

# **Universities and the User Community: Marriage or Mismatch ?**

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# SUMMARY

## Universities and the User Community: Marriage or Mismatch?

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This thesis seeks to evaluate the relationship between universities and Small and Medium Sized Enterprises (SMEs) in the area training and upskilling. In particular, it proposes a research framework which facilitates the study of university-SME collaboration.

The role of the university has been a contentious issue with opposing views on its 'proper' role. Contrary to some traditions links with the local community and local business has been a part of university activity since the turn of the century. However, during the twentieth century and more recently since the 1980s universities have been encouraged by government to take an increasingly overt economic role. The latest government policies on the economy illustrate the importance that government has placed on universities in providing amongst other activities the provision of training for the nations workforce. Considering that SMEs account for 99.9% of all firms in the UK the implication is that universities will be important players in providing training for SMEs. Therefore, how successful has the link been between universities and SMEs?

To enable the study of this relationship a research framework has been devised. This has involved showing how previous attempts at university-SME links have illustrated a gap between policy objectives and the reality on the ground. The aim is to see whether a similar 'gap' exists now. This is achieved by defining the SME relevant university offer package of five West Midlands universities and interviewing university staff members, Business Services Providers and managers of SMEs. The data obtained from this research have identified factors which illustrate why marriage or mismatch is likely to occur.

The thesis concludes that both marriage and mismatch describes the current situation. It has been shown that universities can successfully provide training for SMEs on a small scale. This however varies between institutions and appears to reflect the inter-relationship between the following factors: 'Strategic Positioning of the University'; 'Market Penetration'; 'Costs - Financial and Time' and 'Funding Regimes'. Overall it is concluded however that universities have problems in fulfilling the role of training provider for SMEs. This seems to illustrate the gap between government policy on linking universities with SMEs and the reality where there is a general mismatch between what universities appear to be able to provide and what SMEs demand. This indicates the paradoxical nature of the market and illustrates some form of market failure.



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# INTRODUCTION

The central theme of this thesis is university-SME relations with particular reference to training and upskilling. The relationship between universities and SMEs is based on the concept that by utilising the key resources of the university such as knowledge and expertise SMEs will become more competitive and therefore contribute to the national prosperity and wealth generation. This thesis considers the practicalities of establishing such collaboration between universities and SMEs assessing whether there exists a marriage or mismatch between the two.

The underlying problem in this thesis is to determine whether these very different organisations can come together to establish a worthwhile and successful collaboration. This thesis addresses the above question by concentrating on the 'why' and 'how' of such collaboration illustrating 'why' they have become to be seen to be so important to the competitiveness of the economy and 'how' such collaboration may or may not occur. It should be possible to show from this analysis whether marriage or mismatch best describes university-SME relations.

The first three chapters of the thesis provides both the conceptualisation and context to the research.

Chapter one provides a historical and conceptual framework of the role and function of the university. It begins by discussing different interpretations of the university thereby hinting at the potential problems associated with these varying views. It goes on to show that contrary to some of these interpretations the university has had close links to its local community and local business which since the 1980s has been characterised by a shift towards a more economic and vocational orientation. This shift illustrating the encroachment of the state into institutions in civil society such as universities is picked-up by chapter two.

Chapter two provides the conceptual and contextual framework to explain and explore the increasing encroachment of the state into universities on the back of economic rationales. It begins by defining the state and then explores state university relations from an economic liberal perspective. It includes a critical appraisal of these relations showing that potentially at least there can be a gap between policy objectives and reality illustrating how government economic policies can be resisted by academics. Also included is a discussion of government and non-government policy proposals illustrating the increasing economic imperative attached to university activities. It finally provides an example of the governments attempt to link universities with SMEs through training.

Chapter three describes very briefly some of the elements associated with

economic development strategies and debates the role of small and medium sized enterprises (SMEs) in promoting wealth creation. It also highlights previous attempts to link universities and SMEs in the context of local economic development and goes on to explore recent government initiatives to encourage business development through collaboration between universities, business service providers and SMEs.

The next part of the thesis provides the research findings. The following chapters pick-up from those issues explored in the previous chapters by trying to determine whether collaboration between universities and SMEs is best described as marriage or mismatch.

Chapter four deals with the research methodology while chapter five explores the broad experiences of five of the eight West Midlands universities with SMEs. This is achieved first by defining and discussing the SME relevant 'offer packages' of these universities. This is followed by an analysis of the university, business service provider and SME perspective of the idea, experiences and practicalities of such collaboration in the context of the West Midlands.

As a conclusion to the thesis chapter six presents the main points gleaned from the research and proposes a response to the question of marriage or mismatch ?



# CHAPTER ONE

## IDEAS OF HIGHER EDUCATION AND THE ECONOMY

### 1 Introduction

Universities in the 1990s have been repeatedly claimed by central government to be important players in ensuring the economic well-being of the United Kingdom. The role or mission of the university is increasingly described in terms of 'economic need or individual rights to access' (Barnett 1990:4). The implication is that the university in the 1990s should accommodate an ever widening user community. One manifestation of these policy imperatives is the encouragement given to the concept of lifelong learning through training and 'upskilling' undertaken by universities to directly aid the competitiveness of UK small and medium enterprises (SMEs).

The aim of this chapter is to provide a historical and conceptual framework of the role and function of the university. Initially this will be achieved by discussing the ideas about higher education to provide a conceptual framework to begin to locate the encroachment of the state into higher education on the back of economic rationales. A broader debate will follow concerning the conceptualisation of the university. At one level it will be possible to critically analyse the interpretation of the role of the university since the nineteenth century. At a more specific level, attention will be given to illustrating the role of the university in adult education and the associated theme of lifelong learning. The objective will be to illustrate the relevance of these themes when considering the contemporary role of the university.

This debate is of significance to the central theme of university-SME relations in

the 1990s because it provides an indication of the potential problems of marriage or mismatch emanating from the ongoing debate and opposing views associated with the role of the university and, it illustrates the shift towards a more pervasive economic and vocational orientation of university activities. This gives substance to the notion of marriage or mismatch by providing a historical and conceptual frame to explain university-SME collaboration in the modern context.

## **1.1 The Role of the University**

The university as a Higher Education Institution (HEI) has been the subject of many commentaries. These have discussed what is commonly seen as The Challenge to Higher Education (Birch 1988) or The Crisis of the University (Scott 1984). In short, the 'challenge to' or the 'crisis of' are broadly related to the nature of scholarship and the perceived role of the university:

"...the educational system stands continuously in a state of precarious balance and potential conflict over different priorities: to what extent should it be expected to maximise its own values of cognitive rationality (generating knowledge, searching for truths, teaching and learning in the broadest sense) and to what extent should it be required to 'service' the values and needs of other sectors of society? This question is the subject of continuous uncertainty and conflict" (Smelner, cited in Birch 1988:2).

The discourse on the role of higher education provides some useful conceptual themes which help to explain the increasing service role of the university. Ronald Barnett (1990) is particularly useful. He argues that higher education is subject to influences and pressures from the state and traces the epistemological undermining of higher education: the assault on objective knowledge and recognised truth and, sociological undermining through increased influences and pressures exerted by the state. This enables him to present both a theoretical and functionalist view of higher education. Theoretically Barnett proposes:



"...that there is in the archaeology of both the concept and the practice of higher education a continuing emancipatory concept of higher education" (Barnett 1990: 24).

This intrinsic value of higher education exists even though there are different kinds of HEIs, educational processes and practices. Barnett also argues that higher education has acted as an ideological carrier. In other words, it has perpetuated a narrow set of interests predominantly economic where higher education's contribution to the UK economy is the main measure of its success (Barnett 1990).

The role of the state in the pursuit of such interests informs contemporary sociological discussions on higher education. These discussions refer to the extent to which university education and research should reflect or contribute to the specific requirements of the economy and society. The characteristic components of this discussion include the expansion of student numbers, the associated cost of that expansion and the resulting affects on the quality of education, and the expectations of value for money and accountability (Miller 1995a). This in turn, relates to the capability of higher education for wealth creation and national prosperity.

This interpretation of the role of the university has been the subject of much debate and locates many of those themes, e.g. lifelong learning now associated with the contemporary role of universities. In particular, the debate has concentrated on the apparent transition from a dominant liberal educational ethos to a more modern vocational and economic ethos. However, the statement that the crisis or challenge of the university is a crisis or challenge to liberalism loses sight of the fact that educational traditions do exist side-by-side. The result is the perpetuation of a very narrow view of the role of the university.

Three basic conceptual models of the role of the university can be identified: the *Christian-Hellenic*, *Liberal* and *Modern*. These models provide a historical frame

within which the perception of change in the role of the university can be located.

The *Christian-Hellenic model* is associated with most of the nineteenth century and the work of Sir Walter Moberley (1949). This model bases the role of the university on christian principles. Oxford and Cambridge embodied those principles such as the pastoral relationship between teachers and students and an education which was 'liberal as opposed to servile, general as opposed to specialised, and systematic as opposed to dependant on fashion or individual caprice' (Halsey 1992:47). The *Liberal model* followed on during the mid nineteenth century through to the mid twentieth century. The adoption of this model emphasised the belief that ecclesiastical control of the scholars life was no longer appropriate. Nonetheless, the liberal conception has its origins in the Christian-Hellenic traditions and as such the principles of both are very similar. The *Modern model* which Scott (1984) associates with the period between the mid 1950s and 1970s differs most dramatically from the previous models by the way it interprets the changing nature and impact of the state, society and technology on knowledge and the role of the university.

## **1.2 The Christian-Hellenic and Liberal Models**

The Christian-Hellenic and Liberal models of the university are quite similar. Commentators at the turn of the nineteenth century, such as, Sir Walter Moberley and John Henry Newman viewed the universities role quite simply. Newman states that:

"...the chief duty of the university is to produce good citizens. It should train an elite who are to be the future leaders in affairs and in the learned professions. Thus it differs from a seminary, a technical college, or a research institute. For neither training in the technique of particular callings, whether ecclesiastical or secular, nor the advancement of knowledge is its primary function, though it may contribute to each. The training it gives is an initiation of select young people into their cultural inheritance" (cited in Moberley 1949, 31).



This interpretation of the purpose and values of the nineteenth century university was epitomised by Oxford and Cambridge and is captured within the Christian-Hellenic and Liberal models. The emphasis on the reproduction of an elite either as 'leaders in affairs' (government) or in the 'professions' (medicine or law) provides a particular interpretation of state university relations and the limited role of the university in the economy. The state university relations depicted by Moberley and Newman was built on mutual respect and understanding:

"...both the state and the university system were in harmony, such that, the British elite was unified, a homogenous group with a shared value system and a cultural identity" (Tapper and Salter 1992: 9).

This harmony was conditional on the separation of intellectual authority from political power. This guaranteed the university its autonomy where its responsibility to society was based upon the perpetuation of an elite within an 'Oxbridge' university system dedicated to the reproduction of the professions (Moberley 1949, Scott 1984). As with the Christian-Hellenic tradition the Liberal was concerned with 'the custodianship of an intellectual tradition' where knowledge was about 'preserving and refining existing culture' and where that culture was elitist. Moreover, the formation of elites ensured the reproduction of the professions; 'but professions defined as much by social custom as by technological requirements' (Scott 1984:29). The emphasis on tradition and pedagogy as opposed to vocationalism and technology characterised the core values of the Christian-Hellenic and Liberal university models.

Central to these characteristics were particular pedagogical themes, for instance, the field of academic study was to be general, not specialised, and learning was undertaken for its own sake. In this sense, the acquisition of knowledge was more to do with personal fulfilment where the value of knowledge was in its refinement rather than in its effectiveness (Moberley 1949) and teaching not research was central (Halsey 1992).



However, these characteristics indicate a particular bias towards *one* view of Oxbridge and fail to recognise that not only Oxbridge but other universities, such as the 'Redbrick' group of universities were embarked on other activities which were not so elitist and as such did play a key role in their local economy (Moberley 1949). For instance, Birmingham offered a degree in brewing and Leeds in textiles at the end of the nineteenth century (Miller 1995a).

Newman provides a clue about the varied role of the university when he states that the university may contribute to training and the advancement of knowledge (Moberley 1949). The fact that vocationalism is absent from the remit of both the Christian-Hellenic and Liberal models is a reflection of a narrow interpretation of not only the university, including Oxbridge, but also the range and diversity of students and activities available. The university is not a homogenous group and as such those commentators who concentrate on the primacy of the Oxbridge model and who seem to down play the existence and importance of other traditions (Halsey 1992, Tapper and Salter 1992) are perhaps guilty of the mystification of the university. Certainly, if the idea of liberal education is taken to stand for education which is undertaken without regard to the demands of the wider society, then not only is it obsolete but also unrepresentative (Barnett 1992).

### **1.3 The Modern Model**

It is possible to argue that the broad assumption that the university of the nineteenth century was liberal *per se*, is misleading. As indicated above, there were activities which might be classified as learning for an ulterior motive, i.e the economic role ascribed to the university is not restricted to the demands of the twentieth century. However, the twentieth century is most commonly interpreted as a period of 'crisis' for the traditional, predominantly, Liberal model of the university.

The crisis is seen by many commentators as being associated with the changes



in the underlying academic values, mission and function of the institution. This is depicted by the transition from the liberal to the modern model of the university described as a product of the rise of the natural sciences at the turn of the century and the influences of the utilitarian and service values of industrial society (especially) after the Second World War (Scott 1984). In turn, this has been related to the state's growing desire to utilise the higher education system for 'economic growth and widening opportunities to a rising proportion of the population' (Halsey and Trow 1971:60).

These developments have, it is argued, had implications for the intellectual culture of the liberal university, its values and ideology. However, rather than the values of the traditional model being removed wholesale and replaced by a new set, there is a merger of the modern with the established value systems (Scott 1984). These pressures illustrate the effects of state's changing expectations of the role and purpose of the higher education system (Salter and Tapper 1994). In particular, the modern model points to a shift in the perceived role of the university:

" More and more they were seen as institutions that could make a direct and powerful contribution to the acceleration of economic growth or the promotion of social justice..." (Scott 1984: 54).

This forms the basis of what is seen as the post-war shift to a mass higher education system, the increasing importance of research, the specialisation of knowledge and the growing importance of vocationalism, i.e knowledge as an exploitable commodity.

The post-war shift during the 1950s, 1960s and the 1970s, has been characterised by Scott (1984) as a period of strain and crisis for British culture and by implication, for the higher education system and the university. In particular, he argues that since the end of the Second World War the educational system has gone through a long period of transition. This is expressed as a product of the

'structural', 'superstructural' and 'intellectual' trends associated with for example, the projections of the Robbins Committee and the policies of Department of Education and Science (DES) and the University Grants Committee (UGC); changes in the values and mood of society; and tensions within the nature and role of knowledge respectively (Scott 1984).

Scott argues that the university experienced a revival with the rise in importance of the natural sciences, and the predominance of the industrial society. This provided the momentum to restore the intellectual and material basis of the 'university' which had been lacking in the previous three hundred years. However, it was also to provide the ingredients for change at a latter period. The advent of an industrial capitalist society questioned the values of the liberal university where knowledge in terms of its pedagogical process was independent of the values of industrial society and distinct from social, political or industrial power.

The liberal model although not totally obsolete after 1945, did not fit comfortably with the dynamics of the industrial society. For example, the passive nature of knowledge could not be allowed to remain dominant when there was a growing demand for the university to make a direct input to the economy. Its role within society was, Scott suggests to be radically reassessed during this period.

This modern interpretation, as with the Christian-Hellenic and Liberal models is, perhaps another mystification of the social forces and strata existing in contemporary capitalism. For example, the civic universities of the 1920s and 1930s were already tied into the economic structure. The accommodation of industry especially after the Second World War was not therefore the advent of a new era. In this sense there was not really a new role for the 'university' *per se*, nor had 'society' fundamentally modified its relationship with the university. Rather, Scott depicts *general* trends. It is perhaps misleading to posit the emergence of a new modern university as the expression of an era.



Nonetheless, it is possible to acknowledge Scott's claims that the university was subject to external influences from the state, economy and civil society, and internally, via an internal dynamism (through knowledge) of what he terms 'academicism' and 'instrumentalism' (Scott 1984). Certainly, the provision of a vocational or service role had not been associated with liberal social elitism and the emergence of new technologies and micro-cultures (sub-divisions of disciplines) did result in the service of much wider demands. However, to propose that these were all *new* demands is to deny that any of these demands ever existed before and that all universities conformed to the liberal model.

The displacement of liberal humanism by modern academicism - *the codification of theoretical knowledge*, as well as, the increasing significance of instrumentalism - *directing innovation and the formulation of policy* **were** to have implications for intellectual life. This is identified as the increasing emphasis being placed on the specialisation of knowledge, where knowledge as a pedagogical process was to be superseded by the advent of knowledge as a product and research was to become as important if not more than teaching (Scott 1984).

The development of the modern model of the university, for Scott, is associated with these 'new environmental pressures'. Scott suggests that the university was to become essentially a bureaucratic structure, replacing the traditions of the liberal concept of the community of academics. It was also to become a contested terrain where successive governments embarked on policies to harness the higher education system during the 1950s, 1960s and 1970s thereby ensuring that the educational revolution would aid economic growth by advancing science and would successfully respond to the demand for a highly skilled workforce. For example, the implementation of the binary policy with the creation of the Polytechnics (not to follow the Robbin's road to a university-dominated system) and the change of the Colleges of Advanced Technology (CATs) into universities in the 1960s was Scott argues an attempt, in the broadest sense, to diversify the intellectual activity



of the higher education system, by in part, encouraging vocationalism; varying the type of advanced courses (including sub-degree levels); varying the type of intake of student; making it more accountable to political authority and relevant to social needs (Scott 1984).

In the light of these developments, the issue of perceived crisis was to become prominent in the early 1970s. The period up to this point had been characterised by expansion, both in the number of students, higher education institutions, and trouble-free funding arrangements for higher education. However, the functional crisis (associated with the oil crisis in 1973) resulting in shrinking grants coupled with the removal of the funding plan (quinquennium system), signified the expose of the university to political pressures more quickly than ever before (Scott 1984).

Scott has provided a useful dialogue about the changing concept or perceived crisis of the university up until the end of the 1970s. The anxiety focuses on the future of a traditional perception of the university and its ability to serve the needs of modern society. However, the perception of crisis is in itself somewhat misleading because the crisis is based on a rather narrow interpretation of the role and function of the university.

#### **1.4 Is there a Crisis in the Modern University?**

If there is a crisis, then it is one of perception and interpretation for the traditionalists **and** for the university in the contemporary context around its ability to respond adequately to the demands of society, state and the economy. If the essence of the intellectual ethic is to maintain academia at arms length from society then the intellectual tradition does seem to have been compromised. What is more, the traditional interpretation of 'quality' and 'value' of a university education has been challenged by the existence of tensions between the traditional view of knowledge as a pedagogical process and knowledge as a technological product.



The observation of crisis is itself based on contentious interpretations of the relationship between the university, state, society and economy. It has been shown that not all traditions of the university have been so elitist and that universities *per se* have not all practised at staying arms length from society. However, the changes that have occurred within the realm of knowledge and the role of the university does provide the substance for a wider debate.

The university of the 1980s and the 1990s, which will be discussed in greater detail in Chapter Two, has been the subject of increased demands by the state and economy based on a market discourse. Such a discourse is best characterised by the imposition of measures regarding value and utility, such that, the value and utility of a university is measured more and more in terms of internal productivity and its contribution to wealth creation. Value for money, accountability and the direct contribution to the competitiveness of UK business characterises the environment in which contemporary universities operate. The 'new managerialism' (Hall 1993 in Miller 1995a:123) infused during the Thatcher era is a significant development in the concept of the university and reflects, one could argue, the predominance of the market since the early 1980s.

The three models discussed do offer useful insight into the interpretation of the university. All are very important because they give indications of much of what was considered and in fact transpired to be the remit of higher education. However, they provide a somewhat distorted picture. It is possible to query the belief that universities interaction with the economy is only a modern phenomenon and that it contradicts the true essence of a university education. The idea of adult education, openness and lifelong learning provides examples which contradict this interpretation and provides evidence of universities diverse history. It illustrates that an economic element to university provision through what is in effect vocational training can be traced to before the beginning of this century.

## 1.5 The University, Adult Education and Lifelong Learning

The criticism of both the Christian-Hellenic and Liberal models of the university derive from the over emphasis on the liberal educational regime. It may have been the case that a classical ideology of education dominated the university in the nineteenth century which was then followed by liberalism into much of the twentieth century. However, these ideologies did not exist in the university to the exclusion of all others.

The development of adult, and for that matter Continuing Education in universities; the theme of openness and the concept of lifelong learning have a liberal and vocational identity. The recognition of the vocational aspect of university provision will offer not an alternative interpretation of the role of the university but one which exists in parallel with the predominantly liberal ethos. It shows that the liberal interpretation of university activity is in part incorrect. The development of University Extension in the mid-nineteenth century and its continuation during the twentieth century through departments of Continuing Education and the founding of the Open University show the existence of a university system able to provide for mature students from diverse backgrounds both in and out of work in both Liberal and vocational courses.

The provision of training and upskilling by universities have their origins before the turn of the century. The development of extra-mural (outside the walls) or adult education is in part related to the concept of liberal education. This ties in closely with Aristotle's view that:

"In education it makes all the difference why a man does or learns anything; if he studies it for the sake of his own development or with a view to excellence, it is liberal" (Blyth 1983:2).

The development of adult education in the eighteenth and nineteenth century's



through the founding of middle-class scientific and cultural societies shows however, the diversity of adult education. It indicates both a liberal interpretation through cultural societies and a more vocational expression, most commonly associated with the impact of the Industrial Revolution and the growing importance of *applied* science. For instance, the foundation of the Royal Institution in London in 1799 was:

"...for diffusing the knowledge and facilitating the general and speedy introduction of new and useful mechanical inventions and improvements, and also for teaching by regular courses of philosophical lectures and experiments, the application of these discoveries in science to the improvement of arts and manufacturers, and in facilitating the means of procuring the comforts and conveniences of life" (Kelly 1962: 113).

Although these were rather exclusive societies established for the middle-classes, they were the forerunners of adult education bodies with a wider intake. The existence of an applied edge to education existing alongside the liberal societies was to continue with the establishment of Mechanics' Institutes in the mid-nineteenth century and the later development of University Extension and the Workers Educational Association.

The growth of Mechanics' Institutes is associated with many developments in society including, the growth in population and the concentration of the working classes in the new urban areas. It was also associated with the 'increased need for better-educated workmen in a period of rapid technological change' (Kelly 1962:117). Consequently, the Institutes were more closely associated with vocationalism than with liberalism.

The mid-nineteenth century witnessed the beginnings of what was termed University Extension (Bell and Tight 1993). The development of University Extension, i.e the extension of both full-time and part-time university education to

a much wider audience was to begin under the auspices of the University of Cambridge in 1873 and, was based upon two criteria: the need for university education for working men and, the help in the higher education of women (Kelly 1962: 219). These two criteria show how the university was not exclusively elitist but was also beginning to play a much more diverse role in society.

The University became involved in broader educational provision including activities to improve the general state of education of the workforce, including basic skills in numeracy and literacy but also philosophical and vocational studies. The range of subjects covered by these Extension courses were varied. For instance, in the year 1890-1, 457 courses were arranged by Oxford, Cambridge and London (The University of London had been founded in 1826), of these 159 were in history and political economy, 104 in Literature, art or architecture, 191 in natural science and 3 in philosophy. The courses were between six and twelve lectures long and were passed by examination resulting in a university certificate for successful candidates (Kelly 1962: 224).

'University Extension' and adult education were seen as an educational crusade and based on a fundamental belief that:

"...within a democracy where literacy was becoming widely spread, the benefits of *liberal education* could be extended to all classes of society. At the heart of English Extension work was the belief that ordinary men and women should have the opportunity to reflect upon the great philosophical questions related to life" (Blyth 1983: 4 emphasis added).

Although these courses were based on a liberal ethos and predominantly concerned with 'philosophical questions related to life' they also included some work related courses. The arrangement of extension courses for vocational groups although in the minority was one aspect of university adult education.



The attendance of working men at these extension courses was limited because of their lack of basic education or because they could not find the time. Most working men could not attend extension courses in the morning and afternoon only the evening, or most noticeably they just could not afford to attend. The fact that a large proportion of working men could not afford the courses was partially offset by the actions of employers and the County and County Borough Councils (1891 onwards) who had the responsibility of providing technical instruction, especially in rural areas. These courses included, for example, Mining, Dairy-making, manures and soils, and veterinary science (Kelly 1962).

