

Company “*Doctors*”: Do higher academic qualifications make for “*better*” managers?

A comparative study of the relative level of academic attainment of senior managers in Germany and the United Kingdom with particular reference to post graduate degrees specifically Doctorates and an analysis of the probable reasons for any differences identified.

A thesis submitted to the Faculty of Arts and Social Sciences of the University of Birmingham for the degree of Doctor of Philosophy

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Abstract

This thesis addresses two main questions.

Firstly “Are there significant differences between the level of academic achievement (qualification) of German senior managers and their British counterparts?”

Secondly if so, “why should this be so?”

These two questions lead to a third, “what impact, if any, do these differences have”?

This third question, whilst it is not the focal point of this research, is discussed in outline in so far as it impinges upon our topic, it would however probably be more properly addressed as the subject of a further separate thesis.

This thesis, supports the proposition that German senior managers are usually academically better qualified than their British counterparts and in particular that many more, by a factor of between 10 and 50 to one, have Doctorates. It identifies long standing and deep-seated cultural differences as being one of the principal reasons why this should be so.

As to the third question the differing levels of productivity in the two countries, particularly in the manufacturing industry, have been the subject of much debate. This thesis supports the argument that lack of qualification both academic and vocational of British managers may contribute to this difference. However, it also indicates that the British less focussed more generalist approach may prove advantageous where the ability to innovate or to be entrepreneurial is concerned, an area where German managers it seems do less well.

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List of Abbreviations

BAB	Bundesamt für Arbeit – Institute für Arbeitsmarkt und Berufsforschung [Federal Ministry for Work -Institute for Labour market and Career research]
BIM	British Institute of Managers (Later: The Institute of Management)
BWA	Bundesministerium für Wirtschaftlich Angelegenheiten [Federal Ministry for Economic Affairs]
DfES	Department for Employment and Skills
FH	Fachhochschulen [Polytechnic n.b. nearest equivalent]
HESA	Higher Education Statistics Agency
IAB	Institute für Arbeitsmarkt und Berufsforschungs
IOD	Institute of Directors
ICAEW	Institute of Chartered Accountants in England and Wales
KPI	Key Performance Indicator
LAE	Leseranalyse Entscheidungsträger in Wirtschaft und Verwaltung [Readership analysis of decision makers in business and administration]
MBA	Master of Business Administration
MSc	Master of Science
OECD	Organisation for Economic Development and Co-operation
SME's	Small and medium sized enterprises
Uni	Universität [University]
VCI	Verband der deutschen chemischen Industrie [Federation of the German chemical industry.]

- VDA Verband der deutschen Automobile Industrie [Federation of the German Automobile industry]
- VDMA Verband deutscher Maschinen und Anlagen bau. [Federation of the German Engineering Industries]
- ZEW Zentrum für Europäische Wirtschaftsforschung [Centre for European Economic Research]

Chapter 1: An introduction to the thesis

Much has been written about human capital: Its acquisition, development, retention and its importance to an enterprise. In the writer's opinion quite rightly so. Quinn, Anderson and Finklestein, (1996, p71) maintain that, *"In the post-industrial era the success of a corporation depends more upon its intellectual and systems capabilities than its physical assets"*. This view is supported by many other writers including Kaplan (1996), Norton (1996, 2001), Senge (1992), Peters (1982) and Kottler (1996, 2001). The argument seems to have been convincingly put. If we accept this proposition it follows that such considerations as the selection and recruitment of personnel, their training, motivation and development, all of which impinge on what has become known as an enterprise's "Human" capital, Senge, (1992), Norton, (1996, 2000, p5), can be every bit as important as those affecting its more traditionally defined and perhaps more readily recognised assets such as its property, both intellectual and real, and the plant and equipment described in its balance sheet.

The better trained, educated and motivated the workforce; the more likely it is that the enterprise will be successful. Senge (1992). This of course should apply equally as well, if not more so, to those who are charged with leading, motivating and managing this work force i.e. its senior managers.

Our initial review of the background literature indicates that Germany seems, at least to date, to have taken this, as witness its very comprehensive system of vocational education and training, rather more seriously than we have done in the United Kingdom. German managers too seem to be credited with more 'professionalism, at least at a technical level than their British counterparts. Indeed the image of the German manager as a 'Technocrat' appears to be a well established part of the generally accepted British stereotype of the German manager. Lawrence, P., Edwards, V., (2000, p7). This image may, to some extent, have been promoted by the apparent propensity of large successful German manufacturers, for example companies such as Siemens, Bosch, Miele, Mercedes-Benz and BMW to concentrate their marketing efforts on describing the design and technical excellence of their products. Leadership through technology or as the Volkswagen subsidiary Audi so aptly ascribes in its advertising – Vorsprung durch Technik. German products it seems are rarely sold on price alone.

Having said this the concept of the 'professional manager' which implies an individual's ability to manage irrespective of the context and perhaps a willingness change employers, business sectors or even industries whilst seemingly readily accepted in the United Kingdom is almost unheard of in Germany. In Germany the accepted paradigm is much more that of the 'Professional' as a manager. This will be discussed in more detail in later chapters but essentially most German companies expect their managers to be experts in one or more fields of the company's activities. Ferdinand Peich the former Chief Executive of one of Germany's largest and most successful automotive manufacturers – Volkswagen - who not only had a degree and

a Doctorate in automotive engineering but had also served a formal apprenticeship in the automotive industry is a prime example of this. Mayer, Whittington, (1999 p406). Many German Chief Executives have served their whole careers with one company. Simon, (1992 p227). And as we shall see of the many that have Doctorates over half have also served formal apprenticeships. Graetz, (1996).

This may be one of the reasons why what may be called the 'professional manager's' degree – the Masters in Business Administration (MBA) whilst widely accepted in Britain (and the USA of course) has failed to achieve a similar status in Germany. The Economist, (July 27th 2002).

Although a considerable body of literature exists which relates to "Management development" surprisingly little seems to have been written about the requirement for potential managers, or at least British managers, to have had any formal academic education beyond that provided by the current secondary school system or at least any formal academic qualifications other than those attainable through the system, GCSE's and 'A' Levels for example, at least at entry.

This is perhaps explained, to some extent, by the many 'Professions' in the United Kingdom, which have in the past provided for direct entry in the form of 'Articles', accountancy and the law to give just two examples. These 'Articles' are perhaps best described as a quaint British form of apprenticeship leading to a 'professional' qualification. In saying this the writer is not attempting in any way to denigrate such a vocational approach combining, as it does, work experience with tertiary education and a strong regulatory framework, but many individuals who in the past have taken this route might well have chosen otherwise to go to university instead, given of

course that they had the means and opportunity to do so. Today the situation is changing and a university education and an appropriate degree, whilst not de rigueur, is certainly the norm for entrants into the professions and indeed to management in general. Chittenden, T., (2003).

However we need to recognise that the majority of today's senior managers are likely to be at least in their early to late forties if not older and so will have most probably completed their secondary educations some twenty-five to forty years ago. Anon, DfES, (1998,1999, 2001,2002,2003). It is these individuals who determine, for the most part, who should be recruited or promoted and what if any the approach to management development should be. It might not therefore be considered surprising if they did not attach quite the same importance to a university education let alone a Postgraduate degree in this regard.

This is unlikely to be true in Germany, at least not to the same extent, as the German manager, as we shall see, is far more likely to have a degree.

In a recent article in the Guardian newspaper entitled "*You don't have to be thick to work in British politics, but it seems to help*" John Sutherland raised the question of the apparent lack of academic prowess or at least of academic qualifications of our senior politicians as compared to those of our European neighbours. Sutherland, J., (2002), The Guardian, February 11th.

He commented on the qualities of certain individuals and sought to make the case using Cook, Portillo, Hague and others as examples, with Morris, Prescott, Byers, and others as counterpoints that in Britain at least it didn't do to be too clever.

Although reading between the lines one might well infer that what he meant to infer was “it doesn’t do to appear to be too clever”. We have after all had in Britain a number of very well educated senior politicians who have steadfastly maintained a “man of the people” image, Harold Wilson is but one example. Sutherland posited in fact that “clever people” make a certain class of voter uneasy and that they may just as easily make enemies of their colleagues let alone the opposition as friends. He also raised the apparent anti-intellectualism of the Conservative Party a supposition that seems to be supported to some degree by the work of Martin Wiener. In his book “English culture and the decline of the industrial spirit 1850 – 1980”, Wiener makes much of the anti-intellectualism of the British governing classes as a whole at least in so far as this intellectualism is equated to academic achievement. Wiener, (1981, p14-16, p130-139,).

He may have a point. If we compare the United Kingdom with Germany, for example, since 1945 there has not been a German Chancellor without a Doctorate and there has never been a British Prime Minister with one.

This may or may not explain a lot about British politics but the writer’s interest is really in British management - is there a parallel? Are German senior managers generally better qualified (academically) and trained than their British counterparts? Are Doctorates more acceptable in the German boardroom? And if so, why should this be so? And is it one of, if not the principal reason, why German manufacturing industry has apparently been so much more successful than our own?

Given that *“In the mid-nineteenth century, the United Kingdom boasted the highest economic output per capita of any nation in the world, and its material standards of living were without equal”* as per Lovegrove, et al (1998 p44), it seems that ever since then it has gradually lost ground.” *It now ranks bottom of the league of G7 countries, trailing the leader, the United States, by 30 percent. Despite the labour and capital market reforms of the past 20 years, output per capita in the market sector remains almost 40 percent behind that of the United States, and 20 percent behind that of West Germany,”* Lovegrove, et al (1998, p45). These are questions that surely need to be addressed.

There are essentially two questions this thesis sets out to answer.

- Firstly “Are there significant differences between the level of academic achievement (qualification) of German senior managers and their British counterparts?”

This with particular reference to and as evidenced by the possession of Higher degrees, principally Doctorates. The reader should note that the question is defined purely in terms of academic attainment. This research does not attempt to determine whether or not German managers are better ‘educated’ than their British counterparts a term which, by most commonly used definitions, encompasses a whole gamut of attributes other than those associated purely with academic attainment. The German concept of ‘Bildung’ to which we will return later in this thesis is an example of this.

- Secondly, given that there are significant differences, “why should this be so?”
Are these differences caused by cultural, socio–economic, political or systemic factors, or a combination of all or some of these?

There are of course a myriad of factors which might be said to have led to the development of the current situation or which help to maintain or promulgate the apparent status quo. For ease of analysis the researcher has tried to classify these into three basic categories - cultural, socio–economic, and political or systemic. The rationale for this is described in Chapter 4, The Methodology, but essentially the idea is to separate out for discussion those factors which, for example, may be said to result from long established cultural or societal values (cultural) rather than the more immediate questions of career advancement or life time earnings (socio economic) or indeed the ease of access to or availability of higher education (political or systemic). Of course in one way or another all of these factors are almost certain to be inter-linked, each having some impact on the other. However, by making these admittedly somewhat arbitrary distinctions between them, at least for the purpose of analysis, the researcher hopes to be able to more easily identify those that have or have had a major influence on the development of the situation as it is today.

Although it is the writer’s working hypothesis that the answer to the question “why should this be so” will most probably be found, if it is indeed to be found, by examining the cultural heritage of the two countries especially as it developed during the latter part of the nineteenth and the early part of the twentieth centuries, it is also important, of course, to consider more current events and potential causal effects.

These first two questions lead, almost inevitably to a third, which is: -

- “Assuming there are significant differences and the reasons for these can be identified, what impact, if any, do these have on the performance of the businesses and of the managers who run them?” Moreover can and should anything be done about it?

The researcher understands that the third question will prove difficult, if not almost impossible, to answer categorically given the myriad of factors which may affect company performance other than management and thus the difficulty of establishing a plausible argument for causality. In any event the answer to a question as far reaching and complex as this is almost certainly more properly dealt with in a separate thesis.

Apart from factors such as how the performance of the global economy overall and management of the local economy may affect individual company performance irrespective of the quality of that company’s management, questions regarding ‘management’ versus leadership skills and their relative impacts would also need to be considered. However it may be that by at least examining this area it might be possible to draw some inferences, which could or should have a significant impact on recruitment and management development policy both in the UK and Germany.

There are major differences in the way industry, particularly manufacturing industry, has performed in the two countries over the past decades, with Germany apparently outclassing Britain. However, the same cannot be said of the financial and service

sectors where Germany, although making valiant efforts to catch up, still lags some way behind the United Kingdom. In the area of entrepreneurship too, Germany seems to fall some way short of Britain's performance. Is this purely coincidence? Or the result of Germany's more focussed, specialist as opposed to Britain's more generalist approach to management.

In the United Kingdom an academic qualification is seen more as an intellectual benchmark rather than an accomplishment qualifying an individual to perform a particular job or specific activity. This is not so in Germany where a graduate in say literature, art, sociology or politics, indeed in any subject not directly related to the prime activity of his or her potential employer, would have very considerable difficulty in obtaining a position in industry.

Perhaps if they could be persuaded the Germans could benefit from a degree of cross fertilisation that the British approach perhaps engenders and the British from the German more focussed approach ensuring they had managers that actually understood the processes they were managing.

Chapter 2: An initial review of the literature

Hartmann (2001, p157-8) writing in Kraiss's book "An der Spitze" makes the point that despite the rising interest in and respect shown to "Top managers" in Germany, very little has been written about them and no really solid socio-economic research about them exists, at least none that could be considered current. This may be a slight overstatement given the work of Enders and Bormann (2001), although it is true that they tend to concentrate their research on successful doctoral candidates, their respective social backgrounds and career progression rather than on senior managers specifically.

The same may be said to be true of Britain with very little relevant material having been published since the Handy and Constable reports –The Making of Managers and The Making of British managers respectively of the late nineteen eighties.

Handy, C. et al, (1987), Constable, J., McCormick, R., et al (1987).

Although, as we have said, very little seems to have been published which relates directly to our questions the evidence seems to indicate there are parallels between the worlds of British and German politics and German and British business.

Heumann D. (2000) in Welt am Sonntag [The World on Sunday], a major German newspaper, says, "*The Title Doctor is the most important criterion for promotion to a top position in business or society (in Germany), over 60% of the board members of Germany's largest 100 companies¹ have a Doctorate!*" In Britain our research

¹ By sales or turnover rather than market capitalisation

indicates that this is probably true of less than 1% of top company directors and certainly less than 3%.”

In Der Spiegel [The Mirror] (2002), which is one of Germany's most influential journals, Christian Heuer who is the executive responsible for management development at Beiersdorf, a major German corporation, is credited with saying *“In Germany a Doctorate continues unarguably to be of advantage. We are simply addicted to titles. ... There are certain careers, for example in the chemical industry, which would be unthinkable without a Doctorate.”*² Hartmann (1996, p88-9) also quotes in his book Top Manager – Rekrutierung einer Elite [Top Manager - the recruitment of an elite] a senior personnel manager thus *“Wer heute noch meint, ohne Studium in den Vorstand eines Handelsunternehmens kommen zu können, der irrt. Das werden die absoluten Ausnahmen sein”* [anyone who thinks it possible to become a member of the board of directors of a business without a university education is mistaken. It would be the absolute exception]. In this context it should be recognised that the German First degree or Diplom is usually the result of at least 5 to 7 years of study and is probably more directly comparable with a British Masters rather than a Bachelors degree. Mason, Wagner, (1994, p63-5).

In the UK however employers appear to have concerns with “over qualification”, or individuals being “too academic”, or too specialised etc. that do not seem to be seen, at least not to the same extent, in Germany.

A fairly recent (1994) study found a relatively low demand, at least in industry and commerce for post-graduate engineers and scientists in Britain as compared to Germany, partly due to this concern about over specialisation and academic focus.

² Translated from the original German by the author

Mason, Wagner, (1994, p72). Mason (1996, p101) finds this hardly surprising given, he says, the very narrow academic course of study that most British graduates will have followed since the age of 16 as compared to their German equivalents who will have followed a much broader curriculum up until at least the age of eighteen or completion of the Abitur³.

This is perhaps disappointing as the 1986 Constable report entitled "The Making of British Managers" did say *"There is evidence of a shift in the general climate of (British) managerial opinion towards a greater emphasis on formal qualifications in the future. When managers were asked how they would advise a younger colleague on training and career development top priority was given to obtaining a formal qualification."* Constable, McCormick, (1987, p9).

Despite this there still seems to be this underlying concern on the part of British managers as expressed by Wiener (1981), Mason, Wagner (1994), and subsequently by others including Battu, Belfield and Sloane (2002, p82-100), that individuals might indeed prove to be 'overqualified' or too academic. This is a concept that the average German manager might find difficult to comprehend.

It seems that a great deal has also been published in English about the potential problems of employing graduates for example, in jobs that would not normally be seen as requiring that level of academic achievement but this seems in the main to relate to the potential lack of "job satisfaction" that such employees might experience rather than the performance of the business. Although of course one may have an impact on the other.

³ German university entrance qualification

Despite this it is UK government policy to continue to try to open access to higher education with the aim of enabling perhaps as many fifty percent of young people to obtain a university degree.

It seems that British employers as a whole may well have more concerns with the non-academic achievements of their potential employees than do their German colleagues. Especially those which purport to demonstrate leadership or team working skills.

According to Constable the objective of his report had been to determine: -

- 1 *The demand for management education and training as perceived by employers and by those who have undertaken some form of management education and training;*
2. *The supply of management education and training from all sources including universities, polytechnics and colleges of further and higher education, central institutions in Scotland, private colleges, professional institutes, management consultants and in-company resources;*
3. *If a miss-match existed between demand and provision how this should be overcome.*

Constable, J.,(1987 p6).

Sadly, almost 20 years on, there seems to have been little significant change apart from the proliferation of institutions offering degrees and the increasing number of MBA's being awarded by British universities. Unfortunately a very high percentage of these are awarded to overseas students who most probably do not enter management in the United Kingdom. Mason, G., Wagner, K., (1994, p68)

On the other hand British employers seem much more prepared than their German counterparts to recruit and accept "generalists", for example graduates with non technical or non business specific degrees such as Geography, History or Politics into their management development programmes. They view perhaps, as we have already said, a university degree more as an intellectual benchmark rather than a qualification required to perform a specific specialist function or role. This would be seen as very unusual in Germany (in fact almost unheard of).

Also in the mid 80s Charles Handy et al, (1986) under the auspices of the Manpower Services Commission, NEDO and the then British Institute of Management prepared a report entitled The Making of Managers – a report on management education, training and development in the USA, West Germany, France, Japan and the UK. This report highlighted the fact that American, Japanese and German managers were generally better qualified (academically) than their British counterparts. Moreover it pointed out the overwhelming, when compared to Germany and Japan, number of accountants in management positions in Britain. It also showed the apparent significance of a Doctorate in Germany. See Figure 2. Eighty five per cent of top managers in both the USA and Japan had degrees, whilst the only available comparative figure, at that time, in Britain suggested twenty four per cent. (See

Figure 2, Table 1.) (Handy,1986). It also pointed out that most well educated West Germans did not begin their business careers until they were 27 years of age whilst the Japanese and the British started at 22.

Figure 1

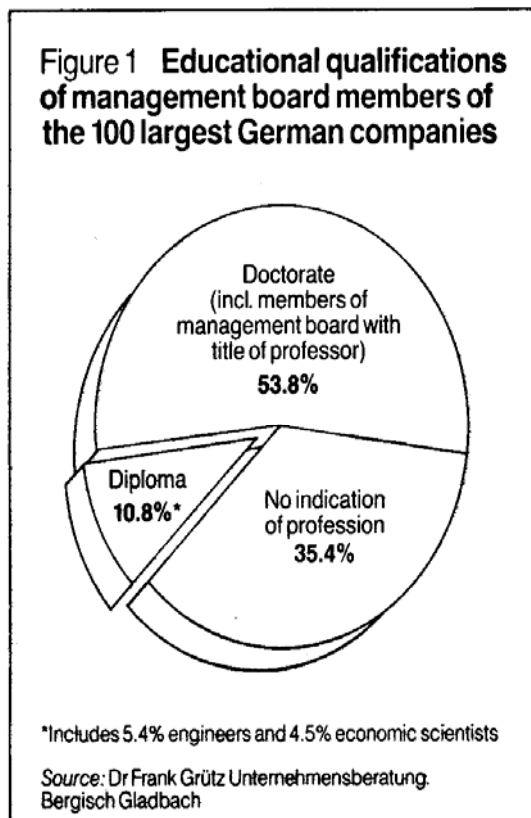


Table 1 Some statistical comparisons

Country	Top managers with degrees %	Numbers of qualified accountants 000s	MBA's per annum
Britain	24 ¹	120.0 ⁶	1 200 ⁷
USA	85 ²	300.0 (est.)	70 000
West Germany	62 ³	3.8	0
France	65 ⁴	20.0 (est.)	0 ⁸
Japan	85 ⁵	6.0	60

Sources:

¹Koudra, M. *Management training, practice and attitudes*, BIM Management Survey report, 1975; ²Survey by Korn Ferry Int., 1986; ³Evers, H and G Landsberg. *Qualifikation und Karriere* Deutsche Instituts, 1982; ⁴INSEE National Statistics Office; ⁵Survey by *Toyo Keizai Magazine*.

Notes:

⁶Accountants working in Britain – combined estimates of six professional bodies; ⁷British nationals; ⁸INSEAD graduates not included. It is not part of the French system.

The report said little about the reasons why this should be so and concerned itself with management development rather than selection or qualification at entry.

However Handy (1986 p V) in the forward to his report did stress that “*The lack of a clear, relevant and prestigious route into business and management may be one reason why fewer of the best of the British go into careers in business and management compared with their counterparts in the other four countries*” (Germany,

Japan, France and the USA).” The choice of the word “prestigious” here appears particularly significant as it emphasises the British preoccupation with status giving strength to Wiener’s (1981) arguments.

In his book ‘English culture and the decline of the industrial spirit’ 1850-1980, Wiener linked what he called gentry’s values, status and the acceptable face of capitalism to Britain’s economic decline. He said: -

“The failure of industry to rise in status in Britain, as it did elsewhere over the past century, encouraged in Britain a haemorrhage of talent out of this area. It also conditioned the outlook for those who remained in or entered industry”. He also said “industry in other developed countries – United States, West Germany, France and Japan found it easier to recruit managers and technologists with higher qualifications. An economist and a socialist attempting in 1976 to explain why, in West Germany, a higher proportion of better graduates entered industry, the best of them frequently possessing engineering degrees saw as central the status of industry. The ideas that industry is not a fitting occupation of a gentleman (old version), or for an intellectual (new version), seem not to have existed in Germany. In West Germany neither making money nor making three dimensional artefacts are culturally dubious activities.” Wiener, (1986 p137).

The writer believes that these cultural prejudices, to a greater or lesser extent, still exist in Britain today. They remain one of the main reasons why industry as opposed to the financial services either fails to attract our “brightest and best” or fails to take advantage of the reservoir of talent that is available. It does this by deliberately

excluding those who it perceives to be “over qualified” or too academic (bright, intelligent, or intellectual are in this case acceptable or at least interchangeable synonyms for this) judged by virtue of the fact that they have been awarded a degree, a postgraduate degree or Doctorate.

Interestingly enough though, as has already been remarked, there is a substantial body of literature relating to “over qualification” and job satisfaction see Johnson and Johnson (2000). The most common explanation given for the rise in over qualification is that educational levels have increased much more rapidly than the demand for an educated workforce. Mottaz, (1984) as quoted by Johnson, (2000, p538). Other explanations for the rise in perceived over qualification include workers’ acceptance of less than optimal employment because of corporate downsizing, restructuring, and so forth, and the increase in dual career families, which inherently limits employment flexibility. Feldman, (1996) as quoted by Johnson, (2000, p538)..

Thurley and Wirdeless, (1989, p63), in *Towards European Management*, support the writer’s contention regarding cultural prejudices in saying:

” The survival of aristocratic values in the upper and ruling classes is usually given as a reason for the neglect of technology in the case of the United Kingdom (Wiener, 1981). A second factor is the importance of the financial and commercial centres, particularly the City of London, which meant that white-collar careers were highly successful. Whatever the reason, however, there is no doubt that by the 1970s there was a clear trend for university graduates to avoid jobs in manufacturing industry. The slump of the early 1980s accelerated this trend.”

Three more recent publications in German: Michael Hartmann's (1996) *Top Manager - Die Rekrutierung einer Elite* [Top managers - the recruitment of an elite], Enders and Bornmann's (2001) *Karriere mit Doctortitel* [Career with the Title: Doctor] and Beate Kraiss's compendium *An der Spitze – von Eliten und herrschenden Klassen* [At the top – about the elite and the ruling classes] although they approach the topic from a different standpoint, viewing it as they do, from an almost entirely German perspective, also serve to give some useful insights. In particular they identify how important social class or background is as a determinate factor both in access to higher education and of course subsequently higher management.

Hartmann writing in Kraiss's (2001) book (p158) supports the writer's contention that little, if anything, of recent date, has been published about the topic under discussion. He says "*Die beträchtlich gestiegene Beachtung, die Topmanager heute genießen, steht allerdings in einem seltsamen Kontrast zu der Tatsache, dass in Deutschland keine soliden sozialwissenschaftlichen Untersuchungen über sie existieren, die auch nur halbwegs jüngeren Datums sind.*" [The significantly increased respect (attention) that Top managers currently enjoy contrasts strangely with the fact that in Germany there exists no current solid social scientific research about them].

Hartmann's own book, as does that of Enders and Bornmann, tends to concentrate on the career progression of managers with a degree, analysing this by specific field of activity (industry, commerce or academia), specialist knowledge (the field in which the doctorate was awarded), age and surprisingly, to the writer, the social class from which they and their parents originated. "Sozialherkunft" [social origins] seems also to be the main area for discussion in Kraiss's book. Having said this, each contains

material, which is pertinent to our research. If we look at tables 1 and 2 taken from Kraiss's (2001) book (p215) we can see that in 1970 about 40% of the chairmen of Germany's top 100 companies had Doctorates. By 1995 this had risen to nearly 48%.

Table 1; Social origins and academic qualifications of the chairmen/managing directors of Germany's 100 largest companies 1970

Soziale Herkunft und Bildungsabschlüsse der Vorstandsvorsitzenden der 100 größten Unternehmen Deutschlands 1970												
	BWL , VWL	Jura	Ingenieurwiss	Naturwiss.	Studium ins.	Promotion	Studium u. Lehre	Nur Abitur	Nur Lehre	Lehre u. Abitur	Ohne Angaben	Insgesamt
Arbeiterklasse u. Mittelschichten	6	2	1	-	9	7	2	1	4	-	-	14
Gehobenes Bürgertum	11	24	11	6	52	30	1	3	1	4	8	68
Davon: leitende Angestellte	5	5	3	2	15	9	1	-	-	-	-	15
Offiziere, Grundbesitzer	-	2	2	-	4	3	-	-	-	-	-	4
Akademische Freiberufler	-	4	2	2	8	5	-	-	-	-	-	8
Höhere Beamte	1	7	1	-	9	5	-	1	-	-	-	10
Unternehmer	5	6	3	2	16	8	-	2	1	4	8	31
Ohne Angaben	5	1	3	-	9	1	1	-	1	-	4	14
Zusammen	22	27	15	6	70	38	4	4	6	4	12	96

Promotion = Doctorate. Insgesamt = Total

Source: An der Spitze [At the Top], Beate Kraus (2001 p215)

Translation of terms used in tables 1 and 2:

Arbeiterklasse und Mittelschichten	Working and middle class
Gehobenus Bürgertum	Upper middle class
Leitende Angestellte	Employees in Management or supervisory positions
Offiziere, Grundbesitzer	Officers (Military), Land owners
Akademische Freiberufler	Self employed academics
Höhere Beamter	Senior civil servants
Unternehmer	Business proprietors
Ohne Angaben	No details
Zusammen	Total
BWL / VWL	Business Economics / Economics
Jura	Law
Ingenieur Wissenschaft	Mechanical Engineering
Natur Wissenschaft	Natural Sciences
Studium in Gesamt	University Education
Studium und Lehre	University Education and Apprenticeship
Promotion	Doctorate
Lehre und Abitur	Apprenticeship and university entrance qualification

Table 2: Social origins and academic qualifications of the chairmen/ managing directors of Germany's 100 largest companies 1995

Soziale Herkunft und Bildungsabschlüsse 1995												
	BWL, VWL	Jura	Ingenieur wiss.	Natur-wiss.	Studium ins.	Promotion	Studium u. Lehre	Nur Abitur	Nur Lehre	Lehre u. Abi- tur	Ohne An- gaben	Insgesamt
Arbeiterklassen u. Mittelschichten	5	1	2	-	8	3	5	-	3	-	-	11
Gehobenes Bürgertum	22	24	14	3	63	40	9	-	-	2	7	72
Davon: leitende Angestellte	1	8	2	1	12	8	3	-	-	-	-	12
Offiziere, Grundbesitzer	-	3	-	-	3	2	-	-	-	1	-	4
Akademische Freiberufler	4	1	1	-	6	6	1	-	-	-	-	6
Höhere Beamte	7	6	2	1	16	11	1	-	-	-	-	16
Unternehmer	10	6	9	1	26	13	4	-	-	1	7	34
Ohne Angaben	6	2	2	-	10	2	2	-	1	-	2	13
Zusammen	33	27	19	3	82	46	16	-	4	3	9	97

Promotion = Doctorate. Insgesamt = Total

Source: An der Spitze [At the Top], Beate Kraus (2001 p215)

This is by no means a recent phenomenon. Kessler (1997) in his book Zur Geschichte des Managements bei Krupp, Von den Unternehmungsanfängen bis zur

Auflösung der Firma Krupp AG (1811 – 1943) [A History of management at Friedrich Krupp AG] tells us that as early as the first part of this century Krupp was employing technical managers almost exclusively from the cadre of the higher educated. This is demonstrated, he says, by the number of such managers with Doctorates. Even more interestingly he tells us that the share of Doctorates was even higher amongst Krupp's commercial managers. He says that this was part of an ongoing pattern where the fathers of these managers belonged to what he called the "Bildungsbürgertum" which may be loosely translated as "The educated middle classes"

Hartmann (1996, p54) tells us that the lowest percentage of top managers with Doctorates in Germany is to be found in the retail and electrical industries with 18% and 30% respectively; the highest in the chemical and banking industries with 76% and 64% respectively. The prevalence of Doctorates in the chemical and pharmaceutical industries is perhaps not unexpected given the emphasis on research. In the banking and finance sectors, as can be seen from Hartmann's (1996) data, a significant number of those with Doctorates have read Law. In any event these numbers surely underline the significance of a Doctorate in a German management context. They are an order of magnitude higher than those of the United Kingdom.

In order to facilitate a review in greater depth of the literature relating to why this should be so, a number of areas of difference between the German and British milieu have been identified. These are factors which in the writer's opinion, have the

potential of themselves to be causal factors or to result from such causal factors or at least to have, to a greater or lesser extent, influenced or been influenced by this development. They are listed and discussed briefly below but are covered in more detail in the following chapter.

- Differences in the way the respective economies are managed

The pursuit, in the United Kingdom, on the one hand, of something approaching full blooded capitalism during the Thatcher years to a somewhat but not greatly attenuated version under the current socialist government versus what the Germans term a “Sozialmarktwirtschaft” or socially orientated market economy euphemistically referred to by some as “the middle way”, has created very different national environments within which businesses have to operate. This is of course reflected in the approach taken by the respective governments to all aspects of the management of their individual economies and societies.

- Differences in the way business is funded

The preference for, and reliance on loan rather than share capital as a means of financing company growth in Germany has, in the opinion of many commentators, conferred certain advantages to German managers. The environment is considered to be generally more stable – hostile takeovers are almost unheard of and the limited number of shareholders allows managements to think rather longer term than the next quarter’s profits or dividends. There are of course disadvantages. Amongst

these may be the potential limitation on the funding available for investment and growth and the inability to offer managers incentives through equity participation or share option schemes.

- Differences in the systems of secondary education

When discussing differences in the systems of secondary and higher education it is important to take a rather longer view than merely looking at the systems as they are today. It is important for a number of reasons. Not the least of these is that Germany as it is today has only existed for the last fifteen years. It is, of course, a fusion of the former capitalist Federal German Republic, and its communist neighbour the German Democratic Republic. Although the educational systems in the two countries had a superficial similarity at the time of the 'Wende' [literally turn or turnaround but here - coming together or reunification], the ideology behind them was of course very different. Hahn, (1998, p113-117). One of the most obvious of these was the adoption of the comprehensive school system in the East which although it was attempted in the West, never really succeeded in replacing the traditional Gymnasium the equivalent of the British grammar school.

When we are discussing German management and managers we are of course per force looking at the managers of what are or were West German industrial concerns. The principals of management or at least the criteria for selecting managers under the East German totalitarian regime were probably very different to those commonly employed in the West.

Reunification was in fact only one of a series of what one might call almost critical junctures that Germany has had to face over the last one hundred and fifty years. These include the change from a monarchy to a republic and being on the losing side in at least two major wars followed by the subsequent separation into the Federal and Democratic republics. Despite all of this the modern German education system has seemed to hold firm to its Humboltian origins and its concept of 'Bildung'. Hahn, (1998, p4).

It is important to recognise this as the education of the antecedents of today's managers may well prove to have been a significant contributory factor to the situation as we find it today.

- Differences in the systems of Higher Education

Although superficially similar there are a number of important differences between the German and British systems. These include differences in the structure of the degrees, particularly at First degree level and as a result the courses of study between the two countries. The rules relating to access and admissibility and as a result, in part, the age at entry, the approach to the funding of a course of study, and the range of subjects offered at degree level are also different.

- Differences in the systems of Vocational Education

Although structural differences do exist these tend to reflect a differing set of value judgements both on the part of government and industry and as a result society as a

whole in both countries. These affect decisions relating to resource allocation, political will, as demonstrated by the very different levels of resource and infrastructure provided for vocational education and for the individual choice of career and for the employer's recruitment policy. For example although the concept of a formal apprenticeship forms an essential, in fact, indispensable part of the German educational system, in the UK employers appear to place very little value upon them (apprenticeships) and so allocate little resource to them. Perhaps because they continue to view them as part of the former framework of restrictive practices through which the trades unions once exercised their power.

In Germany on the other hand, employers enthusiastically support the system of vocational education and completion of a formal apprenticeship by an individual also confers some considerable status in society as a whole.

- Differences in the approach to management

Differences both in terms of a company's overall approach in terms of policy and the determination and setting of corporate objectives and internally the way the company is actually managed, how decisions are reached and industrial relations are handled all of course must influence the company's organisational structure and its recruitment and management development policies .

- Differences in Productivity

Measurable differences in productivity in terms of output per capita for example if they exist and they do and the reasons behind them may provide us with some indication as to the probability of a linkage between productivity and education and training both of the management and the workforce.

- Entrepreneurship and Innovation

The extent to which either country is open to innovative ideas and supports entrepreneurial activity may well be indicative of the willingness to embrace risk or conversely the degree of conservatism within their cultures.

