK HEI market place. Based on RBV application-based concepts, we include the following:

- Reputation, architecture and innovative capability (Kay, 1994).
- Core competencies - the skills and technologies that underpin competitive advantage (Prahalad and Hamel 1990).
- Knowledge-based advantages and processes such as tacit and explicit knowledge (Nonaka and Takeuchi, 1995; Davenport and Prusack, 1998) have also been identified as strategic resources. Importantly, these advantages relate not only to resource *content*, but also to the *process* by which such resources are developed (Pettigrew and Whipp, 1991; Olvarrieta and Friedmann, 1999).

Table 1 represents a preliminary approach using these concepts, providing an illustration of how potential competitive resources may be linked to teaching, research and third-core funding activities. It is not intended to be a prescriptive list: future research should explore this further.

When a university's resources are analysed from an application-based RBV perspective, it becomes clear that the people component of its resource-base becomes fundamental (see Selznick 1959, Barney 1986, Wernerfelt, 1989, Cm 5735, 2003). Indeed, it may be the key asset associated with many of the five sources shown in Table 1. For instance, if a university fails to invest in developing its staff, particularly in capacity building in research teams, it will not succeed in developing knowledge to which it can then claim unique ownership through copyright or patents. If a university fails to develop a network of contacts within and outside the industry, it will not be able to recruit sufficient overseas and domestic students and might see those students decline in its own traditional markets as other institutions poach them (Rolfe 2002, Mazzarol *et al* 2003).

There is good evidence that the long-term competitive advantage of a university will be derived from its reputation as “students select courses on the perceived expertise and reputation of teaching staff” (Hughes 1988, Moore 1989). Several researchers have identified the importance of research in the reputational development of teaching universities (Fram and Lau 1996, Thomas 2001, Harley 2002). Key factors important in developing competitive advantage include the creation of an image of quality, the generation of a strong market profile, and the development of offshore teaching operations in coalition with overseas partners (Mazzarol and Soutar, 1999). However, it is important to note that this whole emphasis on the competitive nature of such resources has led to criticism (see, for example, Patterson 2001, Rolfe 2002, Kogan 2003, Stilwell 2003).

Table 1 - Identifying the competitive resources of university – a preliminary approach

RBV CONCEPT	COMPETITIVE ADVANTAGE	APPLICATION TO UNIVERSITY SECTOR
Reputation	Enables an organisation to communicate favourable information about itself to its stakeholders	Important to build long-term relationships with students to recruit to courses so that they undertake studies throughout of their lives. Students also become employers, donors or partners at later points in their lives. Reputation important for the development of outreach activities and for commercial and public sponsors of research.
Architecture	The network of relationships, contracts, and alliances	This parameter includes relationships developed with other higher and further education institutions, relationships with local government, funding bodies, research councils, companies, and partners (commercial or charitable) for recruitment of students onto courses (teaching), research (e.g. funding councils) and outreach/commercialisation (e.g. licensing agreements).
Innovative capability	The ability to undertake totally new initiatives that go beyond the current strategy	Perhaps the most difficult resource to develop in higher education institutions because of the need to maintain quality of provision without damaging academic standards but is equally applicable to teaching (learning and development process innovations – e.g. e-learning), research (e.g. patents) and outreach/commercialisation (e.g. new commercial products and services).
Core competencies	The group of production skills and technologies that enable an organisation to provide a particular benefit to customers	This could include the processes underpinning teaching, learning and assessment strategies, application of theory to practical problems (vocation) either for the development of teaching or consultancy products or for research purposes, student placement or final destination placement, fund-raising and/or alumni relations.
Knowledge-based advantages	Tacit and explicit proprietary knowledge possessed by an organisation	This is likely to include frameworks and methodologies in consultancy, copyrighted material, high-value CPD courses and training competences, and intellectual property arising from research .

Sources: Application based on the criteria and comments developed for the RAE 1996 and 2001; the QAA Teaching Assessments (1996-2002).

In addition to reputation, universities may have other sources of competitive advantage. Innovative capability is particularly important for the long-term success of a university through the development, for example, of new courses and research patents (Kay 1993, [Taylor 2002](#)). Knowledge-based resources are vital for organisations that rely primarily on people and their skills (Davenport and Prusack 1998). This resource area holds particular promise in uncovering resources that might confer competitive advantage on cash-strapped universities since it raises the important issue of strategic *process*, i.e. the method by which strategies are developed and maintained (Pettigrew and Whipp 1991, Helfat and [Peteraf 2003](#)). In universities, strategic resources can frequently have a strong knowledge base in terms of information (e.g. patents held on the Human Genome by the Nottingham Trent University), although they can also have a tangible entity (e.g. Judge Institute of Management building at

Cambridge University). Although such evidence is incomplete, it suggests that individual universities possess ‘bundles of resources’ that provide them with competitive advantage.

In the RBV literature, it has been shown that some resources take years to develop (Chandler, 1962; Teece, Pisano and Shuen 1997) and become part of the ‘structural capital’ (Gummesson, 2000) of the organisation. These resources are most likely to deliver the sustainable competitive advantage identified in the RBV concept. In the context of universities, there is evidence that key resources – like the patents and reputations discussed above - are developed over considerable time periods.

Managerial Implications and Future Research

The resource-based view, when applied to UK HEIs, appears to offer university senior managers a framework for developing strategy, which is particularly suited to the knowledge-based and people-focussed context of higher education. Our preliminary examination suggests that further discussion is necessary but that universities may have more competitive resources than they have yet realised.