The growth of adult education on a national scale by the turn of the century coincided with the founding of the Workers Educational Association (WEA) in 1905. The WEA organised adult education through evening classes and provided a range of courses, both liberal and vocational. For example, the Rochdale branch of the WEA provided the following courses:

"There were two courses of Extension lectures, with average audiences of over 500, and classes were run in connection with each. A course of six lectures on 'The Care of the Horse' were arranged at the suggestion of the Carter's Union and was attended by over 100 Carters. Reading circles were held in various parts of the town, and members of the guild gave a course of six lectures on 'English History' in three of the outlying districts" (Kelly 1962: 249).

The mix of extension courses on offer and the variety of ways of study be it full-time, part-time, in evening classes or summer schools has continued throughout the twentieth century. The demand for a more highly educated workforce remains and would seem to explain the general trend towards more vocationally orientated extension courses. This was certainly apparent in the 1950s, for instance, at Leeds, Manchester and Liverpool University's the development of vocational extension courses increased between 1950-4 (Blyth 1983). The objective of Leeds' activities was to offer:

"...a comprehensive educational service (...) that included vocational courses relevant to the professional needs of students seeking to keep abreast of changes in technology and society" (Blyth 1983: 248).

The offer of courses relevant to the needs of the working world have taken on increased impetus relative to the demands of the economy. However, the existence of vocational courses as illustrated from the turn of the century and the 1950s shows that this was by no means a new phenomenon. This 'tradition' continues today with university adult education being subsumed within universities extra-mural provision, most commonly referred to as Continuing Education (Bell and Tight 1993).

University Extension continues in what is now more commonly termed Continuing Education (CE). CE includes education for full-time mature students; liberal adult education; part-time degrees and diplomas; post-experience vocational education courses, including staff development; and open access courses, i.e 'any form of education, whether vocational or general, resumed after an interval following the end of continuous initial education' (Madden and Mitchell 1993:9).

Within the last fifteen years one aspect of CE has grown considerably - Continuing Vocational Education (CVE). The development of CE and CVE has occurred in the belief that:

"modern business needs a skilled workforce and that a skilled workforce needs to be competent, needs to go on learning all the time and everyone needs to take responsibility for their own learning. More continuing vocational education is needed to improve economic competitiveness; to redress skills shortages and increase transferable skills; to keep pace with technological change and the rapid growth of knowledge" (Madden and Mitchell 1993:9).

Integral to CE *per se* is the principle of lifelong learning. The term 'lifelong learning' has been implicit in adult education and University Extension:



"...no longer is an educated person to be seen primarily as one initiated into the circle of those who know this for all time, however grand and comprehensive and civilising this and that may be. Rather, he or she is one who comes to see life in a particular way, namely, heuristically, as a continued intellectual process of seeking and finding, in short as a journey of asking and learning" (Coldstream 1990: 2).

Lifelong learning is most readily associated today with personal development and economic growth, i.e training and upskilling employees in industry thereby improving the competitiveness of industry. Similar principles existed in adult education and University Extension after the First World War. Lloyd George saw adult education as a 'means of post-war reconstruction' (Blyth 1983) and a means of personal development not restricted by time:

"Adult education is an inseparable aspect of citizenship and should therefore be both universal and lifelong" (Blyth 1983:27).

What distinguishes recent public policy statements on university activity (incorporating the idea of lifelong learning) is the way it is framed increasingly by economic objectives and market rationales.

The state has taken the lead in expressing its desire to encourage universities to play a major role in improving the competitiveness of UK industry. The link between lifelong learning the workplace and the competitiveness of UK industry is regularly made in UK government policy statements, such as the two Competitiveness White Papers of 1994 and 1995) and in Europe, i.e 1996 is the proposed European Year of Lifelong Learning (Cm 2867 1995: 83).

## **1.6 Conclusion**

The discussion has shown that contrary to some interpretations of the changing role and function of the university both the liberal and vocational traditions have

existed side-by-side. While the dominant view is of crisis associated with change it has been shown that vocational and extension activities have existed well before the 1970s. Therefore, what this contested view may indicate is an insight into why universities have difficulty in subscribing to the increasingly pervasive economic role associated with their activities.

The university has been subject to changing expectations and pressures, for instance, the changing relationship between the university and state illustrates how economic and societal influences has impacted on the perceived role and function of the university. Although, since the mid nineteenth century there are examples which show that the university has contributed to the local economy and the working person.

Nonetheless, the period leading up to the 1980s shows the increasing economic imperative associated with university activities. However, after 1979 and the election of the Conservative Government the situation develops a new intensity. This period is best described as one where the state becomes ever more active in attempting to develop the economic role for the university and as such this period signifies a marked break from the liberal and modern traditions.

The nature of the encroachment of the state and the new economic emphasis of the university is the subject of the rest of the Thesis. The 'new' mission of the university is only so in the way it has been made to fulfil a more overt and diverse economic role. As shown the university has to a greater or lesser degree had some form of local and national economic role.



# CHAPTER TWO

## STATE, ECONOMY AND THE UNIVERSITY

### 2 Introduction

The objective of this chapter is to develop and discuss further those themes explored in the previous chapter, in particular, the extent to which universities are expected to serve the direct needs of the economy. By tracing and analysing recent governmental and non-governmental policy proposals and statements it is intended to highlight the development of a university system increasingly seen as an important player dedicated to help improve the competitiveness of UK industry. The emphasis on industrially relevant provision, although not new, has taken on a new significance in policy proposals and statements since 1979. More specifically, the analysis will concentrate on how and why universities have been encouraged to work more closely with SMEs by offering, amongst other things, the training and upskilling of employees.

However, before this it will be necessary to provide a *conceptual and contextual space*. The conceptual space will offer a framework to interpret state university relations, while the contextual space will provide a picture of the political and economic landscape pertaining to this debate. With this theoretical and historical framework in place it will be possible to give an overview to state university relations. It is intended that this will 'locate' the final section of this chapter which will concentrate on recent (post-1979) policy proposals and statements.

## 2.1 State University Relations and the Economy - A Conceptual Space

The interpretation of state university relations is largely dependant upon the conceptualisation of the state, economy and society. The objective of this section is to provide such a conceptual frame to help explain and analyse the nature of such relations. This will be achieved by *selecting* different conceptions of the state in relation to capitalism and democracy. By extrapolation it will be possible to show how the relationship between the state, capitalism and democracy goes some way to explain state university relations. It will also be achieved by taking an 'economic liberal' stance. This analytical tool is not only robust but also acts as the predominant ideology behind policies affecting universities in the UK (Miller 1995a) and as such will frame my interpretation of policies relating to the state and university. The objective of this section is to present **one** conceptualisation of state university relations.

## 2.2 The 'State' in State University Relations

The mapping of state university relations within liberal, democratic capitalist societies requires an understanding of what is meant when we refer to the 'state'. There is a tendency to anthropomorphise, homogenise and rationalise the state and state action particularly where the state is defined as nothing more than the government. The state is more than just the government it also includes for instance the military and legal systems, the state is heterogenous consisting of different organs which it can be argued are not necessarily in harmony and which are not necessarily working in line with what is perceived as government policy.

These characteristics of the state will affect the way we interpret state university relations. This is captured in the work of Salter and Tapper (1994). In it they highlight the heterogenous nature of the state and state apparatus by recognising the inherent difficulties associated with coordinating the actions of the 'outer' state



apparatus with the central organs of the state. These difficulties are for Salter and Tapper implicit in the relationship between state and higher education and illustrated by the development of an economic ideology of education:

"The modern economy, first of all, is fuelled by an ever-evolving mix of manpower and scientific knowledge and, ideally, would require the education system to train and research the appropriate educational products necessary for optimum economic advance. However, intervening between the economic dynamic and its potential impact upon education is the central bureaucracy of the state and the political institutions and interests, each with its own identity and concerns. To the best of its ability, each interprets and channels the demands from the economy in a way which suits the dynamic inherent in its own interests and policy preferences" (Salter and Tapper 1994: 3).

State university relations is also explored by Miller (1995a) who argues similarly about the definition of the state. For instance, Miller uses the definition of the state by Althusser (1972) to illustrate why the state cannot be defined only in terms of a particular government. The existence of 'quasi-state institutions like funding councils, and other bodies such as committees of vice-chancellors and principles' provides evidence for a broader analysis of the state, this example shows the diversity of the state as well as giving an indication of how the purposes of the state are connected with the practices of those working in higher education (Miller 1995a).

The state's relationship with universities and the economy can be illuminated by the work of Smith (1990). Smith's ten models of the state provide a broad framework to interpret state university relations. I shall select three models: the regulatory, compensatory and minimalist models to provide a critical view of these relations. These models are historically contingent, i.e the regulatory model dates from the 1930s and 1940s, the compensatory in the 1960s and 1970s and the minimalist model is closely associated with the present day. All three give a useful



insight into current state university relations.

The White Paper Realising Our Potential: A Strategy for Science, Engineering and Technology, emphasises the importance of using research into science, engineering and technology to generate national prosperity and improve the quality of life in the United Kingdom (Cm 2250 1993:1.3). This philosophy coincides with the **regulatory model** which assumes that government should utilise 'expert knowledge in order to minimise social tension and optimise economic growth' (Smith 1990). Moreover, the use of 'expert knowledge' to improve the nations economic performance is not restricted to research. The increasing promotion of lifelong learning through training and upskilling might be seen as another aspect of the regulatory model.

The **compensatory model** leads on from the regulatory model in what Miller describes as a 'welfare state direction' (Miller 1995a:25). This highlights how the university is seen as a means to 'reduce the relative degree of advantage enjoyed by the minority benefiting most from the unequal distribution of private property' (Smith 1990). For instance, the emphasis on using universities to improve the competencies of the nation's workforce and to encourage mature adults to return to education, to name one example, shows a 'welfare' element to the university portfolio, as well as, an economic objective. Clearly, one could argue that the government associates welfare of the individual with the economic wellbeing of the nation.

The 1980s and 1990s have been dominated by the market and market philosophy. This characteristic of the Thatcher and Major government's rests on the belief that individuals will best be served by the market rather than through state action or the activities of public bodies. Instead, the law as enforced by the state will secure minimum social tension and optimum growth. The small state typifies the **minimalist model**.



"In its crude form, it assumes that practically all state action and activity by public bodies will be less efficient, effective or just than private individuals relating through the market (...) its foremost political champions [being] Margaret Thatcher and Ronald Regan" (Miller 1995a: 26).

The definition of state actions in terms of particular dominant discourses is significant because it is the influence of such discourses which informs the following debate on state university relations. These discourses are evident throughout state action; within and between government bodies and ministries and can be the cause of intra-state conflict. What is more, they epitomise the nature of state encroachment on different aspects of society:

"Institutions such as universities...although primarily located within civil society, are a terrain on which different forces operate, on which specific hegemonies and settlements are established; these reflect the dominant power and discourses within state, society and economy" (Miller 1995a: 27).

The extent to which these discourses have affected state university relations will be the subject of the following sections.

### **2.3 State University Relations: An Economic Liberal Perspective**

The **market** philosophy is most readily associated with economic liberalism. This tradition goes some way to explain contemporary economy and society and gives us the necessary framework to understand the nature of state university relations.

"Economic liberalism remains a major form of analysis. It is significant as a way of analysing and understanding economics and society and the way in which universities work. But more importantly it has provided a major, in many cases, predominant ideology for key political decision makers concerned with the formation and implementation of public policy for universities as well as for education in general, health care, social services and housing" (Miller

1995a: 66).

The economic liberal frame has been chosen because 'as a form of analysis and political policy [it] remains powerful not least because of the robustness and resilience of market forms of economic organisation' (Miller 1995a:65). One aspect of economic liberalism in current state university relations which has become a contentious issue (Prichard and Willmott 1995) has been economic rationalism. The associated introduction of performance measures to encourage a more efficient and cost effective university system illustrates clearly the influence of managerial disciplines and the market.

The incursion of 'economic rationalism' into the ethos of university management is easily traced. For instance, the expansion in student numbers which is marked by the Robbins Committee in the early 1960s, has continued, but has most recently occurred without an equivalent increase in resources. Instead, it has been accompanied by a call for increased value for money and accountability resulting in the introduction of performance measures. (Prichard and Willmott 1995: 16) The introduction of market pressures is illustrated for example, with the government White Paper of May 1991, Higher Education: A New Framework. Polytechnics were given the opportunity to become universities, which enabled them to compete for research funding. What is more, they entered the university scene with administrative and teaching traditions different to those pursued by the 'old' universities which increased pressure on senior academics and administrators in the old universities. In other words, they had 'to demonstrate a capacity to organise and "manage" their staff in ways that deliver the results that will ensure a flow of resources sufficient to sustain their existence and, ideally, to boost their prestige' (Prichard and Willmott 1995: 16).

This is articulated in the government's White Paper, Competitiveness: Helping Business To Win (May 1994). The Paper states that the government can help firms



improve their competitiveness by amongst other measures:

"improving value for money in those services which are best provided by the public sector" (Cm 2563, 1994:15).

The hard market economic emphasis (Pusey 1991:193 cited in Miller 1995a:66) is also characterised by the way government has worked to 'establish a quasi market economy and the accompanying framework of industrial values in academic life' (Tasker and Packham 1994:183). The emphasis on the market is apparent in many forms, for example, the growing expectation that industry is seen as an important *customer* of universities. Furthermore, Halsey (1992) cites the predominance of an economic rationale to explain why universities have in effect become competing businesses in a 'higher education industry' (Halsey 1992:4). An industry which has a dual role both social and economic but a role which cannot separate personal development from economic performance, i.e universities should meet increased student demand thereby bringing 'benefits for the individuals who study as well as for the economy and society as a whole' (Cm 1541, 1991:7).

The purity of the *free* market ideology upon which this is based can be questioned:

"...whatever the free market rhetoric there has been an increasing tendency in the 1980s and 1990s for the state to intervene more and more in regulating the activities of universities" (Miller 1995a: 54).

The 'managed market' suitably describes the nature of state university relations and expresses the way in which universities are located within contemporary economy and society:

"There is individual, departmental and institutional competition in a range of inter-linked markets for student funds, research and even research productive academics but the parameters of these markets are set directly by the state and its agencies" (Miller 1995a: 264).

These developments have intensified the debate regarding the control of universities, suggesting that governments have become more overt in their policy directives regarding universities, where a market discourse has become central and where the 'economic responsibilities' of higher education is now a given. They are most readily associated with the Conservative governments since the election of Margaret Thatcher in 1979. The key strategies associated with this and subsequent conservative governments further emphasises those points made above. In particular, the ideology of economic liberalism and the problems associated with the implementation of policy initiatives.

## **2.4 Conservative Economic and Political Strategies Since 1979**

The role and management of the university, in its modern context, is increasingly interpreted by and implemented using managerial disciplines and market rationales. This is most readily associated with the policies implemented by the Thatcher and Major government's during the 1980s and 1990s. These strategies have influenced universities because the policies and practices of universities as institutions located in civil society are directly linked to the state, where the state is understood to be more than just the government and, where the state is set within the orbit of modern capitalism (Miller 1995b).

The economic and political strategies of this period are central to any debate relating to the role of universities in the economy. As John Major, addressing leaders in industry at the CBI Annual Dinner in 1993 about the competitiveness of UK industry, stated:

"You create the world class companies. But in a thousand ways, the decisions that we take in Government can help or hinder you. So we too are part of Britain's competitiveness. All our policies - not just our economic policy - need to be focused on the future strength of the British economy" (Cm 2563, 1994).



The economic strategies which have evolved since 1979 are based on fiscal and monetary policies which try to maintain a stable macroeconomic framework by keeping inflation and interest rates low. These strategies also include keeping a tight reign on public finances and making efforts to improve the supply side of the economy, i.e improve the competitiveness of UK industry. The emergence of monetarism and anti-statism has been paramount in attempting to address the fiscal crisis and the promotion of sustained economic growth. Such economic projects are associated with Thatcherism and have continued under the subsequent Major government's.

Thatcherism has been described by Jessop *et al*, (1984) as follows:

"...Thatcherism has adopted a neo-liberal accumulation strategy premised on the deregulation of private capital, the privatisation of significant parts of the public sector, and the introduction of commercial criteria into the residual activities of the state sector" (Jessop *et al*, 1984: 97).

These strategies especially 'the introduction of commercial criteria into the residual activities of the state sector' including universities are of particular interest. This is closely linked to the governments's strategy to improve the supply side of the economy thereby rectifying the low productivity and low performance of the whole economy. The mechanisms chosen for such a task include setting criteria for more industrially relevant research and setting national targets for education and training. It is also expressed through the 'managed market' where universities like other institutions in civil society such as hospitals are exposed more and more to market disciplines in resource allocation and the setting of targets where cost-effectiveness and competition is to be encouraged. These developments are interlinked to what is the Thatcherite political strategy. This strategy is seen to be trying to 'restructure the state system and its relations with civil society and the economy in the sphere of the politics of state power' (Jessop *et al*: 1984: 98).

Universities have been an important component in government policies and initiatives regarding the economy and social change. This is because higher education and by implication universities have 'educational power'. This is 'a unique blend of two resources essential for economic and social development: knowledge and status' (Salter and Tapper 1994: 4).

The post-war period is characterised by the state through its various departments and bodies attempting to gain greater control over higher education. This has involved an attempt to instigate an ideological shift away from the traditional liberal ideal towards what Tapper and Salter term the *economic ideology of education*:

"Its basic principle is that education is an economic resource which should be organised in a way that maximises its contribution to Britain's industrial development. From this premise it follows that socially relevant, or applied knowledge is more important than pure knowledge, that higher education institutions should be responsive to economic needs, and that it is the responsibility of the state to ensure that these institutions are held accountable for carrying out their economic role correctly" (Salter and Tapper 1994: 12).

The use of educational power to achieve economic ends by the introduction of an economic ideology of education has taken on a new intensity since 1979. Consecutive Conservative government's have, it can be argued, been 'intent to change the ethos of universities as knowledge-based organisations and, more specifically, to harness the activities of academics more directly and explicitly to market forces as a means of raising their contribution to national economic performance' (Prichard and Willmott 1995: 17-18).

However, such a philosophy can become rather overstated. The capitulation of the professions to this ideology whether in health or education is by no means inevitable.



"Recent events illustrate the problematic unity and efficacy of the Thatcherite state and the continued resistance at both central and local levels to various Cabinet initiatives (...) the growing evidence of institutional inertia and resistance in the face of attempts to recast the state also suggests real constraints on the Government's ability to restructure the economy and civil society" (Jessop *et al*, 1984: 99).

The recent work of Prichard and Willmott (1995) attest to the ability of academics to resist the rigors of the new managerialism. Nonetheless, the dominance of an economic ideology in university state relations cannot be understated even if it is not guaranteed. The growing use of such terms as 'efficiency' 'value for money' 'accountability' in the day to day execution of academic activity such as teaching is proof enough of its influence. As is the growing 'industrial ethic' associated with academic activity (Tasker and Packham 1994: 183).

Some would argue that these developments are 'incommensurable with traditional values of the university (Tasker and Packham 1994:183). This depends on whether a predominantly Oxbridge interpretation of the university (Salter and Tapper 1992, 1994 and Halsey 1992) is taken or whether it is accepted that there is more than one university tradition (Miller 1995a) which includes a tradition of close association with industry. Whatever the conclusion it is difficult to deny that much of what is proposed points to a higher education system biased towards UK plc.

The aim of the next section will be to demonstrate the extent to which the state has encroached upon 'the realm of civil society'. It has been shown that the justification for this 'has been in large measure drawn from the economic sphere' but 'paradoxically, this intervention has often been undertaken in the name of introducing market pressures' (Miller 1995a:55). The political and economic strategies associated with these developments go some way to explain recent state university relations. It is now possible to look more closely at the actual policy proposals and statements.

## **2.5 UK Government and Non-Government Policy Proposals and Statements**

The objective of this section is three-fold. Firstly, it will trace the development of policies and recommendations illustrating the way universities have become seen more and more as necessary players in solving low economic performance in the supply side of the UK economy. Secondly, it will show how lifelong learning has become recognised as one important aspect of this development and lastly it will show how these occurrences highlight the predominance of an 'economic ideology of education', i.e. where a market and economic rationale exists in the pronouncements relating to the role of universities.

The grounding to such a 'strategy' lies in the assertion that:

"Changes in the international economy has gradually shifted the basis of a firm's competitive edge from static price competition towards dynamic improvements and are favouring firms that are able to create knowledge a little faster than their competitors" (Maskell and Malmberg 1995: 3).

This clearly implies that not only should firms work to create their own new knowledge but that they should also utilise where appropriate existing knowledge to make themselves more competitive. To neglect these would it is argued affect their long-run performance (Maskell and Malmberg 1995:3).

The government's response to wealth creation and competitiveness would appear to rest on a similar interpretation of the international economy. As a result, emphasis has been placed on the need to encourage greater collaboration between higher education, government and industry. Where the efficient and productive utilisation of knowledge is seen to be the core consideration in a partnership which is concerned more and more with diversifying the higher



education system so that it is capable of providing more industrially relevant knowledge to a broader and larger number of users.

An important aspect of this has been the theme of education through life and in particular the provision of continuing vocational education for employees in industry. The theme of education through life or 'Lifelong Learning' underpins one aspect of the economic ideology of education. In particular, the expansion of the higher education system is dependant in part to the inclusion of mature students who are currently in work. What is more, the development of these employees through training and upskilling is seen as essential if UK industry is to remain competitive in an increasingly technological age, where the ability of the workforce to take up new processes will impinge on the ability of companies to maintain the competitive edge.

However, the concept of a three-cornered partnership is problematic. The assertion that universities should collaborate with SMEs, for example, in order to provide affective and relevant training courses for employees is based upon the assumption that the university is going to be able, willing or effective in undertaking such a mission. It may be the case that the university is able to offer collaboration through research but what of the recent government call:

"... on universities and colleges to help achieve the higher level national educational and training targets (...) [where] (...) at least 30 per cent of the workforce [is] to have an academic, vocational, professional or management qualification at National Vocational Qualification level 4 (broadly equivalent to a degree) or above by the year 2000 (The Times Higher, May 26: 1995).

The question of training is certainly more troublesome not only for the university but also for industry and in particular SMEs. The main concerns being whether universities are accessible, suitably user-friendly and, what is more, capable of fulfilling the demands of industry through the provider-user interface. While the

question still remains whether SMEs are willing to consider training its existing workforce and whether they see universities as appropriate trainers.

These particular issues will be the focus of the following chapters. However, to begin with it will be useful to trace the origins of the partnership strategy and more specifically the importance of education through life within that strategy. This will be achieved first by looking at the policy proposals of some influential non-governmental bodies.

## **2.6 Non-Government Policy Proposals**

A non-governmental body which provides useful backdrop to current governmental policy on higher education and industry is The Council for Industry and Higher Education (CIHE). It is an

"...independent body made up of heads of large companies, universities and colleges. It aims to encourage industry and higher education to work together and to represent their joint thinking to government, higher education and employers" (CIHE 1992).

The CIHE has taken an active role in trying to influence government policy-making by vigorously publicising the views of those in industry and higher education. The result is that it is possible to match the proposals made by the CIHE with much of subsequent government legislation. It is not claimed that the CIHE is the policy-arm of recent conservative government's rather, that much of its assertions and ideology is matched within recent and current governmental pronouncements.

The CIHE has published numerous papers since 1987 setting out how it sees the best ways to ensure the success of the UK economy. The formula for such success is central to this debate because it prescribes that 'Government, higher education and industry need to become partners in developing a different kind of



higher education system' (CIHE 1987: 1). That is to say:

"To compete in the international arena, educated brain-power and applied ingenuity, twin offspring of higher education, must become the UK's most distinctive assets" (CIHE 1987: 5).

Competitiveness is linked to the view that higher education and by implication universities have a central role to play in achieving it. The new higher education system would be based on a strategy dependant upon a 'government commitment to expand higher education' and the 'development of shared aims between companies and higher education through many levels of working contact.' Such a strategy is based on a predominantly economic rationale where the success of this 'new' higher education system would be measured by its relevance to the needs of industry. The system would be new not only because of the type of provision on offer but also by the method of achievement, i.e 'superior economic performance is indissolubly linked to higher education attainment' (CIHE 1987) where higher education attainment would be guaranteed by the adoption of managerial practices.