- Cultural differences

Britain has been described as “the land of the gifted amateur” Wiener, (1981, p139). If this is so then Germany is the land of the professional. In Germany academic titles are almost always used almost all the time; in Britain they are hardly ever used. In Britain to be the member of a ‘Profession’ - any profession - carries far more status than being a ‘manager’, so much so that British managers, or at least the former British Institute of Management have just spent an inordinate amount of time and money to achieve ‘Chartered’ status i.e. the status of a ‘Profession’. Why should this be so? The answer lies in the differences between the ‘values’ of the two societies.

These values are culturally predicated and there are significant differences between Germany and the United Kingdom.

Although all of the factors above have a part to play, the last of them – Cultural Differences are likely, in the writers opinion, to prove the most significant, as in a way all of the others can be said to have been influenced or at least been subject to the deep seated and long established cultural mores of their respective countries.

Hofstede's (1980, 1984,1991) work clearly identifies cultural differences between employees of different nationalities as affecting even determining their value sets. His book *Cultures consequences* “explores the differences in thinking and social action that exists between members of 40 different nations” and “argues that people carry mental programs which are developed in the family in early childhood and reinforced in schools and organisations, and that these mental programs contain a component of national culture. They are most clearly expressed in the different values that predominate among people from different countries.” (1980 p11).

Ekvall (1997), who has also written on this topic refers to this cultural programming as “*the software of the mind*”.

There is no doubting the importance of Hofstede's work but it does appear to have one weakness. This is that he chose his initial research population from one company alone: IBM.

IBM has (had) a very strong corporate culture and tends to recruit worldwide against a single stereotype. IBM's administrative and management employees were for example expected to conform to a very strict dress code. Even IBM manufacturing

plants and offices worldwide look very much alike. The language of IBM worldwide has always been English.

Although this may have had some advantages for Hofstede's research it could, in the writer's opinion, have led to him actually underestimating to some extent the effects on attitudes of the cultural differences. IBM tends to impress a culture of its own upon its operations worldwide. This is probably true of many trans-national organisations particularly where growth has tended to be organic rather than by acquisition. However for the purpose of this research it should not prove problematical. The skew due to this, if any, is likely to be in the same direction, i.e. all participants either overstating or understating their responses to a given question. Hofstede's work clearly identified nationally orientated cultural differences. Even if we assume the indexes that Hofstede assigned to his definitions of Power distance, Masculinity, Uncertainty avoidance and Individualism for Germany and the United Kingdom may have to some extent been attenuated, it does not invalidate his findings which clearly indicate that there are significant culturally founded differences between the two countries. These differences are reflected in the behaviour of employees and subsequently managers

The implications of cultural, systemic and socio-economic factors are discussed in greater depth in chapter 6.

Chapter 3: The Methodology

This thesis addresses in the main two questions. Firstly – are German senior managers as a whole better qualified academically, especially with regard to Higher degrees, specifically Doctorates, than their British counterparts and secondly - if so why?

It should, perhaps, be made clear that the questions being addressed are intended to relate only to senior managers, and what is more only managers in business and industry, in what is now known as the Federal Republic of Germany rather than 'German' in the sense that German may be their native language. Managers in Austria and Switzerland are therefore excluded from this analysis. As are 'managers' in for instance the civil service or its German equivalent and other government employ.

Moreover Germany itself has seen very significant changes over the last one hundred and fifty years including changing from a monarchy to a republic, defeat in two world wars, partition and subsequent reunification. By comparison the United Kingdom's recent history, although not without incident, can be said to have been relatively stable.

Virtually all of the 'German' managers included in this research will have been, or are, employed by companies which have their headquarters, primary base of operation, or in the case of multinationals, European or German operations in what was West Germany. Very few, if any, companies based in what was known as the German Democratic Republic (East Germany) prior to reunification will have made the successful transition to independent corporate entities in a capitalist society.

Hence it might be that this research could be seen more properly as a comparison of British with West German managers.

The researcher starts out with an essentially foundationalist ontological point of view but at the same time having the epistemological position of a pragmatist or realist.

The realist position is, of course, that some social phenomena exist independently of our interpretation of them but that our interpretation or understanding of them effects outcomes i.e. some relationships cannot be directly observed but by observation and inference their effects can be determined. As Remenyi *et al* (1998) as cited by Saunders, Lewis, Thornhill, (2000 p86) suggests the researcher will seek *“to discover the details of the situation so as to understand the reality or perhaps a reality working behind them.”* In other words attempt to examine the position in the “Real world” before attempting to develop a hypothesis.

At first glance it seems that quantitative methods might easily be employed to establish the answer to our first question - “are German senior managers generally better qualified (academically) than their British counterparts?” However the answer to our second question – “Why should this be so?” is almost certainly likely to require some inputs of a more qualitative nature. A third question that seems to follow naturally from the first two questions posed in this thesis whilst not the primary focus of this research namely: “what impact does this have on the performance of the companies they manage?” might also first best be addressed using quantitative methods but almost certainly quantitative judgements would also be required.

It is important at this point to re-emphasise that the questions posed in this thesis do not ask whether or not German senior managers are 'better' educated than their British colleagues but only whether or not they are better qualified academically..

The apparent dichotomy between the relative degree of acceptance or not of the MBA (Masters of Business Administration) in Germany and Britain as a meaningful academic qualification for managers is perhaps indicative of the underlying difference of attitude to 'management' education in the two countries. The MBA is accepted in the United Kingdom, and the USA, which the United Kingdom tends to follow in this regard, as being perhaps the most desirable academic qualification for a manager. This is because in the United Kingdom business tends to consider the ability to 'manage' to be a priori the requisite skill that managers require to be successful and that the attainment of an MBA is indicative of this or at least that the individual possesses mastery of the requisite management skills. In Germany on the other hand there is still a high degree of scepticism in this regard. The first priority for a German manager appears to be to understand and if possible be a technical expert in the field the business he is trying to manage operates in. The ability to "manage" in a British sense is a secondary consideration and it is assumed will be demonstrated by an individual's actual track record i.e. how effective an individual has actually been as a manager. In Germany most management training and development appears to be carried out in house i.e. within the companies concerned.

As we have seen the German more focussed approach to recruitment effectively limits access to management development opportunities to those with specific skills whilst in the United Kingdom with its more 'generalist' attitude allows for entry of

those graduating with non-business or industry specific degrees. There is, it seems, a significant difference between what the business establishment in the two countries mean by 'educated' at least in so far as managers are concerned.

To facilitate an initial review of the literature the researcher attempted to categorise the published information into three defined areas. The first being material likely to be associated with systemic differences, the second with socio economic differences and the third with cultural differences between the two countries. The definition of what the researcher means by these terms and a more detailed explanation of the categories is given in chapter 6 but essentially the objective was to break the body of literature down into manageable blocks and to some extent pre screen information for later more detailed consideration.

The review indicated that little of real significance had been published which related directly to the area in which we were specifically interested. Indeed as we have seen Hartmann as cited in Kraus (2001 p158) cautioned that despite the seemingly high profile of and interest shown in German senior managers, by the press at least, little meaningful current social research relating to them had been published. However much it seems has been written around the topic. That is to say about areas such as the differing systems of higher education or the way industry was financed for example which might have relevance to our second question 'why should this be so'?

Before attempting to address these questions it was necessary to define what, for the purpose of this research, was meant by the term 'Senior Manager' of itself a somewhat subjective if descriptive term. In Fayol's original proposition published in

1916 managers are said to plan, organise, coordinate and control within an organisation. Whether or not this is an accurate or comprehensive enough description is a matter of some contention. Mintzberg (1990/1, 1999 p24-5). However a 'manager' is usually defined as one who has responsibility for the allocation of resources and the direction of others. A 'senior' manager in this context may be defined, for the purpose of this research, as one who in addition has the responsibility for managing other managers. Obviously the size and complexity of the organisation being managed are also factors in this determination as is the remuneration of the individual although this is normally, but not always, linked to the former.

In order to facilitate this research a definition was chosen that whilst encompassing these points matched the classifications used in the data available. Size of company – more than one thousand employees was chosen as the, admittedly fully arbitrary, qualifying point as this data was available from the LAE surveys. As this research concerns primarily senior managers emphasis was placed on the "Top" 100 companies, in terms of sales or market capitalisation, in both countries.

The researcher's approach in seeking an answer to the first question was essentially quantitative. By analysing recently published data and extracting that relating to our target group – senior managers defined as those at board level or the heads of functions in larger companies (greater than 1000 employees), it proved possible to obtain a fairly accurate picture of the relative positions in both the United Kingdom and Germany today.

Wherever possible to try to avoid any bias or skew two or more separate and independent sources were used in each country. Fortunately in both Germany and the United Kingdom data was available from both Governmental and independent sources. For Germany the researcher used material published by the Bundesamt für Arbeit – Institute für Arbeitsmarkt und Berufsforschungs Mikrocensus [Federal Ministry for Work -Institute for Labour market and Career research mini census] (2000) and the LAE - Leseranalyse Entscheidungsträger in Wirtschaft und Verwaltung [Readership analysis of decision makers in business and administration] (2001). Examples of the data are given in appendices 1 to 4. Since 1967 the IAB has been the research arm of the Federal Government's employment service. Currently the IAB has more than 120 researchers. Its research activities, which are agreed in consultation with the Federal Minister of Labour, are intended to be academic in nature and its reports are designed to convey this rather than being seen as policy statements on behalf of the Federal government and its employment services. The LAE sees itself as a well-founded and competent source of information for media (advertising) planning. It is essentially an association of Germany's major publishing houses. Its membership consists of the leading newspaper and book publishers plus certain well-chosen advertising agencies. It produces comprehensive surveys, on a 2– 3 yearly basis, of decision makers in industry and government. LAE defines decision makers, which for our purposes we have identified as senior managers, as company directors, managers, department heads and individuals earning over approximately £40,000 a year. The current Mikrocensus indicates that there are 1,050,000 individuals in Germany that fall into this category.

The LAE uses a number of sources for its data including the IAB's Mikrozensus and publish data from the Statistisches Bundesamt [Federal Ministry for Statistics] such as those concerning

- Bevölkerung and Erwerbstätigkeit [Population and employment]
- Monatsberichte des Verarbeitenden Gewerbes, im Bergbau und der Gewinnung von Steinen und Erden [Monthly reports from processing and manufacturing in the mining and extractive industries sector]
- Handwerkszählung [Statistics from the trade sector]
- Handels- und Gaststättenzählung [Statistics from the retail and hotel and restaurant sectors]
- Kostenstruktur-Erhebung im Bergbau und verarbeitenden Gewerbe [Statistics relating to the cost structure in the mining and manufacturing sectors]
- Investitionserhebung im Bergbau und Verarbeitenden Gewerbe, [Statistics relating to investment in the mining and manufacturing sectors]

It defines Angestellte mit umfassenden Führungsaufgaben und Entscheidungsbefugnissen [Employees with comprehensive leadership (management) responsibilities and decision making authority]. i.e. for our purposes Senior managers as those with jobs such as

- Geschäftsführer / Vorstandmitglied [Managing director / Management board member]
- Direktor / Amtsleiter / Betriebs- /Werks-/Filialleiter [Director / senior civil servant / business / factory/ or branch manager].

- Abteilungsleiter, Prokurist, Handlungsbevollmächtigter [Functional or department head]

To try to ensure the validity of the data including membership of or affiliation to the appropriate target group the LAE carried out a screening exercise involving a two step process. Firstly an initial interview determined whether or not an individual should be included in the group and if yes then a more comprehensive interview was conducted. In the case of managers their current function and range of responsibilities was determined by means of open questions. The answers to these questions together with the other details those questioned supplied were used to qualify the allocation of the contact to a specific category. Of a total of 13,634 contacts 5,452 individuals were actually interviewed 2,985 having been rejected following the screening process. It was not possible to interview the entire sample as not all were prepared to participate or were otherwise unavailable. LAE (2002). We can be fairly sure then that the data provided in the survey is both accurate and representative. Comparison with previous surveys from LAE indicates a high degree of consistency.

Additional data was also taken from the work of Hartmann (1996, 2001), Kraus (2001) and Enders & Bormann (2001).

Hartmann's work concerns itself with the senior manager as a member of a small and relatively obscure elite about which very little is actually known. He attempts to

determine what qualities an individual might need to succeed in a career in management. Interestingly he does not see academic qualification as a determinate pointing out that over 80% of German 'Top' managers have successfully completed a university education which means that they probably have the equivalent of a British Masters degree or better. Rather Hartmann believes given that these same managers come almost exclusively from what might be defined as an 'upper' class background that their success or otherwise must be due to some other personal attributes such as self confidence, an open minded entrepreneurial disposition or a better all round education, attributes that he associates with the upper class milieu from which they come, Hartmann, (1996 p89).

It is probable that some parallels, at least with regard to class and social origins, can be drawn with British managers. However although Hartmann's data concentrates primarily on the question of the 'Sozialherkunft' – class origins of German 'Top' managers, it is still possible to draw from it details relating to their academic qualifications and more specifically whether or not they have Doctorates.

Enders and Bornmann on the other hand concentrate in their work specifically on the career progression of those with Doctorates. The researcher was able to cross reference the data they provided, see *Karriere mit Dokortitel?* Enders, J., Bornmann, L., (2001) with that of Hartmann (1996) so as to be able to form an opinion as to the relevance of the interrelationship between the two to this research.

In the United Kingdom data pertinent to the first question was drawn from information gathered by the DfES (Department for Employment and Skills) (1998, 2000, 2001), who agreed to sort the information in such a way as to facilitate this research, and

surveys prepared by the Reward Group for the Institute of Directors (1991, 2000/1) as well as the Constable (1987) and Handy (1987) reports. The Reward Group, a public limited company, is considered one of the UK's leading providers of quality pay and benefits data publishing over 60 different regional, national and industry specific salary surveys each year via its publishing arm Reward Surveys.

The OECD also proved a useful source of comparative international data enabling the comparison not only of Germany with the United Kingdom but also both of these with their closest economic rivals – the USA, Japan and France. The Institute of Chartered Accountants in England and Wales and the Law Society provided background information relating to entry into the so called “Professions” which are so significant in the United Kingdom but not in Germany.

The position with regard to the overall level of degrees and Doctorates awarded in each country annually was also examined. The information was obtained by reference to the Federal Statistics Office in Germany and the Higher Education Statistics Agency in the United Kingdom

Illustrative examples of the data used are given in the appendices. Unfortunately little or no data relating directly or specifically to the class origins of British managers or their antecedents has been published although there is sufficient data to indicate that higher education in the United Kingdom remains, in the main, much as it does in Germany, the purview of the upper social classes

In the case of the second question, however, it was considered desirable to also try to examine some of the qualitative aspects which the work of Wiener (1981), Collins

(1979), Mullins (1999) and others indicated were likely to be of some significance. In order to underpin the data gathered from existing literature and the researcher's own experience an attempt was made to set up a number of case studies in both Germany and the United Kingdom - unfortunately with limited success. The idea was to have been to compare a limited number of companies of a similar size and operating in similar market sectors in both countries; for example comparing a German insurance or pharmaceutical company with a British one. Examining both the actual data with regard to levels of academic qualification, length of service etc. and, using a semi-structured interview technique to ascertain the Company's policy with regard to recruitment, management development and promotion. For example did an explicit or implicit stereotype exist which effectively limited the choice of candidates for recruitment or promotion to those fitting the employer's paradigm? Although not essential to this research as it relates to the potential third or follow up question 'what the researcher would also have liked to be able examine, and compare, the composition of the senior management of these companies from the point of view of age, experience, length of service, and academic qualification and try to determine if there were any significant differences, if so what they were and why and whether or not they could be seen to have an impact on the performance of the businesses concerned.'

Measuring any impact would have meant identifying some key performance indicators (KPI). In addition to the conventional financial parameters of profitability, return on shareholders equity and return on total capital employed it might have been be advisable to consider others for example time to market (the time taken to develop and market new products), capacity to innovate (as measured by the absolute

number of new products or patents for example), the willingness to take risk (be entrepreneurial) or the time taken to reach decisions in the decision making process.

The researcher would also have liked to discuss with the companies concerned using a semi structured interview technique their criteria for recruitment and promotion and any formal or informal management development programmes they might have. It seems from experience that British companies are prepared to recruit graduates from virtually any discipline, including the arts, for their management development programs, whereas German companies tend only to recruit from the natural sciences, engineering, law or finance. The researcher would have liked to test this hypothesis.

Unfortunately in practise it was extremely difficult to find companies, which were prepared to participate in the study. Many reasons for this were cited including the current poor economic climate, the sensitivity of the data, concern with data protection legislation and the perceived lack of relevance to the company concerned of the research itself. Fortunately this part of the study was not critical to the development of the hypothesis nor to the verification of the Quantitive data but rather would have proved useful in supporting or denying the validity of the perceived national stereotypes and added a degree of currency and actuality to this work. However the researcher was able complete one limited case study, hereafter referred to as Polyco and to talk informally to a number of senior executives both chief executives and heads of personnel of other companies and the information so gathered is included in the analysis.

As discussed in more detail later it is also necessary to look at what motivates an individual? A conscious decision has to be taken to proceed to a Higher or post graduate degree. Doing so, usually involves at least an additional further three years of study, which apart from the direct costs involved, carries an opportunity cost equal to at least three years of lost earnings. As we have seen there is a significant difference between the age of entry into the graduate labour market in Germany, and United Kingdom. Yet, students still seem prepared in Germany to effectively sacrifice, if that is the correct term, up to a total of 10 years, in comparison to their British counterparts, of earnings and practical experience to obtain a Doctorate. This being a combination of the later entry to university, the length of the First degree, on average 23 and 7.2 years (EI-Khawas, 1990 p42) respectively and the Doctorate on average 4-5 years (Enders, Bornmann 2001 p66) giving an average age on completion of 32 (Enders, Bornmann 2001 p71).

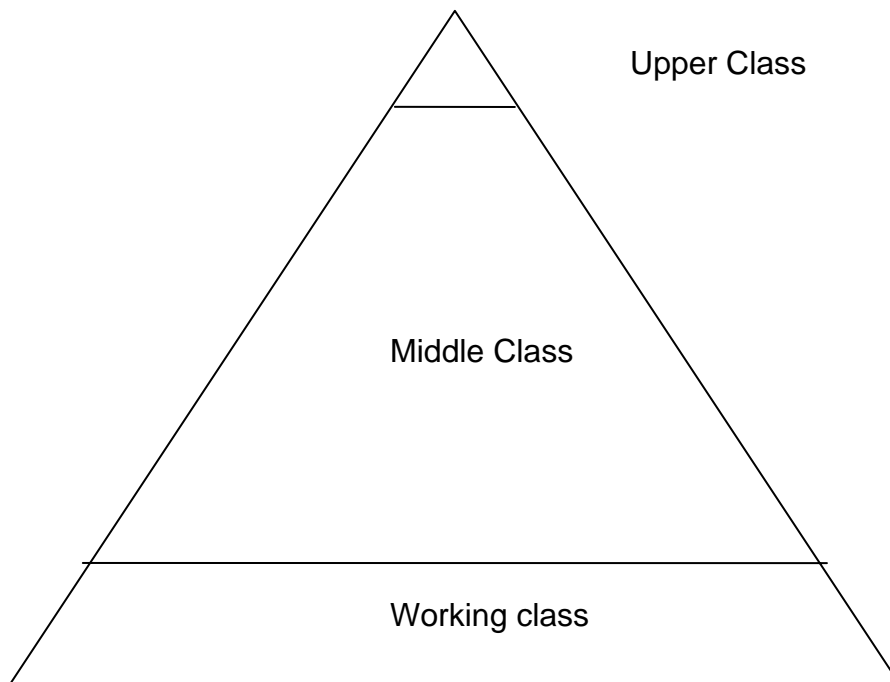
Data from Polyco indicates that young British graduates might expect to attain their first management positions aged around 30 and their first senior management positions some ten years later.

It is difficult to see, from a purely financial point of view, how German managers can hope to make up the ground they lose. That is if they can truly be said to lose any ground. If, as this research seems to indicate, a Doctorate is effectively an entry requirement to senior management in Germany the attainment of one is highly desirable if not essential to a career in German management. Failure to do so may mean a cap on employment prospects, career development and subsequently lifetime earnings.

Paradoxically as Wiener (1981p139) intimates being seen as “Too clever”, “Academic” or “Over qualified” by a potential employer may prove just as effective a barrier in the United Kingdom.

Although much of the recent material published does not directly address the research questions – as we have seen material published in German. Kraiss, B., (2001), Enders, J., Bornmann, L., (2001), Hartmann (1996) looks principally at questions of social origins or “class” and career progression and earnings according to discipline whilst material published in English concerns itself with “over qualification and job satisfaction. Johnson, G.J., Johnson, W.R., (2000) – it did prove possible to use the data provided to gain some insight into the topic under discussion.

Social class or Sozialherkunft is seen as one of the prime determinates of this study and although the concept of “class” will no doubt be familiar to the reader it is perhaps worthwhile reiterating that for the purposes of this study we are using the simplistic classical pyramidal model namely



overlaid with Runciman's (1990) as cited by Macionis and Plummer (1997) sub classifications

- Upper class
- Lower Upper class
- Upper middle class
- Lower middle class
- Skilled working class
- Unskilled working class
- Underclass

The some what artificial distinction between the first two relates to the possession of inherited wealth or old money rather than earned wealth or new money. In the eyes of the other classes both are probably seen as equally privileged

Similarly differentiations within the other classes are predicated mainly upon occupation and earnings. The writer believes that this conceptual model holds good for both Germany and the United Kingdom and indeed much of the work of Hartmann (1996) and Enders and Bornmann (2000) uses the occupation of an individual's father as the determinate of their originating social class. See Appendices 12 and 13.

Chapter 4: The Background

It may now seem a relatively straight forward exercise to establish by quantitative means the answer to the first question: are Top German Managers generally better qualified (academically) than their British counterparts? However, to examine this topic fully, it is necessary to have an understanding of the myriad of factors that may affect the answer to the second and third questions: Why?

For this reason this chapter looks broadly at the differences between the British and German milieu and the factors which might or might not prove to be of significance to this analysis. It does this by highlighting those areas of difference and briefly reviewing the pertinent literature. Those that the writer believes may be of particular pertinence are then examined in greater depth in chapter 6. For example there are significant differences in levels of productivity between Germany and the United Kingdom and these are discussed briefly in this chapter see 4.7. However these differences are unlikely to prove to be causal in the sense that as a result of these differences German managers are better qualified, academically than their British colleagues. Rather they may be said to be symptomatic, a result perhaps of Germany's more focussed approach to management or some other factors such as the higher level of academic and vocational qualification of the German workforce as a whole. Therefore although it is important to recognise that these differences do exist they are not included except by reference to them in Chapter 6 which attempts to concentrate on the analysis of potential causal factors identified during the examination of the background material.

For the sake of this analysis the researcher has chosen to differentiate such factors as either being “systemic” or “structural”, i.e. those relating to or resulting from the different systems of governance, both political and corporate, in force in the two countries or “socio-economic” or “cultural” in nature. A more detailed description of the categories and the rationale for this is also given in chapter 6. Clearly though there are interrelationships between the factors, seldom is there a distinct or categorical difference between them. They may each at the same time contain elements which may be said to belong in one or more of the categories chosen.

The differing levels of productivity, particularly in manufacturing industry, in the two countries have been the subject of much debate. For example in their paper “Why is labour productivity in the United Kingdom so low” Lovegrove, Harris, Lewis, Fidler, Mullings and Anthony (1998 p44-45) say *“In the mid-nineteenth century, the United Kingdom boasted the highest economic output per capita of any nation in the world, and its material standards of living were without equal. Ever since then, it has gradually lost ground. It now ranks bottom of the league of G7 countries, trailing the leader, the United States, by 30 percent. Despite the labour and capital market reforms of the past 20 years, output per capita in the market sector remains almost 40 percent behind that of the United States, and 20 percent behind that of West Germany. The root cause of this gap is low labour productivity.”* They also remark *“Conventional wisdom blames the United Kingdom’s underperformance on the limited educational attainment and low skill level of its workforce, the scale penalty of operating in a relatively small market, and the capital market pressures that make companies reluctant to invest in long-term productivity-enhancing technologies.*

Undoubtedly, these things play a part but our work shows that the real cause of the United Kingdom's low productivity can be traced to regulations that stifle competition and innovation in product markets."

The writer has some doubts about the conclusion drawn as, if anything, the UK market is, in many aspects, far less regulated than the German market. Also other factors affecting productivity may be found in the more "focussed" German approach to manufacturing, the significantly lower rates of labour turnover, the higher earnings of German workers, or the apparent willingness of German employees to accept discipline as witnessed by the generally wider "spans of control" – the ratio of supervisors to supervised - extant in German industry. The answer, if there is one, will surely contain elements that may be said to be systematic, socio-economic and cultural.

Increasingly other areas of debate are being raised in particular the relative ability to innovate and the willingness to take risk – entrepreneurship. Here Britain seems to fare better by comparison than Germany. The Agamus survey, see table 3, indicates that although not the most entrepreneurial of cultures at ninth on a list of thirteen countries surveyed the United Kingdom was significantly ahead of Germany, which was last.

As Wever & Allen (1992 p2) point out there seems to be a preoccupation in Germany with the past, the old traditional industries, such as coal and steel and mechanical and chemical engineering based businesses. They say, "*German managers seem to be more adept at presiding over the industrial behemoths of the past than producing the fast and agile high-tech organisations of the future, witness the absence of*

German companies at the top of important industries such as electronics, computers, and biotechnology.“

Kluge, Meffert and Stein (2000 p99) seem to support this saying “*Germany has one big weakness in building high-tech industries: a decade old entrepreneurial gap. Compared with Silicon Valley, where 73 percent of all companies with an annual sales of more than US\$ 50 million were established after 1985 the share of such companies in Munich and Stuttgart is only 17 and 20 percent respectively. Except for the software powerhouse SAP, no company founded in Germany since the early 1970s has become a global leader in a new technology.*”

This might be viewed as surprising by some; given Germany’s strengths in the natural sciences as witnessed by the number of Nobel prizes German scientists have won or the percentage of world patents awarded annually to Germany, see Table 7. It seems that German strengths today may lie more in design, implementation and realisation, i.e. actually producing things, and British strengths in the willingness to take risk, innovate and be entrepreneurial, i.e. producing ideas.

4.1 Differences in the way the respective economies are managed

Over recent years there has been considerable discussion about the relative merits of the British and German governments’ approach to managing their respective economies. In the preface to his book “The German Economy” Smith (1994 pxviii) identifies what he calls fundamental differences between the German government’s approach to “managing” the German economy the “*Sozialmarktwirtschaft*” (Social

Market Economy), and those taken by two of its most powerful, in economic terms, rivals, the United States and the United Kingdom. This he believes is evidenced by what he terms the “Anglo-Saxon” approach, exemplified by Reganism and Thatcherism,

He says “*These differences include the apparent lack in the US and UK models of any priorities on social policy, the hostility shown to trade unions, deregulation and (in Britain) the intensive privatisation of intact monopolies.*” He also maintains that economies like Germany’s (and Japan’s) which are “*geared to product innovation and technological change are far preferable to the Anglo-Saxon financial system which breeds hostile takeovers and short-term dividend maximization.*” Smith (1994 pxix)

These differences have an impact not only at the macroeconomic but also at the microeconomic level amongst other things it affects the way companies are managed and managers manage.

Siegfried (1994 p523-536) for example citing Pencavel believes there is some evidence that there is a link between an investment in higher education and economic growth although this is not always given the recognition that it might be. A recent OECD report also supports the proposition that there is a link between knowledge technology and economic growth. Bassanini, Scarpetta, and Visco, OECD (2000).

In Germany the social market economy seeks to balance the interests of the government industry and society at large. The achievement of this aim would appear to involve a substantial amount of direction and regulation. The employee’s

involvement in the management of a business is, for example, through works councils, mandated by law. Although theoretically non-union these works councils are tightly linked to Germany's organised labour movement and usually union activists are elected to them. Thelen as cited by Wever (1992 p3-4) tells us

“The councils and other joint labour management institutions make up a remarkable machine for producing consensus which helps German companies adapt to change. By allowing the German system to define external challenges in terms acceptable to all the stakeholders such institutions make it easier for interest groups to agree on strategies for change.”

Hence management / labour relationships in Germany are rarely confrontational.” He also maintains that economies like Germany's (and Japan's) which are

“Geared to product innovation and technological change are far preferable to the Anglo-Saxon financial system which breeds hostile takeovers and short-term dividend maximization.”

Some of these differences, may, to a certain extent, be explained by the way the Germans have decided to manage the German Economy. The German term “*Sozialmarktwirtschaft*” (Social Market Economy) which describes this and which is also sometimes referred to as “the middle way”, reflects the search for consensus that is an integral part of the German socio-political system that Katzenstein describes. Katzenstein, (1987), Schmidt, (1987)

Vogel says

“A nonstatist vision of communitarianism prevails in Germany today. Its practice is readily apparent in the framing rather than the directing role of the state in economic management, in labour relations, and in the rights and duties connected with collectivist versions of prosperity. By implication, this means that considerable power resides in the institutionalised, yet still private, sector: the organisations of entities such as banks and the Verbände (Trade Associations).” Lodge, Vogel (1987 p87).

It is, however, not the only factor. The way businesses are financed, the two tier structure of the management boards of companies, which are designed once again with checks and balances in mind, and the laws governing industrial relations and the rights of employees and trades unions are also important determinates as to how the system works.

Writing about the German economy and in particular employment and business legislation as it affects the behaviour of companies within the German economy Harding tells us that,

“German firms are constrained by the rigidities of the Mitbestimmungsrecht [co-determination law]. Which allows for equal representation at supervisory board level in the larger German companies ... but that co-determination is itself part of a complex triangle of corporation law including the Betriebsverfassungsgesetz [Works Constitution Act] and the Aktiengesetz [Shareholdings Act] which form the base of “Modell Deutschland [German Model]”. Thus equal representation combines with a complex shareholder proxy voting system and a relatively weak equity market to

favour long-termism and incremental rather than dynamic change." Harding, Paterson (2000 p101).

Harding uses the word *constrained* which whilst undeniably accurate seems in the writer's opinion to present the legislation in a somewhat negative context implying that were it not for this German companies might act differently. Whilst this might in fact be true the writer believes that most German managers if asked, given the national propensity for seeking consensus, would not view the current German employment legislation in a wholly negative light. It is part of a system of checks and balances from shop floor to boardroom which go a long way toward preventing the confrontational, not to say adversarial style of industrial relations management so often seen in the United Kingdom in the past.

In Germany the Sozialmarktwirtschaft [social market economy] does seek to balance the interests of the government, industry and society at large. The achievement of this aim would appear, almost inevitably, to involve a substantial amount of government direction and regulation. The employees' involvement in the management of a business is not only mandated by law at board level but, for example, through works councils also at the plant, departmental and shop floor levels. Although theoretically non-union these works councils are tightly linked to Germany's organised labour movement and usually union activists are elected to them.

Thelen as cited by Wever (1992 p3-4) supports this by saying

“The councils and other joint labour management institutions make up a remarkable machine for producing consensus which helps German companies adapt to change. By allowing the German system to define external challenges in terms acceptable to all the stakeholders such institutions make it easier for interest groups to agree on strategies for change.”

Hence management / labour relationships in Germany are rarely confrontational.

The concept of the social market economy doesn't only shape the relationship between German companies and unions it also helps to structure relationships among companies in the same industry or in the same geographical region.

Germany's cooperative labour management relations and strategic trade associations illustrate how the institutions of the social market economy help German companies cope with economic and technological change. Weaver (1992). Some of these trade associations such as the VDMS, VDA and VCI for example also exert considerable influence across a broad spectrum of activities both industrial and political. They help to establish the standards of behaviour with which their member companies are expected to comply and almost certainly, to some extent determine the stereotype against which future German managers are recruited. Membership of these associations is not necessarily always voluntary as in the United Kingdom but may be in some cases a regulatory requirement.

Wever and Allen believe that *“the German model is a distinctive form of capitalism based on the intentional blurring of boundaries between business and society, the*

private sphere and the public sphere, markets and politics.” And “that what often look like rigidities-constraints on managerial power at the level of the individual company turn out to be powerful sources of flexibility for the German economic system as a whole.” Weaver, Allen (1992 p3)

The increasing internationalisation and globalisation of business are now though beginning to increase the pressure for change. *“The German political economy has often been cited as a classical case of non-shareholder value orientation. Its protectionist, long-term, consensus orientation has often been contrasted with the “Anglo-Saxon” approach and the influence of shareholders who press for shareholder value and the importance of the German equity market has traditionally been low. There are some signs of change, however. The central pillars of the German system of corporate governance – the dominating role of banks, the system of co-determination and the company-centred management system are not crumbling. Change in the direction of shareholder value is therefore limited.”* So say Jürgens, Naumann and Rupp in an abstract from their article Shareholder value in an adverse environment: the German case, published in *Economy and Society* (Feb. 2000, Authors abstract).

In the writers opinion much of the pressure for change may well be coming from outside Germany itself, driven perhaps by the desire for self enrichment on the part of certain new entrants into Germany’s fledgling financial services sector which now includes a plethora of capital providers with experience of the US market. Their motives for bringing German companies to the “Market” by providing a public listing

of share capital or arranging acquisitions and mergers may have more to do with creating the opportunity for they themselves to make money rather than to do with any altruistic intent of enhancing shareholder value.

Having said this, the German Mittlestand consisting in the main of family owned or controlled, Simon (1996), companies which have provided much of Germany's economic dynamism are increasingly having to face the prospect, thanks to Germany's inheritance laws, of dilution of control as it passes to the current incumbents' siblings, children or other relatives. The only ways of avoiding this are, it seems, to raise cash to buy out these shareholders or to sell the company as a whole. An example of this is the recent sale of Wella, a world renowned producer of hair care products, to Proctor and Gamble, an American company, for several billion dollars by four groups related to the original family who had apparently been unable to resolve their differences.