The next phase of research should evaluate funding sources, and competitive resources available, to all institutions in the UK university sector with a view to determining the breakdown of teaching, research, commercial and third-core activity for individual, or strategic groups of, universities. Such analysis could provide insights into which areas of activity different universities should seek to develop and, by extension, which competitive resources universities might underpin this development in the future. We hypothesise that more reputable institutions have developed distinct capabilities and competencies. The next phase of research should test the following propositions:

Proposition 1 – An HEI with an above-average increase in revenue over the last five years will have developed a strongly developed knowledge base characterised through high levels of research activity (i.e. high RAE scores in both staff entered and level of assessment), and a significantly higher number of patents registered than its competitors.

Proposition 2 – An HEI with an above-average increase in revenue over the last five years will have a stronger record of innovation than their counterparts, particularly in terms of the number of spin-off and spinout companies formed over the five year period and/or in terms of the totally new teaching courses developed over the same five year time-frame.

Proposition 3 – An HEI with an above-average increase in revenues over the last five years will have a significant increase in its research reputation over the period as measured by increases in its RAE scores over the same time frame.

Proposition 4 – An HEI with an above-average increase in revenues over the last five years will offer high quality teaching programmes as measured through QAA exercises over the same time frame.

Proposition 5 – An HEI with an above-average increase in revenues over the last five years will have significantly enhanced its network of relationships - defined as alliances, joint ventures and other significant links - when compared to its competitors.

Proposition 6 – Propositions 1,2,3, 4 and 5 are not mutually exclusive.

In testing these propositions and other related areas, we would expect highly valuable evidence to emerge on how UK universities can survive and grow over the next ten years, as the government's strategy in higher education is operationalised further. This may then lead to modification of university plans and strategies ([Pidcock 2001](#)) and address management issues such as the implications for the concentration of resources on areas of strength and the reduction of resources in areas of weakness ([Appelbaum and Patton 2002](#)).

Conclusion

Finally, we return to the questions posed at the outset of this paper. We have argued that HEIs compete for customers, for government and for other resources. We have shown that they possess bundles of competitive resources. However, we would caution that there are no 'rules for riches' (Barney and Arikan 2001): the underlying logic of the RBV – the unique nature of competitive resources – means that there can never be a set of guidelines that will allow all HEIs to be equally successful.

Importantly, our examination suggests that some HEI resources – e.g. reputation - are sustainable over time. There is some evidence that other resources – e.g. teaching quality - have only limited distinguishing features and may be more easily replicable by other HEIs over time. We would argue that this in itself is an important strategic insight if correct, and deserves further consideration by HEIs when developing their strategies.

More generally, we have shown that competitive resources are important in delivering the objectives of the HEI in that they enhance the competitive advantage of such institutions in an increasingly competitive market. However, this depends to some extent on the objectives of the university. For example, if a university's principle objectives are to develop its international student base, it must focus principally on its architecture, reputation and innovative capability. If it wishes to develop its research commercialisation income, it needs to emphasise its knowledge-based advantages, architecture and core competences. If we assume that most HEI objectives are clustered around research, teaching and third-core activities (including community outreach and commercialisation) then clearly all five areas outlined in Table 1 have some part to play in developing a university's competitive advantage. However such resources only assist strategy development where the HEI has developed clear and achievable objectives and, ideally, where such objectives are consistent with its resources. For example, if the university has few competitive resources in medicine, then it may be inappropriate to set an objective to become a leading medical school. Nevertheless, if government policy were to change with regard to investment in medical education and the university was willing to rely on government income, then this objective might become achievable.

According to present UK government policy, all HEIs are targeted with growth objectives either in teaching or research or both (Cmd 5735, 2003). The identification of the current

competitive advantages of an HEI is important because it provides a basis for the delivery of such growth objectives. However, we acknowledge that this is not the only approach to strategy development at UK universities because the RBV approach tends to look back to existing resource strengths, rather than forward towards new opportunities ([Lynch, 2000](#)). Resource-based strategists argue that it is most efficient to build new opportunities from existing resource strengths (Hamel and Prahalad, 1994). We remain unconvinced that the insights of the RBV will *always* identify such opportunities and therefore suggest that other strategy processes – perhaps market-based or experimental - are needed in addition to the RBV (see, for example, [Porter, 1980](#); [Pettigrew and Whipp, 1991](#)).

The evidence presented in this paper, which is largely confined to one historical period around the period 1995-2002, does not fully explore how the competitive resources of HEIs are developed and enhanced over lengthy time periods (Chandler, 1962; [Teece et al, 1997](#)). The next step is to examine this further and, in addition, couple this with further consideration of how competitive resources relate to the University's mission and objectives and to changes in Government policy. In addition, it will also be useful to examine whether or not those universities that have failed to develop their resource-base in such areas as relationships/partnerships (architecture), innovation (teaching, research and third core funding), reputation, or their knowledge-base (research and teaching technologies, particularly distance and e-learning) or a particular core competence will continue to be supported by the UK government.

Although our evidence has been confined to the UK, the basic arguments could be applied to any national system of competitive higher education where HEI institutions compete with each other for funding from public and private sources. Indeed, our evidence is consistent with those who argue that higher education is becoming more international with increased competition from many countries ([Harman 2000](#), [Jongbloed and Vossensteyn 2001](#), [Mazzarol et al 2003](#)). Further, the extent to which the RBV can be used to develop strategy within other international contexts depends on the 'bundles of resources' available to those institutions. In other words, there are strong indications that national government policy is often the prime shaper of the market context for any country's university sector, with a concomitant impact upon strategy development. Further research is required in individual country contexts to determine to what extent this factor impacts upon the development of competitive resources.

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