The main elements of the CIHE strategy are as follows :

- (i) We must change our higher education system from one geared to a small minority to a more open system which brings many more people to a generally higher level of education than they attain now.
- (ii) The universities and polytechnics must broaden and re-balance their courses towards mathematics, science and technology as part of the general provision on which specialist education is later built.
- (iii) Universities and polytechnics need to provide appropriate courses for mature students who have entered working life and to undertake professional retraining as one of their central objectives.

(iv) We must set strategic priorities for scientific research. Government must protect our outstanding national science base, unquantifiable though its 'output' may be, as the essential seedbed of future marketable technologies.

(v) Higher education needs to be restructured and well managed to meet these purposes. This will include some quite rapid concentration of research effort and some measures for its direction towards programmes of probable long-term economic relevance.

(vi) We must move progressively to a situation where the customers of higher education, both individuals and industry, contribute significantly to its cost and exercise significant influence as customers.

(vii) Industry needs to involve itself in higher education.

(viii) The current effort to broaden and re-define the secondary school curriculum must be sustained<sup>1</sup> (CIHE 1988: 6-7).

This strategy has been emulated in recent government policy statements and actions. These are varied and affect all manner of university provision. For example, the White Paper, Higher Education: Meeting the Challenge (1987) followed the CIHE's proposal for increasing student intake over the following ten years. While, the White Paper, Realising Our Potential: A Strategy for Science, Engineering and Technology (1993) follows the route of partnership:

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<sup>1</sup>Only the last point is not directly relevant to the current discussion.



"...we could and should improve our performance by making the science and engineering base [universities] even more aware of and responsive to the needs of industry and other research users..." (Cm 2250, 1993: 16).

The basis of this government strategy has been the Technology Foresight Programme. This brought together the science and engineering base, industry and government in order to help the government set strategic objectives for research based on priorities 'clearly related to meeting the country's needs and enhancing the wealth creating capacity of the country' (Cm 2250, 1993: 26). The White Paper, Competitiveness: Helping Business to Win (1994) amongst other things emphasises the importance of 'Lifetime Learning' where universities had a responsibility to 'develop the skills and aptitudes which employers want' (Cm 2563, 1994: 39).

All aspects of the CIHE strategy point clearly to a more market orientated system where universities would collaborate with its *customers* to provide more directly relevant outputs which would benefit the economy as a whole. This would be achieved by re-emphasising the need for more mathematics, science and technology in general higher education and the encouragement of professional retraining for those 'mature individuals' still in employment.

The theme of 'education through life' has grown in significance not only in this country but also Europe. In many respects the whole concept of education through life runs counter to what is generally recognised as the time and place for education and training. For instance, Richard Pearson writing in 1983 for the Institute for Manpower Studies states:

"Together with employers we have too readily accepted the notion that education ends with a degree, and training with a few apprenticeships in different employment. Instead, we should be concerned to play our part in the integration of education within work

- with 'formation' to use the French word - which implies an element of continuity and an element of cooperation. It is the continuity of education through life-long 'formation' that has to be stressed, and the need for cooperation based on mutual understanding between educator and employer" (IMS,1983:21-22).

The view taken by Pearson for the need to integrate education within work expressed through life-long 'formation' coincides with the views of The Round Table of European Industrialists (ERT):

"Work procedures and work itself are facing restructuring (...) The contents and structure of jobs are changing. Ever higher competence is expected in all occupations (...) more and more individuals are being confronted with the stark reality that their education, completed decades ago, no longer gives them the competence they need; indeed, the very occupation for which that education prepared them is receding below the horizon of history" (ERT 1989:170).

There is a great deal of overlap between the proposals made by the CIHE and those of ERT. The most significant similarity is the demand for closer links between industry and universities linking work with education and thereby helping to ensure the 'future competitiveness of the European economic system' (ERT 1989:78).

ERT propose that learning should take place alongside work so that there is infact a significant sea-change in the attitude towards education by employers and employees with lifelong learning becoming both an attitude and a practice. Moreover, such a sea-change is demanded of higher education where there is seen to be a serious short fall in provision with the lack of 'effective and motivational models and practices for adult education, especially for adults who would study whilst working' (ERT 1989:12). The solution to this is effectively based on closer co-operation between 'provider' and 'end-user' with the development of tailor-made curricula. The view held is that the type of provision, such as, Vocational Education Training (VET) should be geared towards more long term objectives not just short courses designed to solve immediate problems but



designed to support the employees career.

However, there are problems associated with lifelong learning and adult education. The problems as with research collaboration is the link between industry and the university. ERT state that 'co-operation between industry and educational institutions in Europe lags behind the USA and Japan' (ERT 1989:7). This is historically true when we consider the link between universities and SMEs. The solution is ERT believes to be found through increased dialogue.

The attempt to develop such dialogue has in the UK policy context been characterised for example, by the establishment of Training and Enterprise Councils (TECs), Local Enterprise Companies (LECs) in Scotland and Business Links.

The proposals from ERT and the UK policy initiatives all point towards the assumption that a link between higher education and industry is a pre-requisite to the competitiveness of both the UK and European economic systems:

"Competitiveness will have to be ensured by keeping competence updated. This will create a considerable need for adult education and training" (ERT 1989:172).

The effectiveness of higher education is seen more and more along the lines of how well it accommodates the direct needs of the economy and industry. This can be interpreted as an economic ideology of education. As mentioned in the previous chapter the provision of vocational education is not new however, the trend is to try and develop a higher education system which is more receptive to these demands.

## 2.7 UK Government Policy

This section of the chapter will focus on policy statements. The intention is to show the extent to which the government has taken the lead in encouraging higher education and by implication universities to take responsibility to respond to and influence the competitiveness of the economy and thereby aid national prosperity.

So far, when discussing government policy regarding the competitiveness of UK industry the main points of reference have been the macroeconomy and education and training. It should be noted that these represent only a small part of the overall government strategy. The strategy has ten strategic elements in total, the remaining include: the labour market, innovation, management, fair and open markets, finance for business, communications and infrastructure, commercial framework and the business of government and public purchasing (Cm 2563, 1994).

The government has clearly embarked on an all-embracing crusade. The need for a multi-pronged strategy was advocated in the White Paper, Competitiveness: Helping Business To Win (Cm 2563, 1994) and has been reinforced in the most recent government White Paper, Competitiveness: Forging Ahead (Cm 2867, 1995a). Most significantly, both White Paper's accept the need for full governmental involvement in improving opportunities for wealth creation with specific emphasis given to education and training.

The impact of these White Papers and other government policy documents on universities has been considerable. The titles of the most recent Paper's to affect universities are evocative of the government's stance. If one looks back to the White paper, Working Together - Education and Training (1986) and then more recently to the White Papers, Higher Education, Meeting the Challenge (1987) and Higher Education: A New Framework (1991) it is possible to speculate about the



intentions of government. That intention has been to re-meld the higher education system in a *new framework* which *working together* with industry in a more proactive role would better equip universities in *meeting the challenge* for creating a more competitive economy.

The model of such state university relations is best described as one in which university outputs such as research and teaching including continuing education has become more sensitised to the needs of the economy especially in the areas of science, engineering and technology. These trends coincide with what has been interpreted as the predominance of an overt economic ideology of education.

The lineaments of recent higher education policy prescribing a predominantly overt economic ideology are to be found in Higher Education, Meeting the Challenge (1987) and Higher Education: A New Framework (1991). The major themes of both were centred on the government's intention to 'introduce major changes in higher education to improve effectiveness.' The basis of this improved effectiveness is focused on specific aims, purposes, types of access and enhancement of quality. The aims and purposes of most interest are those which stress the need for higher education to serve the economy more effectively and have closer links with industry/commerce and private enterprise, i.e access relates to increased numbers of students a wider scope of intake and where continuing education and professional updating should be encouraged. Finally, quality relates, for instance, to the selectivity of research for commercial exploitation.

The 1987 Higher Education White Paper sets out the government's intentions for moulding higher education by flagging those areas which are to become of increasing interest and importance for future policy initiatives. In particular, the importance given to the types of education and delivery are clearly linked to the theme of competitiveness and benefiting industry. For instance, continuing education was recognised as important precisely because of the 'need to

accommodate UK's increasingly technological workforce'. Moreover, distance learning as a means of delivery was encouraged because it could accommodate those students in employment.

Recent higher education policy affecting the output of universities have been based on very specific terms of reference. For example, the terms of reference from the Department of Education and Science (DES) illustrate the need to raise quality and standards while preserving the full breadth of educational provision; to make the system more responsive to the needs of the economy; to improve management systems in universities, polytechnics and colleges; and generally to increase value for money by rationalisation (Cm 9823, 1986).

The affects of these terms of reference have been particularly apparent in the last ten years or so. If we consider the 1991 Higher Education White Paper it is possible to trace the encroachment of these economic and managerial rationales underpinning government strategy.

The most significant aspect of the White Paper was the abolition of the binary divide between universities and polytechnics which allowed polytechnics to award their own degrees and to take on the title 'university'. The implication of this policy has been the creation of an internal market where universities compete more and more for funds in research and students and were to be encouraged to compete for increased levels of funding from private sources such as industry and commerce. These market rationales were based on the rationalisation of the higher education system, such as mentioned above, and on improved management systems resulting in cost-effectiveness driven by quality, accountability, competition and selectivity.

The underlying aim being to make higher education provide more benefits to the individuals studying as well as the economy and society as a whole. These



'benefits' are closely tied to the notion that by taking account of the needs of industry and commerce the individual and therefore society would become the benefactors of a wealthy and prosperous nation because their skills would enable this to happen.

Subsequent White Papers: Realising Our Potential: A Strategy for Science, Engineering and Technology (1993), Competitiveness: Helping Business to Win (1994) and Competitiveness: Forging Ahead (1995a) continue this theme. The link between output and national wealth creation is best illustrated by the pronouncements of the White Paper, Realising Our Potential: A Strategy for Science, Engineering and Technology (1993).

This policy document concentrates on developing a strategy for science, engineering and technology based research. Its main objectives were to build on the excellence of the work done by the science and engineering base (including universities) by bringing it 'into closer and more systematic contact with those responsible for industrial and commercial decisions.' Moreover, it intended to modify the 'missions, structures and management of the Research Councils and government research establishments to meet better the global challenge now faced by the UK' (Cm 2250, 1993).

The emphasis on partnership coincided with the government's intention to develop a much more explicit 'overt' strategy towards higher education in science, engineering and technology. This was to be achieved by the introduction of the Technology Foresight Programme, conducted jointly by industry and the science and engineering base to inform government decisions and priorities regarding research and thereby instigate a cultural change between the three partners so that there was better communication, interaction and mutual understanding. Close contacts between industry and the science and engineering base such as universities are not new. Programmes like LINK and the Teaching Company



Scheme (TCS) exist to bring together firms and academia not only to solve particular problems for firms but also to generate better understanding between the two parties (Cm 2250, 1993).

These are two examples of a number of schemes and initiatives designed to encourage greater cooperation between industry and universities where the expertise of the university can be directly utilised to resolve problems for the firm or company. Other initiatives include The Enterprise in Higher Education Initiative which helps give students experience of the working environment.

The two Competitiveness White Papers, Competitiveness: Helping Business to Win (1994) and Competitiveness: Forging Ahead (1995a) illustrate the government's commitment to work closely with industry to improve their competitiveness. As mentioned earlier this strategy has many elements but of specific interest at this point are those to do with education and training and the utilisation of 'new' knowledge. Any assessment of government policy will recognise the attempt to reform the attitude of industry and higher education by putting in place mechanisms to encourage links. This has been illustrated above with the technology foresight programme. However, it has also occurred in the link between education and business and more specifically universities and SMEs.

"Since 1979 the government has introduced a series of major reforms to boost the outputs from our education and training system. Schools and colleges [including universities] have been galvanised by a new emphasis on choice, quality and sharp accountability for results. In parallel, the government has encouraged employers to take responsibility for the training and development of their workforce, now and for the future. Training and Enterprise Councils (TECs); in Scotland, Local Enterprise Companies (LECs) and Industrial Training Organisations (ITOs) are playing an increasing role in identifying and meeting labour market needs" (Cm 2563 1994: 30-31).



The system of bringing together universities and SMEs is complex and will be addressed in detail in the following chapters, but it represents another mechanism to enable an interface between potential provider and end-user. Local providers including Business Links and other networks serving small firms, e.g. The Birmingham Centre for Manufacturing, were to be encouraged to work together to find shared, cost effective ways to meet training needs. The reality of this encouragement has been for instance the government's proposal to make available £63 million over three years to 1997/98 to update the managerial, supervisory and technical skills of up to 24,000 key employees in firms with fewer than 50 employees (Cm 2563, 1994).

The current debate has shown that the broad emphasis of government policy has been towards achieving competitiveness in the economy thereby ensuring wealth generation and national prosperity. The Prime Minister's specific aspiration is to double living standards in 25 years (Cm 2867, 1995a). One of the mechanisms to achieve this has been to focus the role of universities towards helping raise the economy's long run rate of growth. This has manifested itself in the establishment of the technology foresight programme and other initiatives to make degree courses more industrially relevant and thereby building better understanding between industry and higher education.

The discussion has indicated that government intervention within a market discourse has been the most significant characteristic of recent White Papers. This has drawn on themes such as lifelong learning and the promotion of industrially relevant research to achieve competitiveness within the economy.

The following section will now illustrate some of those policies specifically designed to link higher education with the workforce. The linkage is with those already in employment and therefore excludes such schemes as TCS because this involves bringing in a student from the university to work with the firm. The discussion which

follows will concentrate on those policies which are designed to bring training and upskilling to employees in a company.

## **2.8 Higher Education: The Skills Link**

The government through the Employment Department Group has been actively involved in working to encourage higher education to offer a wide and diverse range of provision more accessible and appealing to employers and employees. The aim being to equip the workforce with up-to-date skills at high levels thereby supporting economic growth through the promotion of a competitive, efficient and flexible labour market (Employment Department Group, 1990).

In order for higher education to provide the relevant skills and competencies the Employment Department Group has encouraged TECs, LECs and employers to involve themselves more fully in a partnership with providers such as universities to develop the kind of training and upskilling framework most appropriate to the needs of the workforce, i.e. 'to help develop higher education towards a system that is relevant, flexible and more able to respond to the changing demands of the labour market and working life' (Employment Department Group, 1990: 11).

The development of a "learning society" (Employment Department Group 1994: 8) has been the aim of these partnerships. The Employment Department has been active in funding the Enterprise in Higher Education (EHE) initiative and a range of development projects which are designed to assist in the 'transition of the existing higher education system into one more suited to respond to the changing needs of the economy and individual learners' (Employment Department Group, 1990: 10).

The Employment Department Group has embarked on creating a framework with different methods of access, delivery and assessment of training and upskilling



provision. The development of Work-based Learning techniques, Credit Accumulation and Transfer Schemes (CATS) and the Accreditation of Prior Learning (APL), clearly illustrate this new direction. The widening of access to higher education it is intended will result in greater flexibility of delivery and assessment and improved responsiveness to the needs of employers:

"Course structures should (...) permit flexible course adaption to changing student needs (...) permit flexible credit accumulation and transfer, including direct entry to different stages of the course"  
(Employment Department Group 1990: 20).

The improvement in access and the move to make the 'offer package' increasingly attractive is of central importance to encouraging the skills link between higher education and users. It emphasises the efforts made to structure provision more to the needs of the customer.

The lineage of these policies can be traced in recent years to the White Paper, Working Together - Education and Training (1986). This policy document espoused the need to reform and modernise the vocational education and training system through greater commitment from government, suppliers and users of training. Thereby improving standards, reliability and quality. These improvements were to be developed in a new framework to be called the National Vocational Qualification (NVQ).

The specific objectives were as follows: 'that opportunities and choices in vocational education and training are greater and of better quality at all levels than they have been in the past; responsiveness to labour market needs and encouragement for the supply of appropriate skills; that employers, students and trainees decide, through their role as customers in a well-developed market, what, when, where and how best they can learn; access to vocational education and training starts in the schools, and continues throughout working life; that

competence and achievement are recognised and rewarded by employers and that unnecessary barriers to progression or to access to education and training are removed; a structure of recognised qualifications which are based on competence and match the needs of modern employment; good quality, reliable and highly professional suppliers of vocational education and training who can profit from the maintenance of quality and from meeting customer needs; value for money (whether that money is the employer's, the individual's, the taxpayer's or the ratepayer's) is clearly demonstrated; and a system which employers and employees understand, respect, and use to the full with a major increase in their investment in training' (Cm 9823, 1986: 2-3).

These objectives highlight the importance of lifelong learning, the need for appropriate training packages, recognised qualifications, and easier access. Moreover, all of these reforms as with similar government pronouncements are based on a core ideology. The creation of a market for products determined by the customers, where the providers were expected to create an offer package most suitable to these demands in a cost effective manner. The offer package would have to be flexible enough to cater for customers such as employers and be of good quality, reliable and value for money. The predominance of economic rationalism is matched by a market rationale.

## **2.9 Conclusion**

This chapter has provided evidence to support the claim that since 1979 state university relations have been dominated by an economic rationale or a market liberal model. This rationale or model has marked a change in the relationship between the state and university and has precipitated a re-appraisal of university activity.

The impact of such policies has effected the management of universities and their



output. A number of examples have been given showing the way public policy is attempting to utilise university output for economic objectives. However, the effectiveness of such policies can be overstated as academics continue to resist such policies thereby maintaining in the best liberal tradition a semblance of autonomy (Prichard and Willmott 1995). This would seem to indicate that universities may not necessarily strictly adhere to their mission statements and as such may only play lip-service to such demands.

This and the previous chapter have located the role of the university and the theme of lifelong learning and activities such as training in a historical, conceptual and policy context. It has been shown that such themes and activities have since the nineteenth century been closely associated with the university but that in the modern context (post 1979) have been adopted to frame and articulate the policies concerned with the competitiveness of UK plc. In other words, the role of the university is perhaps now interpreted and valued by the way it legitimises the concept and practice associated with competitiveness.

The policy link between competitiveness and knowledge goes some way to explain why universities have in recent policy statements been associated with the support of SMEs and local economic development. An economic ideology of education provides the conceptual basis but, the question remains of how successful has the assimilation of such an ideology been in practice? The practicalities of SME university collaboration in an economic context will be the subject of the proceeding chapter. The objective is to show that although an economic ideology of education may prevail in policy statements and strategies it does not necessarily guarantee a successful partnership.

# CHAPTER THREE

## THE PROBLEMS OF SMALL AND MEDIUM ENTERPRISE SUPPORT

### 3 Introduction

The attempts by government to link the activities of the university with the development of a competitive economy discussed in chapter two is matched by a similar belief that SMEs also have an equally important part to play. The objective of this chapter is to place Small and Medium Enterprises (SMEs) in the context of government economic strategy and local economic development (LED). The aim will be to discuss the effectiveness of public policy initiatives in assisting SMEs to contribute to LED and the competitiveness of the UK economy. This will help illustrate the existence of what is potentially a 'gap' between the aims and achievements of public policy. It will also provide a benchmark against which the university offer package, to be discussed in the next chapter, can be evaluated for what might be similar market failure.

Recent UK government economic strategy has been preoccupied with trying to influence how business acts with the intention of promoting growth and competitiveness. Part of this strategy has been based on building links between SMEs and universities, with the aid of European funding, in order to try and bridge the skills and training gap often associated with poor competitiveness. The positive association of university-SME collaboration in the context of LED is not new. The growth of Science Parks in the 1980s illustrates the perceived advantages of such a link but also the associated problems. In recent years the link has been more readily associated with Business Service Providers, e.g Training and Enterprise Councils (TECs) and Business Links. In both cases, great faith is given to the role of SMEs in improving the health of the UK economy as is the support role



attributed to universities.

The following discussion will begin by defining SMEs and critically exploring why they are believed to be so important in the context of LED. This will include illustrating, with reference to the Science Park model, how SMEs *and* universities have and continue to be seen as important co-contributors in this context. Following on, attention will be given to the development of small and medium enterprise advice services with specific reference to TECs. This will provide an opportunity to illustrate how such networks operate to support SMEs and implicate universities. Finally, the impact of European Structural funds will be discussed with the intention of showing how UK government policies on the economy are dependant on assistance provided by the European Commission.

### **3.1 Small and Medium Enterprises - a suitable definition**

The most suitable definition for SMEs is provided by the European Commission (EC). The SME 'sector' as defined using the EC classification is simple but robust and compares favourably to earlier attempts such as that provided by the Bolton Committee in 1971. In particular, the EC classification uses one measure - the number of employees in an enterprise, with however the exception of agriculture, hunting, forestry and fishing (Storey 1994):

- \* Micro-enterprise: those with between 0 - 9 employees
- \* Small-enterprise: those with 10 - 99 employees
- \* Medium-enterprises: those with 100 - 499 employees

This is in contrast to the combined economic and statistical definition of the Bolton Committee. This earlier classification uses a mixture of measures. For example, the statistical definition (Table 3.1) uses measures depending on the sector of the firm and as such makes comparison between firms from different sectors quite

difficult.

Table 3.1 Bolton Committee Definitions of a Small Firm

Sector	Definition
Manufacturing	200 employees or less
Construction }	25 employees or less
Mining and quarrying }	
Retailing }	Turnover of £50,000 or less
Miscellaneous }	
Services }	
Motor trades	Turnover of £100,000 or less
Wholesale trades	Turnover of £200,000 or less
Road transport	Five vehicles or less
Catering	All excluding multiples and brewery managed houses

Source: Bolton (1971) cited in Storey (1994)

However, the major criticism of the Bolton Committee's classification is the way it treats the SME market as homogenous. This has been shown not to be the case (Houghton 1993, Storey 1994) a fact built-in to the EC classification which makes the distinction between micro, small and medium enterprises. This is important because it goes some way to reflect the different problems and demands experienced by firms of different size, e.g it is potentially easier for a medium-enterprise to release employees for training than a micro-enterprise. This consideration is reflected in the current research because in choosing those SMEs to be evaluated the decision was made to use firms only fitting the medium-enterprise category.



### **3.2 SMEs, Universities and Local Economic Development**

The relationship between SMEs, universities and LED is a mixed picture of government pronouncements and market failure. There is a gap between the expected outcomes of policies and initiatives and the reality of what occurs. Therefore, the following debate will illustrate the policy reliance on prejudiced assumptions about the apparent importance of SMEs and the role of the university in LED.

The specific dynamics of local economic development have been described by the West Midlands Enterprise Board (WMEB 1993) as economic growth, human capital and quality of life. These can in turn be divided into four strategy components :

- \* enterprise development;
- \* human resource development;
- \* infrastructure development; and
- \* community economic development.

Enterprise development and human resource development relate to business support activities including the development of joint-public-private ventures such as TECs to promote economic regeneration through for instance, vocational training. Infrastructure development includes such things as the construction of roads and higher education institutions while community economic development includes initiatives to improve, for example, local facilities (Oztel 1994). These strategy components account for much of government policy developments in the last five to ten years and provides the context within which collaboration between SMEs and universities has been encouraged.

SMEs are thought to play an important role in local economic development and the UK economy because they are believed to be a (Oztel 1994):

- \* major source of employment;
- \* providing access to employment and income for vulnerable groups;
- \* source of innovation;
- \* means of achieving sustainable growth;
- \* source of competition to large firms;
- \* means to release entrepreneurial talent into the economy; and
- \* a source of training.

This belief is reflected in one respect by the considerable growth in the last fifteen years of locally-based SME support services. In particular, the national network of Training and Enterprise Councils (TECs) and the Scottish equivalent, Local Enterprise Councils (LECs) have been established with this in mind, i.e. to provide a coherent framework of government sponsored SME support services at a local level (Houghton, 1993).

However, the contribution of SMEs to the economy has been questioned as has the value of small firms policies. For example, recent research purporting to show that SMEs have contributed significantly to job creation (Birch 1987) have been criticised. This is because the research, it is argued, has not taken into account business failure rates or the fact that the growth of the SME sector is in fact due to a shift in employment from large firms instead of a net creation of jobs (Oztel 1994).

Moreover, some observers argue (Storey and Johnston, 1987) in (Houghton, 1993) state intervention into the SME sector other than through market deregulation is counter productive because it both distorts the market and undermines those attributes characteristic to the success of SMEs, e.g creativity. This argument is perhaps also reflected in specific policy proposals relating to universities with regard to influencing student recruitment, training and links with industry. This displays a contradiction between allowing the market to function and the espousal



of partnership between universities and industry which has involved a great deal of state direction (Edwards and Miller 1995).