4.2 Differences in the way business is funded

The very different way in which business is funded in the two countries also has a significant impact on what are, or might be seen to be the desirable attributes for a manager. The what Smith (1994) called the 'Anglo Saxon' model as evidenced in the conduct of business both the United Kingdom and to an even greater extent in the USA with its emphasis on short term performance does not sit well with the German concept of a 'Sozialmarktwirtschaft' [social market economy]. The way business is funded and the oft-interrelated ownership structure reflect this. Moreover the British

and American methods of equity funding provide a ready means for companies to offer significant financial incentives to their senior managers or to attract managers from other concerns which the German system currently does not. Similarly the active venture capital market provides an added impetus to potential entrepreneurs to strike out on their own. Individuals understandably recognise the importance of starting their careers as soon as they can and may tend to eschew the pursuit of higher degrees given the time that this would take and opt for a 'flying start'. Early success and establishment of an individual track record is often seen as one of the prerequisites for attracting the interest of potential investors. This attitude is to some extent, it seems, encouraged by often quoted and highly publicised success stories of such individuals as Bill Gates of Microsoft, Edgar Bronfmann Jr. of Seagrams, William Fraire of Federal Express or Michael Dell of Dell computers nearly all of whom have become at least multi-millionaires if not billionaires without the benefit of a degree or in Dell's case an MBA or Higher degree. McMenemy (1998), Taylor, McGugan (1995)

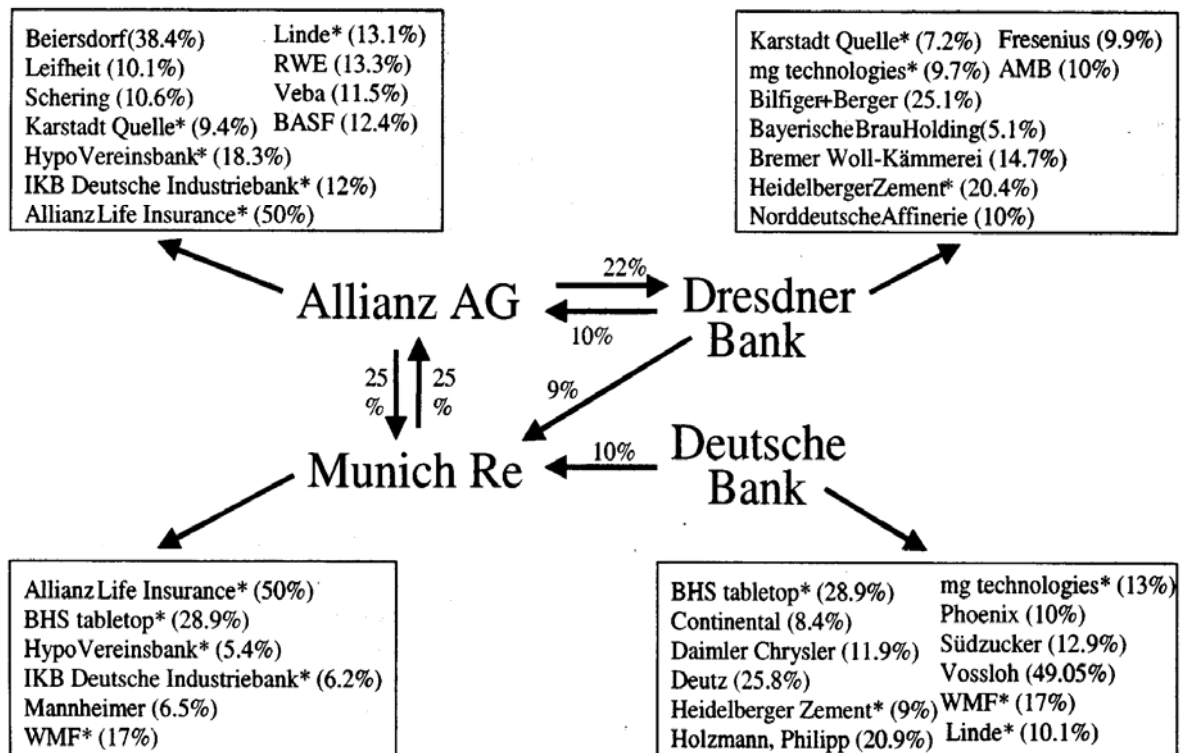
The structure of the German Banking and Financial Sectors themselves also has significant implications for corporate governance and the way business is funded. In Germany the "universal" banking principle applies – in effect this means that nearly all the banks, with the exception of the specialists, are in a position to provide a full range of both commercial and investment banking services even at a local level. This has affected the way German businesses are financed and owned. *"In effect bank loans far outranked stock issues as a source of capital for West-German industry"* (Dyas & Thanheiser (1976) as cited by Smith (1997)). Smith (1994) says that cross

holdings (Figure 1.) the Banks, Insurance Companies and to some extent Trades Unions for example holding equity positions in the major industrial concerns and vice versa in the non-financial sector are typical feature of the German scene. He sees this as critical – in 1989, these cross holdings amounted to 40% of total share capital compared to 17 percent in France and only 4% in the UK (Wirtschaftswoche 21/92). He points out that in comparison the influence of German pension funds and insurance companies is limited: they own only 2.7% of all shares compared to an equivalent holding of 54 percent in the United Kingdom. German industry has a relatively narrow equity base being to a large extent self-financing, relying on loan rather than equity capital to finance its growth and capital investments. The work of Hans Löff for the ZEW high lights these differences in the approach to funding by describing what he has identified as the two archetypal financial systems. The arms length (equity or market dominated) systems of which the United States and United Kingdom are the best examples and the relationship based (debt or bank dominated) system which is common to most European countries including Germany. He believes that comparison shows, depending on the measures used that the two Anglo-Saxon countries have 50 to 100% more equity financing than European countries operating in a relationship based financial market. Löff, (2003 p1). This may to some extent explain the lack of preoccupation with short-term profitability and dividend payments, which is of such concern to UK and US companies. It also, of course, offers a degree of protection against hostile takeovers. *“Foreign investors and this usually means the biggest sources of equity finance such as US and UK pension funds – demand a higher performance than the traditional German sources of corporate finance.”* Smith, (1994 p).

The banks have also had considerable influence over the composition and development of Germany's system of two level – Aufsichtsrat (Supervisory) and Vorstand (Management) boards of directors which are very different to that of publicly quoted companies in the United Kingdom. For example Lane as cited by Lightfoot (1992 p9) says the Aufsichtsrat or supervisory board is not chosen for its impartiality or its strict commitment to shareholder interests. Its membership frequently reflects the company's financial and commercial relationships and provides others stakeholders including employees with a voice in the company's direction and affairs. Indeed the two-tier governance system was actually created in the 1870s to give bankers an organ of control with which to oversee their investments. Effectively, banks control virtually half of German shares. Lightfoot, (1992 p10). An example of these cross holdings and their interrelationship is given in Figure 2. See below.

Figure 2

Exhibit 15: Cross-Shareholdings and Controlling Stakes by Germany's 4 Largest Financial Institutions in 2000
(in % of total voting rights)



Note: Table includes all large holdings, combining voting rights and ownership stakes, of less than 50% of the target company.

* denotes multiple listings in this exhibit

Source: Bundesaufsichtsamt für den Wertpapierhandel, www.bawe.de, Database of Voting Rights, May 15, 2000.

Of course much of what has been said is inevitably something of a generalisation.

The capital market in Germany is changing both as a result of the Basel I and Basel II agreements which of themselves require German bankers to reassess the risk involved in their loan portfolios, Gruert, Kleff, Norden and Weber (2002 p2) and the increasing availability of competing instruments from other sources provided by non German venture capitalists for example. However it will most probably take some

time for the full impact of these to be felt so it is unlikely that there will be any really measurable impact in the short term. It seems likely that start up companies and SME's in Germany will continue to encounter the same problems identifying suitable sources of finance in the near to medium term as they have in the past.

4.3 Differences in the systems of secondary education

The German educational system remains, by comparison to that of Britain innately conservative continuing to reflect many of the principals and reforms initiated by Humboldt in the early nineteenth century. In fact Hahn, (1998) characterises the year's 1949 to 1989 as a period of reluctant modernisation of the German educational system. Not the least of these principals centres itself around the concept of 'Bildung'. The German concepts of knowledge and Wissenschaft (Science) appear to be very different from the encyclopaedic, purely factual approach to knowledge which seems indicative of the British system. The German system seeks, apparently, to promote a holistic attitude rather than limit itself to the empiricism of factual accumulative learning. It searches instead for the epistemological order and for chronological coherence. Hahn, (1998. p113-4).

The current curriculum in the United Kingdom with its emphasis on a series of ongoing tests and examinations at various ages and a high degree of specialisation relatively early on in a child's education is very much more focussed, culminating as it does, at least for those students going on to University, with two years of study of a few, rarely more than three or four, specialised subjects. These subjects are likely to be directly relevant if not linked to the course of study the pupil wishes to undertake

at university. In fact most British universities define their requirements for entry to specific degree courses in terms of the actual A or AS subjects and the specific minimum grades which need to be achieved to qualify for admittance.

(Interestingly enough there now seems, at least if one listens to the media, an increasing call for a change in the system towards something more on the lines of or equivalent to the French Baccalaureate or the German Abitur which is described briefly below.)

In Germany on the other hand the equivalent university entrance qualification is the 'Abitur' which is likely to cover a wide range of subjects taken from the breadth of the curriculum, in fact the majority if not all of them. The 'Abitur' is usually taken between the ages of eighteen to twenty. Whilst it may be true that any individual 'Gymnasium' (Grammar or High school) may have a specific orientation or leaning towards a given area of study say science and mathematics or the liberal arts successful completion of the 'Abitur' requires the student to demonstrate competence, by examination, in all of the subjects offered by the syllabus. With the caveat of the 'numerus clausus' – the approximate equivalent of say the American grade point average, which has been introduced to restrict access to some courses of study, for example medicine and dentistry, which have been oversubscribed, the 'Abitur' guarantees the prospective student entrance to any course of study at any university in Germany. Some writers attribute some of the difference in the length of a typical degree course in Britain and Germany, typically three to four years as compared to five to seven years to the greater degree of preparedness in terms of directly relevant specialist knowledge

which British students are likely to bring to their course of study given that last two years of their schooling is likely to have concentrated on them. Their contention is that the first year or even two years of study at a German university may best be considered as the equivalent of some form of foundation course. Rodriguez,(1992 p14-16), whilst writing primarily about engineering education supports this saying that the technical competence of British and German graduates is roughly equivalent on completion of their degrees. This despite the difference in the time taken typically three years in the United Kingdom and five years in Germany, asserting that the actual time spent on the specialist or technical topic itself was much the same as the German universities had to cover in the first two years, that which a British student had all ready covered in his or her 'A' level syllabus. He did concede however that that the 'continentals' were likely to have a wider general knowledge background. Rodriguez did not cite any concrete evidence to support his assertions, however. The writer is somewhat at odds with Rodriguez's position tending rather to accept, the proposition that German First degrees (Diplom) are not, or should not, be considered the equivalent of British First degrees but rather are more properly compared to the British MSc. Prais, (1989 p77-8)

Another difference is that Germany, at least West Germany, has never really enthusiastically, despite some political pressure, accepted the concept of the 'Comprehensive' or 'Gesamtschule'. An attempt was made to implement a 'comprehensive' system of secondary and even tertiary education but primarily as a result of its innate conservatism the German system of education remains firmly based on the triumvirate of the 'Hauptschule' - the equivalent of the old British

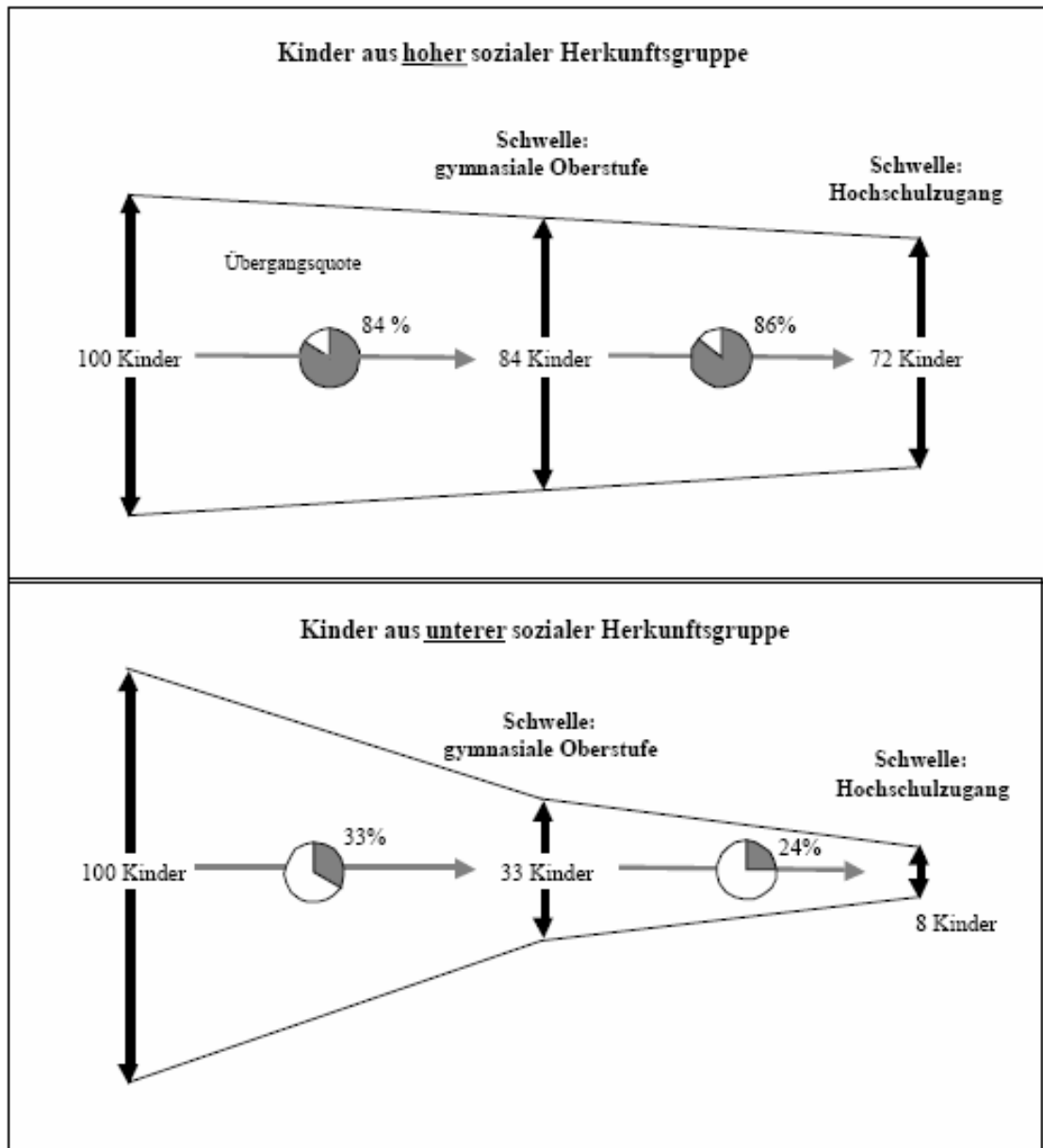
secondary school, the Realschule – the equivalent of the British technical or vocational school, and the ‘Gymnasium’ – the equivalent of the British grammar school.

Yet another significant difference is that within the decentralised German Federal system of government the responsibility for education lies with the individual ‘Länder’ or states rather than centrally with the Federal authorities. El-Khawas, (1990 p39-40), Hahn, (1998). The differing political persuasions of the Länder governments coupled with parent pressure may be one of the reasons why the ‘comprehensive’ experiment seems to have been effectively abandoned both at the secondary and university level.

It would appear then that the German system of secondary education presents students who have perhaps a broader knowledge base to its universities as compared to the British system. The British system on the other hand presents individuals with a knowledge base, which although it may be more limited in scope than the German, almost certainly has considerably more depth in the key topics upon which it is focused.

Both systems however seem to share at least one common factor that is that in both there is apparently a strong element of social selection. A very high proportion of pupils who do qualify for university entrance continue to come from the upper and upper middle classes. This can be clearly seen to be the case in Germany - see Figure 3 below and in the case of the United Kingdom deduced from Figure 9.

Figure 3 Bildungstrichter; Schematische Darstellung sozialer Selektion 1996 [Educational funnel: Schematic diagram of social selection]



Source: Indikatoren zur Ausbildung im Hochschulebereich, Egelin et al (2003) [Kinder = Children; Schwelle = Threshold; Herkunftsgruppe = Originating group or class; gymnasiale Oberstufe = Highschool entrance; Hochschulzugang = University entrance.]

4.4 Differences in the systems of Higher Education

Of the differences between the German and British systems of higher education one of the most obvious is the time taken to achieve a First degree but the routes to entrance, entrance requirements and subsequently age at entry are also different.

On average it takes a German student more than seven years to obtain a university degree El-Khawas, E., (1990 p42), add a Doctorate and we are looking at a 10 –12 year time span. The question of the Higher degree may appear to be a non sequitur – the writer doesn't believe it is. As most German students are at least 21 years old when entering University partly as the Abitur (roughly equivalent of 'A' levels or a US high school diploma in any event the German university entrance requirement) takes longer to complete and partly because Germany still has conscription in one form or another. Young men must either opt for a short term of service in the armed services or a somewhat longer term of 'Zivildienst' (service to the community) as for example an ambulance driver or carer, El-Khawas, E., (1990), Hahlen (1997). In fact the average age of students entering university was 21.4 years in 1980 and by 1995 it had reached 22.4 years. Age at graduation had risen from 27.1 years in 1980 to 28.4 years in 1995 this as compared to an average of around 24 in the United Kingdom, Hahlen (1997).

This means that the average length of their active career as a manager will almost certainly be significantly shorter than that of a comparable UK candidate by perhaps as much as 5 to 10 years.

It would be interesting to determine what influence this has on career development if any. Are British managers more likely to have changed employers for example? Or spent a longer time in any given position in an organisation? Or worked in a greater variety of functions (Sales, Manufacturing, Human Resources) than their German counterparts and if so what implication does this have for the business.

Does it affect their willingness to take risk for example? As can be seen from the work of Wever & Allen (1992) and Kluge, Meffert and Stein (2000) Germany seems to have done rather less well with regard to entrepreneurship and innovation than its global competitors.

Higher education in the Federal Republic of Germany encompasses 242 institutions including 61 universities and technical universities, 7 comprehensive universities, 52 specialised institutions (for teacher training, art, music, or theology), and 122 Fachhochschulen, which may be seen as the equivalents of British Polytechnics. These offer practice orientated programmes but do not confer Doctorates and a distance learning organisation – Fernuniversität – equivalent to the UK's Open University, El-Khawas (1990).

Basically, everyone in Germany who holds an upper-secondary school certificate (Abitur) is entitled to enter university in any subject, although Gellart (1996 p311) tells us that

“To some extent access to higher education is determined by social and political factors which may have little to do with the formal and academic requirements to study at a German university”

And de Rudder (1996 p569) that

“German grammar schools were generally highly selective. Traditionally they were the schools of the educated upper and middle classes.”

Certainly analysis shows that an overwhelming proportion of students come from the upper and upper middle classes, this is true both in Germany and the United Kingdom see Figure 8 for example.

This despite what appears to be or have been the declared policy of both governments to widen access to university education or at least make it more inclusive from a social class view point. All be it a policy which seems to have less currency in Germany today.

“In West Germany in the 1960’s and 70’s the widening of access (to higher education) was a major political issue.” De Rudder, (1999 p567). However since the 1960s the student body has grown from less than 300,000 to more than 2 million. Gellert, (1996 p 311).

“Today there is apparently no longer much of a political interest or an economic necessity to widen access to higher education beyond what it currently is. Better quality instead of higher quantity is now the issue..... Since about 1980 in Germany, there seems to be, on one hand, a contradiction between the explicit policy of

widening access and of keeping higher education open for all who qualify and, on the other hand, a hidden or de facto policy of limiting the number of places and of capping or even of reducing staff and funding.” de Rudder, (1999 p567).

Once again contrast this with the policy in the United Kingdom, which currently still seems to be where Germany was in the 1960s and 70s at least in terms of widening access.

There are a number of reasons for the apparent change in German policy but they seem to be primarily economic. As we have seen the student population has grown enormously and with it the costs to the system. *“The public debt of the Federal Republic, in 1960, (DM 26 billion) was below 3% of what it had become in 1997 (DM 906 billion). And at the same time the 1990s has been a period of slow economic growth, with no shortages and even a surplus of graduates (with the exception of a few specialist fields), meaning increasing graduate unemployment. De Rudder, (1999 p575).* This at a time when the costs of Reunification must have been putting considerable strain on the Federal budget.

Students in Germany are free to change university at any time, and they alone decide when to take the final exams. Gellart (1996 p311). Contrast this with the United Kingdom where the individual universities set the criteria for entrance, fairly strict time frames and examinations are set, transferable credits are not the norm and students are required to finance their studies themselves.

The most popular areas of study for German students, at least male students, appear to have been the more technologically based ones. Amongst the top ten (1995/6) were, for example, Elektronik / Elektrotechnik [Electronics and electrical engineering], Maschinenbau [Mechanical engineering], Bauingenieurwesen [Civil Engineering], Informatik [Computer science] and Economics. Around 35 to 45% of German students were opting for engineering or scientific degree courses in the mid eighties, a time when most current senior managers were probably graduating, although in recent years this has dropped to between some 20 to 30 percent.

In the United Kingdom by contrast the most popular areas of study were, by inference, Business and Administrative Studies (15.3%), Creative Art and Design (10.9%), Social Economic and Political Studies (9.8%), followed by Engineering and Technology (7.1%), Languages (6.0%) and the Physical Sciences (4.8%). HESA (2003).

We have seen that German society and polity by its very nature tends to limit or restrict change, nowhere does this appear to be truer than in the area of higher education. Although a number of attempts at change or modernisation have been made these have been received with little enthusiasm and proven, for the most part ineffective. *“An examination of the federal nature of education in the Federal Republic suggests that its constitutional framework was more of a bane than a blessing in hindering the impetus towards reform and that the individual committees charge with co-ordinating or modernizing the system have been – variously – unsuccessful in the implementation of fundamental reforms.”* Hahn, (1998 p117).

This being due, in part, to: *“an isolationist attitude stemming from a constitutional peculiarity that leaves education under the control of the individual Länder. It is important to note the marked contrast between the individual states, jealously guarding their autonomy, and the more progressive outward looking federal government”* Johannes, G., Schwarz, U., (1978), as cited by Hahn (1998 p177). With education under the control of the Länder authorities, teachers seldom move beyond their own region, in fact their qualifications may not be accepted in another of the federal states, so that certain insularity becomes almost unavoidable. Hahn, (1998 p170).

One example of this failure to achieve significant change is the

“Hochschulrahmengesetz” [Framework Law for Higher Education].

Hahn (1998) says, *“This was another example of reformist measures cut back in favour of traditional conservatism. It sought to rationalise the different forms of higher education, supporting the concept of a Gesamthochschule [comprehensive university], and also tried to introduce some norms, regulating the length of study for individual courses (Regelstudienzeit)”* for example.” *Support for Gesamthochschulen was half-hearted, finally resulting in the establishment of eleven such institutions with only a handful offering an integrated programme.”* Hahn, (1998 p128).

Of the eleven institutions founded during the period of reforms (1965 – 1975) only seven have survived as comprehensive universities. The other six consist of more or less independent university and non-university branches housed under the same roof. de Rudder, (1999 p574).

"Any attempt at a reduction of the study period failed altogether and still awaits resolution, based on a comprehensive restructuring of study programmes." Hahn, (1998 p128)

Another example that is relevant in so far as it affects access to higher education is the attempted reform of the secondary education sectors in particular the introduction of "Comprehensive" schools. This measure was designed in part to enhance equal opportunities and break down social barriers. *"However from the start, these reforms were accompanied by bitter political ideological controversies. The reform viewed the comprehensive schools as a replacement for the seemingly outdated tripartite school system. Although a fair number of school districts in large cities became more or less comprehensive, this new type of school never came close to replacing the old system. The majority of parents did not accept the idea!"* (De Rudder 1999 p573).

This is interesting in so far as it shows that the resistance to change comes not only from the "Establishment" but also from society as a whole.

Tjeldvoll, (2001) whilst essentially agreeing with de Rudder that the comprehensive experiment in Germany had been a failure believed that some benefits to the educational system as a whole did accrue by virtue of the additional focus on educational research in Germany and because each of the more traditional forms of school – the Hauptschule (Secondary school), the Realschule (Vocational school), and the Gymnasium (Grammar school) adopted some of the basic tenants of the comprehensive.

As interesting as the failure of these reform measures is, the apparent the success in reversing some of those reforms that had been successfully introduced. For example the reintroduction of the “Ordinarienuniversität” which brought with it the reintroduction of the re-establishment of the absolute authority of university professors which once again required an agreement by majority decision of full-time university professors before change could be effected in any matters relating to teaching, research and appointments, Etzold, (1997) as cited by Hahn, (1998 p179).

This reversal is perhaps indicative of the strength of the forces of conservatism in Germany and the reluctance to change.

There are however in the light of the Bologna initiative and the PISA studies some attempts being made to harmonize the European systems at least in so far as the mutual recognition of academic and other qualifications is concerned but one feels that these are aimed more at improving the mobility of labour and the cross border transfer of skills particularly those of qualified individuals rather than radical change of the system. Davis, Saunders (1997 p199).

It would be remiss to leave the topic of higher education in the context of senior managers without some specific reference to the MBA (Masters in Business Administration) which has in a very real sense become, in the United States and here in Great Britain, the key to entry to the higher levels of management. However a recent article in the economist tells us that, *“Germany has never warmed to American-style business education. Although plenty of Germans hold business degrees, these are mostly very different from the MBA.”* And that *“the MBA was not*

even recognised in Germany until the late 1990's. Even now amongst Germany graduates there are only about 1,600 MBA students each year compared with 13,000 in Britain, although things are now changing, albeit very slowly." "Germany's leerness owes much to the structure of its educational system. Until recently, a single masters degree – typically lasting at least 5 years – was the university standard. Only now is that changing as universities switch to a system that makes a short professional degree possible for the first time. But many university professors, especially the older ones, oppose this new system." The Economist (2002).

The arguments for or about the suitability or otherwise of the MBA as a meaningful qualification reflect the basic difference in approach to management that the Germans and British, not to forget the Americans have. An MBA – Masters of Business Administration - is supposedly indicative of an individuals' knowledge of the process of 'Management' and is in line with the, let us call it Anglo-Saxon, concept that a manager needs not necessarily know a great deal about the process which he is managing provided he possesses the requisite 'management' skills. This is perhaps why we sometimes find, in the UK, successful fashion retailers trying to run major health authorities, or a supermarket baron running the postal service. This is in direct contrast to the German approach that effectively says, it is essential that you understand that which you are trying to manage if you are to manage it successfully. This thesis does not support either approach exclusively as the writer believes there are certain merits to both approaches but there does seem to be a fairly clear or at least demonstrable polarization between the British and German views.

4.5 Differences in the systems of Vocational Education

There are significant differences between the British system of vocational education – apprenticeships and those of its European neighbours particularly Germany. Steedman, (2001) in her paper “Five Years of the Modern Apprenticeship Initiative: An Assessment against Continental European Models” describes these in great detail. Apart from systemic factors it is apparent that having successfully completed a recognised apprenticeship in Germany confers a certain “Status”. Steedman, (2001 p83). The German apprenticeship attracts young people as a result of a combination of both negative and positive incentives. One important negative incentive is the length of university degree courses and high drop-out rate in Germany which deters some of the more academic from applying to university and leads a substantial proportion to enter apprenticeship. The single most important positive incentive is the quasi-institutionalised and social recognition accorded to the apprenticeship qualification. Whatever the apprenticeship occupation, a completed apprenticeship confers a professional identity and consequent recognised social status. A further positive incentive to participation and completion is the restriction enshrined in many collective agreements that access to technician and ‘Meister’ status is open only to those who have completed the relevant apprenticeship. It is almost impossible to overstate the significance, of the “Meister” in Germany. Whether you are having your car serviced, your house painted or trying to sort out a problem on the production line your first port of call is likely to be the “Meister”.

In the Handwerk [artisan] sector, the certificate awarded upon the successful completion of an apprenticeship is a necessary condition for independent practice, and an apprenticeship followed by a period of full-time professional education is a recognised route to management in many industries. Nearly two-thirds of young Germans enter apprenticeships. A substantial proportion of all those with a Realschulabschluss [school-leaving qualification], roughly equivalent to the United Kingdoms five GCSE Grades A-C, choose an apprenticeship in Germany, whereas in the UK most of their counterparts might aim for university entrance. In Germany every apprenticeship leads to a recognised occupational qualification and the length of the apprenticeship training period for each occupation is fixed and specified by the relevant legislation. The specified period can be shortened in the case of entrants to apprenticeship who hold the Hochschulreife [Abitur] – university entrance qualification. However, the vast majority of those who enter apprenticeships follow the apprenticeship-training programme for three or more years. Many of the apprentices are, in fact, fulfilling the requirements of compulsory school attendance in force in their region. Anon, Bundesministerium für wirtschaftliche Angelegenheiten, (1998). As cited by Steedman, (2001 p77).

Modern Apprentices in the UK are currently required only to ‘work towards’ an NVQ qualification at Level 3, although to receive a final certificate of completion they must obtain the relevant NVQ 3 certificate and demonstrate competence in Key Skills. The NVQ is a checklist of occupational competences demonstrated and assessed in the workplace. Consequently, the UK apprenticeship has not, up to now, measured up to the requirements for separately taught and assessed technical and general education found in other European countries.

Germany makes systematic provision for the study of the career options available through the apprenticeship route. On the other hand, in British secondary schools there is no systematic provision for introducing students to career opportunities offered by an apprenticeship. Many employers in Germany will either have had direct experience of being an apprentice and will almost certainly have a substantial number of employees who have obtained an apprenticeship certificate. In Germany especially, the number of employers having direct experience of being an apprentice will not necessarily be confined to the smaller artisan-type firms. Apprenticeship, followed by full-time technical study is a recognised route into management in Germany. Indeed as we shall see a substantial proportion of senior managers, even those with Doctorates, will have also served an apprenticeship.

In Germany to have served an apprenticeship confers a certain social status and opens doors. It is extremely difficult, and may in fact in most circumstances be illegal, to ply a trade or open a restaurant or shop without having first successfully completed the appropriate apprenticeship.

This emphasis on vocational education is not a recent development. To quote Tom Peters *"The Germans are training fanatics. It's cultural not programmatic. One can trace the origins of this back five hundred years to the guilds that arose during the Middle Ages. Today's outcropping is the one hundred and fifty year old apprentice program, cited by many as the single most significant root of Germany's current economic success. Dowling, Albrecht (1991 p68).*

Unfortunately although the British system of apprenticeships and vocational training probably originated around the same time it cannot be said to have had a similarly beneficial effect on the British economy. A combination of 'Trades' Unionism rather than Industry unions and restrictive practices conspired to ensure this. In Britain the Trades Unions seemed to have used the concept of the 'Time served' journeyman to both limit the availability to the employers of certain key skills, the printing industry is a notorious example of this, and the flexibility between trades of which there are many apocryphal examples. Correlli Barnett, (1995 p16) in his book *The Lost Victory* writes most scathing about this and other issues. Citing *The History of the Ministry of Munitions*, vol. IV, part 1, p. 30 which says "*By the time of the Great War (1914 – 1918)according to the official history of the Ministry of Munitions the craft unions had built up a system of rules and customs, written and unwritten, which hampered production {such as} the limitation on the number of apprentices, the insistence that skilled men only should work certain machines, the restriction of output, the regulation of overtime, the exclusion of men and women who had not been initiated into the mysteries of the craft, {i.e. not served an apprenticeship}, the sharp demarcation between the operations proper to the various trades...*".

This then is perhaps one of the reasons why the investments required to provide a comprehensive system of vocational training, particularly those aspects associated with craft skills or apprenticeship training, have really never been made. Both employers and government apparently viewing the prospect with some degree of scepticism if not distrust and certainly not as an essential investment in the nations infrastructure which would help to ensure international competitiveness.

4.6 Differences in the approach to management

Although commonly grouped with Western capitalist organisations, German corporations operate in Germany within a system of corporate governance and labour law distinct from that of their Anglo-American and French counterparts, Lightfoot, R., Kester, W. (1992 p9). Although there are many reasons for this one of the most significant seems to be the way the Germans have chosen to manage their economy.

Almost inevitably then it follows that there will be differences, occasioned by both legislative and cultural factors, in the approach to management of British and German managers and the way they choose to actually manage. There is much evidence to support this contention. Lawrence and Edwards in their book *Management in Western Europe* cite Senior, Hofstede, Laurent and others saying that it has been possible to establish substantial differences in this regard between Britain and Germany. Lawrence, Senior, Smith, (1998), Lawrence, (1998), Lawrence, Edwards, (2000 p6).

In the preface to his book "The German Economy" Smith (1994) identifies what he calls fundamental differences between the German government's approach to "managing" the German economy and those taken by, as evidenced by what he terms the "Anglo-Saxon" approach exemplified by Reaganism and Thatcherism, two of its most powerful, in economic terms, rivals, the United States and the United Kingdom. He says

“These differences include the apparent lack in the US and UK models of any priorities on social policy, the hostility shown to trade unions, deregulation and (in Britain) the intensive privatisation of intact monopolies.”

He also maintains that economies like Germany’s (and Japan’s) which are *“geared to product innovation and technological change are far preferable to the Anglo-Saxon financial system which breeds hostile takeovers and short-term dividend maximization.”*

As we have seen some of these differences, may and almost certainly can, to a certain extent, be explained by the way the Germans have decided to manage the German economy. Some of these differences between the ways in which the German and British economies are managed have resulted in a considerable amount of power continuing to reside in the private yet apparently institutionalised sector which includes, for example the banks and trade associations. Lodge, Vogel, (1987 p87). This combination of power sharing and interlocking or inter related cross shareholdings or controlling stakes (see Figure 2) so prevalent in Germany helps to attenuate any merger and acquisition activity, at least that of a hostile nature, which so often seems to dominate the business scene in Britain. In Germany, as we have seen the social market economy seeks to balance the interests of the government industry and society at large. The achievement of this aim inevitably involves a substantial amount of direction and regulation.

As all ready remarked the very nature of the German social market economy [Sozialmarktwirtschaft] or at least the way it is managed tends to reinforce the

seemingly natural propensity, at least as identified by Hofstede and others, of German society exhibiting characteristics of a Collectivist rather than Individualistic nature, to seek consensus rather than confrontation. Hofstede (1980), Katzenstein, (1987), Schmidt (1987). Whilst not, perhaps, exhibiting this tendency to quite the same extent as the Japanese, Germans seem in this respect to be closer to them than to the so called Anglo-Saxons (ourselves or the Americans). See Tables 15 and 16.

The legislative frame work relating to both corporate governance and employment laws is also drawn in such a way as to encourage managers to seek consensus with all the stakeholders in their businesses, employees and shareholders for example, if at all possible. By installing what seems to be an effective set of checks and balances at least in so far as employer – employee relations are concerned the German polity may have, to a certain extent at least, relieved managers in Germany of one of what most British managers might at least up until the late 1980s have considered one of the most onerous of day to day management tasks, that of dealing with hostile, or combative Trades Unions operating from, what they perceived to be, a position of strength. Particularly with regard to issues such as demarcation a concept that most German managers and indeed employees would probably not even recognise.

Management / labour relationships in Germany are rarely confrontational. As we have seen there seems to be a desire to seek consensus at each step in the management process. Decisions are rarely made before all interested parties have

been consulted. This of course may in certain circumstances considerably lengthen the decision making process but it is unlikely in the extreme to suffer from problems, consequences and disruption might result from an abrupt withdrawal of labour. All in all the writer believes that as a result German managers are less likely than their British colleagues to consider that they spend too much of their time in this area.

All though we have highlighted it in this context the question of consensus of course is not solely related to industrial and employee relations, but extends throughout all the decision making processes the company.

Another area with which senior executives in Britain, probably to a greater extent than their German colleagues, have to concern themselves is shareholder and investor relations not to mention financial reporting. The writer himself was at one time the Chief Executive of a British public company and his experience indicates that up to one third to one half his time was spent on these and associated activities. All though we have been unable to find any concrete research relating to how British as opposed to German senior managers spend their time it would seem reasonable to expect that, as is oft surmised, German managers have far more time to consider product and technical matters than do their British counterparts. This is yet another area which seems to be worthy of some further research.

Most American managers it seems have a hard time making sense of Germany.

Wever, Allen, (1992 p2) *"It has a fraction of the resources and less than one-third of the population of the United States. Labour costs are higher, paid vacations are at least three times as long, and strong unions are deeply involved at all levels of*

business, from the local plant to the corporate boardroom. Yet German companies managed to produce internationally competitive products in key manufacturing sectors, making Germany the greatest competitive threat to the United States after Japan.” – They must be doing something right! Proponents of the use of the German model cite Germany’s labour management co-operation as a foundation of economic stability, extol the country’s extensive vocational educational system, and praise the patient capital of Germany’s financial system for giving companies the opportunity to focus on long-term strategic goals. Sceptics though question Germany’s staying power in a new and more competitive global economy. Cosy relationships among business, labour, and government, they say, mean that German workers are overpaid and overprotected. Wever, Allen, (1992 p2)

Wever and Allen believe that *“the German model is a distinctive form of capitalism based on the intentional blurring of boundaries between business and society, the private sphere and the public sphere, markets and politics.”* And *“that what often look like rigidities-constraints on managerial power at the level of the individual company turn out to be powerful sources of flexibility for the German economic system as a whole.”* Weaver, Allen (1992 p3).

The increasing internationalisation and globalisation of business are now though beginning to increase the pressure for change.

“The German political economy has often been cited as a classical case of non-shareholder value orientation. Its protectionist, long-term, consensus orientation has often been contrasted with the “Anglo-Saxon” approach. The influence of shareholders who press for shareholder value and the importance of the equity

market have traditionally been low". There are some signs of change, however the central pillars of the German system of corporate governance – the dominating role of banks, the system of co-determination and the company-centred management system are not crumbling. Change in the direction of shareholder value is therefore limited." So say Jürgens, Naumann and Rupp in an abstract from their article Shareholder value in an adverse environment: the German case published in Economy and Society (Feb. 2000 p54-84).

Irrespective of the differences in the approaches to management engendered by what might be termed systemic factors i.e. those resulting from differences in the political, legislative and or fiscal frameworks there is a fundamental difference in what might be termed the perception of the qualities required to be a senior manager. In the United Kingdom the emphasis is on the ability to "manage" rather than specific skills or knowledge directly related to the process being managed. Essentially the British (or Anglo-Saxon) approach is based on "Knowing how to manage" whilst the German approach is based on "Knowing what you manage". This difference is, the writer believes, fundamental to the question under discussion. Because of this it is discussed in greater depth later in this thesis – see chapters 6 and 7 but it is perhaps worth identifying once again one of our primary contentions here. This is that a PhD or Doctorate confers, at least in Germany but probably also to some extent in the United Kingdom, an aura of expertise in a given subject thus conferring on its holder a certain degree of status and authority. This is of course dependant, in a job context, to some extent on the actual degree but none the less the title alone seems in the general public's eyes to merit a certain deference.

This is particularly important in a credential society such as Germany. In Britain though, as we shall see, too much knowledge, particularly that of a technical nature, may well be viewed with some suspicion.

The MBA on the other hand which is so highly thought of in Britain and is viewed as perhaps 'the' qualification for senior or aspiring senior managers is accorded scant recognition in Germany.

4.7 Differences in productivity

As we have seen the differing levels of productivity, particularly in manufacturing industry, between the two countries have been the subject of much debate and although it is not the objective of this thesis to establish the causality between low productivity and the standards of vocational and higher education it is undoubtedly a factor which should be considered. It seems that the mainstream view among economists is that education is an investment in human capital that increases the productivity of both the individual and the society of which he or she is part. Indeed it would be surprising if this were not the case.

As already noted in their paper "Why is labour productivity in the United Kingdom so low" Lovegrove, et al (1998 p44) say

"In the mid-nineteenth century, the United Kingdom boasted the highest economic output per capita of any nation in the world, and its material standards of living were without equal. Ever since then, it has gradually lost ground. It now ranks bottom of the league of G7 countries, trailing the leader, the United States, by 30 percent.

Despite the labour and capital market reforms of the past 20 years, output per capita in the market sector remains almost 40 percent behind that of the United States, and 20 percent behind that of West Germany. The root cause of this gap is low labour productivity.” Although they attribute the major reasons for lower productivity to other factors including excessive regulation, an explanation which in the writer’s mind lacks a certain degree of plausibility given the much Higher degree of regulation in the German than the UK market, they also remark : -

“Conventional wisdom blames the United Kingdom’s underperformance on the limited educational attainment and low skill level of its workforce.” Lovegrove, Harris, Lewis, Fidler, Mullings and Anthony, (1998 p45).

Gaullec, D., and van Pottelsberghe (2001 p103) in their analysis for the OECD quote Solow, (1957); and Romer (1990) who suggest that *“anecdotal evidence points to technical change as the major source of productivity growth in the long term.”*

Is it unreasonable to link the more rapid acceptance of technological change and hence higher productivity to better trained, educated and technically oriented work forces and managements? Particularly in manufacturing industry where the possibility of a more informed dialogue between managers and workforce or managers and their Union representatives, as would more likely have been the case in the United Kingdom up until the fairly recent past, might lead to a more ready recognition for the need for such changes or at least a better understanding of them. Sibson makes much of this point in his book ‘Maximising Employee Productivity’. Sibson R. (1994).

German industrial productivity has, for the better part of this century, remained consistently ahead of Britain's. Today in comparison to Germany Britain has no effective manufacturing base. This can hardly be said to be the result of coincidence.

4.8 Entrepreneurship and Innovation

If there is one area where Germany does seem to do less well than the United Kingdom it is that of Entrepreneurship and Innovation. Germany appears to have had less success in this area. It would appear that Germany has at least one significant weakness in building high-tech industries: a decades-old entrepreneurial gap.

Compared with for example the so called Silicon Valley an area centred around Palo Alto in Southern California which has the reputation as one of the centres of high technology enterprise in the United States, where 73 percent of all companies that have annual sales of more than \$50 million were established after 1985, the share of such companies in the area of Munich and Stuttgart which might be considered roughly equivalent in Germany, is only 17 percent and 20 percent, respectively. It would appear that except for the software powerhouse SAP, itself effectively a spin off of the American giant IBM at least in the sense that it was started by a group of ex IBM employees. No company founded in Germany since the early 1970s has become a global leader in a new technology. Kluge, Meffert and Stein (2000 p99) However the UK's performance although better in some respects is hardly stellar. The UK ranks only sixth in the world for successful innovation, with the US in pole position followed by Canada. Croft, M. (1999 p2). The survey by Agamus Consult that Croft cites, indicates that although all countries feel under some pressure to

innovate the internal climate for them to do so varies considerably - see table 3, as does the degree of success they achieve - see table 4. Croft believes that the Agamus study supports the proposition that *“Whilst the British may be a nation of inventors they are less capable than other nationalities of transforming their inventions into successful new products and services.”* Croft (1999 p2).

Table 3

COUNTRIES RANKED BY PERCEIVED INNOVATION CLIMATE

Mean value

Netherlands	3.76
US	3.68
Japan	3.46
Canada	3.44
Denmark	3.42
Spain	3.20
Sweden	3.17
Italy	3.14
GB	3.12
Switzerland	2.95
France	2.92
Austria	2.76
Germany	2.58

Source: The Innovation Study by Agamus Consult

As we can see from Table 3, according to the Agamus survey, Germany apparently has the least conducive climate for innovation of all of those countries surveyed. This is also reflected to a certain extent in Germany's technology balance of payments

which continues to be significantly negative. This is indicative of Germany's net need to import technology for which it must pay in terms of licence fees and royalties (see appendix 14). Although in the table shown in this appendix the United Kingdom also shows a negative balance, all be it a smaller one than Germany's, it normally has a positive net balance 1995 being the first period in recent times where it has shown a deficient. Anon, OECD (1999).

It may perhaps be possible to draw on the results of Hofstede's work (1980, 1984, 1991), and that of Lawrence and Edwards's (2000) and by linking them to that of Ekvall (1997), see Table 5, reach the conclusion, although the linkage is somewhat tenuous, that it is really not so surprising that this should be so.

The individual characteristics of the German as opposed to those of the British manager as identified by Hofstede and Lawrence and Edwards particularly those which relate to the readiness to debate – the willingness to voice contentious arguments for example, take risks – uncertainty avoidance as Hofstede (1980, 1984) terms it, to act on new ideas without real fear of the consequences of failure, and freedom – the ability and willingness to act independently, all seem to line up both with what Hofstede would have us expect and the generally accepted stereotypes of British and German managers. Although if one looks at Table 4 one sees that according to Hofstede the only really significant difference between the British and the Germans appears to be this reluctance to take risk. In the other areas that he uses for his analysis the indices are fairly similar. The Power Distance factor, i.e., the acceptance or otherwise of direction or authority and that such power is not necessarily equally distributed throughout society, is at 35, identical in both Germany

and the UK. As one might perhaps expect individualism index is some what higher in Britain at 89, incidentally the highest of the 11 European Community countries studied, than Germany which is 67 but given that the lowest value is 27 seems to be indicative rather than significant. The final index Masculinity is the same in both countries.

Table 4: Comparison of Cultural Dimensions across 11 EC countries

Country	Power Distance	Uncertainty Avoidance	Individualism	Masculinity
Belgium	65	94	75	54
Britain	35	35	89	66
Denmark	18	23	74	16
Eire	28	35	70	68
France	68	86	71	43
Germany	35	65	67	66
Greece	60	112	35	70
Italy	50	75	76	70
Netherlands	38	53	80	14
Portugal	63	104	27	31
Spain	57	86	51	42

Source: Cultures and Organisations, Hofstede (1991).

Ekvall's (1997) work identifies what sort of factors he believes make for an innovative climate, (see Table 6). If we overlay these with the equivalent individual characteristics we can see that those attributable to German managers match those that Ekvall identifies as being less likely to be conducive to innovation and those

generally attributed to British managers as being more likely to be conducive to innovation. Although Ekvall is talking about 'climate' and Hofstede et al. about individuals there are perhaps parallels. After all an individual is shaped to a greater or lesser extent by the society in which they are born or find themselves. It would perhaps not be too much of a stretch to conclude that Germany does not furnish a climate as conducive to innovation as many other countries including the United Kingdom and that this is unlikely to change significantly, given that it reflects the attitudes of the majority of German managers, without some very significant outside impetus.

Table 5: Country rankings according to their corporate success rates

Rank	
	Canada 1
	Switzerland 2
	US 3
	GB 4
	Netherlands 5
	Austria 6
	Japan 7
	Germany 8
	Italy 9
	Spain 10
	Denmark 11
	Sweden 12
	France 13

Source: The Innovation Study by Agamus Consult

Table 6: Climate for innovation

Dimension	Creative climate	Uncreative climate
Freedom	Independent initiatives	Passive, rule bound
Dynamism	Excitedly busy	Boringly slow
Challenge	Enjoyable and energetic	Alienated and indifferent
Openness	Trusting, failure accepted	Suspicious, failure punished
Idea time	Off task play	Little off task play
Playfulness	Happy, humorous	Dull, serious
Conflicts	Debated with insight	Warfare
Support	People listen	Critical, negative comments
Debates	Contentious ideas voiced	Little questioning
Risk talking	Act on new ideas	Detail and committee bound

Source: Ekvall, 'The organisational culture of idea management: a creative climate for the management of ideas'.

It may be that the more “generalist” British rather than the more focussed German approach to management which we discussed earlier enables a broader view to be taken which is more conducive to innovation. Especially when coupled with the Germans Higher degree of aversion, as compared to the British, to risk. Hofstede, G., (1980, 1984) and hence failure. One must recognise of course that the German

propensity to small incremental improvements, see the figurative illustration given in Figure 4 on page 97, and the probability of relatively higher sunk costs associated with established manufacturing processes, may serve to reinforce this tendency to minimise risk. Once again we are not seeking to identify causality but merely to point out another factor, which may be influenced by the differing management stereotypes.

Paradoxically perhaps Germany has a seemingly much better record when it comes to patents and patent applications. Using data taken from OECD reports see tables 7, 8 and 9. One can see that companies or individuals within Germany applied to the European patent office for nearly five times as many patents as did those in Great Britain (Table 8) and on a world basis applicants in Germany are awarded some four times as many patents as those in the United Kingdom – 20% vs. 5.2 % of the world total in 1991 for example.

It may be that a great number of these patents apply to or are associated with incremental product or process improvements rather than completely new or innovative products or ideas or that the Germans are perhaps more willing to protect their intellectual property by way of patent than we are in the United Kingdom. Of course patents usually, although not always, tend to relate to things corporeal, specific products or processes for example. It may well be that the changing emphasis in Britain away from manufacturing industry to the service, and in particular the financial service industries has reduced the need to, or feasibility of, seeking patent protection. Whatever the reasons are the difference is striking and almost certainly worthy of some further research.

Table 7: Patent Applications with the European Patent Office by selected countries

COUNTRY	1982	1985	1988	1991
EUROPE	17 703	21 280	26 594	24 825
EC	13 313	18 012	22 890	21 527
France	2 632	3 357	4 257	4 353
Germany	6 313	8 567	10 763	10 163
United Kingdom	2 331	3 017	3 611	2 666
Italy	723	1 238	1 847	2 034
Other Western European countries	2 257	3 089	3 504	3 122
East European countries	131	179	200	177
NORTH AMERICA	7 622	11 100	13 695	13 081
Canada	239	377	512	383
FAR EAST	3 557	6 079	9 182	11 633
Japan	3 512	5 985	9 032	11 371
NICs	31	55	106	216
Other Far Eastern countries	14	38	45	46
CIS	1	11	88	191

Source: OST – EPAT bibliometric data

Table 8: Percentage of World Patents granted

COUNTRY	1982	1985	1988	1991
EUROPE	57.5	54.3	51.9	48.8
EC	48.7	46.0	45.5	42.3
France	9.6	8.6	8.5	8.6
Germany	23.1	21.9	21.4	20.0
United Kingdom	8.5	7.7	7.2	5.2
Italy	2.6	3.2	3.7	4.0
Other Western European countries	8.3	7.9	7.0	6.1
East European countries	0.5	0.5	0.4	0.3
NORTH AMERICA	27.9	27.4	26.2	25.0
Canada	0.9	1.0	1.0	0.8
FAR EAST	13.0	15.3	18.0	22.9
Japan	12.9	15.3	18.0	22.3
NICs	0.1	0.1	0.2	0.4
Other Far Eastern countries	0.1	0.1	0.1	0.1
CIS	0.1	0.0	0.2	0.4

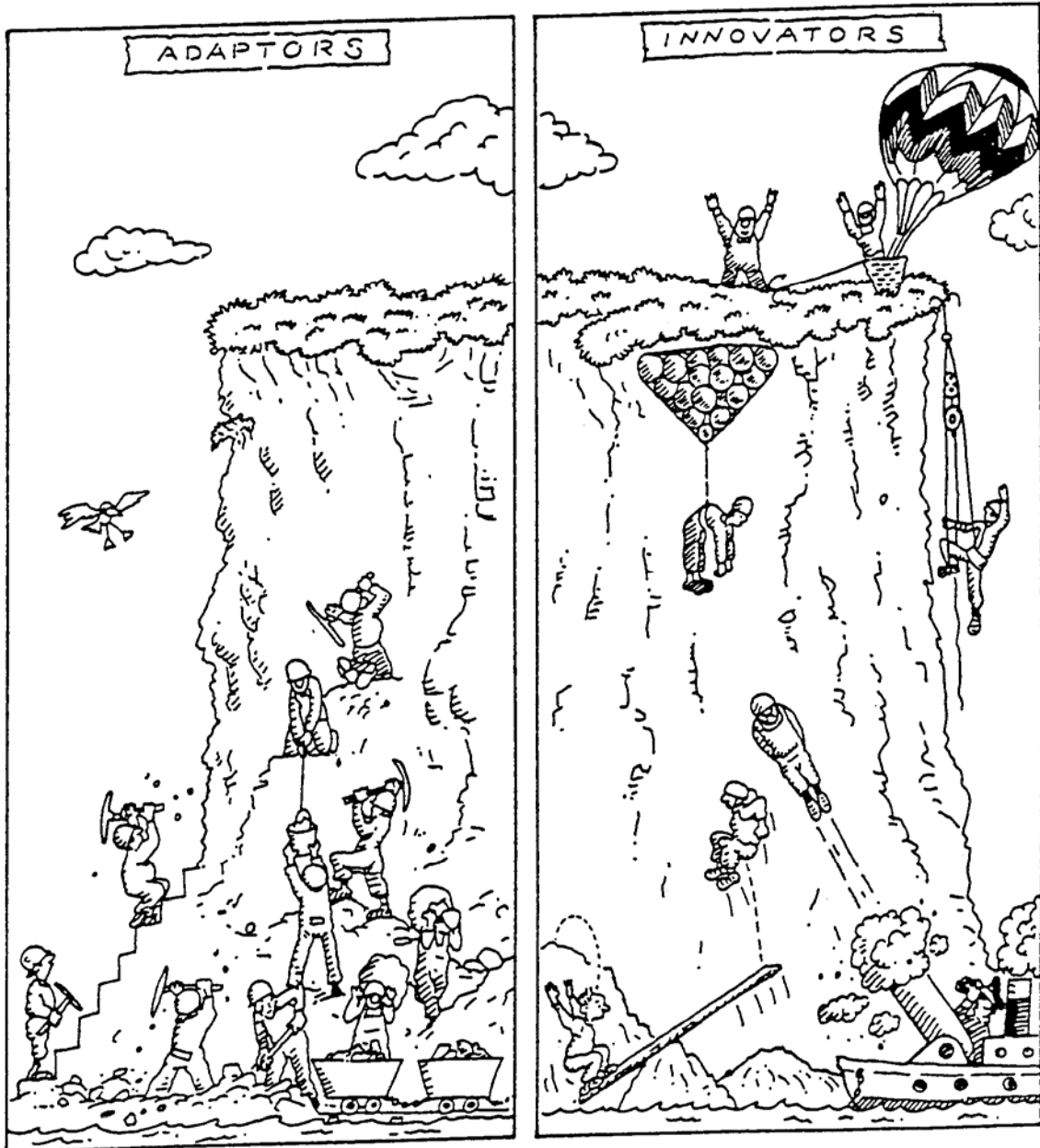
Source: OST – EPAT bibliometric data

The writer found the following illustration (Figure 3) helpful when trying to conceptualise the difference between the way German and British managers do things at least in the context of entrepreneurship and innovation. Although here we are using it in this specific context it might well be applicable to the more general overall frame of reference.

The drawing which, all be it with a certain amount of levity, purports to show 'adaptors' on the left with an image that the writer believes corresponds fairly closely to the most popular British stereotype of the Germans i.e. organised and disciplined and 'innovators', more typical, the writer believes, of the British stereotype i.e. somewhat eccentric and free thinking but ultimately successful on the right.

It seems to illustrate quite well visually the differences between the methodical step by step approach which most would probably not associate with entrepreneurialism and the somewhat more radical one, or at least one requiring perhaps a Higher degree of 'lateral thinking' as De Bono, (1990, 1993) would define it.

Figure 4



On the left as we have said we seem to have an apparently professional well planned well-resourced methodical step-by-step approach that many would agree to be

thought typical of the Germans. There seems little doubt that the end objective will eventually be reached. On the right we have the disparate, uncoordinated but seemingly imaginative if amateur attempts to resolve a problem or achieve a task which once again many might agree seems typically British. The goal has been achieved but whether in a manner which is repeatable seems open to question. Admittedly though this conceptualisation is, to a greater or lesser extent, based on the commonly accepted stereotypes of British and German managers and we can offer no evidence other than anecdotal that it reflects the true position. This is also an area worthy of further investigation.

The visualisation of the Adaptors as a team also raises, once again, the question of communications. For a team to function effectively it needs to be able to communicate. As discussed earlier in this thesis it is likely that the German systems of vocational and higher education facilitate communication between the various levels in an organisation.

In the United Kingdom many executives may have a non-technical background and may well be uncomfortable with the language and culture of technology managers. They may well also be under pressure to obtain results in the short term and this might conflict with the demands of technological developments, which are usually associated with longer-term competitiveness. Technology managers on the other hand may feel uncomfortable dealing with business issues because they are unfamiliar with the language, culture and strategy of business management. Berman, E., et al (1994 p60-61). This is less likely to be the case in Germany where as we have seen most managers are likely to have a technical or at least functionally

specific background. They are likely to have less of a problem dealing with the cultural and language barriers, which may potentially impede communication.

Thus far we have discussed innovation and not entrepreneurship. In many minds these might be considered synonymous but of course they are not. They do however share many of the same aspects. One does not necessarily require a new product to be a successful entrepreneur. Many of the most successful entrepreneurs have actually developed new or extended markets for existing products and services or alternate uses for them. Good examples of these are the low cost airlines such as Ryan Air and Easy jet, Body Shop the cosmetics retailer, and Direct Line insurance. None of these had a new product rather they repackaged existing products, tailored them to address new market segments and marketed them aggressively. This is entrepreneurship on a large scale but of course the process is happening on a much smaller scale even down to the individual level every day. Over the last decade or so there has been a growing realisation of the vital role small and medium sized enterprises (SME's) have to play in the development of a nation's economy. Howard (1990), McLarty, (1999 p103-112).

Governments tend to place great emphasis on entrepreneurial development at this level as the resulting SME's (small and medium sized enterprises) provide the opportunity for private sector employment growth. This despite the fact that infant mortality is so high and that few small firms actually survive, grow and increase employment. Storey, (1994 p113).

As we have pointed out many of the environmental factors and character or personality traits that are considered to be conducive to innovation are similarly likely to be conducive to entrepreneurship. The willingness to take risk is just one example. If we return to Ekvall's list (Table 5) we can see almost intuitively that attributes on the left listed as being conducive to innovation might equally apply to entrepreneurship. It seems to follow therefore that if the Germans as a whole are likely to be less innovative than the British then those same particular characteristics which cause this are likely to cause them to be less entrepreneurial as well.

In addition there are other factors of a more global economic nature which may be said to affect the degree of entrepreneurial activity. Evidence shows that, at least in the United Kingdom entrepreneurial activity is generally highest in the period immediately following an economic recession. The more successful an economy is in some respects the lower the propensity there is likely to be toward entrepreneurial activity. Howard, (1990), Storey, (1994).

According to Croft, (1999 p4), an increasing trend towards globalisation has resulted in an increased pressure to innovate. When asked respondents to his study indicated that they felt that overall the factor making the greatest contribution to a country's ability to innovate was it's educational standards whilst the factors most likely to hinder innovation were almost certain to be political in nature particularly government involvement in market activities.

As we have seen Germany may be said to benefit from the former having a relatively well educated populace but suffer in the latter respect from the relatively stringent not to say protectionist measures including legislation and regulation which control the start up of new companies and businesses. This is also reflected in the structure of

the German SME sector. Firstly there are fewer new business start ups in Germany than Britain. Germany has a lower number, 2.8 million, of small and medium sized enterprises than Britain but a substantial share of those that it does have are at the higher end of the scale in size and have at least 200 employees. Anon, Market Europe (1998). SME's have limited access to the recruitment market. Firstly they are limited in the amount they can pay in terms of compensation both directly and indirectly. This is particularly true in Germany where they do not yet have the same access to the capital markets and the various instruments such as stock option schemes which allow longer term capital appreciation and which can provide a significant incentive for potential employees. Also it is unlikely that they can in the eyes of some candidates provide the same opportunities for career progression as the larger companies. This is a particularly important consideration in a country where changing employers is not the norm. All of these factors combined would it seem to disadvantage the German SME sector.

This is another aspect which whilst perhaps not critical to this particular research is worthy of some further investigation.

4.9 Differences in culture

One of the first questions one should perhaps ask is “What do we mean by the term Culture?” Broadly speaking one can identify two competing definitions of the term, on the one hand ‘culture’ can be define as something that encapsulates all human social behaviour {what is often termed the anthropological approach} and on the other it can be defined as an abstraction of human behaviour {the artistic, or aesthetic approach} Grix (2002) citing Burns, (1995, p. 1). It can also be described as the shared values, beliefs, and behaviours that groups pass down from one generation to the next often across many generations.

To paraphrase Geert Hofstede (1980, 1984, 1987, 1993) one of the most influential writers on “Culture” in a management and a trans-national context, culture can be defined as “The software of the mind.” In this research we intend to use the term “culture” as Hofstede describes it in the wider sense, which encompasses the differences in the way which people act, react and interact (the anthropological approach) rather than in the narrow sense of culture as the arts, scholarship, and civilisation (the aesthetic approach). People from different cultural backgrounds act and react differently. They have been, unwittingly perhaps, programmed to do so. Hofstede writing in Management in Western Europe, Hickson, D. (1993 p5-6) uses the example of language to support this proposition. He says

“The stubbornness of cultural differences can be understood if we realise that mental programming manifests itself at different levels, some of them superficial, others much deeper. Research indicates that values are acquired early in life, reinforced by social systems, and are very resistant to change in an adult”. For this reason, values

tend to be transferred from generation to generation, and so do the differences in values dominant in one country or region as compared with another. In the same way as an individual's values are formed early in life, a society's values are also formed early in its history, and that is probably why the long shadow of the Roman Empire is still visible in our twentieth-century research data, more so than that of more recent political events.

The survival of cultural differences is maybe less surprising if we remember the survival of language differences. The 12 countries of the EC, in addition to their 10 official languages, host another 10 minority languages (such as Frisian, Welsh, Basque, Catalan), making a total of 20. Language is the vehicle of culture, and it is an obstinate vehicle: any particular language shows a preference or certain trains of thought. If the diffusion of European civilization has not eradicated language differences, why should it have eradicated culture differences?" Hickson, D. (1993 p5-6)

If there are significant differences between the stereotypes of the typical British and German senior managers it seems inevitable that the reasons for these differences will to a greater or lesser extent be culturally grounded. If, as seems likely, British and German societies have different value sets this will be reflected in the profiles of those who become managers, the way they manage, and their status in society. We have for example already commented on the British antipathy toward industry and "Trade" in general (Wiener, M., 1981). This is supported by Tayeb, M., also writing in *Management in Western Europe* Hickson, D., (1993 p57), who says

“the English display little love of business. This may be traced to the English educational system and its dominant values and priorities. A major feature of the English educational institutions is their greater emphasis on arts and classics and the relatively low priority given to engineering and technology. This, as many writers have pointed out, betrays a significant influence of middle-class values in which arts subjects are still favoured, relatively speaking, and anything concerning industry and technology is disdained (see for instance, Barnett 1972; Jamieson 1980; Wiener 1981; Roderick and Stephens 1981). Moreover, it is still not clear whether those with the best education want to go into business. In 1979 the proportion of new graduates from Cambridge University going into “industry”, a category, which includes manufacturing, civil engineering and some services, but not the City or banking, was 16 per cent. By 1988 it had fallen to 9 per cent. On the other hand, the proportion going into “commerce”, which includes stock broking, other financial services, advertising and management consultancy, rose from 8 per cent to 13 per cent, probably partly at industry’s expense. Nevertheless, the combined total dropped from 24 per cent to 22 per cent. The picture is much the same using the figures for all university graduates (The Economist 1989).” Tayeb, M.,(1993 p57). As cited by Hickson, D. (1993) in his book Management in Western Europe.

It would appear then that the “brightest” and the “best” are unlikely to choose a career path in Industrial Management.

Germany though appears to present another picture. Many directors of the larger German companies have Doctorates. Handy *et al.* (1988: 136). In the case of

Siemens, no less than 14 out of 20 main board members have such titles, although lawyers it seems are increasingly taking top positions from scientists. Hickson, D., (1993 p95) citing The Financial Times (15th April, 1991). It seems the larger the company the more likely are board members to have Doctorates. Grätz (1997) says that 69.9% of the board members of Germany's top 100 companies have Doctorates and 56% of the managing directors. (See table 12). Drees's estimate of 68.2% would seem to correlate fairly closely to Grätz's. Drees (1995).

The highest density of technically qualified managers including Doctorates is, perhaps not surprisingly, in the chemical industry. Over 70% of top managers in this sector have Doctorates, followed closely and perhaps surprisingly by the banking industry with 64%. Interestingly enough given what we have said about degree specificity matching job specificity being the general rule many of those in Banking have doctorates in either Law or Economics. Both of these are it seems deemed relevant to Banking. The lowest concentrations of doctorates are found in the retail - 18% and electronics industries – 30%. Hartmann,(1996 p54).

The latter being perhaps in the writers opinion the exception which proves the rule or an indication of the changes taking place. There has been a shortage of graduates with relevant degrees, particularly computer science, available to the electronic sector so there has been an enhanced demand for their services. This coupled with the rapid growth of the sector and the high number of companies providing the commensurate opportunity for career development or even equity participation may have encouraged some graduates, rather than completing a doctorate, to enter industry at the earliest opportunity.

With regard to First degrees, two in three German managers have such qualifications, a similar level as in France, and twice as high as in the U.K (Handy 1987 p1).

Our review of what some might identify, as the “soft” issues would be incomplete without some discussion of what actually motivates individuals. There is an enormous body of literature on this topic which as can be seen from Figure 4 has been the subject of much research. In the cultural context the researcher is drawn to Maslow’s hierarchy of needs. After the basic physiological needs are met the next are safety, the need to belong and esteem all of which seem consistent with the arguments presented in this thesis. The desire to “belong” encourages conformity with cultural norms and that, which is esteemed in one society, or culture may not be in another as witness Wiener (1986), Collins (1979).

The United Kingdom may be seen to have the attributes of an ‘Individualistic’ society whilst Germany more closely resembles the ‘Collectiveness’ norm. (See Figure 16).

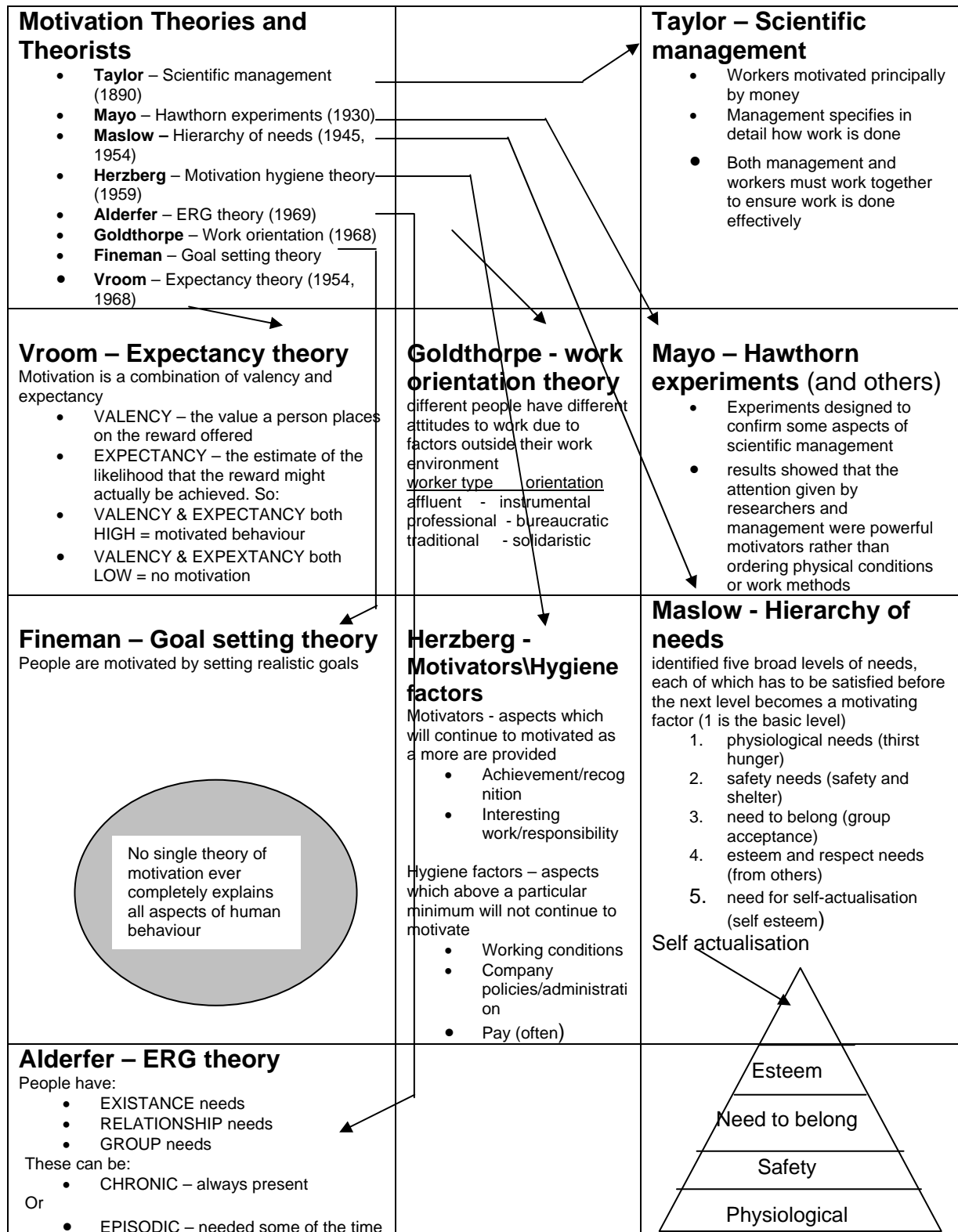
As a result there is perhaps greater pressure on the individual to conform to the accepted stereotype of a German manager if they are to be accepted into what one might define as an elite group. This is particularly true because the ‘Gate keepers’ who control entry into this group by selection and promotion are likely themselves to be members who with a very high degree of probability already conform to it.