Nonetheless, SMEs are seen to be very important to the local and national economies as is the support provided by TECs. For example, SMEs are a major source of employment. In the European economy small firms account for 95% of all firms in existence and provide over half of all jobs (Storey 1994). While in the UK, of the 2.9 million firms identified in 1991, 99.9% were SMEs (Table 3.2). Given the importance of the SME sector in terms of employment in both the UK and Europe, TECs and LECs, it can be argued, have a significant role to play in coordinating services, such as training, to improve their competitiveness and reduce business failure rates. In this sense, small firms policies have been purported to have value. A recent Coopers and Lybrand report for the CBI (1993) states that TECs and LECs have a 'key role to play in the skills revolution' because they take the lead on policies such as co-ordinating local action to meet the National Education and Training Targets.

However, even this assertion has been open to criticism. In a report published by the Centre for Local Economic Studies (1992) one of the main findings was the following criticism of TEC strategy:

"The overwhelming majority of TEC budgets remain tied to Youth Training programmes for young people and Employment Training programmes for unemployed adults. Although there is scope for these programmes to be restructured, this hardly amounts to a 'skills revolution' and does not begin to tackle the broader problem of the lack of training for those already in employment" (CLES 1992).

Although there is dispute over whether TECs have contributed to a 'skills revolution' they are responsible for achieving the National Targets for Education and Training and recent government figures do show that there has been an increase in training provision, e.g. 14.2% of employees of



working age received job-related training in 1994 compared to just over 8% in 1984 (Employment Department 1994).

*Table 3.2: Small Firm Employment Share by Size of Firm*

Employment size band	Number of businesses (‘000)	Share of total (%)		Cumulative (%)	
		Firms	Employment	Firms	Employment
1 - 10	2,683	93.1	29.0	93.1	29.0
11 -19	97	3.4	6.3	96.4	35.3
20 - 49	65	2.3	8.8	98.7	44.1
50 - 99	20	0.7	6.7	99.4	50.8
100 - 199	10	0.3	7.6	99.7	58.4
200 - 499	6	0.2	8.9	99.9	67.2
500+	3	0.1	32.8	100.0	100.0
All	2,883	100.0	100.0	100.0	100.0

Source Labour Market & Skills Trends 1995/96.

Government strategy on training is an attempt to bring the SME sector and institutions in civil society such as universities together in the context of Local Economic Development. There may be some dispute over the exact contribution that SMEs make to local economic development (Oztel 1994) as is the scepticism about the role of TECs (Curran 1993), but what is for certain is the assertion by government that the competitiveness of the UK economy is best served by a skills revolution in SMEs assisted in part by universities. Recent figure show that universities are important providers of training to employees. In the Labour Force Survey, spring 1994, about 38% of training activity took place at a university, college of further education or other educational institution and 7% in the employee's home including distance learning such as Open University courses and correspondence courses (Employment Department 1994).

Universities are perceived to be important because they are associated with



infrastructure, enterprise and human resource development. For instance, the provision of graduates in engineering, vocational training and research into innovative products and processes represent the output that the government has attempted to encourage and utilise for both local and national economic development purposes. However, once again this is open to criticism. The question of how far university activities in research, education and training can contribute (Sorge 1994) to the development of a competitive economy is far from being proven. Nonetheless, government strategy still operates on this basis.

The assertion that universities can contribute to local economic development by providing support to SMEs is problematic. A recent model of university-SME collaboration provides a critique of the problems of linking such dissimilar organisations. In the early 1980s *Science Parks* were pronounced (not just by government) as important facilitators for successful local economic regeneration. Located close or adjacent to universities these Parks would provide much needed local employment and the catalyst for improved university-industry collaboration via technology transfer.

### **3.3 Science Parks - A Model of Successful Collaboration ?**

The Science Park phenomena has its origins in North America. The success of Silicon Valley and route 128 in creating jobs through the development of new 'high' technology seemed to provide an example of how similar developments could offer an answer to the UK's local and national economic problems. An academic from Aston University speaking about Aston Science park captures these beliefs:

"The objectives of the Park are to encourage the formation and growth of a wide range of new, small and technologically orientated companies, and through the links that these companies will develop with the City and the University, to improve employment prospects in Birmingham and improve the economic strength of the West



Midlands" (Massey *et al.* 1992: 26).

The belief that Science Parks would help the economy by encouraging increased technology transfer between academia and industry explains why some forty Parks have been established in the last two decades (the Parks at Cambridge and Heriott-Watt were established in the 1970s). There was and remains the strongly held belief of both government and industry that universities have a significant role to play in the technological advance in industry and by implication economic development of the country.

"Universities could contribute to the revitalisation of national economies by assisting small and medium enterprises as well as by generating entirely new high technology businesses" (Stankiewicz 1986:2).

Science Parks would provide an effective counter to economic decline and high unemployment. For example, local authorities which had become actively involved in encouraging economic development since the 1970s, took the view that high-tech or 'sunrise' industries would provide the economic impetus to help their own badly affected regions recover from recession; providing a new industry base and employment. It was less to do with updating declining mature industries and more to do with the exploitation of new technological innovations in niche markets (Monck *et al.* 1988: 75).

The development of Science Parks is also partly explained by the retrenchment of universities in the same period. This began in 1981, when the University Grants Committee (UGC) decided to cut the budgets of universities. These cuts concentrated on those universities which had traditionally specialised in applied sciences and had strong links with industry. For example, Salford University had a 44% cut in budget; Bradford University had a 33% cut and Aston University had a 31% Cut. Along with these cuts was a further policy change by the UGC which



allowed higher education institutions to look for external income without affecting the public funding they received (Monck *et al* 1988).

Universities more than ever were forced to re-evaluate their financial position and consequently their overall strategies. Increased emphasis on the allocation of public funds for applied research and the expectation that funding would go to those universities with research centres of excellence, encouraged universities to think more seriously about closer collaboration with industry. This would help ensure increased relevance to and uptake by industry of their research and improve the chance of its graduates being employed by industry. The Science Park was to be an important element in such a strategy (Monck *et al* 1988: 77).

The success of this strategy and therefore of Science Parks has however been open to criticism. The immediate criticism has been the misplaced belief that this American phenomenon would have similar effects in the UK. The problems of adopting models or practices from other nations not only Science Parks is problematic (Sorge 1994) because the host environments can be so completely different and so therefore the outcomes.

Other problems include the conceptualisation of the Science Park, i.e. the causal relations which link definition and assumed affects. Four recurring themes detail the main reasons for Science Parks being established in the UK (Massey *et al* 1992): parks will promote the formation of new firms; they will facilitate links between the host academic institutions and park firms and thus improve the take-up of ideas to new products and processes; firms on the parks will have a high level of technology and be 'at the leading edge' - they promise a sunrise future in many areas to replace sunset existing local economy and they will create employment opportunities.

The conceptual framework assumes a 'linear model of R&D with a simple one-way

flow of ideas from basic science through applied research to development and commercial innovation' (Freeman 1982) and a particular interpretation of spatial content and form (Massey et al 1992).

The assumption that scientific knowledge leads in some linear progression to technological innovation is disputable. Firstly, this implies that the Science Park is one part of a linear process which transforms original scientific knowledge through the development of more applied research, new product development, commercial production eventually diffusing innovations into a range of new applications. Although there are occasions where this happens it is not as wide spread as first assumed. It is misleading to portray Science Parks as places where the predominant activities involve the 'development and commercialisation of scientific break-throughs made within academe'. It is not always the case that the link between Science Parks and the host university is strong. Therefore, the belief that locating adjacent to an institution 'inevitably' will result in linkage is mistaken. For example, there is a low level of park university links at the Cambridge Science Park (Massey et al 1992).

The leading edge label given to Science Park firms is also not truly representative most firms are disseminators and/or 'involved in new applications of relatively novel technologies'. They are not specifically innovators (Massey et al 1992:43).

The promise of a 'sunrise' future replacing what has been termed 'sunset' mature industries in the local economy is also problematic. There appears to be two elements to this projected affect. Firstly, there is the conviction that Science Parks would provide employment to replace those jobs lost in the older declining mature industries, and/or provide new employment *per se*. Secondly, that small firms are the best means to achieve this.

The employment spin-off is not a guaranteed feature of Science Parks. Although



the figures do appear to show increased employment related to the park developments this 'creation' includes relocation of firms which is not the creation of 'new' jobs. An associated criticism is that the Science Parks are less to do with updating the declining mature industries, and more to emphasise the development and ascendancy of new high-technological firms. This is not to deny that there are instances where Science Parks endeavour to help mature local industries, as is the case at Warwick and Sheffield, but that the conceptualisation of the Science Park is misleading and by implication may encourage unrealistic policy objectives by those who advocate Science Park developments using these arguments (Massey et al 1992).

The reliance on small firms to provide what appears to be quite a considerable turn around in local economies is debatable. Small firms, even 'elite' ones have been criticised for not providing a sufficient contribution to international competitiveness of UK industry and as such do not provide a solution to the decline of traditional industries. Small firms are criticised because they 'generally export a lower proportion of their output than large companies' (Thompson 1991:226-7). Moreover, there is little evidence to suggest that park firms compared to off-park firms achieve better formal links between academia and industry (Webster 1994:474).

Another criticism of Science Parks has been the assumption that universities are suitably able to take such an active role in local economic development in collaboration with SMEs. There are many factors which can adversely affect a universities ability to play a role in the local economy. These include: the urban and industrial context; culture of the university and the nature of its industrial linkage mechanisms; fields and quality of research being undertaken; the presence of talented, supportive and motivated individuals in institutions; availability of resources for special initiatives; time and public expenditure (Segal Quince Wickstead 1988). Moreover, collaboration is dependant on a multiplicity of factors which effect the SME. For instance, the likelihood of a SME working with a



university is in large part dependant on its desire to grow and become more competitive (Storey 1994). It is also the case that small businesses do not have the resources or the time to let employees be trained by external providers especially if the training is done away from the job (Curran 1993).

The main conclusion to be drawn from the experiences associated with Science Parks is that they have not been the answer to LED. What is more, in continuing to pronounce the benefits of collaboration between SMEs and universities the government appear to have given little thought to why Science Parks appear to have failed to deliver the expected economic benefits. Nonetheless, Government strategy still stresses the apparent advantages of bridging the gap between SME and university. It is therefore not surprising that many commentaries on the development of TECs have stressed the difficulties associated with their formulation (Curran 1993, Houghton 1993, CLES 1992) and building links between the networks, universities and SMEs. These difficulties are perhaps illustrated by the fact that only within the last six months (TECS were established in 1990) have TECs and universities met (Networking Conference, 1995) to discuss establishing widespread formal links.

### **3.4 Government Policy: Business Service Providers**

The development of business service providers based on public-private partnerships in the UK has much to do with the recommendations made in 1971 by the Bolton Committee. The Committee criticised the commonly held belief that small firms were obsolete and an indication of economic immaturity (Stanworth and Stanworth in Oztel, 1995). The acceptance that the support of SMEs was as valid as the support of larger firms helps to explain the growth in development initiatives for SMEs. This took on particular significance with the election of the Thatcher government in 1979 and has continued through the 1980s and 1990s.



### 3.5 Training and Enterprise Councils (TECS)

TECs were launched in proposals from the government White Paper *Employment for the 1990s* (Cm 540), published in December 1988. While in Scotland, the government White Paper *Scottish Enterprise: a new approach to training and enterprise creation* (Cm534), also published in December 1988 launched the Scottish equivalent Local Enterprise Companies (LECs).

The first TECs were established in April 1990 of which there are now 75 operating in England. These are independent bodies with their own Board of Directors consisting mostly of prominent local business people. The aim being to make the TECs receptive to local issues. In particular, the remit of TEC initiatives has been to 'plan and implement training and enterprise strategies in accordance with local needs' (HMSO, 1995). This has involved providing business counselling, skills training and information and advice for existing SMEs and which has recently been extended to include activities now the responsibility of Business Links (Employment Committee, 1991).

TECs are funded by the Department of Trade and Industry (DTI) and as such the national objectives of DTI financed programmes provide the goal-posts within which the local objectives and priorities of TECs sit. These objectives can be summarised as follows (DTI, 1995b):

- \* to contribute to the competitiveness of the UK economy by promoting the effective management of small and medium sized firms, especially existing small firms with potential for growth, through access to high quality business information, advice and counselling;
- \* to increase the awareness and take-up of business support services by existing SMEs;

\* to increase co-operation between local bodies which support SMEs and;

\* to ensure better decisions by managers in SMEs.

Set against these objectives are the *core services* and *developmental activities* of TECs. The aim being to try and engender the training culture in local SMEs thereby ensuring a consensus of opinion which recognises the real benefits of training (Employment Committee, 1991).

The *core services* include,

**Information and Advice:** Business information and advice services;

**Business Counselling:** Counselling to existing small firms including one-to-one counselling for survival, business development and growth such as business start-up support and Investors in People;

**Business Diagnostic Services:** A broad assessment of a company's strengths and weaknesses and opportunities for development leading to the formation of an agreed action plan;

**Business Skills Training:** Business skills training for managers, especially owner managers, including skill seminars, Masterclasses, action learning groups and open learning programmes.

The *developmental activities* include:

**Business Link Partnership Development:** These activities focus on ensuring that all local small firms support services achieve standards



of quality, access, impact and responsiveness which are commensurate with the standards required for Business Link;

**Quality Improvements:** DTI will provide funding to develop the quality of local business support services;

**Innovative Products Consultancy Services:** TECs are encouraged to develop consultancy services and innovative services which address specific business needs in their local area, which compliment existing DTI services and policy objectives (DTI, 1995b).

Recent surveys on small business have identified several problems affecting the TECS delivery of the above services and activities. The most significant short-fall has been the failure of TECs to reach small businesses (Curran, 1993). A recent survey (Curran and Blackburn, 1992) reported that of those owner-managers approached about using TECs little over 11% had actually done so. This is in contrast to the 70% of owner-managers in the same survey who had heard of TECs. The disparity between awareness and take-up was reflected in a more recent survey of a London TEC (February 1993) in (Curran 1993) where only 17.5% of owners knew about their local TEC. The reasons suggested for these failures have included the use of the acronym 'TEC' which in most cases was mistaken to mean a technical college and, a general low level of awareness (Curran, 1993).

TECs have also been criticised because they have not been accountable enough at the local level or close enough to their local economies. This in part relates to the charge that there is a lack of a 'strategic national, regional and sectoral training and enterprise framework' (CLES, 1992). These same criticisms have been expressed in a recent study (Employment Department, 1992) on higher level training needs and provision in the Black Country .

The study consisted mainly of forty in-depth interviews with Directors or Senior Managers of manufacturing companies (SMEs). When asked about their local TECs and the way they have contributed to business development through the provision of high level skills the main complaints include a low awareness of what they do, and the lack of any clear strategy from the TEC. Below are extracts from two interviews highlighting these points:

"We tend to be asking ourselves, who are they? What do they do? I don't think that we are getting anything like the service we anticipated that we might do through the TECs."

"I find the TEC difficult to get on with at the moment. I am not sure they really know what they want to do yet."

The problems experienced by TECs are deep rooted and multifaceted:

"Beneath the rhetoric of the TECs Corporate Plan lay an unpleasant reality of funding cuts, inadequate labour market planning and organisational planning" (CLES 1992).

Nonetheless, attempts at improving the infrastructure of service delivery are being encouraged as is shown by the recent Networking Conference on TECs and Universities in the West Midlands, in February 1995. Such developments one might argue shows how universities are beginning to consider taking-on more 'business support' functions in their immediate locality. However, one might equally argue that such collaboration shows how the pressures of an economic rationale on university activities has forced universities to consider such collaboration in order to reduce their reliance on HEFCE funds by generating an alternative income?

### **3.6 TECs and Universities**

The encouragement by the UK government of TEC-University collaboration



coincides with the belief that there 'can no longer be separate concentrations of technology and infrastructure' (Networking Conference, 1995) and as such the agendas of major providers such as TECs and universities should be merged. This rationale echoes the overall recommendation of the Black Country high level skills survey (1992):

"Training and Enterprise Councils, Higher Education Institutions and local businesses in the black country must develop a more collaborative, structured and reciprocal partnership to meet the needs of the region and UK plc in the face of an increasingly competitive and changing environment" (Employment Department, 1992:10).

This 'partnership' is manifest by for example, the fact that the Vice-Chancellor's of the University of Bradford, Cranfield University, Open University and East London University, have become members of their local TECs board of Directors while, the Chairmen of the respective local TECs have become members of the universities Council (Networking Conference, 1995). In the case of Bradford University the theme of partnership includes such interaction at the strategic level and operational level:

"All departments at Bradford University (...) have Departmental Advisory Committees comprising local and national business people, including TEC Directors, who advise on teaching programmes, research and short courses" (Ibid:23).

Such links are seen to help develop understanding. However, the implication is the further economic emphasis on university activities. The association of universities with LED is increased as is the expectation that it will deliver the necessary outputs to help the competitiveness of local business.

However, such pronouncements should perhaps be considered with caution. It is not at all clear that the British state under recent conservative governments has developed effective economic or higher education policies which will improve the

competitiveness of the UK economy. An alternative explanation of the problems of the British economy (Hutton 1995 cited in Edwards and Miller 1995) explains Britains' combination of high consumption and weak production in terms of market failure (the credit boom and sterling overvaluation) and archaic constitutional and institutional structures. The evidence seems to suggest that as with Science Parks public policy objectives are not necessarily matched by the results. Which in turn may relate to a misinterpretation of British economic problems.

### **3.7 European Funding**

In discussing the importance of SMEs in the local and national economy and universities in the support of these enterprises it is essential to recognise the pivotal role played by European funding. European funding strategies run parallel with UK policies in attempting to encourage the regeneration of declining areas. The European Community Structural Funds including the European Regional Development Fund (ERDF) and the European Social Fund (ESF) illustrate two examples of how European money can support UK national and local economic development strategies. These structural funds are particularly targeted at those regions such as the West Midlands suffering from industrial decline (Objective 2) and at the disadvantaged within society (Leonard 1995).

In the case of the West Midlands the Community Support Frameworks 1989-93, and more recently the Single Programming Document 1994-96 (SPD), demonstrate that European funding in synergy with other schemes such as the UK government's Single Regeneration Budget have a significant role to play in, but also sit very closely to, UK national and local strategies on economic regeneration.

The SPD has identified a number of challenges which would need to be addressed if the West Midlands economy was to be revitalised. These include for example, the recovery and growth in the manufacturing and engineering industries, and an



improvement in the skills of the workforce. These two challenges affect both the West Midlands eight universities and its population of SMEs. Specifically, the SPD makes reference to the universities role in helping the manufacturing sector recover and grow, this would involve greater emphasis on technology transfer, research and development and *human resource development through training*. The vision in this instance has been for the West Midlands to be:

"identified as having a highly skilled knowledgeable and flexible workforce where the crucial connection between education, training and business success is made." (SPD 1994:5)

The SPD strategy on increasing the skills level of the workforce is reflected in two of its six priority areas: *Business Development* and *Human resources*. These priorities and associated Measures are 'locked-in' with existing UK local and national policies. For example, the Business Development priority has been used to co-finance the DTI's support for Business Links and TECs while the Human Resource priority focuses to a great extent on SME development through training - vocational and customised, measured for success in part against the national targets for education and training, particularly the lifetime learning targets (SPD 1994).

Both priorities show that UK government strategy on the economy is dependant to a large part on a European-wide strategy of support and finance and that the UK business support strategy would have great difficulty in functioning or meeting its targets without such structural funds. An illustration of the use of European funding for assisting SMEs in LED through the involvement of universities has just come to light at Aston University and will be discussed in detail in Chapter five.

### 3.8 CONCLUSION

This chapter has shown that there is a gap between the rhetoric and discourse of government policy and the reality of what has actually happened. The assumption that SMEs contribute to LED is inconclusive as is the assumption that the collaboration between SMEs and universities will contribute significantly to LED. The problems associated with public policy rhetoric are numerous but point to both market failure from the supply side of the transactional relationship between SME and provider such as the university and a failure of the mechanism through which such transactions occur, e.g. TECs. The fact that universities and SMEs in the context of Science Parks have not significantly contributed to LED or that it has taken five years for TECs and universities in the West Midlands to sit down together perhaps prove this.

The apparent failure of public policy may also be related to the misinterpretation by successive conservative governments of what has caused the problems of the British economy. Whatever, the reasons may be the evidence suggests that the way in which supply and demand meets is problematic. In that sense the public policy role may not relate to the SME or university reality and therefore the conceptualisation of the relationship between provider and user may be inappropriate. The implications of these issues link directly to an evaluation of the university offer package in chapter five. It may be possible to illustrate those characteristics which will either facilitate or hinder the take-up of university provision by SMEs. In that case the following discussion will be asking whether or not SMEs are catered for in the strategic positioning of five of the West Midlands eight universities and therefore how much thought has gone into the way universities cater for customers such as SMEs?



# **CHAPTER FOUR**

## **METHODOLOGY**

### **4 Introduction**

The purpose of this chapter is to explain how the research was conducted. To begin with the overall approach to the research will be discussed. This will be followed by explaining how the research has attempted to address the question of marriage or mismatch. In particular, attention will be given to testing the working hypotheses by explaining where and how data has been collected and how it has been used in the analysis. Finally, a short discussion about how the research could be extended concludes the chapter.

#### **4.1 The Research Approach - an overview**

The information presented in this thesis derives from a number of sources and has been dependent upon several different research methods. These include original research undertaken to establish a digest of university activities relevant to SMEs, a number of structured interviews with open-ended questions, participant observation and the extensive use of policy documentation and secondary sources such as books and journals.

The use of a number of sources of evidence, or triangulation, to support the research provides a robust methodology to attempt to understand all of the dimensions associated with the research and is a major strength of the case study approach adopted for this thesis (Yin 1994). The adoption of triangulation reflects the complexity of the research topic. For instance, the evaluation of the role of the university has been achieved by reviewing secondary sources while the evaluation

of public policy included reviewing both policy documentation and secondary sources such as commentaries. The remaining issues have been addressed using a mixture of literature review, original research including an audit, structured interviews and participant observation.

The qualitative approach of using structured interviews with open-ended answers was considered the best method because it allowed the respondents to freely define (Foddy 1993) what they felt affected the actual or potential relationship between SMEs and universities, e.g. reflecting marriage or mismatch. Other qualitative methods such as participant observation, i.e. an ethnographic approach, was utilised because it allowed the 'researcher' to observe, listen, ask questions and therefore focus the research (Hammersley and Atkinson 1993). In this instance, it has provided an 'insiders' view of one university's perception and experiences of working with SMEs.

The development of the research method reflects a chronology of events associated with establishing the working hypotheses. The research began with an audit of five of the eight West Midlands universities to establish which of their activities were relevant for the SME market. The process of auditing these institutions identified not only what universities felt they could offer SMEs but also highlighted a mixed picture regarding different universities apparent willingness and ability to work with SMEs. Therefore, the audit provided not only a rich source of information but also the framework for the rest of the research. This generated a set of questions from which the working hypotheses evolved, establishing which West Midlands universities were to be included in the thesis and providing the contacts in the universities, the business support organisations and SMEs for the follow-up interviews.

The liaison with business support organisations during the audit was primarily for the purposes of establishing the most user-friendly conventions for relaying



information about each universities activities. However, it also provided a point of contact for the structured interviews with officials from these organisations and the link to SMEs. The SMEs used in the research were not taken at random rather, they were recommended by business advisors because they had shown an active interest in training the workforce. Therefore, the recommendation was based on the belief that they would be receptive to discussing issues surrounding links with universities. Even so, out of the ten approached only three were prepared to offer the opportunity for an interview. The main reason given for non-cooperation was that the key personnel were too busy to be able to accommodate an interview which begs the question of how accessible universities and university researchers are even to those SMEs perceived by business support organisations as being approachable.

The research method and development of the working hypotheses also has much to do with the literature review. The review of literature indicated that there may be a gap between government objectives and the reality of encouraging universities to work with SMEs. The process of contextualising these claims and thereby test the working hypotheses (chapter five) is provided, in part, by the review of the role of the university (chapter one), and an appraisal of government policies relating to the university and SME within the context of the state and economy (chapters two and three). This review indicated that the question of marriage or mismatch may be partially explained as a historical phenomenon tied-up with the conceptualisation of the university which may have implications on the success of government strategies. In particular, the review points to the apparent schism between a liberal or vocational interpretation of the role of the university thereby providing an indication of why universities may not easily assimilate the economic mission recently ascribed to it by government.