Chen, Peng and Saporito, (2002 p571). Raise the subject of what they term ‘continuous enculturation’ the process by which cultural values and norms are transferred across generations from the old to the new by both formal and informal means including education. They maintain that this cultural pre conditioning results in

relative stability. i.e. any changes which may occur do so, barring a truly catastrophic event, very slowly. Hofstede, (1993) in a recent work said that a study of three technically identical subsidiaries of an international French company showed that the management processes at the shop floor level were substantially different in each case because managers and employees in each country appeared to be governed by traditions dating back some two centuries. Technological innovations did not it seems alter the import of these traditions. He felt the implication was that whilst technology may alter some practices many others are deeply rooted in the cultural values embedded in the surrounding society and just as Chen, Peng and Saporito (2002) that they are transferred from generation to generation.

So although we have attempted to categorise the factors which might possibly have influenced the development of the current, what may be described using a very broad brush, almost bi-polar academic vs. non academic management populations in Germany and Britain as systemic, such as those identified in 3.1 to 3.4, and socio-economic such as those identified in 3.5 to 3.9 there seems little doubt that they are all also influenced in one way or another by long standing cultural imperatives less easy to define but no less significant.

Figure 5: Summary outline of motivation theories and theorists



Source: Mullins J., Management & organisational behaviour 5th Edition P. 438

Chapter 5: The Outcomes

5.1 Quantitative

The data gathered during the course of this research certainly seems to clearly support the proposition that German managers are academically generally better qualified than their British counterparts. This despite the fact that according to government statistics many more degrees, both as a result of full and part time study were awarded in the United Kingdom than in Germany. In 2000/2001 for example just over five hundred thousand (504,400) degrees were awarded in Britain as opposed to just over two hundred thousand in (208,123) in Germany. When looking at this statistic one must of course remember that there is really no equivalent of the British 'bachelors' degree in Germany. The German 'Diplom' is probably more properly equated with a British Masters degree, Prais, (1989 p79), certainly from the view of the time taken to complete. By comparison just over eighty thousand (86,530) 'Higher' degrees were awarded in the UK. This lines up fairly well with Prais's estimate which was that if only half of the German students being awarded a 'Diplom' were actually to reach a standard equivalent to a British MSc, and the writer believes a significantly higher proportion do, then this would correspond with well over double the number of German students as compared to British students achieving this level.

If one looks at Doctorates rather than First degrees though, the position appears to be reversed with over twenty five thousand (25,780) Doctorates being awarded in

Germany as compared to just over fourteen thousand (14,110) in the United Kingdom. A substantial proportion, around one third, (35.5%) of those Doctorates awarded in Britain was to individuals not normally domiciled in the United Kingdom. Only a very small proportion, (7.5%), of those receiving Doctorates in Germany were not normally domiciled there. This is important in so far as we are considering, in this thesis, the management population of both countries. It is not unreasonable to expect that a substantial number of these 'foreign' students will return to their countries of origin, although this in itself is worthy of further investigation, and be lost to the respective British and German management recruitment streams. Proportionately almost three times as many Doctorates are awarded annually to Germans in Germany as to British nationals in Great Britain. Even when taking into account the relative populations, around fifty nine million in the United Kingdom and eighty three million in Germany this is still a very significant difference. Adjusted for the population differences this implies 0.015 per 100 of population in Britain as opposed to 0.030 per 100 of population in Germany, i.e. twice as many. Simplistically then one might perhaps expect therefore twice as many German managers to have Doctorates as compared to their British counterparts. This however is not the case.

By reference to data from the LAE and BfB/IAB we were able to establish that at a minimum German senior managers, in companies with more than 1000 employees, were almost ten times more likely to have a Doctorate than their British equivalents, (9.0% vs. < 1.0%) and in the larger companies fifty or sixty times more likely.

Comparison at 1st degree level is more difficult as we have said the German First degree could be said to be more properly the equivalent of a British Masters level

than a Bachelors degree. Depending on the criteria used between 15 and 35% of British senior managers appear to have equivalent degrees whilst this is true of over 53% of their German colleagues. The Handy Report (1987) cited data indicating that 24% of British managers as opposed to 62% of German managers had degrees a factor of nearly three to one in favour of the Germans. Eberwein, (1993) confirmed that over 80% of German managers in his sample had an academic qualification whilst significantly less than 50% of the British managers had more than the equivalent of A Levels. On this basis it is probably fair to say that German managers are twice as likely to have a higher academic qualification as their British counterparts. In the boardroom the difference becomes even more apparent with around 70% of the directors of Germany's top100 companies having Doctorates. Graetz, (1997) whilst in the United Kingdom our analysis of the available data indicated this was true of almost certainly less than 3% and probably less than 1% of directors. Martin Drees writing in Der Karriereberater [Career Advisor] says *"Sicherlich gibt es in der deutschen Wirtschaft lebende Beweise dafür das es auch ohne Dokortitel möglich ist eine blendende Karriere zu machen. Dennoch steht fest: In Deutschland nimmt die Chance in Führungsebenen vorzudringen, mit einer Promotion überproportional zu. Über ein Drittle der Vorstandsmitglieder mittelgroßer Aktiengesellschaften tragen einen Doktorhut, und im Top-Management von Großkonzernen sind sogar 68.2% Promovierte zu finden"* Drees(1995). [Of course there are many examples, which show that it is possible to make an outstanding career in German business but it's still true that the chances of breaking into the management level in Germany increase disproportionately if one has a doctorate. One third of all board members in middle sized publicly quoted companies wear a

doctor's hat and in the Top management from large companies one can find 68.2% of the incumbents with doctorates.]

Perhaps more importantly nearly 50% of those German managers or directors will have also served and completed some form of recognised apprenticeship.

In this context it is interesting to note that in their demographic data the LAE categorizes both Doctorates and apprenticeships under the heading "Vocational Qualifications". This serves to underline how different a view the Germans take of vocational education both in terms of its place within the German system of education and the status it confers.

Some of this difference in terms of graduate managers may be accounted for by the differing career opportunities available to candidates in the two countries in particular the option to follow a "Profession" available in the United Kingdom but not, in this particular sense, in Germany. Wiener (1986) makes much of the development of the concept of a "Profession" in Britain during the early to mid 19th Century, a topic we will return to in chapter 6. This it seems is particularly true with regard to Finance and the Law. Many British managers have chosen to qualify first as accountants and subsequently to migrate from the accountancy specialisation ('profession') into management. Some of these may well have also attended university and attained a Bachelors degree but a substantial majority of the current population of senior managers so qualified will have entered the profession directly following the traditional route of an articled clerk. The same is true of those who may have chosen the law as a profession although this is now changing. Graduate entry although not necessarily with a relevant law or finance degree is, or has now become, the

recognised means of entry to the legal and accountancy “professions”. For example, a study for the Law Society undertaken by Punt, T., Cole, W., (1999) shows that whilst the vast majority of solicitors, as many as eight out of ten, now have degrees, this is true of only around one half of solicitors aged 55 or more. These having been admitted by the traditional route referred to at a time when a degree was not an essential requirement for entry. Discussions and correspondence with the Law Society, Chittenden, T., (2003), Rolf, Anderson, (2002) indicate that although no formal analysis has been made by the society, it would be very unusual for a solicitor in the United Kingdom to have a Doctorate.

Although other “professions” or “professional” institutes with their degree equivalent qualifications are also a factor, law and accountancy are particularly relevant to this study as a significant number of practitioners end up in management. For example the Handy and Constable reports highlighted the apparent vast disparity in the number of accountants employed in Germany (3,800) and the United Kingdom (120,000) at the time.

As the total population of managers in our sample is relatively small i.e. UK: Managers 3,868,000 thereof senior managers 110,000 (DfES estimates from the Labour Force Survey, autumn 2001) and Germany Managers 2,145,000 thereof senior managers 225,000 (LAE 2001) this “professional” aspect may have some importance. However given that the analysis shows at least an order of magnitude difference between those managers and several orders of magnitude of directors qualified at doctoral level in the two countries it is unlikely that any impact this might have would have significantly changed the conclusions reached by this research.

5.2 Qualitative

In the interests of confidentiality the individuals and companies concerned are described in general rather than specific terms so that the data disclosed is not directly attributable to the source. If for some reason disclosure is required the companies may be prepared to allow this subject their approval on a case-by-case basis and to the provision a formal non-disclosure agreement.

5.2.1 Case study 1 – Manufacturing industry – United Kingdom

The company referred to hereafter, as Polyco is a substantial division of a UK based industrial holding company with annual sales of over £ 3 billion per year. The interview was conducted with Polyco's Director of Human Resources, one of a triumvirate team of senior managers consisting of himself, the director of finance and the chief executive. Polyco itself has sales of £375 million. The parent employs some 33,300 people worldwide and Polyco itself 6,300. The group's products can, for convenience, be described as relatively high technology industrial components for the aerospace, automotive and medical equipment sectors. It is an International rather than Global concern based and listed in the United Kingdom with operations world wide principally in the UK and USA.

Polyco prides itself as being a "Solution" provider to its customers and considers itself a technology led concern with an extensive research and

development and customer support capability. It is currently profitable and growing.

Of Polyco's UK work force of some 4800 some 5% or 200 - 300 might be classified as "Managers" i.e. indirect employees with a degree of supervisory responsibility. Of these only between 10 and 5% or less might be described as "senior" managers; i.e. individuals responsible for complete functions or departments within the organisation who contribute significantly to the company's policy and decision-making processes.

Although a substantial number, perhaps as many as 80%, of those in management are likely to have a university degree they are unlikely to have a Postgraduate degree, almost certainly less than 20% and very unlikely to have a Doctorate certainly less than 1%.

They are likely to have first entered management aged 30 and senior management aged 40.

Polyco does not have a clearly defined, formal (written) management recruitment policy, although it does have an informal graduate recruitment policy. This consists of recruiting individual graduates who may actually have higher qualifications than the immediate position requires and coping with potential lack of initial "job satisfaction" by paying somewhat higher salaries than might normally be considered competitive.

Neither does the company have a clearly defined management policy.

Although it does attempt to identify potential "High flyers" for advancement, it does not practice career planning or job rotation.

The criteria for promotion or advancement are almost entirely performance based. A track record showing consistent achievement of financial results and the achievement of targets for profit, cash flow, top line growth and asset management is considered essential. Polyco sees itself as a performance driven business.

The researcher posed the question⁴ 2

“How important to career development do you personally consider?”

- a) Academic qualifications
- b) Vocational qualifications
- c) Professional qualifications

The response indicated that 1st degrees were now considered the base entry qualification for potential managers and that about 50% of managers would have degrees of some sort although not necessarily directly relevant to the specific function they would be performing or managing. Vocational and professional qualifications with the exception of those for accountants, which were considered essential, were considered unimportant.

The question was then re-phrased with a different emphasis. It asked did the company consider them important. The response was almost identical although it was emphasised that the company would not employ any one in a financial management capacity who did not have the appropriate professional qualification. This could be for example membership of the Institute of Chartered Accountants.

⁴ see appendix A5 Semis structured interview framework - English

Interestingly though it was stressed that it was company policy that academic or professional qualifications were not to be used overtly, either internally or externally, and for example that no qualification of any sort should appear on an individual's business card or in company correspondence. When asked why this should be so the respondent could offer no cogent reason other than "it was the policy". When pressed the respondent ventured the opinion that a significant proportion of the parent company's business, more than half, was in the United States where it was also common business practice to avoid the use of academic qualifications but that in any event he felt uncomfortable with the idea of doing so. It was he thought slightly non-British.

When asked to venture an opinion as to the relevance of the research and to offer an explanation for the lack of emphasis on higher academic qualifications within his organisation the respondent said that he felt that this diffidence with regard to academic attainment was not unusual. It was certainly true of the other groups within the holding company and as far as he was aware fairly common throughout British industry. He offered the explanation that cultural issues were probably the root cause citing from his own experience the differences between the British and German subsidiaries within his own holding company in this regard.

In Germany, he said, academic titles were almost always used particularly when the individual concerned held a Doctorate. He felt that the research itself was interesting identifying as it did highlight some differences that he

was at best subconsciously aware of but doubted that any of the outcomes were likely to have any direct applicability to Polyco.

5.2.2 Synopsis of conversations with German managers

The researcher managed to discuss the topic which is the subject of this thesis informally with managers from three German companies, two from larger companies, both members of Germany's top one hundred in terms of size and one from a medium sized company (employing a work force of some eight hundred individuals). One of the larger companies was involved in the development and subsequent sale of software primarily associated with management information systems and the other with the development and manufacture of principally automotive components but also white and brown goods. The third company was also involved in the automotive industry designing and manufacturing electronic and other sensors. These conversations did not have the rigour of formal case studies but did serve to give some anecdotal insight into attitudes.

Firstly there was general consensus that a 'Dokortitel' (Doctorate) conferred considerable status both in business but more particularly in German society. However there was little agreement regarding the value of a Doctorate in business. Managers in the larger manufacturing company, which incidentally sponsors some eighty doctoral candidates a year, felt that a manager was very unlikely to reach the very highest levels, for example

product division or plant manager, within their company unless he was in possession of a Doctorate and that it would be almost impossible to do so without a Diplom (equivalent of a British Masters degree). It was stressed that the degree and or research topic of the Doctorate should also be relevant to the business needs. In this context electronics, metallurgy, mechanical engineering and Informatik [Computer Studies] were cited as examples although 'Betriebswirtschaft' [business or micro economics]⁵ was also mentioned as possibly being an acceptable alternative.

Whilst concurring with the view that career advancement without a university education was unlikely the software company managers were more sanguine about Doctorates. They did not dismiss them or disagree that having a Doctorate was likely to be of advantage and felt that they would almost certainly not impede career progression but felt that a demonstrable relevant track record in a fast growing area of business was perhaps just as important. When asked what was likely to happen if there were two candidates with similar backgrounds and experience one with a Doctorate and one without they admitted that the candidate with the Doctorate was likely to be preferred over the candidate without.

The chief executive of the smaller company, who himself did not have a Doctorate, whilst agreeing in principal with his counterparts said that in his experience the smaller companies had difficulty in recruiting individuals with Doctorates as these were usually attracted to the larger companies with whom he could not compete in terms of salary or potential career

⁵ There are many possible translations but all relate to Business Administration or Economics. However it would not be appropriate to consider this as the equivalent of an American or British MBA

progression. He felt that such candidates were looking for permanent employment in a large company, which would allow them to fulfil their potential without having to move on. The relatively common British practice of regularly changing jobs and employers so as to gain experience and leverage salary was not apparently a frequent occurrence in Germany. This supposition is supported by the work of Coates, Davis, Reeves and Zafir (1996 p. 45) who chose to comment on the observation from one German manager that, in contrast to what was felt to occur in British companies, he and other German managers did not see themselves as 'job hoppers'. He considered that he had a contract with his company until he was sixty-five and that 'having a place in the family' (his company) was a more than adequate compensation for lack of share options or even salary progression.

The general impression gained was that a Doctorate did indeed confer status and hence advantage both in society and in business and that if one had a 'Dokortitel' it was almost invariably used both privately and in the world of business.

5.2.3 Synopsis of conversations with British managers

Once again these conversations did not have the rigour of formal academic research or case studies but did serve to give some anecdotal insight into

current attitudes. The question of academic qualification as a determinate in the recruitment and subsequent career development process was discussed with a number of senior British managers including four from medium sized manufacturing companies involved in electrical cable and harnessing, electronic assembly, adhesives and steel processing respectively. The smallest of these companies employed some 300 and the largest 1100 employees. Interestingly enough, only one of these managers, the managing director of the smallest company, had had the benefit of a university education. Two of the others had 'professional' qualifications and were 'chartered' engineers. The third, and perhaps most successful as he was actually the owner of the largest company, had no formal qualifications what so ever.

Amongst this admittedly very small sample opinions were very different to those expressed by the German managers. The British managers considered that the prime attributes required of a candidate either for recruitment or promotion were those of a personal nature. Self-confidence, good communication and team working skills and presence were all mentioned linked to an appropriate and successful track record. Until prompted no mention was made of academic qualification let alone postgraduate qualifications.

When this topic was raised all of the managers said that they would prefer to, and that the tendency was towards, employing more graduates although some concern was expressed about their working in a 'shop floor' environment. It was felt that graduates expectations might prove to be

higher than the job environment could provide or that the job content would not prove to be demanding enough. When the question of Doctorates were raised not one of the managers spoken to said they would consider employing a candidate so qualified in anything other than a research and development capacity. Even here some doubt was expressed and more than one of the managers expressed concerns about 'over qualification' and being too 'academic'. Concerns that were not raised by the German managers and indeed, in the opinion of the researcher, concepts that they might have some difficulty in comprehending.

As far as the use of academic qualifications and titles was concerned these were for the most part eschewed in business correspondence although two of the companies did allow or even expect the use of these on business cards. None of the managers believed it would be appropriate to use them in their private lives although it was conceded that the title Doctor did carry a certain degree of status, most felt that the use of the title was really only appropriate for medical practitioners.

We have established from the quantitative data that German senior managers are generally better qualified, academically than their British counterparts thus providing an answer to the first question addressed by this research. Qualitative inputs lead the researcher to believe that the reasons for this may be culturally founded. To establish whether or not this hypothesis is correct it is necessary to examine some areas, both from a current and a historic perspective, in more detail.

In this context four areas seem to be of particular interest. They are: -

- The credential nature of German society at least in comparison to British society.
- The difference between British and German attitudes, stemming from the middle to late 19th century, towards business, industry, education and the 'professions'.
- The different approach taken by German and British managers to management. - Managing what you know as opposed to knowing how to manage.

and

- The propensity for like to recruit like. Evidence suggests that managers tend to prefer to recruit successors 'in their own image' Keeble, (1992 p150), thus reinforcing the existing image of the attributes that a manager needs to be successful – to be recruited in the first place or to be promoted. This and the question of the behaviour of groups, especially elite groups particularly with regard to restricting access to or limiting membership of such groups may give some insight as to why the current situation persists. Indeed why it might be considered self perpetuating, i.e. it might not of itself be causal but enables the established situation to persist.

These and other factors will be addressed in the following chapter.

Chapter 6: Why should this be so?

This chapter looks specifically and in greater depth at those factors which following the initial review of the literature in Chapter 3 the writer believes are most likely to prove to have a causal effect.

There are, as we have seen, potentially, a large number of these, all of which may have, to a greater or lesser extent, influenced the development of the current situation, i.e. that there are by at least an order of magnitude, more senior managers in Germany who hold Doctorates than there are in the United Kingdom. In this thesis, to simplify analysis, these factors have been grouped, for discussion, into three main classifications:

- **Systemic factors** i.e. those factors relating to differences between the way the system works in the two countries. For example differences between the ways the systems of Higher Education work or of Vocational Education work, remembering that in Germany the IAB classifies Doctorates as vocational qualifications. Or differences in the way industry is financed and the banking systems operate, or employment legislation in so far as these might affect management structures and the recruitment and selection of senior managers.

- **Socio-economic factors:** For example whether or not higher academic qualifications result in increased life time earnings (Graetz, 1997), (Hartmann, 1996) or better promotion or job prospects i.e. do they provide a satisfactory rate of return, on the time invested, for the individuals concerned or indeed the State (OECD, 2002). Are they therefore incentives to Postgraduate study?

And

- **Cultural factors:** Paul Cooke writing in *Approaches to the study of contemporary Germany* (Grix, J., Ed. 2002 p79) says that the answer to the question “*What constitutes ‘culture’?*” is a highly contentious one. He cites two competing definitions one where the term ‘culture’ is defined as something that encapsulates all human social behaviour – he terms this the “anthropological” approach and one which he calls the artistic or aesthetic approach which concerns itself with an abstraction of human behaviour. University arts departments, he says have traditionally used this latter definition. For the purposes of this research however we have chosen, being less concerned as to whether Germany or Britain has or has had more or less or has a higher or lower culture, in artistic and literary terms than the other, and more concerned with the societal paradigms which have developed and which govern the behaviour of society as a whole, to use the former. Hofstede (1980) argues that an individual's view of or attitude towards life is always to some extent coloured by a form of

“mental programming” his or her so called software of the mind, which they carry with them. This programming reflects the values and mores of the society or culture in which they live or have grown up in. This he believes is most clearly shown by comparisons drawn across national borders between individual of different nationality. Although Hofstede is considered by many one of the leading writers in this field there are of course many others who support his view.

By examining these factors it should be possible to determine which of them, if any, may have had the greatest significance or at least which are most likely to have influenced the development of the dichotomy we see today.

6.1 Systemic Factors

6.1.1 The systems of higher education

Before looking specifically at the British and German systems it is perhaps worth looking at their similarities at least those seen through American eyes. Phillip Schlechty (1993 p7) identifies a very significant difference in aims between the American system of education and those of both Germany and the United Kingdom. Americans, he believes, find abhorrent the idea that one should expect from children from differing social backgrounds, he hesitates to use the word class, differing levels of academic achievement. He says that the clear aim of the American

educational system is equality of educational achievement rather than the provision of equal educational opportunity. He says that even democratic countries such as Germany and the United Kingdom accept, or assume, that children of the poorer working classes will be less apt in academic matters than are the children of the rich and wellborn. It is for this reason that high quality vocational education, as an alternative to higher education is provided in Europe but not in the USA. This may be true of Germany but one is reluctant to describe, although everything is relative, British vocational education as being of high quality. This question of equal attainment versus equal opportunity and the attitudes to questions of social class and background are important to this research.

The essential differences between the German and British systems of higher education have already been discussed in chapters 2 and 3. One of the most obvious of these is the time taken to achieve a First degree, El-Khawas, (1990) with German students seeming to take on average about twice as long to do this as their British counterparts. There are, of course, a number of reasons for this.

Firstly the degrees may not be equivalent. A German Diplom, normally the First degree level offered by a German university might be said to be more properly comparable to a British masters degree Handy, (1987), Prais, S.J., (1989), Anon, *The Economist* {US} (2002) which would also require some 5 to 6 years to complete – 3 years for the initial Bachelors degree and 2 to 3 for the subsequent Masters degree.

Secondly German universities operate on a two semester a year basis rather than the British three terms and, probably more importantly, in Germany there are normally no fixed time frames. That is a student may offer him or herself for examination when he or she feels it is appropriate and may take, although the Federal Government for reasons of funding is now trying to change this, as long as he or she likes to complete their studies.

As age at entry is also likely to be significantly higher, El-Khawas, (1990), it takes one to two years longer to complete the "Abitur" the German university entrance requirement than 'A' levels and conscription to military or community service is still in effect in Germany, it seems inevitable that it will take German students longer to complete their studies. Indeed German students may well be in their late rather than early twenties when first entering employment. The actual current average (1995) is 28.4 years having moved up from 27.1 years in 1980. Hahlen, (1997 p8). Add a Doctorate and they will almost certainly be in their early thirties. This, one might have thought, might prove to be a positive disincentive, at least on an economic level, to further postgraduate studies. Indeed one is drawn to the conclusion that the differences between the two systems are unlikely to provide the answer to our question why? or prove to be a major causal factor in this study.

However it is probably appropriate to mention here what many consider the relatively elitist nature of the British system of higher education as compared that of Germany and in particular how it is linked to the British

'Public' (paradoxically meaning private) system of primary and secondary education. In his book 'Top – Manager - Die Rekrutierung einer Elite' [Top – managers the recruitment of an elite] Hartmann (1996 p190-1) cites the work of Giddings and Stanworth (1978) and Whitley (1974) which demonstrates this. Over two thirds of the directors of the United Kingdoms top forty industrial concerns and over eighty percent of the directors of the fifteen largest financial institutes had attended 'Public' schools. Whitley, (1974). Forty percent of the chairmen and directors of Britain's top industrial concerns and sixty percent of those in banking had attended Oxford or Cambridge. Giddens and Stanworth (1978), Whitley (1974). It is worth noting that this position had not changed significantly since the early 1900s and remained relatively stable. Hartmann, (1996).

There is no real equivalent of the British public school system in Germany nor a differentiation in status, at least to the same extent that it exists in Britain or France between the various universities. Of course some are seen as 'better' or at least older, Heidelberg or Tübingen for example, than others but the difference in status is nowhere as great as it is between Oxford and Cambridge, on the one hand and the so called red bricks and the newer universities on the other. Of course in France where the four 'Grand Écoles' dominate the system this differentiation is even more acute. Hartmann, (1996 p191).

Keeble, (1992 p65-92) in his book 'The ability to manage' has a chapter entitled 'the British rejection of formal education'. He starts this chapter by saying that there is a good deal of evidence that the British education

system had failed British industry. He expresses the view that the educationalists had not geared the system of education or its teaching or socialized its students towards the world of industry to anything like the same extent as other industrialised countries. Presumably Germany was considered one of the examples of this.

This proposition fits fairly well with Wiener's (1986) observations about the general antipathy toward industry and trade extant in the United Kingdom at the time the British system of education was being developed (and perhaps even today). However one must question, as Keeble (1992) does, how ready industry itself was to encourage such developments. He says in fact that rather than encouraging or even demanding an improvement in the level of education of its potential work force industry, manufacturing industry in particular, placed a strong restraining hand on all attempts to raise the general level of education of the young through longer years of compulsory training fearing perhaps that it would restrict the flow of fresh, cheap, unquestioning labour on the one hand or that they would have to release existing employees for further education at some cost to themselves. British industrialists, it seems, had resisted calls for longer education on a number of accounts cost being only one of them. Even at this stage (the early 1900's) the question of over-qualification was being mooted. British industrialists warned against the creation of a large class of people whose education would be unsuitable for the employment they would eventually enter as had apparently been done in India. Keeble,

(1992 p68). Only a few, perhaps what we might term today more enlightened, employers, principally Quaker philanthropists such as Cadbury and Rowntree were apparently openly in favour of improving secondary education. However there is if not an opposing viewpoint one which casts a somewhat different light on the question. Macionis, Plummer, (1997 p496) citing Bowles and Gintis (1976) ascribe a somewhat less altruistic motive to the industrialists who wished to see the working classes 'educated'. He points out that the clamour for public education at the end of the nineteenth century arose at precisely the time when capitalists were seeking a literate, docile and disciplined workforce. He says compliance, punctuality and discipline were – and still are – part of what conflict theorists call the hidden curriculum, the subtle presentation of political or cultural ideas outside the formal curriculum. It teaches young people 'to know their place' and 'sit still in it'. It reproduces inequality by justifying privilege and attributing poverty to personal failure. Macionis, Plummer, (1997, p496). This is, in the writer's opinion, admittedly a somewhat cynical if not Marxist point of view.

This may not necessarily have been the case in Germany where the emergence of secondary, vocational and eventually elementary education systems from the mid-nineteenth to the early twentieth centuries evidenced a more open approach but it may have been. One is reluctant to suggest that German capitalists of the time were anymore philanthropic than their British brethren but subsequent developments, from for example the early

introduction of social measures such as occupational injury, unemployment, health and pension schemes, see Table 21 to the current labour laws and the concept of 'Sozialwirtschaft' seem to indicate that this might possibly have been so.

Teachers in Germany acquired a certain status in society that in contrast to their British colleagues seems to persist today. As early as 1810 a royal decree established a special examination, roughly equivalent to today's 'Staatsexamen' or perhaps Britain's Civil Service entry exam, which all who wished to teach at a Gymnasium [High or Grammar school] in Prussia were required to pass. The only exemptions were for candidates with either a Doctorate or Masters Degree. The core subjects were deemed to be philological, historical and mathematical studies. In any event a practical teaching test was also part of the process a structure that remains very similar in Germany even today. Hahn, (1998 p14).

It would seem that having attended the 'right' school or university in Britain (or France for that matter) but not Germany was more of a determinate of the likelihood of an individual reaching a senior management position than possession of a Doctorate. This does not mean that social class is unimportant in Germany. As we shall see later class or 'Sozialherkunft' seems to have almost as important a role to play in Germany as in the United Kingdom.

We have already discussed the very different management paradigms that the Germans and British have. Here in the United Kingdom the tendency is to accept the American paradigm that what is important for a manager is to know how to manage rather than to know specifically or in detail about what one is managing, the two are of course not mutually exclusive. In Germany on the other hand the reverse seems to be true. The Germans believe that an in depth functional knowledge of or skills directly relevant to the products being sold or manufactured by a business are an indispensable requirement for a manager if he is to manage that business successfully. To paraphrase it seems they believe what is important is to know about what it is you are managing rather than knowing how to manage, although once again the two are not mutually exclusive.

This difference in attitudes goes some way, perhaps, to explaining why the British (and the Americans) place so much emphasis on business schools and degrees such as the MBA which are supposedly indicative of a 'Management' education or at least training in those specific skills considered to be required for 'Management'. (Personally the writer, an individual it should be said of mature years with experience of managing large international companies as Chief Executive, has some difficulty in accepting that a young graduate who moves straight from Bachelors degree to an MBA, and this seems increasingly to be the trend, without actually having had any experience 'managing' anything, can style themselves Masters of Business Administration. However, perhaps the same could be said of MDs.)

In Germany the concept of the 'Business' school has yet to be fully accepted and the MBA is still not recognized as a degree of substance. Anon, *The Economist* (2002). Moreover whereas a degree in Britain is seen as some sort of intellectual benchmark and it is, it seems, relatively unimportant what has been read at least as far as recruitment is concerned, it is critical in Germany that the degree topic has direct relevance to the occupation to be pursued. As early as 1987 the Handy report identified recruitment criteria for future managers in West Germany. They were

- Direct relevance of studies for future jobs
- Examination mark in final diploma of at least 3. (on a scale of 1 – 6 with 1 being highest)
- Traditional apprenticeship highly esteemed
- Periods of practical experience in industry or commerce much appreciated
- Diploma thesis can be useful
- Second course of studies for certain jobs
- Doctorates for certain jobs

The choice of University was not considered significant

Source: *The making of managers* Handy, C., (1987)

In German eyes a degree in literature, politics or geography does not qualify one for a career in business, with or without an MBA.

Paradoxically in Germany a Doctorate is seen almost as an essential requirement for a career in management, particularly at the highest levels within Germany's largest and most successful companies. In the United Kingdom a Doctorate is more likely to be regarded as a disqualification from or at least a positive hindrance to obtaining preferment as a manager. Any candidate with a PhD runs the risk of being rejected by potential employers as being too 'academic' or impractical or damned by that most telling of British epithets 'too clever by half'.

Although the PhD, with its requirement for an individual contribution to the body of science, is still considered the 'gold standard' amongst academic degrees it may in many ways perhaps seem to require the skills that academics prize, and devalue the skills that the industrial employers value. Jagger, N., Davies, S., Lain, D., Sinclair, E., Sinclair, T., (2001 p38). The ESPRC report quoted also identified in more detail some of the concerns that potential British employers had with regard to PhDs.

Three skills were identified as being important to the employers

- Communications skills
- Team working skills and,
- Problem solving skills

British employers, although accepting that a PhD was probably going to have good problem solving skills, expressed some doubts as to whether or not they would have good communication and team working skills as these were considered not to be generally well developed in postgraduates.

Jagger, N, Davis, S., Lain, D., Sinclair, E., Sinclair, T. (2001).

Opinions as to the worth of a PhD in an industrial or business context of course differ. Andrew Grove the then CEO of the Intel corporation, the world's leading manufacturer of microprocessors, whilst not disputing this believes that the discipline of a research degree makes its recipient a 'better' thinker he said "*A good PhD programme trains you how to get into the unknown and make good sense of it*". Charles O' Reilly professor of management at the University of California at Berkley Groves' alma mater is less certain he said, "*The risk of PhDs is their narrowness of focus. They are trained to be circumspect in how they approach things. Being a CEO requires you to play hunches and doesn't afford the luxury of time.*" (This question of narrowness of focus is highly unlikely to be considered a disadvantage in Germany). Those with Doctorates of course refute this argument believing that the intense research process undertaken in their doctoral work prepared them well for the complexities of corporate decision-making. Gitlow, professor emeritus of economics at New York University's Business school supports their argument by saying "*A PhD has the insight*

and power of intellect to centre in on the key elements of a problem and identify them". Tetzeli, R., (1991 p8).

Today there is an increasing trend in both Germany and Britain toward 'functional' Doctorates, i.e. a Doctorate within a specific discipline that is designed to demonstrate knowledge and skills within a specific discipline rather than an original contribution to the body of knowledge an engineering Doctorate for example. The Dr. Ing. [Eng.] is already well established in Germany and becoming increasingly so in the United Kingdom. It is seen as a form of advanced technical training which is designed to prepare the candidate for a career in industry rather than academia.

In the writer's opinion it is interesting to note that in Germany a PhD or other Doctorate is classified in governmental statistics as a vocational rather than academic qualification. In German vocational might be translated as 'berufsbezogen', or occupational a qualification then relating specifically to ones career or job, a small point perhaps but indicative of the difference in attitude.

6.1.2 The systems of vocational education

As we have seen there are significant differences between the British and German systems of vocational education and much has been written about them by for example Layard, R., McIntosh, S., and Vignoles, A., (2001), Lane, C., (1989), Constable, J., (1987), and Handy, C., (1987). Correlli Barnett attributes one of the principal factors in the decline of British manufacturing industry to neglect of the British system of vocational education. Writing in *The Collapse of British Power* - he commented that *“this same romantic idealism had also been responsible for the anti-technical bias of general education in Britain and the neglect of vocational training from the mid-Victorian age up until at least the outbreak of the Second World War were principal factors in Britain’s industrial decline over the same period.”* Barnett (1972) as cited by Barnett (1995 pxiii). As we have seen during this period the United Kingdom moved from the head of the G7 list of nations in terms of economic output per capita to near the bottom. Lovegrove, et al (1998), so it seems that Correlli Barnett was almost certainly not overstating the case. Germany on the other hand seems to have, despite its lack of natural resources and an empire, consolidated or at least maintained its position very near the top of the league. Whatever else, Germany certainly cannot be accused of neglecting her system of vocational education during this same period.

It is not, it seems that this problem was not recognized early enough. Barnett himself, who traces Britain’s loss of technological leadership back to the

1840s, quotes a number of examples of warning voices being raised. As early as 1835: Cobden and 1851: Playfair were raising concerns that unless Britain altered her whole industrial outlook and methods she was bound to be overtaken by other countries. Sadly it appears she did not and as a result steadily lost ground as an industrial power. From at least the 1870s onward technological leadership was ceded for the most part to the United States and to continental Europe principally Germany. This view was apparently supported by the Royal Commission on Technical instruction which in 1884 is quoted by Barnett (1995 p13) as saying "*The one point in which Germany is overwhelmingly superior to England is in schools, and in the education of all classes of the people. The dense ignorance so common among workmen in England is unknown*". Of the German polytechnic system the same Royal Commission reported "*To the multiplication of those polytechnics may be ascribed the general diffusion of high scientific knowledge in Germany, in the appreciation by all classes of persons, and the adequate supply of men competent, so far as theory is concerned, to take the place of managers and superintendents in industrial works. In England there is still a great want of this last class of person*". Correlli Barnett, (1995).

Barnett offers a number of, doubtless well chosen but none the less damning, statistics to support his contentions. These range from the relative paucity of universities in England and Wales – seven as compared to Germany – twenty-two at the turn of the century and the number of students pursuing a 'technical' education less than 3000 in the United Kingdom as

compared to 14,000 in Germany during the same period to the output of graduate electrical engineers. Apparently in 1937 alone Germany produced 448 electrical engineering graduates which equated to half the cumulative total of 781 produced in Great Britain over the fourteen years from 1925 – 39. The number of students studying science and technology in British universities actually fell between 1918 and 1939 and in 1939 those studying technology represented less than ten percent of the student body. Barnett, (1995 p40) citing *ibid*.

Has so very much changed today, some one hundred and fifty years on? No would appear to be the answer. Despite the many reports, inquiries and even Royal Commissions over the intervening years up to the relatively recent efforts of the Handy and Constable Reports of the mid-eighties, Britain as compared to its immediate competitors is still deficient in this regard. To all intents and purposes Britain's industrial base has disappeared and the United Kingdom in stark contrast to Germany has little or no manufacturing industry left which is competitive on a worldwide basis. It may well be argued that Britain's economy has compensated for this by developing a dynamic financial and service sector but someone somewhere has to earn the resource to pay for these services.

The rise of the service and financial sectors is relevant to our research in so far as it may go some way to offering an explanation for the increasing tendency for managers in the United Kingdom, to the extent they have any formal qualifications, to have some form of accountancy, legal or other non

science based qualification rather than a technologically biased one. A PhD, conveying, as it tends to do, the image of expertise in a relatively limited field of specialised knowledge, and a certain intellectual prowess whilst it might prove a desirable attribute for a candidate seeking a managerial position in manufacturing industry, might in the context of a service provider be seen as irrelevant. It seems most unlikely that an individual planning a career in the financial or service sectors in the United Kingdom would consider a research degree a requisite stepping stone. In the writer's opinion if a Postgraduate qualification were to be a consideration it would most likely be an MBA or some legal or financial qualification. The professional bodies governing both the legal and financial 'professions' now have well established graduate entry schemes.

The German system of vocational education is often equated with the British apprenticeship system. Winkleman, (2003 p658). However, whilst the British system concentrates on craft skills the German system tends to cover, if not all aspects of employment and business life, a much broader spectrum of it. A variety of institutions provide training in virtually all areas of business and industrial life. It is possible in Germany to be an apprentice office worker (Bürofachkraft), travel agent, bank worker or lorry driver for example. As of 1991 over seventy percent of the German labour force had participated in an apprenticeship of one sort or another. Winkleman, (2003 p658).

With respect to workforce qualifications as a whole there are very significant differences between Germany and the United Kingdom. Taking the chemical industry as an example, some forty-five percent of German shop floor (process) workers had received vocational training as opposed to twenty-three percent in Britain. In the engineering sector the gap was even wider with fifty-seven percent of German workers holding craft level qualifications as compared to twenty percent in the United Kingdom. This difference in educational attainment is also reflected in the working population at graduate level and above. In engineering and technology subjects for example Germany produces approximately two thirds more Bachelor degree candidates (or their equivalents) than Britain, five times as many candidates qualified to MSc level and a third more PhDs. By contrast in the physical sciences and other areas of study the proportions of the population gaining higher education qualifications are much the same in both countries but the mix of awards in Germany is orientated more towards Higher degrees. Mason, Wagner, (1994).

Layard et al, (2001) associate half the current 20% productivity gap between the two countries to the difference in skill levels between them and Lane says *"The strengths of German manufacturing enterprises are widely seen to emanate from two core international complexes – the system of vocational education and training and the system of industrial relations"*. Lane, C., (1989 p298). As a result of the German "Dual system" of apprentice training some two thirds of the German workforce are qualified to craft level or above

compared to just over one third, so qualified in Britain. Recent studies suggest that there is a positive and statistically significant association between Anglo-German differences in the proportions of the workforce qualified to this level in individual industries and relative performance in respect of labour productivity. Mason, G., Wagner, K, (1994 p62), quoting Audretsch and Vivarelli, (1994). However it seems unlikely that the differences between the two systems are, of themselves, a major causal factor in the development of the number of German senior managers who hold Doctorates, although as we have seen around one half of the German senior managers in our target group with Doctorates have also completed some form of recognised formal apprenticeship. It may be that the German system encourages successful participants to continue their education or the fact that further education over the age of 19 is free at the point of delivery in Germany but not in the United Kingdom, Layard, McIntosh, S., Vignoles, A., (2001) may make it easier for them to do so.

Once again it is interesting to note that federal German government in it's published data classifies Doctorates under vocational qualifications.

6.1.3 The way business and industry is financed.

As already discussed (chapter 4) the structure of the German Banking and Financial Sectors also has significant implications for corporate governance and the way business is funded as do the nature of the interlocking shareholding, ownership and control mechanisms which in part result from it. Although there are substantial differences in the way industry is financed in the two countries - principally through equity participation in the United Kingdom and loan capital in Germany. This according to some commentators allows German managers to take a rather longer-term view than their short-term profit driven British counterparts. In particular Coates, Davis, Reeves and Zafar (1996 p1) say citing Charkham (1994), Dimsdale (1994) and Jacobs (1991), "*Criticisms of economic performance in the UK have a long cited comparisons between capital markets, corporate governance and differing national cultures as evidence of a bias towards short termism at least, in comparison to Japan or Germany.*" and "*In this context it is considered that a smaller German equity market and a closer relationship between banks and corporate clients help German companies maintain a longer term view of the future.*"

It is unlikely that this difference of perspective of itself could be considered to provide an incentive for a German student to extend the period of study beyond that required for a First degree although the apparent lack of pressure to complete may make it easier for them to do so. Also there seems little likelihood that they will be disadvantaged in anyway by

continuing their studies quite the reverse. Obtaining a Doctorate will almost certainly place them at a competitive advantage in the job market in Germany and confer considerable status in society. They are certainly, and perhaps understandably far less likely to be unemployed following their studies than the working population at large but also less likely than their peers who graduated with degrees but who did not pursue a Doctorate. Enders, Bornmann, (2001). Although they will most probably be in their early thirties when starting their business careers they will not necessarily be overly concerned about career and salary progression. They almost certainly join their first employer with the intention of staying with them. The work of Hartmann, (1996) indicates that German senior managers, and as we have seen the majority of these have Doctorates, tend to make their careers with one company. He says *“Ein wesentliches Charakteristikum bei Besetzungsverfahren für Positionen im Topmanagement deutscher Großunternehmen ist das große Gewicht, das der unternehmensinternen Rekrutierung zukommt* [A significant characteristic of the selection process for senior managers is the emphasis placed on internal recruitment.] and *“Ein deutlich größerer Teil der Topmanager als in Länder wie Frankreich oder Großbritannien hat sein gesamtes Berufsleben nur in einem einzigen Unternehmen verbracht and damit auch seine ganze Karriere bis hin den Vorstand ausschließlich dort gemacht.* [A significantly larger proportion of top managers in Germany as opposed to countries such as France and Great Britain have spent their entire working life and made their careers right up to membership of the board of directors exclusively with one company.]

It is therefore rather the combination of on the one hand, a lack of a direct, primarily financial incentive to immerse oneself as quickly as possible in a career in Germany coupled with the advantages in terms of access and status which a Doctorate brings which encourage students to continue their studies.

Contrast this with the United Kingdom where generalist skills and experience seem to be valued more highly than in Germany and where there seems a positive imperative for a graduate to join the labour market as soon as practicable. In a recent article in the Financial Times Lisa Wood quotes Professor Robert Meyer of the Wharton Business School at the University of Pennsylvania as saying "*in past years, MBA students tended to roll their eyes in disbelief at suggestion that they might consider studying for a Doctorate. Within the pool of MBA students the majority want to work in the commercial world.*" Wood, L., (2002). One might perhaps add as quickly as is practicable.

In Britain it is not considered unusual and might in fact be considered desirable for a candidate for a senior management position to have changed employers a number of times in his career. The ability to demonstrate a successful 'track record' and experience when coupled with the 'right' personal qualities apparently being considered more important than academic qualification by most British recruiters. The ability of British companies to provide equity based incentives; stock option schemes for example might prove a particularly useful in attracting potential senior employees or in the case of the case of business start-ups employee

investors. However stock options are not normally offered to new employees at the entry level so they probably do not play any significant part in an individual student's decision as to whether or not to prolong his or her studies. However the weight placed by business businesses on experience and track record probably does serve to encourage them to start their business careers as soon as they can. This is likely to be particularly true given the antipathy towards Higher degrees and Doctorates as a qualification for management that business people in the United Kingdom appear to have.

Although one cannot ascribe a direct causal link between the way industry and business is financed in the two countries to the relative merits placed on the attainment of higher academic qualifications, in particular Doctorates, for business purposes it does, as one might expect seem to influence attitudes and behaviour.

This would appear to be particularly true whilst the equity market can offer the opportunity for employers to provide incentives to their employees through stock options or in the case of start up companies' participation in eventual public listings. After all in the words of one commentator it provides one of the few opportunities for an employee to become seriously wealthy. An opportunity which up until fairly recently, because of the way German business has been funded, appears to have been denied German managers. One must point out though that in the context of this research it is only in the fairly recent past i.e. the last twenty-five to thirty-five years that British managers have themselves been able to take real advantage of this

6.2 Socio-Economic factors

Here the main considerations relate to the ability to find employment, the prospects for career development and promotion and, although money is not necessarily the sole or even the most important motivator Mullins, (1999), Mintzberg, (1994), et al., subsequent lifetime earnings.

6.2.1 Life time earnings

Once again much has been written about this and the general consensus is that those individuals with higher academic qualifications usually earn more than their compatriots. This supported by the recent publication by the OECD Directorate for Education (2002) of its report - Education at a Glance, which tells us that *“Education and earnings are positively linked. Education beyond upper secondary level brings a particularly high premium.”* This can be as much as 50 to 80% more in the United Kingdom (higher for women than men) and in Germany 60% more on average for university graduates as opposed to those with the equivalent of an Abitur [German high school diploma]. Anon, OECD, (2001), Anon, US Bureau of labour statistics (2002). This though refers essentially to the differences in income between individuals with a University degree and those without; it does not differentiate between those with Higher degrees, Doctorates for example and

First degrees. If one looks however at the US and German data here seems to be some slight difference between the results seen in the USA (and by inference the UK where the statistics do not differentiate between Higher degrees) and Germany. This difference, which seems to indicate a significantly higher premium for a Doctorate in Germany as opposed to the USA, is perhaps best illustrated by reference to Tables 10, 11 and Figure 7. From Table 6 it can be seen that in Germany an individual with a Doctorate can expect to earn considerably more than a graduate. As much as 20 – 25% on commencement and commensurately more in terms of life time earnings. Table 7 on the other hand appears to show a relatively lower premium between those with a Doctorate and those with a “professional” degree – in Medicine, Dentistry, Law or Finance for example in the USA. Figure 7 even shows that holders of “Professional” degrees, for example in medicine, dentistry or the law, can expect higher lifetime earnings than those with Doctorates.

This would seem to support the arguments that in the United Kingdom and the USA “professional” qualifications are valued more highly than in Germany. Certainly possession of a “professional” qualification in finance or even law is an acknowledged criterion for entrance into management in Great Britain and senior managers are increasingly likely to have been accountants. This does not seem to be true in Germany where technocracy still seems to prevail.

Table 9

Translation

Mehr Geld mit Doktorhut	
Einkommensunterschiede zwischen diplomierten und promovierten Akademikern (Beispiele) – Stand Ende 1995	
Berufsanfänger (Wirtschaft):	
Dipl.-Kfm.	Dr. rer. Pol/Dr. rer. oec
63 000 DM/Jahr	78 000 DM/Jahr
Berufserfahrene Akademiker (Wirtschaft):	
Plus für promovierte Angestellte:	
2 000 – 4 000 DM pro Monat (wachsend mit dem Berufsalter) bzw. 700 000 – 900 000 DM pro Lebenseinkommen	
Selbständige („Alleinpraxen“)	
Umsatzvorteile pro Jahr für Promovierte gegenüber ihren nicht promovierten Konkurrenten:	
Wirtschaftsprüfer	Ca. 123 000 DM
Steuerberater	Ca. 95 000 DM
Unternehmensberater	Ca. 72 000 DM

**More money with
Doctorate**

New entrant (Business)

Graduate Doctor

Experienced Academic
(Business)

Additional for those with a
Doctorate

Additional total lifetime
income

Self employed –
additional turnover per
year as compared to
those without Doctorates
Auditor

Tax advisor

Management Consultant

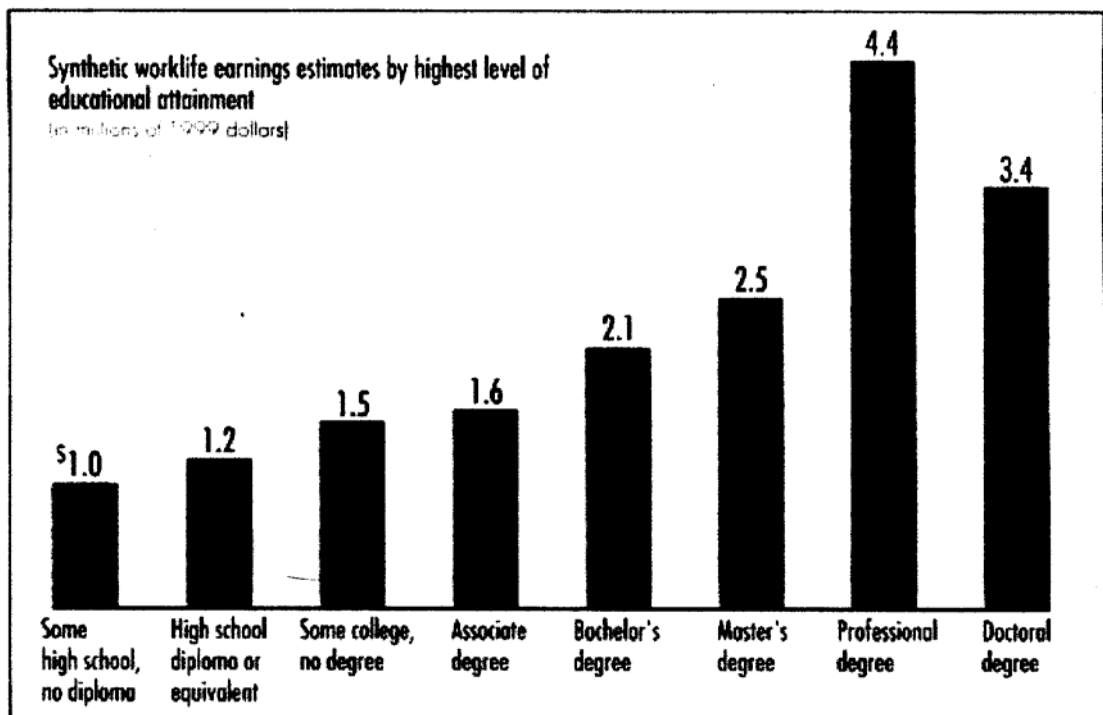
Source: Institute for scientific consulting Dr. Franz Graetz 1995.

Table 10: Median earnings 2000

High school diploma or equivalent	\$US	26,364	per annum
Bachelors Degree	\$US	43,377	per annum
Masters degree	\$US	51,392	per annum
Doctoral degree	\$US	61,095	per annum
Professional degree	\$US	63,159	per annum

Source: Occupational Outlook Quarterly, 46(3): 2, September 2002, US Bureau of Labour Statistics

Figure 6: Synthetic work life earnings estimate by highest level of educational attainment.



Source U.S. Census Bureau. 1998 – 2000 data.

Although both the OECD data and that of the US Department of Labour clearly show that there is a substantial financial incentive to complete a First degree at least in terms of income especially in the United Kingdom where the relatively short period of study required enhances the notional rate of return on the investment to some 17% Anon, OECD (2002) the position with regard to the incremental return on investment of a Postgraduate degree is less clear.

In Britain the demand for first degree graduates relative to other levels of qualification has been increasing for strongly positive reasons market driven technological change being only one of them. Mason (1996). Possession of a degree (usually but not always, in a relevant discipline) has generally been seen as indicative of above average intellectual capacity and of the ability to investigate problems and develop creative solutions. There has been however a relatively low industrial demand for post-graduate engineers and scientists in Britain (as compared to Germany). This has been due partly to concern by industrialists in the United Kingdom that British post-graduates are over-specialised and too academic. Mason, (1996), finds this hardly surprising given the very narrow academic educational path which most of the individuals in question had most probably followed since the age of sixteen. Mason found that such complaints by employers were much less common in Germany, the writer believes that uncommon may even be something of an overstatement, where academic secondary school pupils

typically follow a broad curriculum until at least the age of eighteen. Mason and Wagner (1994), as cited by Mason (1996).

There does seem though to be some additional financial incentive to obtain a Doctorate, especially in Germany. Using Graetz's (1995) data we can see that this could amount from at the low end DM 700,000 or more in terms of lifetime earnings to perhaps as much as DM 3,000,000 more for the self employed professional. We can attempt to calculate, very approximately the investment and opportunity cost involved in doing so. It would seem to be of the order of DM 350,000: This made up of four years loss of earnings – say DM 60, 000 – 65,000 per year, plus a subsistence cost for those 4 years of let us say DM 25,000 per year. This would appear to provide a reasonable rate of return on investment at the higher end of the range of expectations – some 12% per annum but not at the lower end – some 3% per annum depending on the assumptions made. Even so it is unlikely that even with a return at the higher end of the range this would prove of itself alone to be sufficient incentive to pursue a Doctorate. There may however well be some opportunities for potential Doctoral candidates to both improve the anticipated rate of return and reduce the risk. A number of Germany's larger industrial and business concerns, we have quoted the example of Robert Bosch but the same is almost certainly true of Siemens, Daimler Benz, Hoechst and their equivalents, offer what are effectively "in house" Doctorates. Successful candidates are encouraged to pursue a course of study and or research, often in the company's own research centre, but with

of course the appropriate academic supervision and under the aegis of a University, which is relevant to the company. They are de facto salaried employees who upon successful completion of their degrees are expected to continue their careers within the sponsoring organisation. As we have seen Bosch sponsors or “employs” between eighty or ninety such individuals or “Doktoranten” at any one time. One could believe that this might prove a very attractive proposition to those to which it is offered some of whom might otherwise not have chosen to continue with their studies but it is an opportunity which likely to be available to a relatively small proportion of grandaunts.

In their book *Karriere mit Doctortitel (Career with a Doctor Title)* Enders and Bormann (2001) also provide an analysis of the differences between the monthly incomes of university graduates and those with a Doctorate and these are shown in tables 12 & 13 below.

Table11: Vorsprünge bzw. Rückstände des Einkommens von weiblichen Promovierten* gegenüber weiblichen Universitätsabsolventen nach Fach (Index, Median des monatliche Nettoeinkommens des Universitätsabsolventen = 100) [Differences in income between female graduates and women with Doctorates analysed by field of study. Index Graduates income = 100]**

	Biologie	Elektrotechnik	Germanistik	Mathe- matik	Sozial- wiss.	Wirtsch.- wiss.
Jahre nach Promotion/Universitätsabschluss						
1/6 Jahre	107		88	100	117	84
3/8 Jahre	117		116	112	113	97
5/10 Jahre	135		125	112	137	114
7/12 Jahre	121		115	102	129	120
9/14 Jahre	110		128	107	151	122
11/16 Jahre	116		123	110	152	162
13/16 Jahre	181		118	112	152	150
14-15/19-20 Jahre	175		124	135	133	143

Die Angaben basieren auf den antworten zu einer halboffenen Frage (3.7/3.5) zu, Lebens/Berufsweg vom Zeitpunkt der mündlichen Doktorprüfungen bzw. vom Studienabschluss bis zum gegenwärtigen Zeitpunkt.* (Kohorte 1984/85; 1-15 Jahre nach der Promotion)** (Kohorte 1979/80; 6-20 Jahre nach dem Studienabschluss)

[These results are based on the answers to a half open question relating to the individual's career path from the point of graduation or viva to the current day.]

Source: Karriere mit Dokortitel? Enders, J., Bornmann, L., (2001).

Table 12: Vorsprünge bzw. Rückstände des Einkommens von männlichen Promovierten* gegenüber männlichen Universitätsabsolventen nach Fach (Index, Median des monatliche Nettoeinkommens des Universitätsabsolventen = 100) [Differences in income between male graduates and men with Doctorates analysed by field of study. Index Graduates income = 100]**

	Biologie	Elektrotechnik	Germanistik	Mathe- matik	Sozial- wiss.	Wirtsch.- wiss.
Jahre nach Promotion/Universitätsabschluss						
1/6 Jahre	117	106	84	77	102	98
3/8 Jahre	118	119	103	89	118	113
5/10 Jahre	128	123	101	92	138	110
7/12 Jahre	120	114	94	89	130	103
9/14 Jahre	123	123	89	98	138	115
11/16 Jahre	108	124	102	97	144	113
13/16 Jahre	115	122	106	100	141	114
14-15/19- 20 Jahre	108	121	109	101	151	117

Die Angaben basieren auf den antworten zu einer halboffenen Frage (3.7/3.5) zu, Lebens/Berufsweg vom Zeitpunkt der mündlichen Doktorprüfungen bzw. vom Studienabschluss bis zum gegenwärtigen Zeitpunkt.* (Kohorte 1984/85; 1-15 Jahre nach der Promotion)** (Kohorte 1979/80; 6-20 Jahre nach dem Studienabschluss)

[These results are based on the answers to a half open question relating to the individual's career path from the point of graduation or viva to the current day.]

Source Karriere mit Dokortitel, Enders & Bornmann (2001).

which clearly illustrates this. It is interesting to note that in the case of women there is a much more substantial difference in monthly income than is the case with men. In the case of men there seems to be no clear-cut, or at least substantial, financial advantage to be gained from a Doctorate. Indeed in some areas those with Doctorates appear to earn less. However in the case of women one would have to say that a difference of an additional 30 to 40% might well provide an attractive incentive to complete a Doctorate. These numbers though may be a little skewed as the difference becomes most apparent nine to fourteen years after graduation. This perhaps indicates, although no evidence for this is given, that the women involved may have been pursuing full time careers or that if they had children they had professions which allowed them to continue to progress despite a career break. This is an area worthy of further examination.

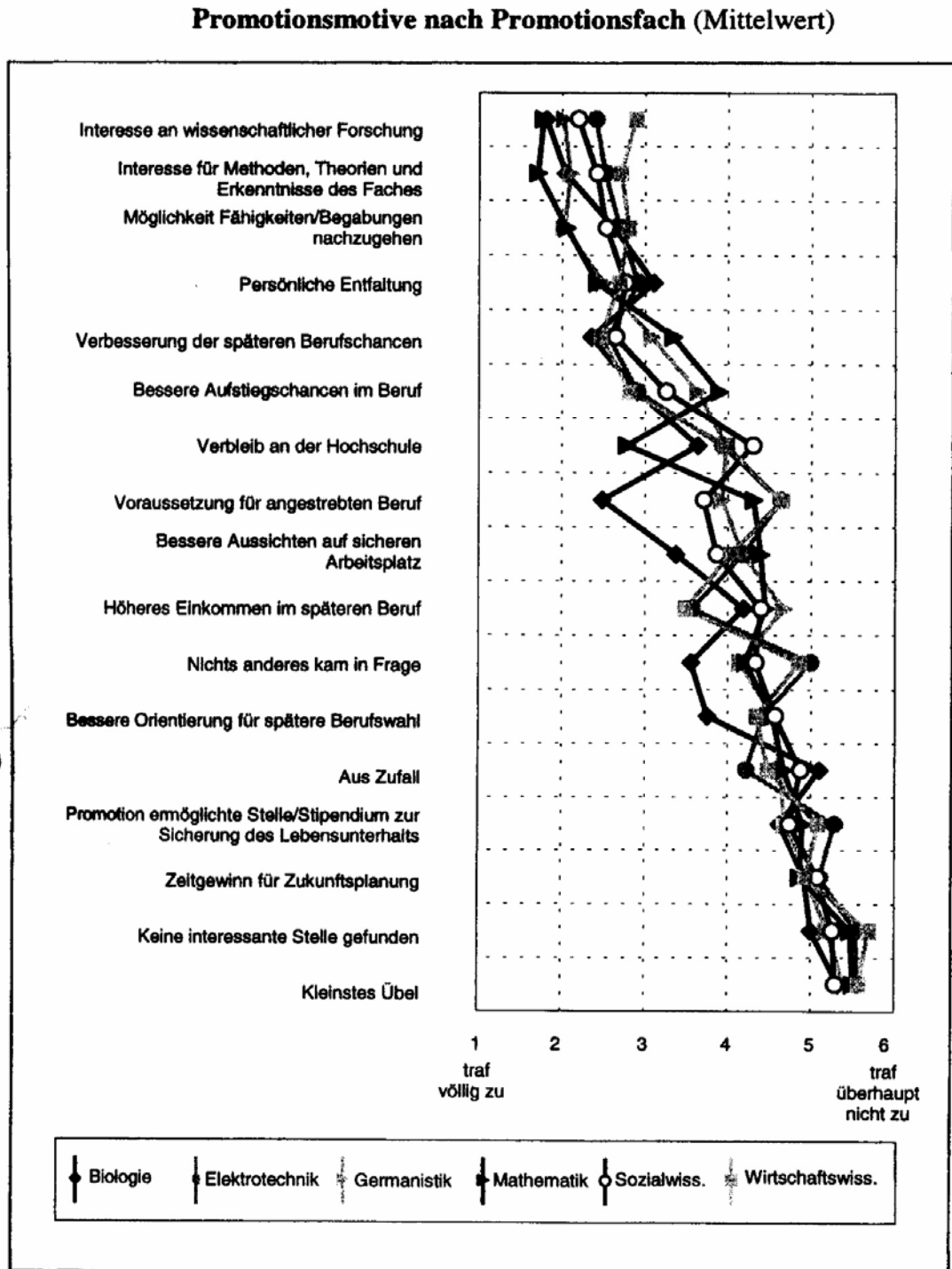
The work of Enders and Bornmann's (2001) as does that of Kraiss, (2001) and Hartmann (1996) tends to concentrate on the social origins of doctoral candidates (see appendices 12 and 15 for an example) and the progress of their careers within their chosen specialisation rather than making comparisons with other countries. It is interesting to note that they all reach similar conclusions i.e. that today's doctoral candidates come predominately from the upper middle classes irrespective of their field of study or research, and as a consequence so do Germany's top managers. Hartmann's data shown in tables 10 and 11 seem to indicate that, if anything this trend has increased over recent years. It may even be to some extent self perpetuating

as it may be easier for candidates from such a background to finance their further study, there might not be the imperative for immediate employment following graduation, and perhaps the added cachet of a Doctorate is considered to have status value. This is discussed in more detail in 6.3.3. Enders and Bormann also attempted to discern the motives Postgraduate students had for pursuing a Doctorate. They tried to do this by means a questionnaire that they had designed. An analysis of the responses is given in Figure 6.

Although one must question the formulation of the questions, in the writer's opinion, it is highly unlikely that many of the respondents queried would agree that their motivation was that "It was the lesser of two evils" or coincidence for example or that they would fail to agree that "an interest in scientific research or personal development was a prime motivator" and use of this particular method in this case; it does provide some insight into their probable motivation. Certainly Improvement in career and promotion opportunity rank fairly highly up the list as does securing a "safe" employment opportunity, probably defined as being either with a blue chip company or the civil service, and earning more. One can perhaps discern an underlying reason that it is generally accepted in Germany that one needs a Doctorate to get ahead. In fact Enders and Bormann in their book *Karriere mit Dokortitel?* say "*Die Frage, ob eine Promotion bessere Beschäftigungs- und Karriereaussichten bespricht, wird in den einschlägigen Diskussionen oftmals kontrovers, aber mit großer Bestimmtheit beantwortet. Einerseits werden deutliche Einkommensvorteile und positionale Vorteile für*

Promovierte gegenüber den anderen Hochschulabsolventen konstatiert und auf das nach wie vor ungebrochene gesellschaftliche Ansehen des Dokortitels als soziales Distinktionskriterium hingewiesen. [“When the question as to whether or not possession of a Doctorate promises better chances of employment and greater career opportunities is raised in informed circles it is often the subject of robust discussion and some controversy. However the answer is, in the vast majority of cases yes. On the one side there are significantly increased earnings opportunities for those graduates with a Doctorate as compared to those without and on the other the continuing distinct status in German society that, even today, a doctor’s title confers. This status is demonstrably a ‘social selection criteria’ and is thus important to career progression.” (Freely translated from the German by the author.)] Enders, Bornmann, (2000, p 230)

Figure 7: Promotionsmotive nach Promotionsfach (Mittelwert) – Motive for seeking a Doctorate by area of study



Source: Karriere mit Dokortitel, Enders, J., Bornmann, L., (2001).

Another important socio–economic factor is employability or continuity of employment. Both the OECD (2002) and US Department of Labour statistics (2002) indicate that graduates are significantly less likely to be unemployed as the working population at large by as much; it seems, as a factor of three to one. There is no data available relating to the relative employment prospects of graduates and those with Higher degrees but in any event the researcher questions whether considerations of future job security are a significant factor in the decision to pursue a Doctorate.

6.3 Cultural factors and their implications

There are, of course, many agents, which may be labelled cultural, and a number of ways in which they may affect behaviour both of the individual and the group. This part of this research does not attempt to address all of them but rather looks at those, which in the writer’s opinion are likely to be most relevant to the questions this research addresses.

6.3.1 The “Credential” Society

In his book *The Credential Society* Collins, R., (1979) Randell Collins discusses the effect on society of on the one side of the advance of technology and on the other of the development of a “universal” system of

education. He writes primarily about the United States which perhaps rather surprisingly, given the apparent informality of Americans in general, their disdain of the use of titles and emphasis on egalitarianism, he identifies as the most “credentialised” society in the world. By this he means a society where in effect the presence or absence of educational credentials (academic qualifications) have become a determinate factor in employment and career progression.

Collins posits that the general belief is that the trend to credentialism has and will continue to accelerate. This is, he says, because it is supposed that the intellectual requirement of jobs, or rather the level of education or training, needed to fulfil them constantly increases due to continuing technological change. The proportion of jobs requiring low skills decreases and at the same time new jobs with higher skill requirement replace them or the jobs themselves are up graded. Collins, R., (1979). This part of his proposition seems to be supported by the work of Mason (1996) who as we have seen credits the increasing demand for graduates to increasing technological demands. Collins also says that the explanation for these trends has commonly been treated as obvious, *“Education prepares students in the skills necessary for work, and skills are the main determinant of occupational success. That is, the hierarchy of educational attainment is assumed to be a hierarchy of skills, and the hierarchy of jobs is assumed to be another such skill hierarchy. Hence, education determines success, and all the more so, as the modern economy, allegedly shifts towards an increasing predominance of highly skilled positions.”* He himself expresses

some scepticism about this, believing that the empirical evidence available does not support a detailed examination of this technocratic interpretation of education. He cites the work of Jencks et al (1972) which itself was based upon an analysis of aggregate census and survey data. This shows that a significant proportion, 60%, of career stratification cannot be satisfactorily explained by education alone. As alternatives to the technocratic ideology Collins quotes from the work of Althusser (1971), Bourdieu and Passeron, (1964), and Bourdieu et al (1974) which essentially ascribe such stratification to the class reproduction argument. The key component is the concept of “cultural capital”, a set of cultural outlooks and predispositions that children receive from their home environment and invest in formal education. This capital determines their progress through the schools and is cumulatively enhanced or diminished according to the previous accumulation of cultural capital. Thus the older system of direct inheritance of material property seems to have been supplanted by a system of indirect material inheritance through the direct inheritance and investment of cultural property. This is of course by now somewhat dated but it is supported by the analyses of Enders and Bornmann (2001), Kraus (2001) and Hartmann (1996), which show that Germany’s senior managers (see Tables 10 and 11) come from a predominantly upper middle class background, as it seems, do their British counterparts. Although this is supported by the work of Whitley (1974) and Giddings and Stanworth (1978) as cited by Mason (1996) it is difficult to quantify the current position in the United Kingdom given the lack of recently

published data. The writer believes however that it is unlikely to have changed significantly.

Collins also addresses the technological relevance of education and concludes that although there is some evidence, based on an international comparison by Harbison and Myers (1964), that nations with a higher GNP have a greater percentage of their populations in elementary, secondary and higher education than those with lower GNPs the comparison does not hold good when making comparisons between countries with similar GNPs. So although for example when one compares a developing or third world country with a developed country the difference is significant and consistent, the same is not necessarily true when comparing developed countries with one another. For example when one compares one of the Nordic countries with say Nigeria or Zimbabwe the difference is apparent but compare Sweden with Norway and Denmark and one sees that there is no obvious linear relationship between GNP and education. He posits that the main contribution of education to economic productivity appears to occur at the level of transition to mass literacy and not significantly beyond this level.

Collins, R., (1979 p15),

Interestingly, from the point of this research Collins also looked at the status linkages between education and occupation. What he identifies as the "Cultural membership model" seems to suggest that education, to quote Collins (1979), should be most important where two conditions hold. Namely where a particular status group holds or controls entry to one, or another particular status group (senior management for example) and where a

certain type or level of education most closely reflects membership of a particular status group.

Here it is perhaps possible for us to draw a parallel. In Germany most senior managers, members of boards of directors [Vorstände], and Chief Executives, which we may choose to define as such a status group, have Doctorates or at least the equivalent of a British post-graduate degree. See table 10 in 6.3.2. It seems reasonable to expect that they will seek to recruit or promote individuals with a similar background or level of academic attainment. This is particularly true if one considers the achievement of a PhD as some form of intellectual benchmark.

On the other hand it is unusual to find a senior manager or director with such qualifications, particularly a Doctorate, in the United Kingdom. Education need not of course be defined solely in terms of academic qualification. Where one went to school, or rather which school one attended may also be considered a significant determinate factor particularly in the United Kingdom where, as we have seen, a very high proportion of the most senior executives have a background, which includes a public school or Oxbridge education, or both. Wiener, M, (1981), Giddings and Stanworth (1978) and Whitley (1974) as cited by Hartmann (1996). There seems little doubt that this also constitutes a clearly definable status group. Here once again social background or Sozialherkunft seems to be a potential determinant factor. This is examined in some greater detail in 6.3.2.

In his work in the early to mid seventies Williamson posited the use of credentialism by companies recruiting individuals as some form of insurance or at least a way of mitigating potential risk. He argued that because it takes time to evaluate an individual's true capability every hiring decision is in fact an investment decision. The hirer is faced with something of a lottery. He or she, must decide on the basis of the information that he has whether or not to take the risk of hiring individual A rather than individual B and may seek to mitigate this by interpreting what Williamson calls Job signals. This might well include academic or vocational qualifications or indeed elementary school background in the case of the United Kingdom. Williamson (1973, 1976). It would seem reasonable to expect that in the majority of cases, although of course not all, an attempt would be made to mitigate risk. As an example of risk aversion during the late sixties through almost to the end of the eighties there was a saying in the Information Technology business that went along the lines of "No data processing manager ever got fired for buying IBM" Inferring that rather than take the perceived risk of buying a competitive but relatively unknown product with a different brand name most managers would, if faced with the choice, buy IBM even at a higher price. At this time of course IBM had a predominate share of the world market for computer hardware. Faced with two candidates one with a Doctorate in the case of Germany, or a Public school education in the case of Britain and one without the probability is, all other things being equal the former would be preferred.