## 4.2 Determining Marriage or Mismatch ?

The question which the research is endeavouring to address is based on two working hypotheses which derive and relate to the discussion about different conceptions of the university and government policy relating to the economy and SMEs. The testing of these will help determine whether the inter-relationship between SMEs and the university should be considered as a 'marriage or mismatch?'. 201511

### 4.2.1 Hypotheses

The two working hypotheses used for the research are given below:

(1) The nature of university services available to business customers will vary between universities and, the emphasis given to training as a sub-section of those services will vary depending on the mission and strategic positioning of the university.

(2) The take-up of university services, in particular, training and upskilling by SMEs varies depending on the perceived 'user-friendliness' of the university by these customers.

### 4.2.2 Testing the hypotheses

The testing of the first hypothesis begins with defining the SME relevant activities available from universities (chapter 5). This has been achieved by using the audit of five (**bold**) of the eight universities in the West Midlands:

\* **Aston University**

\* Birmingham University



- \* **Coventry University**
- \* Keele University
- \* **Staffordshire University**
- \* **University of Warwick**
- \* **University of Wolverhampton**
- \* University of Central England (UCE)

The audit, which was subsequently published as The University Services Directory (1995) identifies the research, postgraduate and post-experience or short courses available to SMEs. Resource calculations show which Departments or Schools in which universities provide what kind of provision. This gave an indication of the delivery mechanisms used for these activities and illustrated the diversity of activities between the five universities sampled within the region. Examples of the range of activities; research, postgraduate and short courses are presented.

This has been followed-up (chapter 5) by five interviews with the respective industrial (or quasi-industrial) liaison officers at the five universities. These interviews have been used to determine the market or tactical positioning of the respective universities with regard to training thereby providing an opportunity for respondents to identify the issues relating to the success or failure of providing such activities for SMEs.

A further six interviews were carried out at two of the five universities, i.e *Aston* and *Warwick* with members of staff from the Business School's and Continuing Education Department's and for one of the university's Faculty of Engineering. The intention has been to provide another opportunity to discuss the issue of marriage or mismatch with those staff members who actively work with SMEs. The reasons for choosing Aston and Warwick as opposed to the others reflects the ease of access to each institution and the apparent differences in each institutions approach to SMEs. In the case of Aston the opportunity of working closely with

members of staff was made easier by being a past member of staff, part-time lecturer and student. The ease of access, the background knowledge acquired whilst researching the audit and the chance of working on strategy in the Business School were further important considerations when choosing Aston. In the case of Warwick, ease of access was important but more significant was the apparent dissimilarity between the way Warwick approached SMEs compared to Aston. The fact that Warwick appeared to approach SMEs differently than Aston was another deciding factor.

Apart from the interviews participant observation was used over a two month period at Aston Business School. As the Acting Programme Manager of School's Management Development Programme, which provides courses and consultancy to both private and public sector organisations, it has been possible to observe at first hand current collaboration with SMEs and the development of the School's strategic plan for future collaboration with SMEs. This has provided another rich source of information regarding the tactical positioning of Aston.

The testing of the second hypothesis has been dependant on structured interviews with six officials from organisations involved in encouraging collaboration between SMEs and universities. These included the Birmingham TEC, Birmingham Business Link, Coventry City Council and WEMTECH amongst others. These respondents were asked to comment on their experiences of encouraging collaboration. The intention of interviewing such officials has been the attempt to gain some form of overview from organisations who's main aim has been to make such links possible.

Finally, three structured interviews have been carried out with Managing Directors of three Birmingham based medium enterprises (those with 100 - 499 employees) in the manufacturing sector who have of have had training links with West Midlands universities. The intention has been to discover why they had decided to



collaborate with a university or universities and to see how this relates to those views of the previous respondents, i.e. is there any commonality amongst the views? This may help identify some common themes which would inform policy makers in the future.

### **4.3 Conclusion**

The conclusions reached in this research are primarily applicable to the universities business support agencies and SMEs studied, however, the results may provide an insight into the general reasons why collaboration between SMEs and universities result in marriage or mismatch. Nonetheless, the evaluation of the offer package and the case studies (chapter 5) may constitute valuable starting points for future research.

# CHAPTER FIVE

## WEST MIDLANDS UNIVERSITIES AND SME: MARRIAGE OR MISMATCH?

### 5 Introduction

The objective of this chapter is to investigate and identify those factors which encourage or discourage collaboration between West Midlands universities and SMEs in the area of training. The aim is to try and indicate whether marriage or mismatch best describes the current situation and therefore show whether a gap exists between government policy objectives and the reality of university-SME collaboration in the West Midlands.

To begin with it will be necessary to present and discuss the range of activities or 'offer package' defined by five of the eight West Midlands universities. This provides a snap-shot of those activities considered relevant by these universities for the SME market and an opportunity to illustrate the organisational structures and mechanisms adopted to facilitate links with industry including SMEs. By defining the offer package it is possible to show the diversity of activities from and between these universities and compare those structures cum mechanisms which facilitate university-industry collaboration.

Having illustrated the offer package, information obtained from interviews with the respective Industrial, Commercial or quasi-Industrial and Commercial Development Officers of the five universities is used to determine these universities 'strategy' towards SMEs. The intention is to compare what universities define as their offer package and the perspective of such officials as to the realities of attempting to work with SMEs. This it is hoped will show if a gap exists between what is on 'offer' and the reality of what is delivered.



Further analysis of university 'strategy' and 'experience' is presented for two of the five universities in the sample: Aston and Warwick. Interviews conducted with members of staff from the respective Business School's and Continuing Education Department's and for one of the universities Faculty of Engineering is used to provide a Departmental or School position towards SMEs. This offers further insight into the realities of university-SME collaboration in the form of training. The Aston University case study will also include information obtained during two months of participant observation in the Business School's Management Development Programme. As Acting Programme Manager for this period it has been possible to access a rich source of information regarding Aston Business School's and University's positioning relative towards the SME market and this is reflected in the detail of this particular case study compared to the Warwick University case study.

Having established a university perspective an analysis of the SME and business support organisations perspectives follows. This relies on interview data obtained from business advisors to SMEs and several Owner/Managing Director's of three West Midlands medium sized manufacturing enterprises who are currently being provided training by local universities. This provides a 'facilitators' view towards university-SME collaboration and an enterprise specific perspective.

## **5.1 The Offer Package**

The offer package is defined using The University Services Directory 1994 (USD). This was produced by an audit of the research, development and business training capacities of universities in the West Midlands of particular relevance to SMEs. The audit was supported by the European Regional Development Fund (ERDF) through the Birmingham Integrated Operational Programme. It was compiled with the full co-operation of the participating universities and covers activities at postgraduate level and/or requiring some level of professional competency. The

audit was non-evaluative and therefore no comparison was made between like courses or research areas of the participating universities.

The Directory is the first of its kind in the West Midlands if not the country. The rationale behind the Directory has been to provide business advisors in business support agencies such as TECs and Chambers of Commerce a central source of information for West Midlands universities. The Directory was not sent to SMEs directly because it was considered too costly and not the best method of disseminating such information, i.e managers in SMEs were unlikely to be inclined or have the time to wade through the information in the Directory. Therefore, the idea has been to provide business advisors with the relevant information and thereby 'signpost' SMEs to those universities who might be able to help with training or research requirements.

## **5.2 The Interpretation of Data**

The information in the Directory is separated into two distinct sections. The first section or *Alphabetical Activity Index* contains key word combinations relating to courses, research and expertise associated with university Departments or Schools in section two. For the following analysis this first section has not been used. The second section or *Institutional Listing* contains information on five universities. The universities are represented alphabetically and are divided into sub-sections by Departments or Schools. These sub-sections contain information on research areas, postgraduate courses and short courses. This is the source of information used for the following evaluation.

The Directory provides a rich and accurate source of information. However, although the Directory is a fair representation of university activity it does have some limitations, for example, it will become out-of-date in perhaps twelve months when new activities are added or removed from the universities offer package.



Nonetheless, the information available was rigorously validated during the compilation of the audit and therefore provides an opportunity to make informed observations about the activities of universities and the mechanisms used to link universities with industry.

The information extracted from the Directory is presented in the following format:

- \* ***Introduction***
- \* ***Areas of Expertise***
- \* ***Content of Expertise***
- \* ***Accessibility and Delivery***

The analysis shows the relative spread or mix of activities, the entry requirements for courses, the modes of delivery and the range of expertise. This illustrates, compares and contrasts the characteristics of the individual universities positioning towards SMEs. This provides the contextual framework to set the analysis of interview and participant observation material.

### **5.3 Aston University**

#### **5.3.1 Introduction**

At the time of the audit Aston's mission was to be a 'leading technological university' implying the pursuit of high-quality research, scholarship and learning in predominantly technological subject areas (USD 1994).

Assistance is said to be available to help firms capitalise from various grants available to subsidise business development and problem-solving and the advancement of a firms technological base. This includes government and European Union grant schemes to facilitate knowledge and technology transfer via

research and development between industry and the university (USD 1994). It is interesting to note that during the life of the audit the Research Office which acted as the conduit through which enquiries about working with departments and collaborative schemes flowed was the victim of financial cut-backs by the university. The university no longer has a specific central information function either for firms or Departments. This is quite unusual and as a result industrial liaison is undertaken by the head of the Continuing Education Service and/or academic Departments.

### 5.3.2 Areas of Expertise

The offer package (Table 5.3.2) is based on research, postgraduate courses and short courses across twelve areas of expertise in the university:

**Table 5.3.2: Aston University Offer Package**

	No. of Research Areas.	No. of Postgrad. Courses.	No. of Short Courses.
Business School	9	4	19
Chemical Engineering & Applied Chemistry	6	0	1
Civil Engineering	4	0	1
Computer Science & Applied Mathematics	3	2	0
Continuing Education Service	0	0	61
Electronic Engineering & Applied Physics	4	1	4
Interdisciplinary Higher Degree Scheme	1	0	0
Languages and European Studies	7	0	3



<b>Mechanical and Electrical Engineering</b>	<b>7</b>	<b>2</b>	<b>23</b>
<b>Pharmaceutical and Biological Sciences</b>	<b>7</b>	<b>0</b>	<b>1</b>
<b>Staff Development Unit</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Vision Sciences</b>	<b>3</b>	<b>0</b>	<b>1</b>
<b>TOTAL</b>	<b>51</b>	<b>9</b>	<b>118</b>

The spread of activities would seem to show that some Departments/Schools are more active than others in the areas of research, postgraduate and short courses. Of the formal short courses available the Continuing Education Service accounts for 52%, Mechanical and Electrical Engineering 20%, and the Business School 16%. It is interesting to note that Aston University was the only university to present separate data for its Continuing Education Service. The reason for this is perhaps two-fold. Firstly, the Continuing Education Service offers its own short course portfolio as well as co-ordinating continuing education provision across all the Faculties. Secondly, the Head of the Continuing Education Service also works alongside the university's industrial liaison officer and as such takes an active role in promoting the Continuing Education Service's role to encourage links with industry. The Continuing Education Service, Mechanical and Electrical Engineering and the Business School account for 87% of all short courses, while the Business School and Mechanical and Electrical Engineering provide 66% of all postgraduate courses.

### 5.3.3 Content of Expertise

The content of expertise available is diverse but given below are some examples of those activities available from the Business School (USD 1994):

Research Area: *Finance and Accounting Research Centre* - This Centre is engaged in company and industry based investigation of managerial response and performance. It encompasses the effects of market forces on corporate behaviour, policy and performance, and the internal management of firms.

Postgraduate Course: *Business Administration (MBA)* - This course develops managerial skills: finance and information management, international marketing, people and organisations, strategic marketing, management of innovation and change, business French, interviewing and presentation skills and leadership.

Short Course: *Managing Complexity and Change: Creating and Sustaining Organisational Learning* - The aim of this course is to introduce the tools and framework for understanding change. Creating organisational advantage by sustaining efforts to change. The learning organisation. What is it? How can it be achieved? The course will enable delegates to understand and apply the triggers for change and be able to assess likely successes in applying strategies of change in the context of the client's business.

#### **5.3.4 Accessibility and Delivery**

An evaluation of the entry requirements and mode of study for the postgraduate courses shows the level of education and/or work experience prospective applicants require. In respect to short courses the educational level will vary as will delivery. For example, typical off-the-shelf courses are offered by the Continuing Education Service these are video-based training courses in the skills shortage areas of microelectronics and information technology and are aimed at technicians as well as professional engineers. Whereas, in the case of the Business School courses are offered on a bespoke basis where course design is built around the wishes of the client.



The entry requirements for all the postgraduate courses at Aston are standardised. The requirements are a second class honours degree or better. Failing that, some form of relevant professional qualification *might* be accepted. The postgraduate course provision is by definition at an advanced level and not suitable for non graduates. The ability to study will also be dependant on the mode of study (Table 5.3.3). For example, a part-time evening or distance learning course might be more accessible than a full-time course for an SME employee.

**Table 5.3.4: Taught Postgraduate Courses - mode of study**

	Full-time only	Full or Part Time	Full/Part-Time or Distance	TOTAL
Business School	1	2	1	4
Computer Science & Applied Mathematics	1	1	0	2
Electronic Engineering & Applied Physics	1	0	0	1
Mechanical and Electrical Engineering	1	1	0	2
TOTAL	4	4	1	9

The figures show that only one of the nine taught postgraduate courses on offer at Aston is available on a full-time, part-time and distance learning basis. The lack of flexible delivery across all courses may well hinder the up-take of courses by candidates in full-time employment.

As for short courses, there is a variety of delivery mechanisms including in-house courses at the place of work, video-based and training by satellite as well as seminar or lecture based courses on the Aston site. It is interesting to note that of the Departments or Schools that offer short courses for SMEs only the Business School has a specific function or Programme which facilitates the specific delivery

of such courses, i.e the Management Development Programme. This may reflect a more proactive approach with working with industry compared to the other Departments or Schools?

## **5.4 Coventry University**

### **5.4.1 Introduction**

At the time of the audit Coventry's mission was stated as being to encourage collaborative links between academic staff and industry thereby providing 'a positive contribution to the economic well being of the region and nation' (USD 1994).

The University's Commercial Development Unit is the focal point of all its links with local Industry. The Unit's role is to provide assistance for industry and other organisations and to facilitate links with the university. It is self-financing and as such is expected to contribute a proportion of its revenue to the university. It is host to the university's trading company - Coventry University Enterprise Ltd - and a number of other programmes and initiatives through which contact with the regions SMEs occur.

"Besides acting as a one-stop-shop for consultancy, training, technology transfer and contract research, the Commercial Development Unit actively seeks external funding sources to support its primary industrial liaison function, particularly with the small-to-medium sized enterprise sector" (USD 1994: 51).

The most recent example of what is a very active approach by the Coventry University Enterprises Ltd is its involvement of operating the Midlands Innovation Relay Centre on behalf of the European Commission. The Centre which was launched on Wednesday 8 November 1995 is to be a source of help and advice



for organisations including SMEs looking to exploit new technologies and research results, for gaining European Commission funding for research, development and testing, and for the promotion of innovative products.

**5.4.2 Areas of Expertise**

The offer package (Table 5.4.2) is based on research, postgraduate courses and short courses across eight areas of expertise in the university:

**Table 5.4.2: Coventry University Offer Package**

	No. of Research Areas.	No. of Postgrad. Courses.	No. of Short Courses.
Art & Design	7	3	0
Built Environment	10	4	0
Business School	4	7	3
Engineering	15	7	0
International Studies & Law	3	1	2
Mechanical & Information Sciences	9	4	0
Natural & Environmental Sciences	32	2	4
Unit for the Development of Alternative Products	26	0	0
<b>TOTAL</b>	<b>106</b>	<b>28</b>	<b>9</b>

The details above appear to suggest that Coventry University's research activity spans a vast array of research areas. However, the figure relates to research groups, areas and *research products*. This is different from the figures represented

for the other universities because Coventry's Unit for the Development of Alternative Products is involved in encouraging academics to market their innovative products. The 26 research areas presented in Table 5.4.2 in fact relates to 'inventions' which the university is trying to market to industry.

What this tells us is that Coventry is very active in research related activity but that it is not necessarily more active than the other universities. It only means that in providing information for the Directory they were more rigorous in offering the various permutations of their activities. This is perhaps a reflection of the very active approach adopted by the Commercial Development Unit in trying to build links with industry which in turn may be related to the fact that the Unit is self-financing and therefore cannot rely on its future from direct support from the University.

For postgraduate and short courses the Business School, the School of Engineering and the School of Natural and Environmental Sciences appear to be most active. Both the Business School and Engineering provide 25% each of the total postgraduate courses available, while Natural and Environmental Sciences provides 7%. In the case of short courses the Business School and Natural and Environmental Sciences provide 77% of the total portfolio.

### **5.4.3 Content of Expertise**

The content of expertise available is diverse but given below are some examples of those activities available from the Business School (USD 1994):

Research Area: *Corporate Strategy* - Current emphasis is on mergers and the cultural change required within a company before full Europeanisation can be properly achieved.



Postgraduate Courses: Management - This programme aims to provide a comprehensive grounding in general and functional areas of management, incorporating both specialist knowledge and practical competence. This includes management principles, behaviour, organisations, operations and resources, finance, marketing and external relations, self development log and project.

Short Courses: Human Resource Management - Areas of expertise include: employee relations, motivation, training needs analysis, management development, leadership, payment systems and incentives, selection procedures and interviewing skills, and job satisfaction.

**5.4.4 Accessibility and Delivery**

The entry requirements (Table 5.4.4) at Coventry University vary considerably. The standard requirement of a good first degree remains but some of the courses available do not necessarily require graduate qualifications. This is because Coventry's School of the Built Environment acts as a facilitator for courses from professional bodies such as, the Chartered Institute of Building. In these instances 'A' level or equivalent qualifications are some times only required and/or several years experience (USD 1994).

**5.4.4 Taught Postgraduate Courses - mode of study**

	Full-time only	Part-time only	Full & part time	Part-time/ distance	TOTAL
Art & Design	1	0	2	0	3
Built Environment	0	1	2	1	4
Business School	2	4	1	0	7
Engineering	0	0	7	0	7

<b>International studies &amp; Law</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Mathematical &amp; Information Sciences</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Natural &amp; Environmental Sciences</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>
<b>TOTAL</b>	<b>7</b>	<b>5</b>	<b>15</b>	<b>1</b>	<b>28</b>

One course is available part-time and as distance learning. Once again this might be considered as unsympathetic to those potential students who are in full-time employment. However, 54% of all courses are available on a part-time basis. Short courses can be offered as standard seminar, lecture and video based or in-house to the company. The short courses are accessed through the Commercial Development Unit and are normally customised to the needs of the client.

## **5.5 Staffordshire University**

### **5.5.1 Introduction**

At the time of the audit Staffordshire University's mission or ethos stated that:

"People matter above all else. Our Commitment is to opening the door of opportunity to all those potential students who can benefit from our courses and to our customers in the regional, national and international community. In this pursuit of quality and value for money is central. The enthusiasm, ability and openness of all our staff are at the heart of a community which makes Staffordshire University a stimulating place to study and work" (USD 1994: 93).

The University has an Enterprise Unit which provides assistance to industry and other organisations to access the university's skills, expertise and facilities. The



courses, consultancy programmes and project work is predominantly tailor-made to suit the requirements of the client. The Unit also provides advise on the type of collaborative grants available through the university.

**5.5.2 Areas of Expertise**

The offer package (Table 5.5.2) is based on research, postgraduate courses and short courses across seven areas of expertise in the university:

**Table 5.5.2: Staffordshire University Offer Package**

	No. of Research Areas.	No. of Postgrad Courses.	No. of Short Courses.
Business School	6	26	1
Computing	6	5	4
Design & Ceramics	0	2	3
Engineering	7	6	8
Language Export Centre	0	0	1
Law	0	0	2
Sciences	4	1	9
TOTAL	23	40	28

These details suggest that the Business School can provide 60%, the School of Engineering 15% and the School of Computing 13% of all the postgraduate courses available. However, the total number of short courses given above belies the flexibility of Staffordshire's short course portfolio, i.e there are conceivably more than 28 courses available. The exact figure is difficult to assess but for the Business School there are at least 16 possible permutations of the Business and

Management short course.

### **5.5.3 Content of Expertise**

The content of expertise available is diverse but given below are some examples of those activities available from the Business School (USD 1994):

Research Area: *Small Business Management Centre*- The Centre provides tailored development and training in the different areas concerning Small Business Management. It also undertakes short term and long term consultancies for small businesses to aid problem solving and trouble shooting. The Centre works closely with SMEs and takes a policy of following objectives set by the company. Work has also taken place with Konver.

Postgraduate Courses: *Management* - To help first time managers develop their competence to manage; to enable them to gain the necessary knowledge, skills and attributes which, when brought together as an integrated whole and applied to specific managerial tasks, will lead to effective individual performance.

Short Courses: *Business and Management* - There are no standard short courses which are provided on an open basis. Courses are available on a customised basis depending on the wishes of the client. They can be in-house if required. Short courses include: Marketing, Customer Care, General Management Development Appraisal, Finance and Accountancy, IT Strategy, Sales Training, Finance for the Non-Financial Manager, Leadership, Motivation and Team Building for Senior Management, Time Management, Supervisory Training Quality Management, Selling into Europe, Small Business Training, Negotiating Skills, Presentation Techniques and Personnel Management.



**5.5.4 Accessibility and Delivery**

The entry requirements for postgraduate courses at Staffordshire University varies quite considerably. The range starts at one end with the requirement for a good first degree for entry onto a Masters course. While at the other 'A' level passes or exceptionally for mature students (aged 25 or over) taking managerial related courses, at least four years substantial managerial experience.

The University offers a wide variety of courses which are not all strictly 'postgraduate' because it acts as a facilitator for professional bodies. For example, the Business School runs courses for the Chartered Association of Certified Accountants; the Chartered Institute of Management Accountants; the Institute of Personnel Management; the Institute of Administrative Management; the British Production and Inventory Control Society; the Forum of European Production and Inventory Management Societies; the Institute of Purchasing and Supply; the National Examining Board for Supervisory Management and the Chartered Institute of Marketing. As a result, there are courses available at Certificate, Diploma, Degree and NVQ level three. This range is particular to the Business School and may reflect a particular vocational orientation of its portfolio.

**Table 5.5.4: Taught Postgraduate Courses - mode of study**

	Full-time only	Part-time only	Full/Part-time	TOTAL
Business School	6	19	1	26
Computing	2	2	1	5
Design and Ceramics	1	0	1	2
Engineering	0	0	6	6
Sciences	0	1	0	1

<b>TOTAL</b>	<b>9</b>	<b>22</b>	<b>9</b>	<b>40</b>
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There is no mention of distance learning but part-time study is available from 78% of postgraduate courses available. The short course portfolio is highly flexible which is a reflection on the pro-active approach undertaken by the Enterprise Unit.

## **5.6 University of Warwick**

### **5.6.1 Introduction**

The University's mission is very specific:

"At Warwick, the development and maintenance of research excellence has been a very high priority. The 1992 Research Assessment Exercise undertaken by the Universities Funding Council rated Warwick highly, placing it among the leading half dozen research institutions in the UK" (USD 1994: 127).

The research element of the mission is also matched by other activities related to the development of the regional economy. Work with local companies is coordinated through both the Industrial Development Office and the Warwick Research Institute. The Industrial Development Office is the conduit through which companies on Warwick Science Park and SMEs in general interact with the University. The Warwick Research Institute not only undertakes research it also offers consultancy and acts as the training agency providing professional training for the university (Ibid).



**5.6.2 Areas of Expertise**

The offer package (Table 5.6.2) is based on research, postgraduate courses and short courses across ten areas of expertise in the university:

**Table 5.6.2: University of Warwick Offer Package**

	No. of Research Areas.	No. of Postgrad. Courses.	No. of Short Courses.
Biological Sciences	5	2	7
Business School	15	10	3
Chemistry	15	1	0
Computer Science	8	1	0
Economics	6	2	0
Engineering	12	6	3
Language Centre	0	0	1
Mathematics	7	2	0
Physics	10	1	1
Statistics	8	1	0
<b>TOTAL</b>	<b>86</b>	<b>26</b>	<b>15</b>

The Business School provides 42% of the postgraduate courses while the Department of Engineering and the Department of Biological Sciences account for 23% and 8% of the portfolio respectively. In total these three departments provide 73% of all the postgraduate courses in the offer package. The short courses appear, as with Staffordshire, to be 'light' in numbers. However, this once again belies the flexibility and range of the short course portfolio.