In the eyes of many the trend towards 'credentialism' is increasing not only in Germany but in many societies and this of itself is considered not only undesirable but seen to pose a potential threat. In a recent article in the Financial Times, Samuel Brittan (2000) posed the question. "*Financial constraints apart, can there really be such a thing as over education? Surely, knowledge is always better than ignorance?*" He comments that this is perhaps right as the slogan of personal development even though there are other values, apart from the pursuit of book learning. The real worry he says is not so much about the pursuit of knowledge, but 'credentialism'. For Brittan this means the multiplication of paper certificates and qualifications as a condition for more and more kinds of professional and other employment. He feels that when education in this sense is being promoted by so many governments it is the time to ask critical questions. This, despite the mainstream view among economists that education is an investment in human capital that increases the productivity of both the individual and the society of which he or she is part. His concerns echo those of Taylor and McGugan (1995) writing about the increasing trend toward 'credentialism' in Canada. In particular the use of increasing formal educational requirements to effectively lock competitors out of the job market and protect the vested privileges of a well paid group. Robert Reich (1994) a former United States secretary of Labour had also expressed similar reservations in a paper entitled Jobs: skills before credentials. McMenamin (1998) as we have seen used the expedient of citing some of the many very, in financial terms,

individuals who had succeeded without the benefit of formal academic qualifications to question the need for them.

Whether or not the preponderance of academically highly qualified individuals in German boardrooms is a manifestation of 'credentialism' remains to be seen.

6.3.2 Status in society

Here there are a number of facets that need to be examined. These include the relative status of senior managers in the two countries and the relative status of those with higher educational qualifications such as Doctorates. As early as 1962 David Granick was writing about the similarities and differences between British and German managers. He identified the relatively low status of industry in Britain and the resulting comparatively low prestige of its managers and described the British industrial manager, in comparison to his German and American counterparts, as an industrial amateur. Eberwein, (1993). Since then many other writers including Wiener (1981), Handy (1987), Constable, McCormick et al (1987) and Keeble (1992) have made observations in a similar vein. It would appear that in the United Kingdom little status, in comparison to other occupations, is given to industrial managers or indeed to academics. Wiener (1981 p132) tries to make a connection between the low social image of industry in the United Kingdom and the lack of techno scientific courses of study at British

universities saying “*Elite educational institutions from the Victorian era on have reflected and propagated an anti-industrial bias.*” Even though politicians have had a preoccupation since the Second World War of broadening access to university courses and promoting technical training at technical colleges then by raising the status of those institutes concerned through advanced technical colleges or Polytechnics to full universities, the majority of the new universities of the early to mid sixties appear to have concentrated most of their resources on the arts and social sciences. Wiener, (1981 p133). The majority of the better trained, mostly university graduates, chose not to go into industry but preferred to look to careers with higher status attached. It seems that “*British managers like British gentlemen, were born rather than made.*” Whitley et al, (1981 p31). In comparison with Germany and France Britain has the lowest percentage of graduates amongst its top managers (24%) and even amongst all managers. (Eberwein 1993)

There seems to be a complete dichotomy in this respect, between the United Kingdom and Germany. In the United Kingdom it is “simply not done”, about as stringent a prohibition as can be given in English upper and upper middle class circles, to appear to be too clever. Wiener (1986) or to “show off.” Status symbols seem for the large part to be eschewed. The typical upper class English man for example dresses down at the weekend rather than up. Keers, P. (1987). Titles are rarely used particularly academic titles. As we

have seen from our case study Polyco, some companies exclude such titles from business cards and correspondence as a matter of policy.

How different this is in Germany where academic and job titles confer status and are almost always used and are in fact considered to be an integral part of ones name. Drees supports this proposition saying "Neben den mit der Promotion verbundenen Einkommens und Karrierevorteilen existiert ein weiterer, immaterieller Bonus, den die Promovierten in Deutschland genießen können; ihnen wird allgemein die höhere Fachkompetenz zugebilligt . Da der Dokortitel einzige akademische Titel ist, der als Namenbestandteil fungiert, ist der, "Doctor Meyer" im Gegensatz zum "Diplom Kaufmann Meyer" oder anderen Absolventen eines Magister. Diplom, oder Staatsexamenstudienganges schon bei der Anrede als Akademiker erkennbar. Das hohe Sozialprestige des "Dr." führt dazu dass "Docktoren" von der deutschen Bevölkerung spontan zur sozialen Oberschicht gerechnet werden." [Along with the additional income that is linked to a Doctorate comes an additional immaterial (in the sense of non physical) bonus that those in possession of the title may enjoy. They gain an aura of competence. Because the title Doctor is the only title which functions as part of an individuals name such individuals are recognised on introduction as academics. The German population spontaneously identifies them as belonging to the upper social classes.] Drees (1995 p118).

Although it's now changing in the recent past it would not have been unusual for the wife of someone with a PhD or a senior position in industry to

have been addressed by her husband's title, Frau Doktor or Frau Generaldirektor for example.

A paper – 'Fitting socially in fortress Europe'. Boddewyn, J., (1992) published in America, although understandably once again written from an American viewpoint, confirms that academic credentials and in particular engineering degrees are very important in Europe. It tells us that short of being president of the company, an engineering degree is a very prestigious title and that individuals holding them will typically be addressed as Monsieur l'ingenieur (or its equivalent in other continental European languages). The title will almost certainly be on their business cards and appended to their signatures. Boddewyn, J., (1992). We must assume here that Boddewyn was referring to continental Europe, as this is certainly not the case in the UK. She also states that other academic titles are also important and uses the example of Helmut Sihler, the Chief Executive of Henkel a large German chemical company, expressing some incredulity that he should be introduced as Herr Professor Doctor Helmut Sihler and expressing the opinion that no American Chief Executive would use his professorial title or "Doctor" even with a PhD and having sometime lectured at Harvard or Michigan State.

What she does not mention is that not so long ago his wife might have been addressed as Frau Professor Docktor Sihler! In the introduction to this research it was observed that although no British Prime Minister since 1945 has had a Doctorate, Sutherland (2002), no German chancellor since 1945 has been without one. Although no comparable data is available for the UK,

perhaps of itself indicative, Table 13 shows how prevalent the title “Doctor” is amongst what we might term the German elite.

Table 13: KEIN KANZLER OHNE DOKTOR (No Prime Minister without a Doctorate)

Promotionshäufigkeit in Deutschland (Stand 1995) (in Prozent)		
Alle Arbeitnehmer	Ca. 1.0	[Workforce]
Sachbearbeiter in Großunternehmen	CA. 2.3	[Clerk]
Offiziere der Bundeswehr	3.0	[Army Officer]
Pfarrer	Ca. 3.0	[Priest or Clergyman]
Wirtschaftsakademiker	Ca. 9.0	[Academic]
Generäle der Bundeswehr	14.6	[Army General]
Unternehmensberater (selbständig)	Ca. 15.5	[Consultant]
Abteilungsleiter in Großunternehmen	18.2	[Dept. Head]
Direktoren in Großunternehmen	35.6	[Company director]
Bundesminister	46.0	[Government Minister]
Landesminister	46.1	[State Minister]
Bischöfe	54.8	[Bishops]
Hauptgeschäftsführer von Industrie und Handelskammern	56.0	[Chief Executives]
Deutsche Botschafter	58.1	[Ambassadors]
Abteilungsleiter Bundesministerium	65.1	[Gov. Dpt. Heads]
Vorstandsmitglieder der 100 größten AGs	69.9	[Company Directors]
Professoren an Fachhochschulen	81.0	[Professors]
Professoren an wissenschaftlichen Hochschulen/Universitäten	99.7	[University Professors]
Bundeskanzler (seit 1945)	100.0	[Prime Ministers]
Quelle: Institut für Wirtschaftsberatung Dr. Frank Grätz, Bergisch Gladbach		

Source; Graetz (1996)

According to Grätz in 1995 an astounding 69.9% of the members of the board of Germany's top 100 publicly quoted companies held Doctorates, 35.5 % of functional heads in large companies held Doctorates and 18.2% of department heads. Even among the politicians including ministers (46%), the religious leaders including Bishops (54.6%) and the academics Doctorates do prevail. The message seems fairly clear if you want to get ahead in Germany young man get a Doctorate. Doing so would appear to provide entry to an elite club and provide the status associated with it.

6.3.3 Social class

In their book Macionis and Plummer (1997) ask the question "Why do sociologists spend so much time talking about class?" which they answer by saying that there can be little doubt that social stratification (class) influences nearly every aspect of an individual's life. Class status affects everything both objectively, i.e. in a directly measurable way, they quote life expectancy, divorce, home ownership and education as examples, and subjectively, i.e. the way we perceive ourselves to be, our self image, our language, our values, our, what they call, cultural capital. They point out for example, that in the United Kingdom just one percent of those entering university come from an unskilled manual class background whilst nearly eighty percent come from the upper social class one. As we shall see as difficult as it may be to

change ones class there may be two readily identifiable potential keys. One is the acquisition of wealth and the other education.

Boddewyn (1992) describes the European social structure as being dominated by a sizeable bourgeoisie located between a tiny aristocracy at the top and a huge set of lower and working classes at the bottom.

Movement between these classes is restricted. Acceptance and integration into the middle bourgeoisie is not, apparently, immediately based on income, education or professional success. There are, she says, two routes to changing class. The first is entrepreneurial. An individual needs to become an independent business person by, for example, owning a small or medium sized business enterprise. The second is to become a technocratic manager or a professional – mainly through education, although performance and track record also help. The researcher questions this proposition, as although it may be true of continental Europe including Germany it seems less likely to be so in the United Kingdom. Not that it is easier in this country rather the reverse. Boddewyn does point out that any such change achieved is likely to be only the first rung on the ladder i.e. moving from the working class to the petit bourgeoisie. It may, and most probably will, take generations to move further up the notional ladder.

If what she says is true the achievement of higher academic qualifications than ones antecedents or competitors may prove to be a powerful incentive.

Sadly there seems little doubt that education is still inextricably linked to social class (see Figure 8) not necessarily through access although this is

also factor – upper or middle class parents are more likely to be able or willing to finance a post school education - but also by virtue of class mores which tend to keep aspirants within their existing social grouping. This is not only true of Britain Hartmann's (1996, 2001) work seems to support this argument. If one looks at tables 13 and 14 which show the social origins and academic qualifications of the Managing Directors of Germany's top 100 companies in 1970 and 1995 respectively, one can see that a substantial majority came from the upper middle classes and had at least the equivalent of a British Masters degree or a Doctorate. Over the last twenty-five years this tendency has if anything become more pronounced with 38% having Doctorates in 1970 and 46 percent in 1995 and with only 3% stemming from a working class background in 1995 as opposed to 7% in 1970.

Figure 7 shows the social class to which the Managing director's father belonged. Here again there seems to have been little change between 1970 and 1995.

Bourdieu as cited by Macdonis and Plummer (1997 p498) posits that the reproduction of culture is not consistent across all social classes but that it is more likely to occur in the dominant classes. He says that although members of each distinct social class transmit what he identifies as a distinctive "habitus" (self image, way of acting and speaking, ones general 'presence') schools tend to only pick up the habitus of the most powerful classes – this the writer believes was almost certainly true of the media although this it seems has changed over recent years – and that the educational system has an in built-in bias against working class knowledge and skills. Certainly

despite the declared intentions of political parties both in the United Kingdom and Germany to broaden access to higher education as part of the move towards a more equal society both this and access to positions of power and influence remains almost exclusively the prerogative of the upper social classes and their descendants. See Figures 7 and 8 and Tables 12, 13 and 14.

If one accepts Bourdieu's premise, and it seems reasonable to do so on the basis of the evidence so far, then it goes perhaps some way to explaining why, despite political attempts at social re-engineering, the situation where the upper classes dominate both higher education and by inference, at least in Germany, senior management has remained relatively unchanged over the last twenty five to thirty years. See Tables 14 and 15.

If we accept that the 'system' itself acts in such a way as to limit change having not only a built-in inertia or aversion to change but that it actually acts in a way which positively discriminates in favour of the already advantaged rather than the disadvantaged then it is hardly surprising that this is reflected in stereotype of today's senior managers after all the majority of them will have begun their careers some twenty to thirty years ago.

Table 14: Sozialherkunft und Bildungsabschlüsse der Vorstandsvorsitzenden der 100 größten Unternehmen Deutschlands 1970 [The social class origins of the chairmen of Germany's top 100 companies and their final educational qualifications. (1970).] N.B this table is identical with table 1 on page 20 but is included here again for ease of reference

Soziale Herkunft und Bildungsabschlüsse der Vorstandsvorsitzenden der 100 größten Unternehmen Deutschlands 1970												
	BWL VWL	Jura	Ingenieur wiss.	Natur-wiss.	Studium ins.	Promotion	Studium u. Lehre	Nur Abitur	Nur Lehre	Lehre u. Abitur	Ohne Angaben	Insgesamt
Arbeiterklassen u. Mittelschichten	6	2	1	-	9	7	2	1	4	-	-	14
Gehobenes Bürgertum	11	24	11	6	52	30	1	3	1	4	8	68
Davon: leitende Angestellte	5	5	3	2	15	9	1	-	-	-	-	15
Offiziere, Grundbesitzer	-	2	2	-	4	3	-	-	-	-	-	4
Akademische Freiberufler	-	4	2	2	8	5	-	-	-	-	-	8
Höhere Beamte	1	7	1	-	9	5	-	1	-	-	-	10
Unternehmer	5	6	3	2	16	8	-	2	1	4	8	31
Ohne Angaben	5	1	3	-	9	1	1	-	1	-	4	14
Zusammen	22	27	15	6	70	38	4	4	6	4	12	96

N.B. Arbeiterklasse = Working class, Gehobenes Bürgertum = Upper middleclass, Promotion = Doctorate. Source: An der Spitze p214 (5) B. Kraus (2001) contribution by Hartmann M. A translation of all the terms used is given on p21.

Table 15: Sozial_Herkunft und Bildungsabschlüsse der Vorstandsvorsitzenden der 100 größten Unternehmen Deutschlands 1970

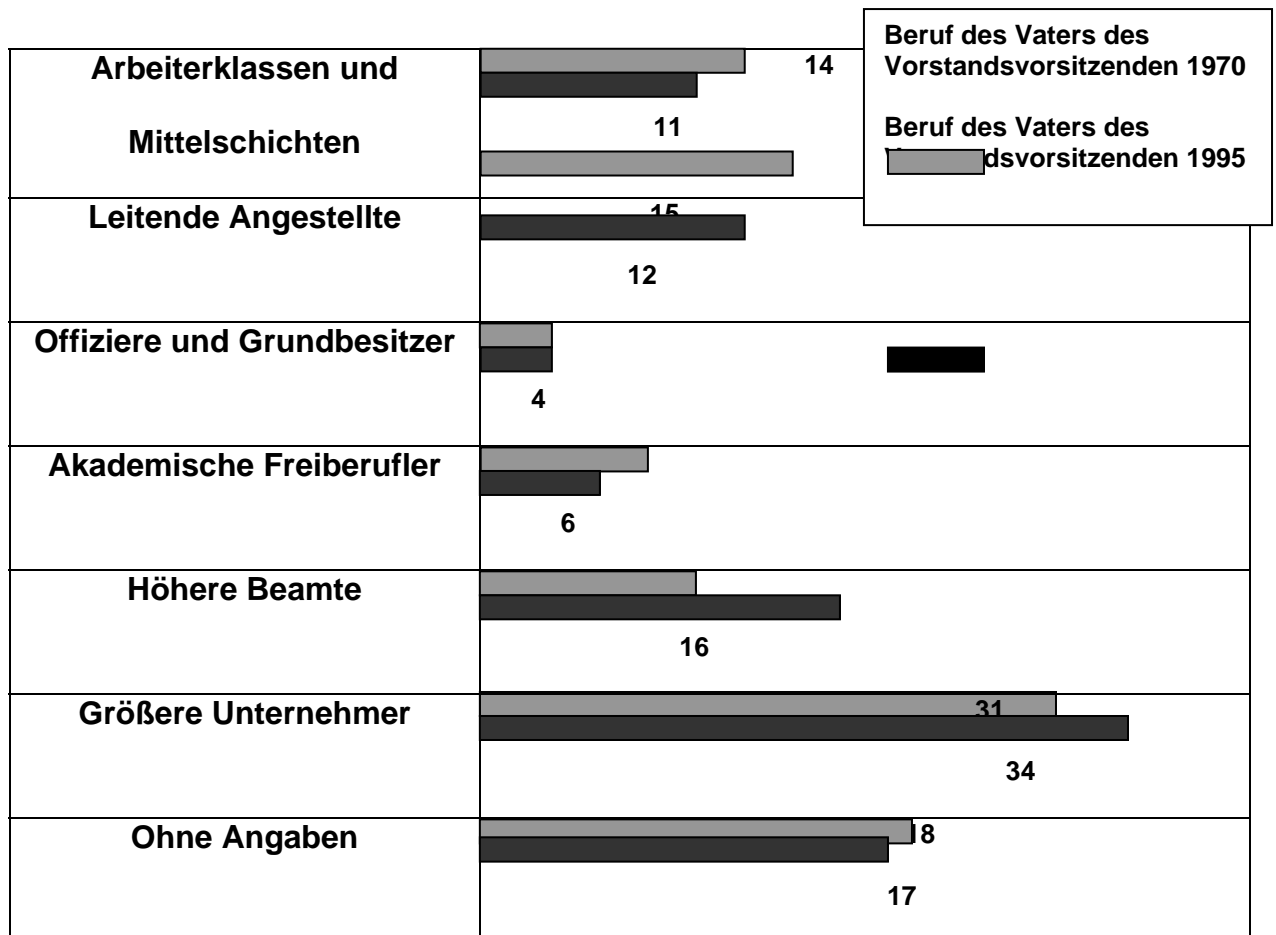
[The social class origins of the chairmen of Germany's top 100 companies and their final educational qualifications. (1970).] N.B This table is identical with table 2 on p22 but is repeated here for ease of reference.

Soziale Herkunft und Bildungsabschlüsse 1995												
	BWL , VWL	Jura	Ingenieur wiss.	Naturwiss.	Studium ins.	Promotion	Studium u. Lehre	Nur Abitur	Nur Lehre	Lehre u. Abitur	Ohne Angaben	Insgesamt
Arbeiterklassen u. Mittelschichten	5	1	2	-	8	3	5	-	3	-	-	11
Gehobenes Bürgertum	22	24	14	3	63	40	9	-	-	2	7	72
Davon: leitende Angestellte	1	8	2	1	12	8	3	-	-	-	-	12
Offiziere, Grundbesitzer	-	3	-	-	3	2	-	-	-	1	-	4
Akademische Freiberufler	4	1	1	-	6	6	1	-	-	-	-	6
Höhere Beamte	7	6	2	1	16	11	1	-	-	-	-	16
Unternehmer	10	6	9	1	26	13	4	-	-	1	7	34
Ohne Angaben	6	2	2	-	10	2	2	-	1	-	2	13
Zusammen	33	27	19	3	82	46	16	-	4	3	9	97

N.B. Arbeiterklasse = Working class, Gehobenes Bürgertum = [Upper middleclass], Promotion = [Doctorate]

Source: An der Spitze p214 (5) B. Kraus (2001) contribution by Hartmann M. A translation of all the terms used is given on p21.

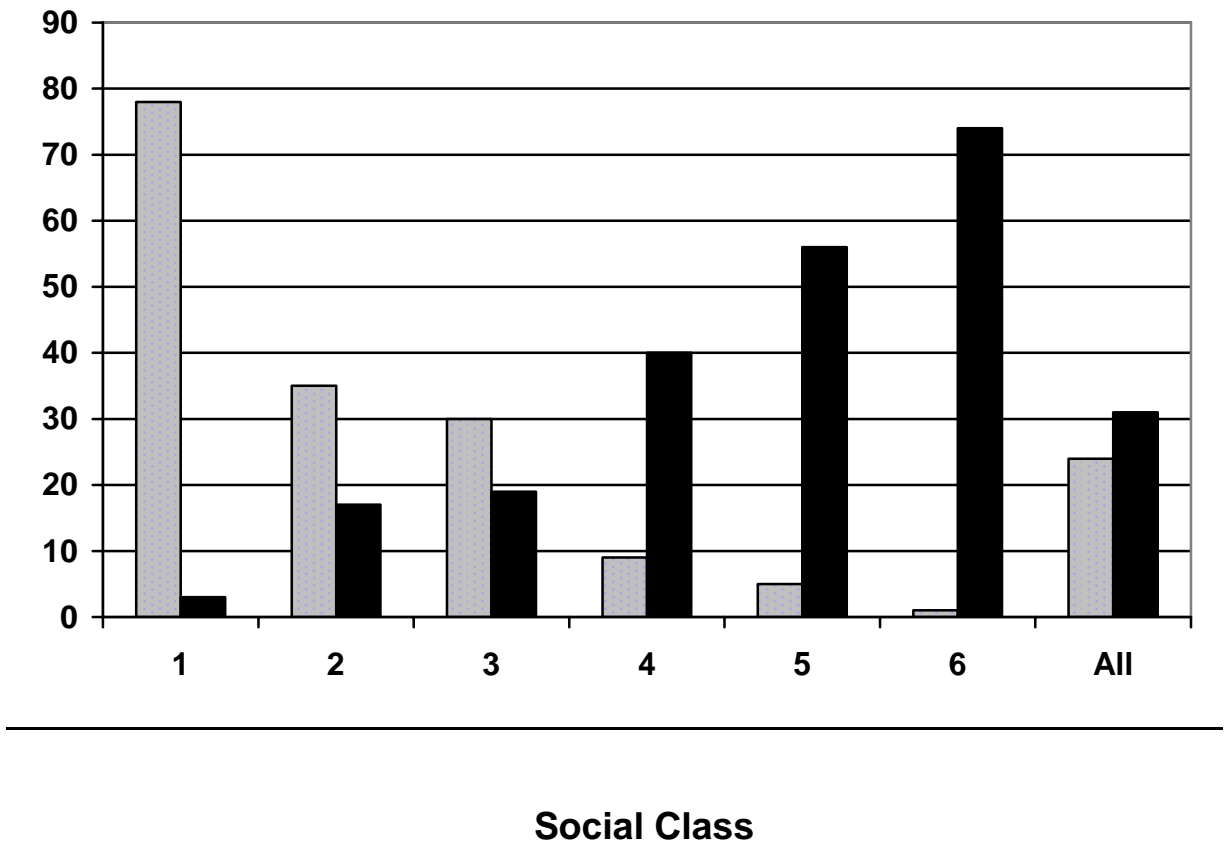
Figure 8: Die soziale Herkunft der Vorstandsvorsitzenden* [The social origins of managing directors]



* der 100 größten deutschen Unternehmen

Source: Die Welt 2/02/2002

Figure 9: Percentage of persons with higher educational qualifications in Britain by social class.



Source: General Household survey, Sociology, Maconis and Plummer, (2002) p497

Hartmann (1996) questions in his book *Top-Manager: Die Rekrutierung einer Elite* (The recruitment of an elite) the methods of selection of and the criteria used in the recruitment of Germany's top managers pointing out that whatever they are they result in more than two thirds of them being recruited from a very narrow social spectrum at the highest end of the social scale. It is evident that in Germany as in Britain class does matter.

He highlights some basic differences between Germany, the United Kingdom, France and the USA. In particular the absence, in Germany, of the elitist schools and institutions found in those other countries – Les Grandes Écoles in France, the Public (meaning private) schools and Oxford and Cambridge universities in the United Kingdom and the private schools and Ivy League colleges in the United States. Yet although, for a number of historical reasons, Germany has not developed similarly pronounced elitist educational paths, still by far the majority of Germany's top managers stem from an elitist, or at least upper middle class background. Hartmann (1996 p67).

This is true even though as we have seen essentially any individual in Germany who holds the equivalent of an upper-secondary school certificate (Abitur) is entitled to enter any university in any subject Gellart, (1996), the exception to this being the so called "numerus clausus" which restricts entry to study in certain fields, primarily medicine, to those with a certain minimum grade point average. It is apparent that other forces are at work. It would seem that access to higher education is determined not only by formal academic requirements but also social and political factors, which may have little to do with those requirements. Gellart (1996). Whilst it is generally recognized that socio-structural barriers in Germany are less pronounced than those in the United Kingdom, Gellart (1996) believes that the earlier work by such as Beck (1983, 1986,) which suggests an eventual erosion or blurring of class distinction fails to recognize or at least underestimates the power of the upper middle classes with regard to their structural potential for

political, socio-economic and cultural influence and ability to perpetuate this through systematic self-recruitment. Gellart (1996, p317).

If this question of social class as a determinate of higher education is true of Germany then it is almost certainly true of the United Kingdom and, incidentally, France. Although European integration, through monetary union and expansion of the European Economic Community is proceeding apace, the whole process is presided over by a top management class that although it has many similarities particularly in terms of social background and class still has individual national characteristics. Mayer, Whittington, (1999).

In France the senior managers and bureaucrats are almost all products of the four Grandes Écoles. On the other hand it would seem, that the predominant “English” culture has traditionally been marked by an aristocratic contempt for industry (Wiener 1981) and top management has been characterized as amateur, Chandler (1990) with a relatively low proportion of university graduates entering industry. Mayer, Whittington, (1999).

One of the most significant findings from our review of the literature is how important a factor social class continues to be. This is true both in the United Kingdom and, perhaps more surprisingly to those of us brought up in Britain, a society which most observers acknowledge as being class ridden, Wiener (1981), Germany.

Class or Sozialherkunft (social origin) as it is described in German seems to be a determinate in terms of access to and success in both higher education

and, perhaps not therefore surprisingly, management. The information available from the Office of National Statistics in the United Kingdoms see Appendix 9, and the Statistisches Bundesamt (German Federal Bureau for Statistics) in Germany, see appendixes 10 and 11, shows clearly that higher education is still the purview of the so called middle and upper classes. Although the situation has apparently improved in the United Kingdom over the last decade, the trend might be better described as flat over the last five years, moving from a position where only some six percent of students came from 'working class' or 'unskilled' backgrounds to thirteen or fourteen percent today. Such students are clearly in a very small minority. The majority of students still tend to come from upper and middle class 'professional' backgrounds. The same is true for Germany where once again only some twelve percent of students come from working class backgrounds. It seems reasonable to expect, given the composition of the student body, that the majority of those pursuing Postgraduate study and eventual Doctorates will also have come from upper and middle class backgrounds. In Germany this is indeed the case – see appendix 12 which shows only some 12 to 14 percent of successful candidates coming from a 'working class' background. Enders, J., Bornmann, L., (2000). And, although no specific data relating to this seems to have been published, must by inference also be true of the United Kingdom. This is, not unexpectedly, reflected in the social backgrounds of the German management population, specifically that of senior managers as can be seen

in Tables 1,2,13, 14 and appendix 13.Hartmann, M., (1996) Enders, J., Bornmann, L., (2000).

Although it varies slightly from one area of business activity to another on average only just over five percent of German 'Topmanager' [senior managers] come from a working class background and even this figure is somewhat distorted by the service and financial industries where a higher proportion of the senior management population tend to have upper and upper middle class backgrounds. Less than three percent of those in senior positions, in what might be termed manufacturing industry, come from the 'working' classes.

Once again it appears that little directly relevant data i.e. data relating to their antecedents class background has been published about senior British managers. It may be that given the supposed antipathy of the 'upper' classes towards business and industry, Wiener (1981) that a lesser proportion of senior managers in the United Kingdom come from these classes than do those in Germany however it is likely that the majority, by virtue of education, still do. This of itself is an area that may be worthy of some further investigation.

We have established that German managers are, as a rule, better qualified academically, and almost certainly vocationally, than their British counterparts despite the fact that they both seem to stem for the most part from similar class backgrounds. This is not a recent development, but seems to be part of a long established pattern. What remains to be explained is why

the Doctorate is apparently so highly valued, both it seems in industry and in society, in Germany whilst in the United Kingdom it is treated with diffidence and may even prove to be a hindrance to advancement in the world of business.

So it would seem that although social background and class is an important characteristic of or even a prerequisite for entry into senior management a formal education or academic achievement at least in Britain is not. Both German and British senior managers seemingly stem, for the most part, from the upper middle classes, but German managers are, for the most part, academically better qualified. Perhaps this is a result of the phenomenon Gellart (1996) identified as the classes ability to perpetuate itself through systematic self-recruitment. Do British and German managers recruit or nominate successors who match their own particular stereotypes?

It is appropriate to consider the work of Handy (1999), Hofstede (1980, 1984, 1991) and Mant (1997) in this regard.

In Chapter 3 of this thesis the differences in the ways the British and Germans managed their respective economies were discussed. Smith (1994) called the British (and US) method or style 'the Anglo Saxon' approach as typified by the concepts of 'Reganism' and 'Thatcherism' – of itself essentially an highly individualistic approach with its emphasis on the freedom, opportunities, and responsibilities of the individual. The German concept of a 'Sozialwirtschaft' [Social market economy] on the other hand tends to emphasise collective responsibility it exhibits 'collectivism'. Handy

(1999) drawing on the work of Hofstede (1980, 1984) chooses to define 'individualism' as the opposite of 'collectivism'. He cites a number of countries that are, in terms of their preferred behaviour, collective but says that, in contrast, the Anglo-Saxon bloc, which presumably includes the United Kingdom and the United States, is "*strangely individualistic*".

Where individualism is low people apparently expect more help from family, friends and organizations but give them a higher level of commitment in return. In table 17 Hofstede identifies some of what he considers the key differences between collectivist and individualistic societies.

Table: 16 Key differences between collectivist and individualist societies.

Collectivist

People are born into extended families or other in groups that continue to protect them in exchange for loyalty.

Identity is based on the social network to which one belongs

Children learn to think in terms of 'we'

Harmony should always be maintained and direct confrontation avoided

High-context communication

Trespassing leads to shame and loss of face for self and group

Purpose of education is learning how to do

Diplomas provide entry to higher education

Relationship employer-employee is perceived in moral terms, like a family link

Hiring and promotion decisions take employees' ingroup into account

Management is management of groups`

Relationship prevails over task

Individualist

Everyone grows up to look after him/herself and his/her immediate (nuclear) family only

Identity is based in the individual

Children learn to think in terms of 'I'

Speaking one's mind is a characteristic of an honest person

Low-context communication

Trespassing leads to guilt and loss of self-respect

Purpose of education is learning how to learn

Diplomas increase economic worth and/or self-respect

Relationship employer-employee is a contract supposed to be based on mutual advantage

Hiring and promotion decisions are supposed to be based on skills and rules only

Management is management of individuals

Task prevails over relationship

If one accepts Hofstede's exposition, and it seems reasonable to do so, it appears to support the proposition that one or more of the causal factors this

research seeks to identify may well be linked to the issue of collectivism versus individualism. For example the differing “Anglo–Saxon” and German management paradigms which appear to be based on the principal, on the one hand, that a well trained and experienced manager should be capable of managing any business or process irrespective of the depth of his detailed or specialised knowledge of that business or process and, on the other hand, that to do so successfully a manager in fact requires a detailed indeed specialist knowledge of the business or process that he manages can be, at least conceptually, linked or associated with the differing “collectivist” and “individualist” views on education Hofstede identifies. Viz. The purpose of education is learning how to do - versus - The purpose of education is learning how to learn.

Mant has drawn on Hofstede’s work and developed the following (see Table 18) chart showing graphically the cultural differences between eight countries including Germany and Great Britain.

not inconsistent with the other data we have seen regarding the differing national cultural stereotypes, it seems not unreasonable to assume that entry to the 'elite' group, in our case senior managers and members of the board of directors, will be limited to those the group identifies with and that like will indeed tend to continue recruit like. (See Table 15).

We have seen that Germany has many of the characteristics of a 'credential' society, Collins, R., (1979), in that the appropriate qualification is required if one is to pursue almost any occupation. It also has some of the attributes of a collective culture. Hofstede, (1980, 1984, 1994), Mant, (1997).

For instance in Germany if one wishes to be self-employed it is necessary to show that one has successfully completed the appropriate apprenticeship and indeed for those wishing to employ others and to set up their own businesses, be it a flower shop, bakery, hairdressers, electricians or something more exotic a pharmacy for example it is a legal requirement. The traditional route from the shop floor through supervisory levels to management is limited almost exclusively to those who have at least a 'Meisterprüfung', which is awarded on completion of such an apprenticeship. Linked to this question of 'credentialism' is, in this case, that of 'collectivism' or its mirror image 'individualism'. Both are likely to have a bearing on our deliberations.

As we have seen the work of Hofstede (1994) indicated that German, and indeed to an even greater extent Japanese society, in terms of its national culture exhibited some of the attributes of what he called 'collectivism'. He had defined this as the opposite to individualism. If one looks at table 17 one

can see that some of the traits identified as being associated with 'collectiveness' may indeed be relevant as they seem to match, at least to some degree the generally accepted German stereotype. For example amongst those attributes listed are –

- Hiring and promotion decisions take the employees' ingroup into account
- Management is the management of groups
- Diplomas provide entry to higher status groups
- The relationship between employer and employee is perceived in familial form
- The purpose of education is learning how to do

And

- Identity is based on the social network to which one belongs.

An example of this can be seen in the use of the formal (Sie) and informal (Du) modes of speech and address that are an integral part of the German language. The informal mode is usually reserved for children, family and by mutual agreement with very close friends. Although this is changing in today's Germany, which is tending to become more relaxed and informal, colleagues at work would not normally fall into this category and ones superiors would almost certainly not. However there seems to be a tendency for those who have Doctorates to use the informal mode of address with each other signifying perhaps that they believe they belong to the same immediate social grouping.

Hofstede (1994) also believes that management techniques and training packages have been developed almost exclusively in individualist countries such as the United States and the United Kingdom. This may well be true it's certainly difficult to name a German management 'guru' with the possible exception of Roland Berger, although there are of course some German senior managers with an international reputation, there are no, or at least very few, German business schools with a worldwide reputation. Indeed as we have seen the MBA still has some way to go before it is accepted as a meaningful qualification in Germany. If Hofstede's assertion is correct then the implication reinforces our assumption that Germany is indeed a 'collectivist' society. However one must exercise some care, as one cannot assume that 'credentialism' and collectivism are always linked. Collins identified the United States as the most 'credential' of societies but it might be difficult to argue that the Americans who seem to pride themselves on their individuality are also 'collectivist'. However, difficult as it might be, the writer believes this potential linkage might be worthy of further research. After all Americans tend to be very insular in terms of global affairs but seem to show a remarkably uniform face to the outside world.