In the case of the Business School it:

"has the capacity and expertise to address a wide range of Executive Development needs. Warwick Business School designs tailor-made programmes for companies, designed to focus on the particular needs of the organisation concerned" (USD 1994: 140).

Moreover, as with Staffordshire the Business School has a Centre specifically concerned with the needs of SMEs.

### **5.6.3 Content of Expertise**

The content of expertise available is diverse but given below are some examples of those activities available from the Business School (USD 1994):

Research Area: *Centre for Small and Medium Sized Enterprises* - The activities in this Centre include: co-ordination of multi-establishment programme of research in small business, the enterprise culture, new business start-ups, and the role of new and small firms in regional economic development.

Postgraduate Courses: *Business Administration (MBA)* - The Warwick distance learning MBA programme has been launched in response to the changing needs of industry, commerce or public administration. It is designed for suitably qualified men and women who cannot attend university on a full-time or part-time basis, and is of the same rigorous standard as the full-time programme.

Short Courses: *HOST Initiative* - The HOST Initiative aims to help SMEs to cope, to grow to prosper. The Initiative involves the placing of an experienced executive with a selective company for four months, to undertake an assigned management project. Prior to undertaking the project, the manager will be supervised by a consultant from the Warwick Business School. The Initiative is sponsored by



Coventry and Warwickshire TEC and will be organised by the Warwick Business School's Centre for Small and Medium sized Enterprises.

**5.6.4 Accessibility and Delivery**

The entry requirements for postgraduate courses at the University of Warwick are a minimum of an upper second class degree in a relevant subject to the course. There are instances when specific work experience are demanded in addition, for example, the Warwick MBA requires at least four years' experience in business and for applicants to have taken the Graduate Management Admission Test (GMAT) (USD 1994: 137).

No specific entry requirements are made for the short courses, however, it is fair to assume that the calibre of candidates taking the course will be agreed jointly between the customer and the university and will most probably be senior.

**Table 5.6.4: Taught Postgraduate Courses - mode of study**

	Full-time only	Part-time only	Part-time Distance	Full-time & Part-time	TOTAL
Biological Sciences	2	0	0	0	2
Business School	5	3	1	1	10
Chemistry	0	0	0	1	1
Computer Science	0	0	0	1	1
Economics	2	0	0	0	2
Engineering	0	3	0	3	6
Mathematics	1	0	0	1	2

<b>Physics</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Statistics</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL</b>	<b>11</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>26</b>

Distance learning is available in one of the postgraduate courses as is the option of taking individual modules of particular courses at separate times. This would allow participants to accumulate the necessary modules to a qualification over a prolonged period thereby allowing for a more flexible approach. As with the other universities short courses are available on a standard basis or can be customised to the specific needs of the customer.

## **5.7 University of Wolverhampton**

### **5.7.1 Introduction**

The University's mission or ethos is to encourage "Working Partnerships". These working partnerships are

"...with business, offering a comprehensive package of services comprising of education and training, contract research and consultancy. Regardless of the size of a company or the sector in which it operates, the university will listen carefully and will harness the appropriate expertise and resources within the university to meet those needs" (USD 1994: 167).

The University has a Corporate Enterprise Centre which facilitates the contact between industry, commerce and other external organisations with the University. This includes advising on access to collaborative grants with industry, the Teaching Company Scheme and the Shell Technology Enterprise Programme (STEP). STEP is an initiative designed to help SMEs use undergraduates to undertake project based assignments at a low price. Moreover, the university states that companies



can choose from a 'vast range of vocationally-orientated courses and professional courses' (USD 1994: 167).

**5.7.2 Areas of Expertise**

The offer package (Table 5.7.2) is based on research, postgraduate courses and short courses across ten areas of expertise in the university:

**Table 5.7.2: University of Wolverhampton Offer Package**

	No. of Research Areas.	No. of Postgrad. Courses.	No. of Short Courses.
Applied Science	4	4	0
Art & Design	1	1	0
Business School	3	10	0
Computing & Information Technology	1	3	1
Construction Engineering & Technology	2	8	0
Education	3	0	1
Languages & European Studies	1	0	1
Legal Studies	3	0	0
TOTAL	18	26	3

The figures above give some indication of the offer package. In terms of postgraduate courses the Business School provides 38%, the School of

Construction, Engineering and Technology 31% and the School of Applied Sciences 15% of courses. This represents 84% of the total postgraduate portfolio. Training services have been represented as an area of research which would seem to suggest that research development and training are closely tied. The standard short courses numbered above do not represent the university's potential training and short course portfolio. As with the other universities the training and short course portfolio is extremely flexible. In practical terms, short courses, training or consultancy arrangements can be made with departments through the Corporate Enterprise Centre and need not coincide with standard courses although elements of standard courses might be built into a course.

### **5.7.3 Content of Expertise**

The content of expertise available is diverse but given below are some examples of those activities available from the Business School (USD 1994):

Research Area: *Research and Consultancy Services* - Wolverhampton Business School can offer consultancy and research services in the following areas: strategic management, strategic information systems, tourism development, economic impact analysis, enterprise development, human resource management, marketing, finance, risk assessment and public sector management.

Postgraduate Courses: *Personnel Management* - There are two major aims of the professional scheme run within the Business School. To provide a structured programme of education so that students will succeed in the examinations and thus progress to Graduateship of the Institute. To provide students with the knowledge and skills to perform to a high standard at their place of employment.

Short Courses: You will note from table nine that the Business School does not seem to offer short courses for SMEs. However, if one refers to the research area



given above it is possible to deduce that consultancy/courses on certain topics is available.

**5.7.4 Accessibility and Delivery**

The mode of study (Table 5.7.4) and the entry requirements for the postgraduate courses at the University of Wolverhampton vary but the minimum for most courses is a good honours degree. The other entry requirements are dependant on the level of the qualification and therefore may only require 'A' levels and/or several years of experience. The University offers professional qualifications from a variety of institutes: the Chartered Institute of Public Finance and Accountancy; Chartered Institute of Building; British Institute of Architectural Technicians; Institute of Clerk of Works and the Institute of Building Control. No specific entry requirements are stated for short courses or training. It is therefore fair to assume that the level of training will vary depending on customer needs.

**Table 5.7.4: Taught Postgraduate Courses - mode of study**

	Full-time only	Part-time only	Full/Part Time	Don't Know	TOTAL
Applied Science	0	0	4	0	4
Art & Design	0	0	1	0	1
Business School	2	5	3	0	10
Computing & Information Technology	1	0	2	0	3
Construction Engineering & Technology	1	5	1	1	8
TOTAL	4	10	11	1	26

Part-time courses account for 81% of all postgraduate courses available. There appear to be none which can be taken using distance learning techniques although some of the courses are modular and therefore individual modules can be taken in isolation over a prolonged period. It is interesting to note that those courses which are available on a part-time basis only are almost entirely for professional vocational Institute qualifications.

## **5.8 The University Offer Package - an appraisal**

The offer packages as presented above shows that potentially at least SMEs can access a varied array of postgraduate, professional courses, research facilities and products in a number of areas of expertise. The range and mix of expertise among the universities presented indicates the variety of different emphasis' of each university to the market place. For instance, it is perhaps indicative of the polytechnic origins of Coventry, Staffordshire and Wolverhampton University's that they offer a wide range of professional qualifications whereas, Aston and Warwick University's do not. It is maybe unwise to associate this too closely with the history of an institution but it does suggest a marked difference between 'types' of university in the region. There is a further range of differences between universities and within the universities. In these instances it reflects different perceptions of SMEs their needs and the capacity or desirability of working with them.

In presenting the offer package it has also been possible to begin to identify the mechanisms which link universities with its industrial partners including SMEs. The existence of Enterprise Units and Enterprise Companies are examples of such mechanisms although as indicated they are not adopted by all the universities. The fact that Aston University does not have an Industrial Development Unit may reflect the 'strategic' positioning of the university in relation to SMEs, i.e. there is potentially at least a gap between what is said to be on offer and what actually happens because there is a lack of university wide liaison function to facilitate such



inter-action. This is in stark contrast with for example, Coventry University which actively participates in schemes and initiatives to encourage collaboration and Warwick University which has both an Industrial Development Office and a Centre for SMEs in its Business School. In these instances it might be possible to argue that they have a much stronger strategic positioning towards SMEs.

The offer package does not tell us in itself what are the preferred delivery mechanisms for training and upskilling, how links are made, how they are maintained, in short, what constitutes or best describes university-SME links; marriage or mismatch? What follows is an analysis of those issues affecting the link between universities and SMEs.

### **5.9 An University Perspective of University-SME links**

University perspectives towards the link with SMEs in the West Midlands is a rather mixed picture. There is consensus in the opinion that SMEs are important to the regional and national economies and that the policy environment continues to encourage universities to work more closely with SMEs across a range of activities including training. However, this is where the general consensus ends. The experiences of each university provides a different perspective of the reality of university-SME links. There are similarities but there are also considerable differences relating to the strategy of universities towards SMEs, how they access the SME market and so on. What follows is an account of these differing perceptions and methods presented by reference to responses made to questions posed to the Industrial, Commercial or quasi-Industrial officers and other related members of staff at the five universities (Appendix).

The development of a relationship between universities and SMEs is dependant on a number of factors. The interviews conducted within the five universities has highlighted a number of such factors which may go some way to explain why

marriage or mismatch occurs. Those factors have been identified below:

- \* **Strategic Positioning of the University**
- \* **Market Penetration**
- \* **Costs for University-SME Links - financial and time**
- \* **Funding Regimes**

These factors are inter-related, for example, the *market penetration* of universities into the SME market is very much dependant upon the *strategic positioning of the university* in relation to the perceived importance of SMEs, while the availability of a suitable *funding regime* to support activities will impact on whether the provision can be developed and delivered cost-effectively. In attempting to determine whether marriage or mismatch best describes the current situation it will be necessary to appreciate that the 'ideal' marriage is unlikely to exist and that the reality will more likely resemble a mixture of success and failure determined by individual experience.

### **5.9.1 Strategic Positioning of the University**

The identification of the strategic positioning of the university will help to reveal how the university relates to the SME market and the extent to which collaboration occurs. This in turn will provide an idea of whether the university is serious in attempting a 'relationship' with an SME which may end in 'marriage'. This will not provide the definitive answer to the question but will shed light on the likely situation and will show what is likely to encourage marriage or induce mismatch. The term strategic positioning refers to the policies adopted by the university in relation to training activities for SMEs.

The five universities present a mixed picture relating to the strategic positioning of the regions universities. In particular, it is possible to highlight conflicting



interpretations of the importance of working with SMEs between and within the sample universities. The following discussion demonstrates that a distinction can be made between the rhetoric and the reality of what happens on the ground. As an academic from Aston University states:

"There are three types of institution just on your door step. You have got us [Aston] who are unofficially, well, pissing in the wind. We are not organising ourselves, its not part of our longterm strategic thinking to work with SMEs. You have got the Dave Storey's [Warwick] a researcher into SMEs who does a lot with SMEs, he's a strategist in terms of what he does with SMEs. You have got the much more hands on practical approach of UCE [University of Central England] who do a hell of a lot of work with SMEs. They are doing all soughts of things with SMEs and making money. But that reflects the different styles of institution."

The 'style of institution' is reflected in part by its strategic positioning. The emphasis it places on training activities and in this instance reflects its commitment or for that matter lack of commitment of working with SMEs. In the case of Aston University the previous quote gives a strong indication about one academics interpretation of the university's style or strategy towards SMEs. He goes on during the same interview to state that:

"...the university is not really committed to continuing education, it shows a face that says to the outside world that it is reasonably committed and that it is integrated (...) [but] (...) Continuing Education does not fit in with the ethos of the Vice-Chancellor."

This appears to show a gap between what image the university would like to project and the reality of the situation, at least with continuing education. This potential gap will be discussed when Aston is looked at in more detail later but what it does indicate is differing intra-institutional perceptions and antagonisms which reflect a self-imposed rejection of working with SMEs from the top but which may not be reflected at Department or School level.



Coventry University in stark contrast to Aston has a Commercial Development Unit which appears to be the driving force behind Coventry's interest in working and providing for SMEs. This coincides with what is identified as a strong leaning towards vocational learning. In particular, a senior member of staff at the Commercial Unit suggested that part of the reason for Coventry's pro-active approach to SMEs was its 'polytechnic heritage'.

There are several other reasons why SMEs are believed to be of strategic importance to Coventry. These include, contributing to income generation for the university, e.g the Commercial Development Unit earned £250,000 for the University in 1994/95, their role in Local Economic Development and the benefit such collaboration has on the curricula. The Director of the Commercial Development Unit stated:

"SMEs are very important to Coventry because they are going to be the big companies of tomorrow (...) Rover might not be here tomorrow, but some of these little companies could be the Rover's of tomorrow, that's what we are interested in (...) they are important to us because they provide scope for our projects and placements for our students and a good sound base to work on."

However, this rationale does not sit quite so happily with what the Director believes are the perceptions of the 'University'. In particular, he stated that the University saw his operation as 'a necessary evil' but that 'getting hands dirty' was not what the University was about. Rather, the 'real' purpose of the university was to teach. This seems to support the idea that as in the case of Aston contradictions in the strategies of universities towards SMEs are as much a reality within institutions as they are between institutions. This is the case even when the benefits of working with SMEs are so clearly recognised. Nonetheless, in this instance it does not appear to have prevented the Unit from pursuing a very active SME policy.

The justification for working with SMEs as presented by Staffordshire University is



very similar to that of Coventry although no mention of internal tension was indicated. However, in addition to the strategy rationale mentioned above the Enterprise Unit Director at Staffordshire points to another reason why the Unit targets SMEs. In short, it perceives itself as a provider in competition with other universities. The Enterprise Unit Director freely admitted that it could not compete with Aston in working with larger corporate clients. Therefore, as a result, in order to generate income from external sources:

"Staffordshire has had to look elsewhere and SMEs are the major market."

This is not to say that the only reason for wanting to work with SMEs is for income generation purposes, but it does suggest that it is a significant factor. The incentive to work with SMEs for Staffordshire as with Coventry is the belief that the university is helping small businesses grow. This fits the strategic view that such relationships may become long term and therefore will generate further work for the university in the future but equally it perpetuates the ethos as advocated by the Director at Staffordshire of the importance of lifelong learning in local business.

When asking a senior member of staff at the University of Wolverhampton's Corporate Enterprise Centre the same question about the University's strategy towards SMEs, they replied:

"Our own relationship with SMEs; they are sought of sporadic...they are not in anyway strategic. There is a lot of *talk* in the University about we must have a strategy for SMEs" (emphasis added).

This rather cynical but frank interpretation reveals as with Aston that what may be pronounced as a commitment towards working and providing for SMEs in the area of training, is in reality not so clear-cut or developed. The reasons for what appears to be a rather mixed picture relates much once again to the perceived role of the

university. The same member of staff suggests in this respect:

"I have heard people say recently, well you must remember that our core business is teaching and dealing with students and isn't income generation."

This can be interpreted as indicating that at least in the case of Wolverhampton there is unease in the process of undertaking work with SMEs because it is neither the role of the university to be involved in such work or to try and generate other forms of income.

The evidence so far demonstrates that the strategic positioning of universities towards the SME market can create internal tensions regarding such activities. These tensions relate to not only teaching commitments but also research and in particular the Research Assessment Exercise (RAE). Both the Director of the Coventry Commercial Unit and Aston's quasi-industrial officer cited the RAE as either impinging on the delivery of training or affecting the strategic relevance of training for the University's respectively. In the case of strategic relevance of training at Aston it has been stated that:

"There is a problem both at the top and bottom at Aston. Continuing Education is not seen positively. In particular, it is seen to infringe on research time."

In the case of Warwick University the potential conflict between research, teaching and external work has been resolved by the fact that research although considered of particular importance is not undertaken at the expense of other activities. Warwick is somewhat unique because it combines its research work and teaching with its training activities. For instance, in the case of its Centre for Small and Medium Sized Enterprises, its research output guides and informs its training strategy. The Assistant Director of Training stated in an interview that the strength of the Centre was the way SMEs benefitted from the 'synthesis of research,



teaching and training'.

The evidence provided indicates that the strategic positioning of universities towards the provision of training for SMEs is mixed. In particular, Aston appears to be quite atypical in the way it has not targeted SMEs although, this may not be surprising when you consider that the stated aim of the university is to achieve a high research rating for the RAE. This perhaps indicates the strategic dilemmas faced by universities today, i.e whether to concentrate on teaching, research or outside income generation or a synthesis of these?

In the case of Wolverhampton and for that matter Aston, the rhetoric does not reflect an effective undertaking to work with SMEs. The experiences at Wolverhampton, the ad hoc approach, may reflect the difficulties experienced by universities in deciding how to tackle the SME market. These difficulties may reflect in part to the uncomfortable liaison between research, teaching and external training. As in the case at Coventry such activities are not considered to represent the 'ideal' role of the university.

Coventry, Staffordshire and Warwick do appear to have a strategy relating to the SME market. However, Warwick is quite unusual in the way it appears to be able to combine the different core activities research, teaching and training without apparent detriment to any one them.

The discussion shows the relative importance of having an SME strategy if marriage between a university and SME is to be given a chance. However, the adoption of such a strategy is in itself no guarantee that marriage will occur rather there are a number of other factors effecting a universities ability to work with SMEs.

### **5.9.2 Market Penetration**

Having explored and discussed the strategic positioning of the five universities it is now necessary to look at the various methods used to penetrate the SME market. This identifies not only the different approaches adopted but also gives an indication of the different levels of success.

The common response given by the commercial cum industrial representatives of the universities when discussing SMEs is the problem of penetration. In particular, the Director of the Commercial Unit at Coventry observed that they we are 'just touching the surface of working with SMEs'.

With this in mind, many different methods have been used to try and penetrate the SME market, for instance, Aston has tried in one example (possibly the only) to target the SME market with its range of Information Technology and Microelectronics videos available from the Continuing Education Service. Aston received some funding from STRIDE to market the courses and have worked closely with WEMTECH (The Regional Technology Centre) including mailshot, using their database of SMEs and visiting showcase exhibitions. However, all this effort has only been met by a patchy response from SMEs. As the Head of Continuing Education at Aston states:

"In any marketing campaign you have got to get your name in front of the people all the time. We just cannot afford to take out adverts in big journals (...) we can't keep our name in front of people because we do not have the money to fund it. It is a problem of marketing. Sadly, the majority of sales would not be to SMEs."

In the case of Staffordshire University a similar complaint about the difficulty of penetrating the SME market was expressed. The methods used were to stage conferences and seminars for SMEs to show them what the university could offer.



As with Aston the idea is to go direct to SMEs, but not necessarily just through mailshot, but more systematically by meeting SMEs in 'SME Clubs'.

It is interesting to note that the Director of the Enterprise Unit at Staffordshire admitted that she "was not certain of the best way to make links" and that it was probably a combination of activities such as contacting them through Small Business Clubs and visiting trade fairs and exhibitions. These feelings were similarly expressed at Wolverhampton University. There too contact was attempted through visits to Business Clubs and conferences although the representative from the Commercial Enterprise Centre went on to infer that there was no systematic strategy, instead it was somewhat ad hoc.

The Coventry approach perhaps marks a significant alternative in attempting to penetrate the SME market. The main method adopted by the Unit has been to 'piggyback' on fully or partially funded government or European initiatives to penetrate the market. For example, the 'Managing in the 90's' (M90's) initiative which is fully funded by the DTI is run by the Commercial Unit at Coventry University. The initiative encourages managers from SMEs to visit other SMEs who have found solutions to common problems affecting their companies. This provides an access point it is argued for the Commercial Unit to 'trawl' the SMEs educating them about what the University has to offer and how it might help them. The advantages of such a piggyback approach is not only that it provides a ready made and receptive audience but that involvement with such schemes projects the university in a neutral light. As the Director put it:

"What we are trying to do is penetrate the SME market (...) you have to go in on the back of something else, my boss doesn't like me saying this but it is absolutely true, you get past a big problem (...) you are perceived as being neutral and that gets you in, it penetrates the market, when you are in the inside then you get to win them over then they say these people from universities aren't bad."



Coventry uses four networks to piggyback on, e.g M90's (100% funded) European Social Fund (ESF) funds (45% funded) a Benchmarking Club (50% funded), and the European Commissions Innovation Relay Centre (60% funded). He goes on to say:

"If you develop a strategy to work with SMEs on your own you cannot make any money out of it. That is why Coventry has developed these strategies to do it with other people paying for it."

In the case of Warwick University a 'hard marketing' strategy is employed to penetrate the market. It was accepted that this kind of direct approach was costly, a sentiment reflected at Aston. However, in the case of Warwick it is seen as the most productive method. Warwick does also receive enquiries via the TEC. This reflects what the Assistant Director of Training at the SME Centre calls a 'change of attitude several years ago' by the TEC about the way that Warwick University is now perceived. In particular, he suggests that the TEC now sees the university as a quality provider and not an 'Ivory tower'.

The growing importance of TECs and Business Links to enable universities to tap the SME market matches the sentiments expressed at Staffordshire and Wolverhampton. Staffordshire commented on the fact that they had a 'great deal of links with TECs and Business Link' and that collaboration was taking place in delivering services to SMEs. However, the comments made at Wolverhampton would suggest that not all the universities are yet tapping into such organisations although this will most probably happen in the future:

"To fulfil the Continuing Education brief you are continually talking to the TECs and as I discovered yesterday those Business Link people are quite important. Business Link in Walsall is offering SMEs a package of activities which can include student placements etc (...) very keen to stress that he didn't want to develop 'quick-fix' relationships with SMEs, but long term partnerships and that they [Business Link] would facilitate long term partnerships or try to with



universities, colleges and SMEs providing an infrastructure of support on the basis of long term partnerships (...) This sounded like music to my ears."

Another strategy adopted this time by Coventry University has been to develop the Coventry Technology Park. Unlike Science Parks the incubator units on the Technology Park are exclusively reserved for Coventry 'product design' graduates who want to go into business. The rationale behind this strategy is to create leading edge SMEs and build strong links for the future; in effect create their own market.

The successful penetration of the SME market by universities is also dependant on their ability to maintain and build on the existing client base. This for all is based on the delivery of a high quality product. As stated at Coventry: 'Coventry's reputation is built on delivery.' The quality of the product is to a large part dependant on the members of staff chosen to deliver the training. Once again there was a consensus of opinion across the universities on this point. The Director of the Staffordshire Enterprise Unit stated:

"We choose very carefully who Staffordshire sends to a SME. They should not be overly academic or be too technical."

However, it is also worth noting that not every academic or member of staff within the regions universities actually wants to work with SMEs. For instance, at Wolverhampton it was stated that you have a situation where:

"You need someone to talk in their language (...) [But that] (...) most of our colleagues would not sully their hands with the problems of the SME sector."

Market penetration does seem to rely on a strong and purposeful strategy driven by an industrial liaison Unit or Office. The existence of such a function say in the

example of Coventry does seem to reflect an inventive and purposeful attempt to penetrate the market. However, this by no means guarantees high volume and fruitful links with SMEs. The methods adopted across the board have one thing in common and that is the relatively small number of SMEs penetrated compared to the total in the region. This maybe indicative of the market such that even in the case of Coventry where the strategy adopted is highly systematised and focused the university is still only able to 'touch the surface'.

This seems to be the case whether the SMEs targeted are 'leading edge' or of a particular size. Each university confirmed how difficult it was to reach and penetrate the market. The variety of SMEs targeted by the universities varies, for example, Coventry targets enterprises with between 10-15 employees while Staffordshire targets enterprises employing 250 people or less including micro-enterprises. In the case of Warwick it is targeting SMEs which employ between 20-30 employees and who are in new technology and service areas.

These findings suggest that successful University-SME links is to a large extent dependant on market penetration. However, the degree of success or marriage is not reflected by high volume contact and would suggest that marriage or mismatch is a reflection of the nature of the market as much as it is dependant on the strategy of the university. The low levels of penetration may reflect the difficulties of matching the needs of the market with what the provider can deliver. These factors such as cost in time and money and those mechanisms designed to bridge the gap such as funding regimes are discussed next.

### **5.9.3 Costs for University-SME Links - financial and time**

The very nature of University-SME training links is itself problematic and reflects the paradox between what the provider can deliver and what the user can afford. The problem for the university is to be able to match the demands of the SME with



developing a cost-effective product. The Director of the Commercial Development Unit at Coventry stated that in his experience the SMEs demanded bespoke customised courses which are by their very nature expensive and which SMEs are usually unable to afford.

The issue confronting both universities and SMEs is the paradox between providing a quality service and being able to pay for it. For example, a customised programme involves a pro-active approach by the university, including visits to the firm, diagnosing in discussion what it is they require and course development usually drawing on existing modules from postgraduate courses. The result is a prolonged and expensive operation.

It also requires a commitment from the SME management and employees to persevere with such activities. During an interview with a representative of the University of Wolverhampton's Continuing Education Department it was mentioned that a big problem in providing training and upskilling in SMEs was their inability to release employees and the drop-out rate:

"There was a problem of being able to afford to release personnel (...) [and] (...) tremendous problems of getting people to sustain them on the course. Not a problem of effort from the university end but a problem for the individual. Programmes can be put together using a variety of delivery methods but still cannot get around problem of individual sustaining the effort to complete the course."

The evidence points to what maybe interpreted as market failure. The current situation is characterised by government pronouncements and initiatives encouraging universities to provide training provision for SMEs. This is in effect a managed market, i.e the government has 'created' the market. However, what has been illustrated so far are the problems being experienced by both university and SME in linking provider and user. For example, the SME market has not been effectively penetrated by universities because on the one hand universities may

have not targeted the market while on the other hand even those that have find it almost impossible to provide a cost-effective product.

The suggestion of market failure perhaps best explains the situation expressed in a comment made by a senior member of the University of Wolverhampton's Commercial Enterprise Centre when discussing the general paradox between what can be provided by universities and the rhetoric of government policy:

"The Business School would say that it is not cost effective dealing with SMEs. They may talk to the large players because it is cost effective for them to do so but the only way they say they could deal with the SME sector is through a consortia approach which no-one has ever been able to stitch together, so I think you get this real mismatch at the moment, you have got, er, a policy environment which tells you that the SME sector is going to be very important and that graduates are going to be increasingly employed in the SME sector and that for SMEs to be competitive they are going to need graduate skills. But you have got a university sector saying that it is not particularly cost-effective and there are not any means or mechanisms to do this."

Even where contact does occur it is of relatively small volume which would seem to suggest that the projected National Education and Training Targets will be extremely hard to achieve. This may soon provide another example of the gap between government policy and the reality of the university-SME market.

However, the fact that some contact does occur suggests that there are ways and means of universities and SMEs working successfully together. In the case of cost, Coventry's solution is to sell a programme on the basis that it will be subsidised through, e.g. ESF money from Europe:

"The offer package has to be offered with clearly showing that it is subsidised, if you just say this is what we offer then they will not take any notice."



The piggyback model does appear to offer one solution to such problems. The need for such funding regimes to support SME relevant activities is reflected in the difficulties that Aston has had in marketing its products to the SME market. It seems to suggest that market penetration is determined by accessibility to those mechanisms upon which a university can piggyback on and the strategic positioning relative to such opportunities. Coventry university is perhaps the best illustration while the other universities have also shown that any work undertaken with SMEs is highly reliant upon external funding regimes.

#### **5.9.4 Funding Regimes**

The importance of some form of funding regime cannot be overstated in the case of University-SME training links. The example of Coventry University piggybacking on the back of government and European backed initiatives and funding regimes like ESF and ERDF is an example of why such mechanisms are essential to enable universities to provide cost-effective training packages.

It was suggested at Coventry that without such arrangements training and collaboration:

"would be less likely to happen without these funding regimes (...)  
with ESF a great deal can be funded."

The same opinion was expressed at Warwick university, i.e there had to be a subsidy or funding regime to encourage the SME to even consider working with the university. In the case of Staffordshire the intended expansion in training provision for SMEs is based on increased access to European money such as ERDF.

This indicates that these funds are essential if universities are to develop and delivery training activities for SMEs. However, as highlighted at the University of

Wolverhampton, problems with funding do exist. The main concern is that accessibility to European funding is potentially difficult. The Director of the Enterprise Unit at Staffordshire for instance complained that the process of obtaining funding was not only incredibly bureaucratic and time consuming but funding never seemed to be available when it was supposed to be. This it was claimed has caused great concern when applying for funding because on many occasions applications would take place retrospectively, i.e. after the university had spent the money. On such occasions if the grant was refused the university could be out of pocket to considerable sums of money.

Nonetheless, problems aside the reason why funding is perceived by most if not all of the university representatives as central to the development and delivery of training provision has much to do with what the Enterprise Director at Staffordshire viewed as the attitude of SMEs:

"You have to get outside funding to make it attractive and worthwhile (...) This stems from the fact that SMEs do not like to put their hands in their pocket to pay for those things."

This identifies one further problem associated with university-SME links and might indicate another factor relating to market failure. If the market is to operate effectively the perceptions of the users will need to change. If managers of SMEs feel that because they pay taxes and that universities are still perceived as being funded exclusively by the public purse then a universities ability to charge for its services will be undermined. Likewise, in an attempt to make the universities operations more business like it has been argued for example at Staffordshire that SMEs feel universities are in the profiteering game.

One might conclude that the problems associated with universities-SME links relates to the nature of the market. Whether it is inherent contradictions regarding the role of the university or an ineffective strategy to penetrate the market or the



difficulties associated with delivering a cost-effective product, all could point to the fact that there is to a certain degree a mismatch between what universities can provide and what SMEs demand. However, this does not infer that there is total market failure rather that the apparent low volume of successful contact between universities and SMEs is indicative of the paradoxical nature of this particular situation.

The discussion has highlighted a number of factors and issues which effect the potential marriage or mismatch of Universities with SMEs. They indicate that universities seem unable to work with large numbers of SMEs and that in any case the university with all other commitments is unlikely to have the resources to do so.

The task now is to provide some detailed examples of how two of the regions universities have tried to grasp the SME nettle. Aston and Warwick University's were the subject of further interviews and a period of participant observation at Aston. The data obtained from these sources is used to discuss the question of marriage or mismatch in these particular contexts.

## **5.10 The Case of Aston and Warwick**

In the previous section it has been possible to extract from a number of interviews particular factors which seem to effect university-SME linkage. The objective of this next section is to provide a more detailed appraisal of this issue. This is achieved by comparing and contrasting Aston and Warwick University's approach to working with SMEs with particular reference to their respective Business School's strategies.

### **5.10.1 Aston University Case Study**

A significant characteristic of Aston University has been the apparent lack of any

strategy towards SMEs. This situation is related to the university's concern with improving its research ratings for the forth coming Reaserch Assessment Exercise in 1996. The primacy of research is reflected in the university's mission statement:

"Aston's mission is to be a leading technological university. This implies the pursuit of high-quality research..." (USD 1994).

This perhaps helps to explain the apparent neglect in the strategic importance of continuing education and the development of links with SMEs. The current situation is interpreted by a member of staff from the Continuing Education Service as follows:

"We are without doubt the poor relation in that sense, because we are not seen as a mainstream activity across the university. We will always be second class citizens (...) [however] (...) as a lot of people will tell you the future for universities could well be in CVE [Continuing Vocational Education] because if we are going to get anywhere near the new education and training targets for lifetime learning the university is going to have to play a much bigger part in reaching those targets and, a lot has to do with SMEs. We have driven too far the other way, we have driven to up our research rating we have recruited excellent professors a lot from industry all of them want to really continue research. Students are a little bit of a nuisance, teaching gets in the way. My cynical view is that these guys as soon as you talk to them of Continuing Education, that smacks of what they have just come from back in industry, they have got out of there to come into this cloistered environment of research. So it is a problem. The people who are active are lower down and the exception is the Business School."

The statement above suggests that their is concern for the university to have a more balanced strategy incorporating both research and in this instance continuing education. There are indications that this may change. For example, Aston has recently been awarded a £1.2million grant from the Higher Education Funding Council for England over the next four years 'to develop continuing vocational education' (Aston Fortnight, April 1995, Vol15, No.5). This money amongst other



things is to be used to fund continuing education posts in the Department's which it is hoped will facilitate links between them and SMEs.

However, the reason why links may not have been made in the past may reflect more than just decisions made by Departments. It may also reflect a paradox in government policy relating to universities. On the one hand, the quasi-research market within which universities operate requires them to compete for research funding while, on the other hand, universities are also expected to contribute to achieving the National Targets for Education and Training. The comments made above seem to suggest that these two objectives do not sit happily together. In particular, Aston has embarked on a policy of improving its research rating and in addition increasing its student intake which is to be achieved without any significant increase in staff levels.

Such an environment as this may explain why Aston has not tried to work with SMEs. It also supports the idea that mismatch is in part a reflection of the contradictions in government policy.

The Business School is the only School or Department other than the Continuing Education Service, which has made the conscious decision to target the SME market. This seems to indicate a significant strategic shift by the School. This example, provides an insight into the way the Business School has positioned itself relative to the market its apparent motivations for doing so and the problems which it faces when trying to establish University-SME links.

#### **5.10.2 Aston Business Knowledge Exchange**

The Business School has recently submitted a proposal through the DTI for European assistance to support the implementation of a project designed to assist local SMEs access training. The 'Aston Business Knowledge Exchange' (ABKE)

has evolved out of the realisation by senior academics in the Business School, in this instance, that matching funding from Europe (ERDF) can help develop the capacity of the Business School to respond to the needs of the local economy and at the same time increase its income generation potential.

The submission of the ABKE proposal illustrates the attraction of 'piggybacking' on funding regimes, such as ERDF, as a means to help penetrate the SME market. While, it also illustrates the means to address another strategic imperative for the Business School - income generation. For example, a senior member of staff indicated that the School was very concerned to expand its activities:

"...because central government funding is becoming much less secure. It is a strategic imperative to supplement HEFCE income. One form is to supply upskilling to well qualified people in the working market."

However, the provision of training for SMEs has been shown not to be the best or easiest means of generating income. Therefore, if income generation is a key criteria of the School why is it intending to target a market both difficult to penetrate and comparatively unprofitable? This is perhaps answered by the nature of ABKE proposal. In particular, the refurbishment and up-grading of the Business School's Nelson Building has been 'built-in' to the ERDF proposal. This will improve the Business School's facilities and accommodation for prospective clients. Consequently, the refurbishment will also enable the Business School to develop its current lucrative (corporate) money generating client base.

The improved income generation potential for the Business School is built into the project as a spin-off and is not based on direct SME related income. The success of the project in terms of income generation may well be assured but what of attracting SMEs to the new facilities. The evidence suggests that these facilities in themselves will not attract large numbers of SMEs. The question of market



penetration and deliverability have yet to be broached by the Business School and until these are the School will have difficulty in making the ABKE a success.

If one considers the history of Aston Business School-SME links in training then it is difficult to see how they will begin to penetrate the market. For example, the Management Development Programme (MDP) which delivers training and courses for external clients has very little experience of delivering to SMEs. Of the current clients working with MDP only one is an SME. This particular SME is a medium-enterprise from the manufacturing sector which has employed Aston to deliver a Management Development Programme to its team of senior managers. This kind of programme is corporate-based and would not be suitable to the vast majority of SMEs. As senior member of staff at the School admitted:

"It is fair to say that our portfolio at the moment tends to predominantly attract companies above the SME size."

The limited range of SME-friendly provision in the Business School's offer package is reflected in the proposal which states that the target SMEs are likely to be the middle market enterprises. However, these are only a very small percentage of the SME market. In a recent interview with a member of staff from the Regional Technology Centre (WEMTECH) it was stated that 96% of all SMEs employed less than twenty employees. This throws into doubt the ability of the ABKE to attain its intended outputs, i.e assisting 750 SMEs of which 500 would be supported through training activities; creating 280 new training places and yield 8,000 trainees per annum of whom 160 would gain credit accumulation towards postgraduate qualifications (Aston Business School, 1995). The anticipated increase in *volume* does appear to contradict the experiences of other universities, who admit of only ever scratching the surface of the SME market.

The issue of access and deliverability are therefore very important. However,

access has yet to be resolved. Exploratory discussions with the TEC and Business Link have but no attempt has yet been made to undertake any serious market research. Deliverability also remains unresolved. For example, the impact of increasing the volume of courses and consultancy work even by a small amount will impinge on both teaching and research activities. In recent discussions within the School, concerns have been aired about what this will mean for both teaching and research commitments.

Moreover, the intention by the Business School to work with other Departments is problematic. As a member of the Business School stated:

"The reality is that we need collaboration with our Scientific and Engineering colleagues. This could be a problem"

This concern of establishing cross-Departmental collaboration is well founded if we consider the views of a senior academic in the Department of Mechanical and Electrical Engineering. When asked about SMEs he inferred that his Department was only interested with large scale demanding work and that working with SMEs was of low intellectual value.

The evidence suggests that much has to be resolved at the Business School before some form of marriage between the University and SMEs is likely to occur. In particular, although a strategic shift has occurred towards SMEs there still seems to be no clear 'strategy' to attract SMEs. Internal problems relating to the impact of increased training commitments on teaching and research loads have yet to be resolved while the creation of strong links between Departments appears to be fraught with problems. The basic inexperience of the Business School in working with SMEs even middle market enterprises may also prove a further difficulty in attracting SMEs whatever their size.



Finally, the ambiguity behind the motivation for the project perhaps suggests that the university is only paying lip-service to the idea of working with SMEs and that it sees the ERDF funding as a means to make the Business School more competitive in attracting conferences, overnight guests and corporate clients?

### **5.10.3 The University of Warwick Case Study**

The University of Warwick unlike Aston appears to have a more clearly defined strategic positioning towards continuing education and SMEs. The University's mission statement, for example, states that one of its main objectives is to:

"Improving access, to developing continuing and post-experience education and to close collaboration with its local and regional community" (Warwick, 1995).

This stated commitment is supported by those members of staff in the Continuing Education Department and Business School. A senior member of staff in the Continuing Education Department stated that there was a:

"...genuine commitment to working more closely with its local community. Developing the notion of Warwick as a community University."

Once again, in contrast to Aston University it was felt that working with SMEs was readily encouraged and that was not being squeezed by other activities such as research. However, it was readily acknowledged within the Continuing Education Department that this was only a small part of what they did:

"Linking in with SMEs is real, it is however a tiny part of the overall picture. SMEs in quantative terms is very small."

The differences with Aston go beyond the statements of intent they reflect the hard

realities of purposeful strategy. For example, Warwick has systematically attempted to penetrate the SME market through its Centre for Small and Medium Sized Enterprises, located in the Business School. The existence of the SME Centre for the past ten years is an indication of the importance placed on SMEs by the university for its research, teaching and training activities. It also provides an illustration of the strategies adopted to create University-SME links.

#### **5.10.4 The Warwick Centre for Small and Medium Sized Enterprises**

The SME Centre's mission has been to develop research and training links with SMEs. The core activity of the Centre is SMEs. The importance of this was made immediately clear by the way the Assistant Director of Training reacted to being interviewed for this research. In particular, they were very reluctant to discuss strategy or policy regarding SMEs because they felt they were 'talking to a competitor'. Nonetheless, it was possible to identify those factors contributing to possible marriage or mismatch.

The SME Centre plays a significant role in complimenting the activities of the rest of the Business School which has traditionally focussed on the corporate sector; much like Aston. However, unlike Aston the Warwick Business School through its SME Centre has acknowledged that the study of, and collaboration with SMEs is an integral part of the Business School's activity.

The Centre operates at three levels: research, teaching and external training. These core activities feed into each other, e.g. the research on SMEs has identified growth SMEs as the target group for the Centre's training activity, i.e.

"The whole strategy is targeted at companies that wish to grow"

This decision reflects the impact of research undertaken by the Centre. This



research has identified indicators that help identify those SMEs which are likely to want to grow and therefore potentially be receptive to training. The Assistant Director suggested that this was a much better way to target growth SMEs than had previously been the case, such that there had been:

"...a scatter gun approach to funding and development of companies (...) [it] (...) should have been much more targeted to companies with the potential or characteristics of growth and not just throw money away at what we might call generally enterprise and hope that it falls on fertile ground."

In order to avoid the scatter gun effect the Centre undertakes a great deal of market research to find the 'growth' SMEs. This includes, mail shots, 'taster evenings', editorials in local papers visits to conferences. For example, at a recent seminar meeting held by The Parliamentary Manufacturing Industry Group on "Creating an Environment in which Small and Medium Businesses can Grow" (Thursday, 23 November 1995), a representative from the Centre gave a presentation on this topic and then proceeded to punt for business with SME managers during the coffee and lunch breaks. Whatever approach is adopted the target market is specifically growth or 'leading edge' SMEs.

This focus of effort may provide an indication for marriage as opposed to mismatch. Unlike Aston the Centre has invested a considerable amount of time and effort to identify those SMEs which potentially at least will be more receptive to working with a training provider. However, difficulties with accessing this end of the market were identified:

"Yes, we ideally would like to be targeting leading edge SMEs, these are fast growth companies, but the reality is because we are at the moment largely focussed in our own territory (...) [Coventry and Warwickshire] (...) that is to say, the TECs area of responsibility, the Business Links area of responsibility (...) we aren't getting enough of these companies, there's not enough of them there. So we are

hoping next year to move to cover larger areas. We are going to do some marketing and networking ourselves with other Business Links and TECs."

The suggestion here is that the growth SMEs are small in number and that the market is by nature difficult to access. In this respect, the link with Business Links and TECs is seen as beneficial. For example, networking with such organisations is believed to provide a positive advantage when trying to access SMEs and accessing funding to support activities. The piggyback method adopted by the Centre is another example of the importance of funding regimes to ensure marriage by supporting its activities:

"A lot of European funding is based on SMEs and a lot of regional growth funds are focussed on SMEs."

However, disadvantages were also identified, e.g. the budget cycles of these organisations is seen as potentially problematic because these do not always fit the timetable of projects.

Other significant characteristics of the Centre include the fact that all training activity is self-financing. Moreover, the Centre's training staff only deliver 'training' and will have only been employed if they have had previous experience of working with SMEs. This differs significantly from the case at Aston. For instance, at Aston staff members are paid by the university irrespective of what they do and they are expected to undertake teaching and research commitments. Therefore, the Warwick staff will not have those other university pressures experienced by staff at Aston. This perhaps explains why the Centre at Warwick has a more pro-active and less problematic approach to working with SMEs. However, the Centre does share a problem experienced at Aston and which reflects the difficulties of operating within universities. The problem relates to cross-Departmental collaboration on the provision of joint training programmes.



### **5.10.5 A Case of Marriage or Mismatch?**

The two examples, illustrate alternative approaches to working with SMEs. If we are to make any conclusions from these case studies it is to suggest that different universities have considered SMEs differently, but that now there are signs showing that where in the past SMEs did not play a prominent role in university strategy they are now beginning to do so. However, the issue of marriage or mismatch is not easily resolved. For instance, the two case studies show two strategies towards SMEs at different stages of development. Nonetheless, although this gap exists it is possible to show why in the case of Aston mismatch is more likely to represent the current or future situation while at Warwick those institutional problems characteristic at Aston which may lead to mismatch have been partially resolved and may help a better chance of marriage.

The Aston case study illustrates strategic and intra-departmental strains relating to, for example, reconciling priorities concerned with the Research Assessment Exercise and the availability to undertake SME relevant activities. In this sense, the question of marriage or mismatch is levelled at the strategic and operational level where the ability to access and deliver to SMEs has yet to be resolved. The apparent change in strategy by Aston Business School is no guarantee for the successful penetration of the SME market. There still remains the problems of developing a strategy to access SMEs, such as building links with TECs and Business Links, staff availability continues to be a real problem while the development of a broad range of products has yet to be considered or even deemed feasible.

The Warwick case study illustrates an institutional commitment to the SME market which is best illustrated by the SME Centre. This example, shows how the delivery of training to SMEs is based on providing a core service which is not hampered by other activities such as teaching and which is supported by funding regimes. This

would appear to increase the chance of a successful marriage. This is the main difference between the SME Centre and the activities of the Aston Business School, i.e for the Centre, SMEs are its core income activity while at Aston Business School, contrary to the rhetoric, income generation from the corporate sector still appears to be the priority. However, the problem of access remains. As has been shown both Aston and Warwick have not accessed a large number of SMEs. In this case successful marriage may also be dependant upon successful networking.

The next task is to obtain a different perspective. So far, a university perspective has been provided regarding those factors contributing to marriage or mismatch. The task now is to determine both what business services organisations personnel and managers of some medium-sized enterprises see as the current situation.

This is achieved by reference to views extracted from several interviews with personnel from the Birmingham TEC, Birmingham Business Link, The Regional Technology Centre (WEMTECH) and the Birmingham Centre of Manufacturing. It also includes the views of three managers of medium-sized enterprises who have or are using universities to provide training provision (Appendix).

### **5.11 A Business Service Perspective**

The responses obtained from talking to personnel in these organisations has been mixed. It has included the 'official line' that universities are important providers of training and that their services are an essential contribution to the development of the regions economy and SMEs (Birmingham TEC, Birmingham Business Link). It has also included the opinion that universities were mostly unsuitable to providing such provision to SMEs (WEMTECH).

Having presented the official line in the previous chapters regarding the prescribed



role of universities in the economy this section will concentrate on the opinions of those business service personnel who offer an alternative interpretation of what they feel is the reality of university-SME links. This critical approach reflects the attempt in this thesis to show the potential gap between the 'official line' and what is sometimes the case.

However, the factors illustrated below relate to individual experiences and as such may not be wholly representative. Nonetheless, they highlight many of those factors mentioned already which effect the universities capacity to link with SMEs. The key findings seem to suggest that universities have difficulty in providing the appropriate services demanded by SMEs. This is identified as reflecting the fact that universities in general (although there appear to be exceptions such as Warwick) do not have a good understanding of SMEs and that organisationally they find difficulty in providing the appropriate services at an affordable price. This is also reflected in the fact that universities have great difficulty in accessing the market.

These problems are not seen to be easily resolved because they reflect what are seen as the inherent characteristics of universities, i.e universities are not first and foremost training providers to SMEs. Instead, they are academic institutions involved in teaching and research and as such the provision of training does not always sit comfortably with these other activities. The result can be for the university to be unable to meet the demands of providing for the SME market.

The main factors identified which effect the marriage or mismatch of universities with SMEs is with what is termed the *interface*. The interface between provider and user is suggested as essential to a successful partnership and it is here where universities have most problems in working with SMEs.

A senior member of staff from one of the business services organisations was very



critical of the ability of universities to deliver to the SME market. This they felt was closely linked to the nature of the interface between university and SME:

"We have found first of all key is the interface to the SME. They [SMEs] recognise people not sympathetic to them and there needs immediately and academics as an interface are hopeless. They cannot speak the language, they identify themselves immediately. I do not know what it is, what's so peculiar, but I have found on using industry people, and somehow be immediately recognised and accepted by SMEs as trustworthy, and will do business with them."

This observation seems to support the policies of universities such as Warwick and Coventry who only choose staff with previous industrial experience to work with SMEs. However, this business advisor at least seems to think that universities still have a long way to go. Related to the issue of interface is the question of product. Once again the same business advisor did not think that universities could offer what SMEs in general required:

"When we talk to them [universities] they have been working at the corporate end. If I did a survey of a university (...) and I looked at it from a marketing proposition of what are its products, what are its prices (...) I wouldn't identify it as capable of working with SMEs. From looking at it from the SMEs end, having tried to use universities for the past four to five years to help with SMEs for the everyday problems you do not need a university."

This would seem to suggest that marriage or mismatch is closely linked to the type of work universities want to undertake and the SMEs most likely to need that product. This may be reflected in why Warwick targets leading edge SMEs and Aston perceives its market as well-established middle market firms who might require some form of senior management training. Moreover, this suggests that market penetration is going to be very difficult because business advisors who might use universities may not see universities being able to provide the services they need.



The relationship between the university and the market does also have examples of successful interactions. This however is described as one-off experiences. For example, the Human Resource Manager at a medium-sized enterprise praised the work of a member of staff from the University of Central England who working through the Birmingham Centre of Manufacturing on behalf of the university had provided the right product:

"What UCE offer is more at the level of our employees they do not frighten them, that is absolute fact."

This mixed picture regarding the delivery of training by universities to SMEs it seems a reflection of the staff members used for such work and highlights once again the importance for universities to choose the right people. As a business advisor stated:

"The motivation of people I come across in universities in undertaking diagnostic activity is awful but there are exceptions."

One of the reasons attributed to the apparent inability of some academics to deliver the appropriate service is to do with the corporate bias of university work which does not in general fit the requirements of SMEs.

The question of 'what has the university got to offer' is an important factor. As indicated the university is perceived by some to have a lot of inappropriate products. This begs the question of whether universities *per se* are able to deliver the right products? In answer to this it would appear difficult for universities to offer all the types of product possibly demanded by SMEs. This is because universities as the Universities Services Director illustrated provide programmes mainly at postgraduate level and that for short courses the price of bespoke customised programmes is normally out of the reach of SMEs.

The evidence above suggests that the universities appear to be unable to provide what the market demands. This it is suggested to be for the following key reasons:

"One, is having this acceptability, I find it hard to define (...) they [academics] are not very good with working with SMEs. Two, is even if you have got that right, it is understanding what sought of training would be of most use there is too much of an academic bias to what is required."

The apparent inability to penetrate the market successfully appears to be the academic bias of universities, i.e they are not down to earth. One of the ways to bridge this gap has been to make sure that universities use trainers who are familiar with the problems of industry. The creation of industrial or commercial units has been another way universities have tried to break down these barriers and improve the links with SMEs. However, even this is not always seen as a guarantee for success:

"Industrial Units in my experience have been absolutely useless, the only way to work is to find the individual who wants to work with SMEs. I have never had an industrial front that has said I understand SMEs - I am going to look after the interests of this guy."

The implication of these statements is that not all universities appear able to provide the appropriate training or personnel to work with SMEs. This might be resolved if universities recruit personnel with the relevant industrial background, who are committed to the provision of training and that the university choose very carefully what market they are attempting to penetrate, i.e leading edge or middle-market.

However, even when something like this exists for example, at Coventry and Warwick the problem of accessing the market remains:

"Trying to find fast growing SMEs is like looking for a needle in a



haystack."

The views of universities and business advisors show that universities will have problems in creating links with SMEs for a number of deeply rooted problems associated both with the nature of the university and the SME market. The opportunity now is taken to see how a small sample of managers from SMEs involved with training delivered from universities perceive the situation.

The views of these managers provide a useful insight into what characterises a successful collaboration between university and SME as opposed to the reasons provided above suggesting mismatch.

### **5.12 A SMEs Managers Perspective**

Access to SMEs has been one of the factors consistently cited by universities and business services organisations as characterising one of the difficulties of being able to provide training for SMEs. The difficulty of access is reflected in this problems of finding SMEs who were prepared to be interviewed for this research. A group of ten SMEs were recommended for the research by a member of one of the business service organisations because it was felt that these would be more receptive to being the subject of research. The reason given for this was the fact that they had had previous experience with working with universities on training programmes.

The reality of gaining access to these 'receptive' SMEs was somewhat different. Of the ten only three were prepared to set aside time to be interviewed. Of these three, two might have not have been prepared to be interviewed without contributing circumstances or efforts made by the interviewer. For example, one of the firms would only fit-in an interview if it was before working hours, e.g 7.00am. While, another only considered the interview because they were currently

involved in a training programme with Aston Business School and felt that it would aid good relations between the two organisations.

The predominant reason cited by those SMEs who declined an invitation to be interviewed was time. The fact that one of the managers of the interviewed firms would only entertain the idea of an interview if it was before office hours underlines this point. This all indicates that the issue of time is an important factor to the running of an SME and as was stated by all of the managers interviewed this does influence the provision of training.

Of the firms interviewed all were well established medium-sized enterprises, i.e. between 100-499 employees in the manufacturing sector. The firms were:

- \* Apollo Metals Ltd;**
- \* Frederick Woolley Ltd; and**
- \* Pulley Bros Ltd**

As a result of the interview four factors were identified as effecting their decision to work with a university:

- \* A training culture existed in the enterprise**
- \* Networks or knowledge of universities facilitated links**
- \* Funding essential to aid training programmes**
- \* Perceptions of universities as providers is positive**

In respect of the first characteristic each enterprise proclaimed that training was an important part of the culture of the management and was considered essential to the continued growth and competitiveness of the enterprise. As one of the managers at Frederick Woolley's explained:



"Training is vital to this SME. Change is occurring so quickly within the company, technology and such like (...) to maintain production standards."

The Managing Director at Pulley's described training as 'essential to meeting quality requirements.' The importance of training is common among the three enterprises although the company training policies do vary. They range from having no training plan as such at Pulley's to having established a 'learning centre', in the case of Frederick Woolley's. The learning centre is seen as very important to the enterprise because it is used to develop not only their own staff but also staff in those firms which are in its supply chain. The rationale is to ensure that its suppliers employees are sufficiently trained to be able to provide the quality products it demands itself. This is however very unusual, in fact the Human Resources manager thought Woolley's was the only one in the country with its own learning centre.

The contact made by these enterprises with universities reflects the particular characteristics of the management and regional business services networks. Firstly, all the managers had been educated to degree standard and were fairly familiar with what the regions universities might provide and secondly, they had access to networks, such as the Birmingham Centre of Manufacturing which in partnership with the University of Central England had provided them with subsidised training programmes.

The fact that all of the enterprises had knowledge of university activities it seems an important factor in developing the idea of using universities. In the case of Apollo Metals its fruitful experience of working with the Warwick Manufacturing Centre and Aston Business School was reflected in their generally favourable attitude towards universities. Previous good experience appears to be of great importance for return business.

The other main characteristic is the importance of networks or business service organisations. In this instance, these enterprises were able to access the university through such networks with the aid of funding and subsidies to help pay for the training programmes. For instance, in the case of the Birmingham Centre for manufacturing:

"that network was the conduit through which UCE got to work with Frederick Woolley's."

While for Pulleys it provided a Total Quality Management Programme with 50% funding. However, although these illustrate successful marriage between university and SME, instances were cited where this has not always been the case. For example, at Frederick Woolley's it was stated that:

"One of the problems is getting the round peg for the round hole (...) to identify a project is difficult for us anyway but to get the right person to come along to satisfy us has proven inordinantly difficult to do."

Where marriage has occurred funding has been essential. There was general agreement by all managers interviewed that without some form of funding it was unlikely that the enterprise could afford to use a university. However, even when funding was available it was sometimes seen as inappropriate because as was stated at Woolley's 'we don't seem to be able to find funding for what we really want to do.' This would seem to suggest that the business services organisations are not always able to deliver the kind of funding required which would, in turn, impinge on an enterprises ability to undertake training. Once again, a mixed picture is painted regarding the success of linking SMEs with universities.

Nonetheless, the perceptions of these managers were very positive towards their experiences with universities. For example, the Manager Director of Apollo metals described Aston as very professional. He did not see Aston as an Ivory Tower



rather, as an effective provider of training. In this instance, the programme provided by Aston was a management development programme for Apollo's senior managers. The programme has been met with enthusiasm by the Managing Director and shows how important the product is when working with companies. This is especially true as the manager at Woolley's stated that reputation was very important and that they would not use just anybody. This suggests that the product is very important and that universities to ensure marriage should only provide those programmes which it is sure it can provide to a high quality.

It is interesting to note that the training programme at Apollo has a corporate flavour and as such may not be appropriate for the majority of SMEs. For instance, Apollo is quite unusual because it has eighteen managers on the programme.

The views of the managers in these medium enterprises have shown that the type of SME which undertakes training is one which has embraced a training culture within the enterprise. The commitment to growth seems to support Warwicks strategy to try and concentrate on like enterprises. However, the larger growth enterprises which these companies seem to represent may not reflect the SME market as a whole. If this is the case then such enterprises are the exception and not the rule and do not provide a true representation of the SME market.

Nonetheless, they do provide some form of measure to try and determine what contributes to marriage or mismatch. In particular, the existence of support networks which have access to funding regimes to help pay for training is essential. They also show how the idea of piggybacking on funded programmes or being able to access funding to provide programmes has aided for example UCE to penetrate the SME market via The Birmingham Centre of Manufacturing.

### 5.13 Conclusion

This chapter has concentrated on the question of marriage or mismatch between universities and SMEs in the area of training. The evidence has painted a very mixed picture. It has shown that some universities are more readily disposed to working with SMEs than others. It has also shown very different strategies adopted by universities to try and penetrate the market. This has highlighted contradictions in universities which appear to suggest that in some cases at least mismatch is more likely than marriage. This was supported by the views of some of the business support advisors who saw more of the problems associated with universities than the success. This has in part been provided by those managers in SMEs who have dealt with universities very successfully.

The following chapter will draw together the evidence and provide some conclusions. This shows that marriage or mismatch is dependant upon the nature of the university in question and the mechanisms adopted to access the SME market. It also shows that marriage or mismatch may be dependant on the type of SME targeted. The implication is that the prescribed role given by government to universities in provide training to SMEs *per se* is unrealistic and illustrates a gap between policy objectives and the reality of university-SME relations.



# CHAPTER SIX

## CONCLUSIONS

### 6 Introduction

The aim of this chapter is to draw the evidence presented in chapter five together and use it to address the theme of the thesis - Universities and the User Community: Marriage or Mismatch. In doing so it will also be necessary to relate the research findings with the discussion presented in chapters one, two and three. This will allow some conclusions to be drawn from the general debate about the role of the university and the relationship between government policy objectives and the realities of university-SME links in the West Midlands.

However, the evidence which has been provided by this research can only offer preliminary conclusions to what is clearly a complex issue. In particular, further research would be needed to provide a broader representation of SMEs perceptions in the region. This would need to take into consideration those views of micro and small enterprises which were not covered by the interviews in the current research. This would perhaps illustrate other reasons why marriage or mismatch occurs between universities and SMEs. It might also show that the medium-enterprises used in the research were atypical and not representative of the SME market as a whole?

Nonetheless, the results which have been gained from the current research do indicate particular factors which explain why marriage or mismatch occurs.

## **6.1 Conclusions on Marriage or Mismatch?**

The first three chapters of the thesis discussed the role of universities, the impact of government economic policy on the activities of universities in relation to the competitiveness of the UK economy and finally on the problems of providing SME support. These chapters provide the context for the following results and an insight into the reasons why universities may or may not link with SMEs.

The results from the fieldwork do seem to suggest that universities are characterised by an internal conflict of interests relating to the role of the university. This indicates that universities are not always easily disposed to offer training to SMEs. This is not necessarily representative of all the universities as was shown by both Warwick and Coventry University's. However, the sample of five universities does illustrate a range of responses ranging from disinterest to an active policy of encouraging links.

The example of Aston University provides an illustration of an university not looking to work with SMEs because other priorities, such as research were perceived as more important. This resistance was identified at both Departmental and Institutional levels and reflected the overall strategic positioning of the university.

This perhaps illustrates the problems universities have in putting into practice government policy objectives. In particular, the example provided by Aston University seems to suggest that within current resource limitations, e.g staff numbers the university is feels unable to deliver both high research ratings for the Research Assessment Exercise and expand Continuing Education. This may show a paradox created between different government policy objectives. For example on the one hand, the government is demanding that universities produce increased amounts of research in order to receive research funds while it is also pushing universities to provide training to SMEs. The Aston example suggests that these



different demands are not always compatible.

The problems of delivering training to SMEs is not only a reflection of the very great demands placed on them by government. They also reflect the nature of universities and suggest that they are not the best providers of training to the SME market. For instance, the staff of Universities have been accused of being unsuitable for working with SMEs, this is because they are either too academic or more generally because the expertise offered at universities is only applicable to corporate clients and too expensive. Moreover, the tendency to mismatch is further emphasised by what has been described as the attitude taken by some managers of SMEs. This relates to the feeling that because universities are still to a certain degree state funded any programme provided by them should be free.

The evidence perhaps shows a gap between what universities can provide and what SMEs are prepared to pay for. The gap although not reflected in all instances does point to a failure between matching what the provider can deliver and what the user demands or can afford. In this sense, what we have is potential market failure. The type of programme demanded by SMEs is usually customised to the needs of the SME however, in most circumstances the SME is unable to afford this kind of product. Therefore, what is prescribed in government documents as an important collaboration is in reality very difficult to perfect. This problem is partly off-set by the existence of European and regional funds but as shown this is not always suitable for the SME or to the university.

Nonetheless, marriage does occur as the examples of the three medium-enterprises illustrated. This shows a very mixed picture which shows that both marriage and mismatch characterises the current situation.

However, where linkage does occur it only happens on a very small scale. The fact that universities are only scratching the surface of the SME market would also

seem to question the extent to which universities can contribute to the competitiveness of the UK economy when in practice it is only penetrating a very small number of SMEs? Again the evidence perhaps shows that universities are unable to make the number of contacts necessary to have a marked impact on the performance of the SME sector.

The results also broadly show how the conflicting perceptions of the role of the university appear to coincide with the impact of what was termed in chapter two as the economic ideology of education. This provides a useful interpretation of not only the way education is now seen to have to benefit the competitiveness of UK industry but also in the way university activity is becoming to be measured more and more in terms of income generation potential. What is more, the results indicate that universities are not a homogenous group and that the positioning of each university to the SME market is a reflection of the peculiarities of each institution.

Therefore, what of marriage or mismatch? This appears to dependant on a number of issues. In particular, marriage is more likely if the university and Departments or Schools have a particular SME strategy. Marriage is also more likely if the institution has an Enterprise Unit, employs staff with industry experience and provides a product to a suitably targeted segment of the market. Finally, links with service networks and funding regimes increases the chance for marriage. These factors contributing to marriage do not guarantee marriage but perhaps make it more likely than would otherwise be the case. It is not claimed that these are the only factors to encourage but it is suggested that these are a reflection of those characteristics of the sample universities which have been proposed as integral to any successful university-SME collaboration in the area of training.



## REFERENCES

- Althusser, L. (1972). 'Ideology and Ideological State Apparatuses' in Cosin, B. (ed) *Education, Structure and Society*. Middlesex: Hamondsworth.
- Aston Business School (1995). Proposals for Management Development Board Meeting, November.
- Barnett, R. (1990). *The Idea of Higher Education*. Milton Keynes: Open University Press.
- Barnett, R. (1992). *Learning to Effect*. Buckinghamshire: SRHE.
- Bell, R. and Tight, M. (1993). *Open Universities: A British Tradition*. Bucknighamshire:SRHE.
- Birch, D.L. (1987). *Job Creation in America*. New York: Macmillan.
- Birch, W. (1988). *The Challenge to Higher Education: Reconciling Responsibilities to Scholarship and to Society*. Open University Press: SRHE.
- Blyth, J.A. (1983). *English University Adult Education 1908-1958: The Unique tradition*. Manchester: Manchester University Press.
- Centre for Local Economic Studies. (1992). *Reforming the Tecs: Towards A New Training Strategy*. Final report of the CLES TEC/LEC Monitoring Project. Manchester: CLES.
- Coldstream, P. (1991). *Higher Education, Industry and the Journey of Learning*. Hull: Hull University Press.
- Coopers & Lybrand (1993). *Training - the business case*. The 1993 CBI Training Seminars. London: CBI.
- Council for Industry and Higher Education (1987). *Towards A Partnership: Higher Education-Government-Industry*. London: CIHE.
- Council for Industry and Higher Education (1988). *Towards A Partnership: The Company Response*. London: CIHE.

- Council for Industry and Higher Education (1992). *Investing in Diversity: An Assessment of Higher Education Policy*. London: CIHE.
- Curran, J. (1992). *Small Business Survey: February*, Small Business Research Centre, Kingston Business School, London.
- Curran, J. (1993). TECS and Small Firms: Can TECs Reach the Small Firms other Strategies have Failed to Reach? Paper presented to the *All Party Social Science and Policy Group, House of Commons*, 17 April.
- Department of Education (1987). *Higher Education: Meeting the Challenge*. London HMSO
- Department of Education (1991). *Higher Education: A New Framework*. Cmnd 1541. London: HMSO
- Department of Education (1993). *Realising our Potential: A strategy for Science, Engineering and Technology*, Cmnd 2250. London: HMSO.
- Department of Employment (1986). *Working Together - Education and Training*. Cmnd 9823. London: HMSO.
- Department of Trade and Industry (1994). *Competitiveness: Helping Business to Win*. Cmnd 2563. London: HMSO.
- Department of trade and Industry, (1995a). *Cometitiveness: Forging Ahead*. Cmnd 2867. London: HMSO.
- Department of Trade and Industry, (1995b). *Evaluation of DTI Funded TEC Services in Support of Small and Medium-sized Businesses*. London: HMSO.
- Edwards, T.J and Miller, H. (1995). *Universities, Market Economy and the State*. Paper presented to *European Conference on Educational Research*, 14-17 September 1995, University of Bath.
- Employment Committee (1991). *Training and Enterprise Councils and Vocational Training*, 5th Report, Session 1990-91, Vol 1 - Report and Proceedings of the Committee. London: HMSO.
- Employment Department (1992). *Developing Black Country Manufacturing Business Through High Level Skills*.



- Employment Department (1995). TECs & Universities - TECs and Universities in the West Midlands, *Networking Conference*, 9th February.
- Employment Department Group (1990). *Higher Education Developments - The Skills Link*. Sheffield: Employment Development Group.
- Employment Department Group (1994). *Higher Education Developments - The Skills Link 2*. Sheffield: Employment Development Group.
- Employment Department Group (1994). *Labour Market & Skill Trends 1995/96*. Nottingham: Employment Department Group.
- European Community Structural Funds - Objective 2 West Midlands Single Programming Document 1994-1995 (SPD). (1994).
- Freeman, C. (1982). *The Economics of Industrial Innovation*. (2nd ed). London: Frances Pinter.
- Halsey, A.H. (1992). *Decline of Donnish Dominion: The British Academic Professions in the Twentieth Century*. Oxford: Clarendon Press.
- Halsey, A.H. and Trow, M.A. (1971). *The British Academics*. London: Faber and Faber.
- Hammersley, M. and Atkinson, P. (1995). *Ethnography: Principles in Practice (2nd Edition)*. London & New York: Routledge.
- Haughton, G. (1993). The Local Provision of Small and Medium Enterprise Advice Services. *Regional Studies*, Vol 27.8, pp. 835-842.
- Hudson, J.W. (1969). *The History of Adult Education*. London: Woburn Press.
- Foddy, W. (1993). *Constructing Questions for Interviews and Questionnaires: Theory and Practice in Social Research*. Cambridge: Cambridge University Press.
- Kelly, T. (1962). *A History of Adult Education in Great Britain*. Liverpool: University Press.
- Jessop, et al. (1984). Authoritarian Populism, Two Nations, and Thatcherism. *New Left Review*, No 147, pp.32-60.
- Leonard, C. (1995). *An Overview of the New European Funding Structures to Support Continuing Education*. In *International Education*, July, Vol 6, No 2.

- Madden, C.A. and Mitchell, V.A. (1993). *Professions, Standards and Competence: A Survey of Continuing Education for the Professions*. Bristol: University of Bristol Press.
- Maskell, P. and Malmberg, A. (1995). *Localised Learning and Industrial Competitiveness*. Paper presented at the Regional Studies Association European Conference on Regional Futures.
- Massey et al. (1992). *Hi-Tech Fantasies: Science Parks in Society, Science and Space*. London: Routledge.
- Maurice, F.D. (1968). *Learning and Working*. London: Oxford University Press.
- Miller, H. (1995a). *The Management of Change in Universities: Universities State and Economy in Australia, Canada and United Kingdom*. Buckinghamshire: SRHE.
- Miller, H (1995b). *Dons, Domination and the State*. Review Essay in British Journal of Sociology of Education, Vol 16, No2.
- Moberley, W. (1949). *The Crisis in the University*. London: SCM Press Ltd.
- Monck, C.S.P. et al. (1988). *Science Parks and the Growth of High Technology Firms*. Croom Helm.
- Oztel, H. (1994). *The Business of Partnerships: A Preliminary Investigation of the Objectives and Operations of Business Link Birmingham*. Unpublished MSc thesis, Aston University.
- Pearson, R (1983). *Industry and Higher Education: Future Collaboration - The Training Dimension*. IMS.
- Prichard, C. and Willmott, H. (1995). *Knowing Change in Changing Knowledge-Based Organizations - An Education for Senior Academics in UK Universities*. Paper for the *Change in Knowledge-Based Organisations* Conference, University of Alberta, Edmonton, May 10-20.
- Salter, B. and Tapper, T. (1994). *The State and Higher Education*. Essex: Woburn Press.
- Scott, P. (1984). *The Crisis of the University*. London: Croom Helm.
- Segal Quince Wickstead. (1988). *Universities, Enterprise and Local Economic Development: an exploration of Links*. London: HMSO.



- Smith, D. (1990). *Capitalist Democracy on Trial: The Transatlantic Debate from Tocqueville to the present*. London: Routledge.
- Sorge, A. (1994). The reform of technical education and training in Great Britain: A comparison of institutional learning in Europe in *Vocational Training European Journal*, No 3, pp 59-68.
- Storey, D, J. (1994). *Understanding the Small Business Sector*. London: Routledge.
- Stankiewicz, R. (1986). *Academics and Entrepreneurs: Developing University-Industry Relations*. London: Frances Pinter.
- Tapper, T. and Salter, B. (1992). *Oxford Cambridge and the Changing Idea of the University: The Challenge to Donnish Domination*. Buckinghamshire: Open University Press.
- Tasker, M and Packham, D (1994) Government, Higher Education and the Industrial Ethic. *Higher Education Quarterly* Vol 48, No3. Oxford: Blackwell.
- The Round Table of European Industrialists, (1989). *Education for Life - A European Strategy*. Butterworth.
- The Times Higher, May 26 1995.
- The University Services Directory, Volume One (1994). Birmingham: Aston University.
- Thompson, W.D. (1991). Combining the Venture Capitalist and Technical Innovator in *Technology Companies & Global Markets: Programs, Policies and Strategies to Accelerate Innovation and Entrepreneurship*. Rowan & Littlefield.
- Webster, A. (1994). Venturing in the Science Park in *Science as Culture*, Vol 4, Part 3, No 20. London: Process Press.
- WMEB (1993). Study of Existing Evidence on Local Economic Development and TECs. *Employment Department*, June.
- Williams, G. (1977). *Towards Lifelong Education: A New Role for Higher Education Institutions*. Paris: UNESCO.
- Yin, R.K. (1994). *Case Study Research: Design and Methods (2nd edition)*. Applied Social Research Methods Series Vol 5. London: Sage.

## APPENDIX

*Questions for Industrial, Commercial and quasi-Industrial representatives at the five West Midlands universities. Interviews undertaken during the summer of 1995. The same questions were used during further interviews for the case studies at Aston and Warwick Universities.*

1. How important an activity is providing training for SMEs for the University/Department ?
2. What kind of training activities are available for SMEs from the University/Department ?
3. Does the University/Department target any particular type of SME to work with? and if so, why ?
4. Have there been any obstacles in providing training for SMEs ?
5. Do you go to a SME directly to offer your training activities or do you go to a TEC and/or Business Link, or are there other methods used to access SMEs ? Which method do you find most productive ?
6. Has the University/Department employed any external assistance such as European or Regional grants to help provide training for SMEs ?



*Questions for Business Services Personnel. Interviews undertaken during the summer of 1995.*

1. How important are Universities to the regions economic well-being ?
2. Do you feel Universities to be suitable providers of training for SMEs ?
3. In your experience how well do Universities and SMEs interact ?
4. If there are problems what are these ?

*Questions for Managers of SMEs in the Birmingham area who have training links with the regions Universities. Interviews undertaken in the summer of 1995.*

1. Is the training and development of your workforce an important issue for the company?
2. Do you consider Universities to be appropriate providers of training and upskilling - does the label Ivory Tower still apply ?
3. Have there been or do you envisage any obstacles to working with a university, e.g are universities too expensive as providers of training and upskilling ?
4. What is the existing situation or would be the situation in the future regarding providing a training programme for your company - do you think universities can deliver?
5. Do you go to a university directly with your training needs or do you go to

a TEC and/or Business Link first. Under what circumstances would you go to a University ?

6. Have Business Support Agencies, e.g. TECs actively encouraged you to work with universities ? What type of incentives have been suggested ?
7. How do you see Universities now and how does this compare with past conceptions regarding what they can do for your company ?