The attributes of credentialism are, of course, not always necessarily seen as positive. Some observers; perhaps even the majority, express some concerns about credentialisms' negative aspects. For instance Taylor and McGugan

(1995) feel that the implications of 'credentialism' are not only financial but that they are reflected in many other areas.

For example they believe that 'credentialism' limits social mobility and prevents individuals from making the most of their capabilities. This may appear to be indicative as labour mobility especially at a management level in Germany seems to be restricted when compared to the United Kingdom but as Davis and Saunders (1997) point out citing Molle & Van Mourik, (1988); Read, (1991) and Teague, (1991), although socio-cultural differences are, as highlighted in the migration literature, an important limiting factor on the level of mobility credentialism is but one, and probably not the most important, of these. However, as we have seen, a teacher trained and qualified in one of the Federal German states [Länder], Bavaria, for example, might well and most probably would be required to re qualify if he were moving to another, say Baden-Württemberg. This seems to be a classic example of credentialism in its protectionist mode

It protects those already in jobs and professions and is actually used by those in positions of power to limit access to their spheres of influence. One apocryphal example Taylor and McGugan (1995) quote is the establishment by the Canadian Centre for Philanthropy of a National certificate in Fund-raising management. To qualify an individual is required to have two years of experience in the non-profit sector, pass eight courses that range an 'Overview of Fundraising Management' to the advanced 'Information and Financial management for Fund-raisers'. The question they raise is "*Has*

credentialism gone so far that you now need a certificate to beg?" Apparently the answer is yes, at least in Canada.

Taylor and McGugan are not alone a number of writers express concern about what might be best described as creeping 'credentialism' or the increasing trend towards credentialism even in the United Kingdom. Towner writing with particular reference to the information technology industry says "*We haven't yet quite reached the point of requiring a double first from Cambridge, straight A's at both A level and GCSE (with documented evidence of attendance at an A list kindergarten) for making the data centre managers' tea, but it will come, unless we all do something about being more realistic in our people specifications - Quickly.*" Towner (2002). This, although written with reference to a specific area of business and industry namely the information technology sector, expresses the general concern being expressed that academic qualifications such as a degree rather than vocational training or work experience are becoming the minimum requirement for entry into the higher paid occupations or at least the prime determinate for promotion within them. The writer believes, although confirmation of this supposition would require further research, that in Britain employers do not necessarily attach a great deal of importance to the actual degree topic using instead the attainment of a degree as a form of intellectual benchmark. As we have seen this is unlikely to be the case in Germany where it is usually expected that the degree a candidate has is directly relevant to the context in which he or she will be in fact working.

It seems probable given that the current British government's policy is to have up to fifty percent of secondary school pupils attend university, as they currently do in the USA, that this trend will almost certainly continue to be fuelled.

Although as we have remarked Hofstede's work seems to point towards a link between credentialism and collectivism (see Table 17) the writer believes once again that if one were to seek to prove such a relationship considerably more research would need to be done .

A superficial examination of the problem might well draw one to assume there was in fact no relationship. After all one of the world's most 'credential' societies the United States, Collins (1979), is also usually described as one of the most individualistic. One of its most 'collective' – Japan - is also highly 'credential'. On the other hand however, although it may be a matter for some debate, society in Great Britain is not generally perceived as being highly credential, although, as we have seen, it may be tending to move in that direction, Towner, (2002), yet it is perceived as being individualistic. Hofstede,(1964).

Whilst it is not the purpose of this paper to argue the merits or otherwise of 'credentialism' we have spent some time discussing the subject, as it appears to one of the factors most likely to provide at least some of the answers to the

question “why German managers are academically better qualified than their British counterparts?” Is it because Germany is more ‘credential’ than Great Britain? Certainly it would seem so with its highly structured approach to qualification at the vocational level which requires an individual to be appropriately qualified if he or she wishes to open a business or pursue a trade. A further indication is the German attitude to and the status accorded to academic and other titles. In Germany one’s academic title becomes an integral part of one’s name as does a business honorific such as Prokurist, Direktor [Senior Manager – usually a functional or department head but not necessarily a director in the accepted British sense of being a member of the board of directors of the company] or Generaldirektor or Vorstand [usually the chief executive]. People with titles acquire with them a certain status and are still treated with a certain degree of deference even in today’s modern German society.

What effect do ‘collectivism’ and ‘credentialism’ on the organizations within which managers are called to operate? Well organizations are socially constructed phenomena, Brunsson, Sahlin-Anderson, (2000). It seems almost inevitable that any organization will, to a greater or lesser extent, reflect the values and attitudes of the society and culture within which it was created and continues to exist.

The national characteristics that Hofstede, (1980) ascribes to individuals will surely be reflected in their personal attitudes and the actions they take and as a result in behaviour of the organization of which they are part. Of course as

we remarked in our brief discussion of Hofstede's work if the organisation concern is part of a much larger organisation with a strong sense of its own identity, a large multinational such as IBM for example, then it is highly likely that the behaviour of the subsidiary and the individuals within it will, to a certain extent, be subsumed or modified by this. The effects of this can range from the fairly trivial, mode of dress for example, through to the, from our point of view more important, determination of recruitment criteria or stereotypes including perhaps age, sex, or level of academic achievement. It is not possible to exclude these multinational companies from our analysis, as the data available both in Germany and the United Kingdom does not distinguish between those employed in national companies and those employed in the subsidiaries of companies in foreign ownership. However we do not believe that the inclusion of such companies in the analysis will distort our findings to any significant extent.

Although in their paper Brunsson, Sahlin-Anderson, (2000), are discussing public sector organisations some of the observations they make would seem to apply equally as well to the private sector. Organisations, especially successful organisations often develop a sense of their own identities.

Mullins, (1999 5th Ed.) citing Webb J., (1988) tells us that investigations into supposedly neutral recruitment, or more properly personnel procedures, have found that despite this supposed neutrality informal criteria based on gendered stereotypes are maintained in selection decisions. This suggests, he maintains, that there is a gap between the rational procedures of specifying scientifically (if this is actually possible, a matter about which the writer allows

himself to express some degree of scepticism) the job and the informal process of evaluating candidates and assessing their suitability. This is hardly surprising given that the recruitment process itself is highly dependent on the individuals conducting it. Normally especially, for senior positions, some sort of initial screening interview takes place either conducted by an outside third party, a recruitment consultant for example, or by the personnel function of the company recruiting, followed by one or more interviews by other senior managers within the organisation. In the case of the recruitment of a new chief executive the interviews may well be conducted by the company's chairman and or other members of the board. Handy (1976, 1993 4th edition) tells us that as we grow older we develop an image of our own identity (self- concept) and that we tend to find ways, all be it perhaps subconsciously, of protecting that self-image. They may include surrounding oneself with others who share that, or a very similar self-image, whose self-concept is the roughly the same as one's own. What could be more natural than for an individual in a position of power or patronage to tend or seek to recruit like individuals, perhaps those with the same or similar social or educational background or the same political or religious beliefs or even the same ethnicity. Perhaps not exclusively but giving them advantage over otherwise acceptable candidates because of this perceived similarity.

If we accept this premise then it is reasonable to assume that the situations both in Germany and the United Kingdom will to a certain extent be self-perpetuating. Upper and upper middle class senior managers with a public school and or 'Oxbridge' background will continue to recruit and promote their

fellows in Britain whilst in Germany academically qualified upper and upper middle class managers will continue to prefer to recruit their equally well qualified fellows with Doctorates. The only area where this is less likely to be true is perhaps in the newer industries like electronics, information technology, or some of the service and financial industries. Or conceivably in some of the newer entrepreneurial start-ups that may not have well established management stereotypes.

This perhaps goes some way to towards explaining why the different positions as we have described them in Britain and Germany continue to pertain but not how they arose in the first place. Lawrence tells us that most cross-cultural studies to date seemed to have concentrated on demonstrating that differences did in fact exist, Hofstede's work is an example of this, but that they actually spent little time trying to determine why such differences might exist. Lawrence, Edwards, (2000). He suggests a number of potential approaches to the problem, although all seem to be, to a greater or lesser extent, plausible, some are, in the writer's opinion, offered with the tongue somewhat in the cheek. As for example, when Lawrence discusses a number of potential reasons why personal and leadership qualities are considered more important when selecting managers in Britain, than are academic qualification. Lawrence, Edwards, (2000 p 7).

Although as we have said all of the potential reasons cited by Lawrence are plausible this is probably because they all contain some elements which seem

to be in one way or another directly relevant to the problem we are seeking to resolve.

German managers are, as a rule, academically far better qualified than their British counterparts and are awarded a higher status in society both by virtue of their position and their academic qualifications. This is particularly true of those with Doctorates. Hartmann, (1995), Enders, Bornmann, (2001). Given that this situation is likely to be self perpetuating we need to try to understand how it has come about if we are suggest ways of “Breaking into the charmed circle” as Keeble, (1992 p 110) terms it.

6.3.4 The differences between German and British managers

We have already identified one difference between British and German managers namely that the latter are generally better qualified, academically, than the former but there are of course many others. Some of these differences are predicated by the legislative framework within which they have to manage others by the accepted cultural norms of the societies within which they work and yet others by the constraints or otherwise of the ownership structures of the enterprises they manage and the way these are financed. The question whether or not German managers are better educated than their British colleagues has not, except perhaps by implication, been raised. This must be an area with room for considerable debate beginning perhaps with

what we understand by the term 'educated'. The New Oxford dictionary still defines the verb to educate in intellectual, morale and social terms viz. to give intellectual, moral and social instruction to someone, especially a child, typically at school or university. This of itself strikes a resonance with the propositions that Martin Wiener puts forward in his book *'English Culture and the Decline of the Industrial Spirit'*. Wiener, M. (1981). Particularly his image of the British industrialist (manager) as an 'Educated amateur'. Its German equivalent Bildung (education) as opposed to Erziehung (upbringing) also tends to be defined in the Duden, the German equivalent of the Oxford dictionary, in cultural or social terms. For example; to be educated (gebildet) to be cultured or cultivated. This definition dates back to or is at least rooted in the neo-classical concept of 'Bildung' and the Humboldtian reform programme in Prussia as far back as the late 18th early 19th centuries. Hahn, H., J., (1998). Thus we see there is little, at least superficially, difference between the German and British conception of an 'educated' individual. Being 'educated' does not mean necessarily having particular life or job skills. It does however of itself seem to confer a certain 'aura' or status.

Perhaps one of the weaknesses of Handy and Constable was to concentrate on 'Management education' rather than 'the education of managers'. The inference being that 'management' skills can be learnt or acquired and that such a thing as 'management' science exists. Whilst this may be, at least to a certain extent, true it does not mean that one has to accept entirely the Anglo-Saxon view that what is important is not knowing, or even necessarily understanding, what you manage but knowing how to manage. Lawrence

expresses this thus – *“One may take the generalist view believing that all management tasks will have much in common, that ability to perform them rests on the possession of certain personal skills and character traits and trained competencies. This tends to be for example the American view, where one needs drive, energy and ambition together with the mastery of the management systems in any company. The American manager will be inclined to the view that he or she can ‘manage’ anything and this is reflected in the high mobility between companies and functions”. The British view is that managers need leadership qualities and a variety of personal skills, and that this applies generally to management jobs. The British manager is often pleased to be described as a good all rounder”*. Lawrence, Edwards, (2000 p104).

As we have seen, although one should not be catagoric, the German standpoint seems to be almost diametrically opposed to this. It seems that *“German management is suffused by specialism as opposed to generalism.”* Lawrence, Edwards, (2000 p104). The Germans it appears believe that it is essential to understand that which you are trying to manage and that if you cannot demonstrate that you do understand it you will not be able to manage it. This, let us call it, as Lawrence and Edwards do, tendency to specialisation in Germany as opposed to generalization in Britain evidences itself, as we have already discussed, in many ways. Lawrence, Edwards, (2000).

The ease with which British managers are able to change jobs not only from employer to employer but from industry to industry is one example. This degree of labour mobility is almost unknown in Germany, where the norm seems to be for senior managers to have spent their entire careers working for a single employer.

Although having had a number of jobs thus establishing a “track record” is considered no bad thing in the UK, Lawrence tells us that “*Mobility is not considered a ‘good thing’ per se in Germany, whereas the Anglo-Saxon view tends to be to treat mobility as evidence of ambition and as an important contribution to the development of generalist capabilities*”. Lawrence, Edwards, (2000). Hartmann, (1996) supports this citing Bauer / Bertin-Mourrot 1993, who tell us that around half (48.5%) of the senior managers of Germany’s largest two hundred companies examined in their research had never ever worked for any other company than their employers at the time. This of itself however reflects a significant change over time. If one goes back to the work of Kruk (1972) as cited by Hartmann (1996) we see that in 1969 two thirds of all Vorstandsvorsitzender (Chairmen of the Management Board - roughly equivalent to the Chief Executive or Managing Director in British terms) of German companies had spent their entire careers with the one company.

The proliferation of ‘Business schools’ or at least universities and other institutes of higher education offering business degrees or MBA’s in the United Kingdom a trend which has yet, if indeed it ever will, to catch on in Germany is

another. Germany has, it seems, never much warmed to the Anglo-American style of business education. Although many of Germans hold business degrees, these are mostly very different from the MBA; the long slog through theoretical economics and business mathematics needed to successfully complete a Diploma in Betriebswirtschaft [business (Micro) economics] bears little resemblance to the shorter, American style degree, packed with case studies. The MBA was not even recognised in Germany until the late 1990s. Even now, Germany graduates only about 1,600 MBA students each year, compared with 13,000 in Britain. Anon, *The Economist* (2002).

The managers of German companies it seems are more focused on products and industry specifics, what one might perhaps term the 'nuts and bolts' or 'operations' of their businesses rather than the somewhat more esoteric questions such as their company's 'mission statement'. This does not mean that they do not believe in management education or at least in management development. Many of the larger companies, Lufthansa, Allianz and Bosch, for example, have in-house what might be termed "corporate universities" or training centres for their managers. Given the likelihood that these managers will spend their entire working careers with them it probably seems a worthwhile investment. It may be that these employers see this form of development as preferable to sending their managers to external business schools and that this is one of the reasons why the concept of an external MBA is struggling to gain acceptance. Anon, *The Economist* (2002).

One might perhaps view this approach as a little short sighted given that one of the benefits of a business school is supposedly the opportunity it gives to its

students to exchange ideas and experiences. By virtue of their low turnover and lack of cross fertilisation, in part due to the fact that very little external recruitment takes place, these larger German company managements already, in the writer's opinion, run the risk of becoming somewhat incestuous.

When recruiting or promoting potential managers British employers are, it seems, more concerned with identifying those personal characteristics or leadership traits they deem necessary for the successful manager, than they are with relevant academic qualifications or technical expertise. Although there has been a good deal of support for the idea that the British educational system has failed British industry, hence the low level of academic qualifications amongst its managers. Keeble, (1992). One might equally posit that British industry has failed British academia or at least the British educational system. This certainly seems to be true as far as support for or investment in a comprehensive system of vocational education is concerned, at least in comparison to Germany. The relationship between industry and the educationalist could have no doubt been very much closer, and the educational system of much more use to industry if industry had wanted it to be. However, British industry showed time and again that it did not. Keeble (1992 p65).

It seems somewhat paradoxical that given British industry's preference for generalists the British system of secondary education is effectively designed to produce specialists. The system of examination and university entrance

qualification in the United Kingdom calls for the British scholar, particularly if he or she intends to follow a technical discipline, to begin to specialise from a very early age, at the latest from fifteen years of age if not thirteen. Keeble, (1992)

The German system on the other hand seems better designed to produce generalists with little or no specialisation taking place until university entrance requirements have been met. Once again this seems surprising given the apparent German preference for specialists. As we have seen from the work of Hartmann (1996) and Enders and Bornmann (2000), it is by no means unusual for the German senior manager to have experienced the full gamut of the German educational system from secondary education through vocational education in the form of an apprenticeship to a university degree and eventually a Doctorate. To find a British senior manager so qualified would, as we have seen, very much be the exception rather than the rule.

It would seem that the German educational system reflects the needs of its industry to a considerably greater degree than does the British. However what is perhaps more important for the purposes of this research is that there seems to have been little substantive change to governing attitudes, in either country since they were formulated in the late eighteen to early nineteen hundreds. As Hahn points out in his book *Education and Society in Germany* whilst there had been some attempts at restructuring both of the curriculum and teacher training with an increase in funding following the 'Bildungsbericht' (1970) a Federal government report which supported the recommendations of

the 'Strukturplan', there had actually been little effective change. Critics have noted "*despite all the efforts there still prevails the traditional picture of a highly selective school system based on the idea of grading down all pupils who can't cope with the standards set by historically evolved curricula and inflexible teaching methods*" Hahn, (1998). As in the case of the reform of the higher education sector it seems that the forces of conservatism once again succeeded in limiting change.

It would, of course, be inaccurate to present a case which suggested there had been no change either in Britain or Germany, there certainly has, but it seems that the basic attitudes toward both education and industry established during the early part of the nineteenth and at the beginning of twentieth centuries which Wiener, (1986), Barnett, (1995) Keeble, (1992) and Lawrence, Edwards, (2000), identified in Britain and that Hahn, (1998), Hartmann, (1996), Enders, Bornmann, (2000) and Kraus, (2001) in Germany identified in their work still, for the most part, pertain today. This is probably less surprising when one recognises that those individuals or groups with the potential to change the situation, i.e. those in positions of power, probably had the least vested interest in doing so.

It seems that the bias against those individuals with a scientific, technical or vocational education as managers which developed during the formative years of British industrial society remain with us today. One manifestation of this is growth in power and influence of the so called "professions" which still persists today in the United Kingdom. It seems that if an individual were not born to position or money he or she, although given the era most probably he, could

aspire to 'Gentrification' by aspiring to and becoming a member of one of the elitist professions. Wiener (1986). These professionals, it seems, tried to separate or at least distance themselves from the actual overt earning of money. T.H. Escott (1844 – 1924) whom Wiener describes as the author of a most informative contemporary study of late Victorian Britain explained that medical doctors who were General Practitioners and solicitors had a lower perceived status in society than barristers and clergymen as they had to undergo the 'vulgar' commercial process of receiving money directly from their clients. Of course a great deal of this was essentially illusion – smoke and mirrors if you will - for all of these individuals surely had to earn a living in a competitive world.

None the less as Wiener explained "*The existence of a powerful aristocracy in Britain reinforced the anticapitalist tendencies within professionalisation. Here, consequently, more than elsewhere, the development of the professions was separating many of the most able men from the world of commerce and industry.*" Sadly the same may still be true today.

According to Wiener (1986 p 16), Matthew Arnold, a poet and school inspector observed in 1868 that professional men admitted to an education with aristocrats, tended to model themselves on the aristocracy. Consequently, Arnold claimed "*in no country do the professions so naturally and generally share the cast of ideas of the aristocracy as in England.*" In England the professions, including the emerging civil service, were it seems "*separate, to a degree unknown on the Continent, from the commercial and industrial class with which in social standing they are naturally on a level*".

Once again much the same could be said today. We still find some institutions such as, for example, the British Institute of Management, seeking to enhance the perceived status of their members by enabling them to acquire the peculiarly British soubriquet of being a “Chartered” some thing or other, in this case manager, by virtue of membership of a ‘chartered’ Institute, i.e. one recognised by Royal Charter. To do this of course the former British Institute of Management had itself first to acquire ‘chartered’ status. No mean feat it seems as it has taken over forty years to do so and has been required to expend an enormous amount of resource in the process. They are trying it seems to create or foster the image of the manager as a “professional.” Why, one might ask, was this considered necessary? In almost any other country in the world, except perhaps those that were once part of the British Commonwealth, ‘chartered’ status would surely be considered, at best, an anachronism. Could it be that British managers as a group still consider themselves to be under valued in our society or that they believe they are still not, even today, accorded sufficient status? It might be argued that they, the Institute of Management, are trying in their own way to fight against or counteract the bias against ‘trade and industry’ that has existed it would seem, in Britain since, almost, the time of the industrial revolution.

If so the route they have chosen to take seems to bear a very close resemblance to the old saw “If you can’t beat them – join them.” However the very fact that they have felt compelled to pursue this course of action seems to support the proposition not only that such a bias continues to persist but that it

is felt to still have such a significant adverse effect that the management community in the United Kingdom sees the urgent need to redress the problem and accords it a high priority.

It seems that the brightest and the best of our society continue to be, even today, positively discouraged both directly and indirectly from seeking a career in business or industry. If one must actually work for a living, it seems then that a "Profession", almost any profession or occupation that qualifies as one, rather than trade or industry is to be preferred.

The same cannot be said of Germany where as we have seen many Abituranten [High School Graduates] start their careers by participating in some form of formal apprenticeship scheme even if they then subsequently attend an institute of higher education such as a university or Fachhochschule and obtain a degree or even Doctorate.

Little wonder then that manufacturing industry in the United Kingdom has reached such a low ebb whilst in Germany it remains, even today, the engine which drives the economy.

Typically German managers remain strongly orientated toward engineering whilst the power of the finance professionals in British boardrooms becomes, it seems, ever stronger. Mayer, Whittington, (1999).

The different career and educational backgrounds of these top managers must make a mark on the enterprises they manage, for example, their approach towards risk and reward or how conservative or not they may be. Their

attitudes to competition and collaboration and innovation may also differ.

Lubatkin (1997). In the United Kingdom, for example, as we have seen top management has been characterized by some observers as “amateur”, Wiener (1981).

British managers, particularly those from an “Oxbridge” background who seem to hold a disproportionate number of such positions, Bauer, Bertain-Mourot, (1993) as cited by Hartmann (1996), would probably be, somewhat paradoxically, proud to be described as such whereas one could imagine that their German counterparts might be highly offended if the same epitaph were to be applied to them.

On the other hand Mayer and Whittington’s research (1999) shows that a German Chief Executive is more than twice as likely to be a member of the family owning his company or himself to have a substantial equity position than is his British counterpart. So from this point of view the British manager might be in a better position to exercise his dispassionate professional judgment than his German colleague. They also point out that contrary to previously accepted stereotypes British top managers in the early 1980s appear, quite often to have had some form of technical background although this was more likely to be of a non academic nature typically some form of engineering apprenticeship or other vocational training which was commonly found among non graduates immediately after the second world war. Subsequently though a financial background or qualification seems to have become de rigueur with nearly 20% of all British chief executives now being so qualified. Germany on the other hand is the country of “Technik” where

technical academic backgrounds seemingly dominate all others. Mayer, Whittington, (1999).

It is interesting to compare how the British managers perceive their German counterparts and how they in turn perceive their British colleagues. The work of Cooper and Kirkcaldy, (1995) gives us an opportunity to do this. They took a sample of 167 German and British managers and asked them to complete a twenty item inventory ranking their responses on a five point Likert scale using bipolar opposites to describe the extremes of various personal characteristics. The respondents were both British and German, asked to consider their responses as if they were to apply to a "typical middle aged manager, who was married with two children. The results are shown in Table 17. They seem to reflect the commonly accepted stereotypes. The British managers view their German counterparts as hardworking and disciplined but somewhat conservative and lacking in humour. The Germans on the other hand awarded a more positive set of personal attributes in their British colleagues and were less categorical in their answers. They were less likely to use the extremes, a 1 or a 5 on the five-point scale, to define their responses. Nonetheless analysis of the data, although not definitive, in the table does support, indirectly, some of the conclusions reached by Hofstede. For example it seems to indicate that the British perception of the German manager was that they, the Germans, tended to be more conservative or risk averse and consensus orientated than the mean scoring 3.60, 3.40, and 3.46 respectively on the questions that might be said to reflect these traits. British responses also indicated that they felt

German managers tended towards be more formal in their approach. This although might be partly due to the use by the Germans of the formal 'Sie' rather than the familial 'Du' mode of address and the subsequent tendency to address one another by their titles and surnames. British and American managers of course tend to address each other by their first or given names although this, in the writer's opinion, is not necessarily indicative of a less formal approach to management in the sense that everyone is still acutely aware of their relative positions within the organisational hierarchy. Although not the subject of this particular thesis the whole question of language or linguistics as it affects our perception of and consequently our behaviour toward one another particularly in a business context is worthy of further research. Experience shows that British managers tend rarely to give direct orders at least not to their immediate subordinates. The English language allows an order to be given in a somewhat subtler but no less authoritarian manner than the German. For example if a British senior manager tells a subordinate that 'I think it would be a good idea if you did' then he is issuing an order and the individual he was addressing would almost certainly recognise it as such. In fact he would probably be a little offended if he were to be given a direct order such as 'do'.

Not so the German manager, indeed he might well be a little confused by a more circuitous approach. He is far more likely to be used to giving and receiving direct orders than his British counterpart and far less likely to be offended by it. This is not a question of greater or lesser formality but is rather

indicative of differing syntax. However a German manager is more likely to seek consensus before issuing such an order.

Linked to this question of formality is the British perception of the Germans as being arrogant, formal and humourless, with ratings of 2.06, 4.06 and 3.57 respectively on the five point scale and whilst it is true that self-deprecation is an art seldom practiced by German managers they are not without humour.

Interestingly none of the questions chosen by Cooper and Kirkcaldy for their survey related directly to perceptions of relative competence or qualification, either by training education or experience nor did they address questions of status or class. One wonders, had such questions been asked, whether or not the answers would have reinforced the image conjured up by Wiener (1981) and others of “the players versus the gentlemen”. The typical British manager being seen as the amateur and his German counterpart as the professional. Of course one has to recognise that such stereotyping is at best a crude method of assessment and that it should not be accepted blindly, however, it is also generally accepted that it does usually contain within it some elements which may give some indication as to likely differences in behaviour. Cooper, C., Kirkcaldy, B., (1995).

Table 18: Comparative differences between British and German managers based on the respective perceptions of attributes

Variable	British perception of Germans		German perception of British		F	P
	M	SD	M	SD		
Industrious – lazy	1.80	0.75	2.47	0.74	32.08	0.001
Open – guarded	3.60	0.79	2.90	0.95	24.44	0.001
Unstructured – structured	4.29	0.79	3.14	0.91	70.75	0.001
Cold - warm	2.40	0.84	2.88	0.94	11.36	0.001
Hard – driving	2.23	0.84	2.74	0.89	13.30	0.001
Meticulous – easygoing	1.83	0.89	2.63	0.86	33.27	0.001
Workaholic – laidback	2.43	0.85	3.36	0.87	45.82	0.001
Humorous - humourless	3.57	0.98	2.32	1.02	61.14	0.001
Co-operative- competitive	3.06	1.07	2.77	0.88	3.80	ns
Arrogant - humble	2.06	0.90	2.58	0.71	17.05	0.001
Threatening – non-threatening	2.69	0.85	3.44	0.71	37.88	0.001
Group-dependent – self-sufficient	3.40	0.93	3.49	0.85	0.41	ns
Patriotic – non-patriotic	2.12	1.14	1.91	0.95	1.69	ns
Risk-taking – cautious	3.46	0.90	3.10	0.93	6.22	0.05
Calm – tense	2.83	1.02	2.31	0.74	14.23	0.001
Modest – proud	3.83	1.04	3.38	0.93	8.38	0.01
Self-confident – lack confidence	2.05	0.98	2.15	0.70	0.61	ns
Informal – formal	4.06	0.90	3.35	1.16	17.58	0.001
Critical – uncritical	2.06	0.85	2.47	0.73	11.05	0.001
Accepting - rejecting	3.31	0.77	2.76	0.73	20.32	0.001

Source: Executive stereotyping between cultures: the British vs. German managers

Cooper, C., Kirkcaldy, B., 1995.

In our introduction and initial review of the literature we discussed a difference in attitude between what we called the Anglo/US or Anglo-Saxon approach to management and the German. Essentially this can best be described as knowing how to manage versus managing what you know. In the United Kingdom it seems to be generally accepted that knowing how to manage, as witness the popularity of the Masters degree in Business Administration and the number of financially qualified, one hesitates to say accountants, individuals in our boardrooms. In Germany the MBA is still not, although this is changing, a generally accepted qualification, *The Economist*, (June 27th 2002), and there are significantly fewer accountants, by an order of magnitude, in industry. As the route through the finance function is still not seen as a likely way to the top there are as a consequence, relatively, even fewer in the boardroom.

In Germany the first priority is to know what you manage. For example the former Chief Executive of Volkswagen (Ferdinand Piech) not only served a formal automotive engineering apprenticeship he has a Diplom (Masters Degree equivalent) in automotive engineering and a Doctorate in automotive engineering. This is not unusual, as we have said before more than half those senior German managers with Doctorates have also served apprenticeships. This difference in approach affects many other issues, for example, to be hired or to win promotion in a German company directly relevant experience, by this is meant directly relevant to the product the employer is producing or the

market in which he or she is operating, or a directly relevant qualification or both are required. In the United Kingdom a university degree tends to be seen rather as some sort of intellectual benchmark or enabling characteristic that employers accept almost irrespective of what has been studied and so long a candidate has such a degree he or she may be accepted. In Germany on the other hand it would be almost impossible to obtain a position with one of Germany's top 100 companies, particularly a manufacturing company, with a degree in Geography, or Politics, or History. If one looks at German job advertisements one sees much greater emphasis on the specific skills and qualifications needed and the specifics of the position offered. Lawrence, P., Edwards, V., (2000).

One of the consequences of this is that job mobility in Germany, where in any event changing jobs too often is viewed with suspicion, Simon, H., (1996), Lawrence, P., Edwards, V., (2000) is, relative to the United Kingdom, limited. Whereas in Great Britain changing jobs may be viewed favourably indicating a certain degree of ambition, providing a measurable track record for comparison and evidencing a wider range of experience this is not so in Germany. From the German standpoint it makes no sense to change from industry to industry, even if it were possible, as an individual would potentially be discarding all the knowledge and skill he or she had acquired during the previous period of employment.

In this context it is interesting to look at Table 18 which shows the average length of tenure of CEO's in a selection of Hermann Simons "Hidden Champions" Companies which represent the power house of Germany's "Mittlestand".

Table 19: Average length of tenure of CEO's

Company	Founded	Primary Service/Product	Age of Company	Number of CEO's	Average Tenure per CEO
Netzsch	1873	Plant and machinery for the ceramics industry	121	3	40.3
Glasbau Hahn	1836	Glass showcases for Museums and exhibitions	158	4	39.5
Böllhoff	1877	Screws and Nuts	117	3	39.0
Seca	1840	Medical scales	154	4	38.5
Haribo	1920	Confectionary	75	2	37.5
EJOT	1922	Direct screw joints for plastic material	72	2	37.5
Stihl	1926	Chain saws	68	2	34
VON Ehren	1865	Large living trees	130	4	33.3
Carl Jäger	1897	Incense cones and sticks	97	3	32.3
Loos	1865	Industrial steam and hot water boilers	129	4	32.2
Bizerba	1866	Electronic retail scales	128	4	32
Merkel	1899	Industrial seals	95	3	31.6
Probat Werke	1868	Industrial coffee roasting technology	126	4	31.5
Bruns	1875	Nursery	120	4	30

Source: Hidden Champions, Hermann Simon, 1996, Harvard Business School Press.

The average length of CEO tenure across all of Simon's 500 hidden champions is 24.5 years

Of course as Simon says continuity of leadership is of itself neither good nor bad although it seems improbable that a company would survive over 100 years let alone flourish under constantly bad management. One needs to exercise some caution before concluding that there is a causal relationship but it seems reasonable to expect that long tenure of a good leader would prove to be a significant competitive advantage. Either the CEO stays because he is successful or the company is successful because he stays and is able to pursue longer-term goals. Simon (1996).

This tends to be supported by the work of Collins and Porras (1994) as quoted by Simon 1996 whose comparison of what they termed "Visionary" companies with less successful companies indicated tenure for the CEOs of the successful companies in their sample as 17.4 years as opposed to 11.7 years in the less successful companies.

The question of length of service may also be closely linked to the requirement, in Germany, for a Higher degree of specialist rather than generalist knowledge. It seems that tenure tends to increase with the level of educational attainment of the individual and the more time he or she has invested in their education or the acquisition of such specialized knowledge the less likely they are to change their occupations although they may change employers. Maguire (1993). Lawrence's and Edwards view (2000 p197) is that

Germany's "*specialist somewhat expertise-based view of management tends to keep managers within their function or department for longer and that any moves between companies will typically be between the same sorts of jobs in different companies in the same industry*".

Research conducted by Winkleman (1994) relative to all German males rather than exclusively managers or senior managers indicated that they were likely to change their jobs three times over their lifetime with half of the changes occurring in the first ten years. This was lower than, but comparable with, British males and very much lower than the American male.

One should however not ignore the more prosaic factors that may also tend to restrict mobility in Germany relative to Britain. An example of this is the housing market. Britain has an active, relative to Germany a very active, housing market. A combination of flexible financing options: the availability of mortgages of up to, and today even more, of 100% of the value of a property for example; the comparatively low building or purchase costs and the ability to resell with a potential capital gain means that it is not only socially acceptable for the upwardly mobile to relocate but there is a positive incentive for them to do so. In Germany on the other hand the housing market is not so well developed, one never sees a "For Sale" on a house in Germany for example, and the availability of mortgage finance is limited. The purchase of ones own property is considered to be a significant lifetime achievement, relocation, by and large, a prospect to be considered only in extremis. Interestingly enough Simon (1996) makes the point that most of Germany's

most successful companies his “Hidden Champions” are located well away from the large cities usually in or around small towns in the countryside where, presumably, the housing market may be even more restricted.

Given some of the factors we have described so far: The relative difference in the length of active careers 40+ years for a British manager 30+ for a German manager and the comparatively restricted mobility employment-wise of the German manager it is perhaps only to be expected that they will be somewhat more conservative or at least risk averse in their approach to management.

This supposition is supported by the work of Hofstede (1980, 1984, 1991).

Simon (1996 p219) also makes the point that a potential conflict exists between the long German educational process and ambitious entrepreneurial dynamism. He believes that individuals such as those entering business with a Doctorate in their early to mid thirties may have already lost what he calls their “optimistic can-doism” or that their “entrepreneurial energy” may have already burnt out. Such individuals, if Simon is correct, are almost certain to tend toward conservatism.

Hofstede characterizes this conservatism as “uncertainty avoidance” His work covered many nationalities, all be it employees of the same company, IBM, and attempted to identify the cultural differences between them. He chose four parameters or indexes to measure those differences namely what he called: Power distance – effectively the measure of inequality in society, or an organization, and the tolerance for it. Uncertainty avoidance – effectively the propensity of a culture or organization, to accept risk. Masculinity – a measure

of the degree of masculinity in a country's culture and Individualism – a measure of the degree of individualism in a country's culture. Figure 8 plots Mintzberg's five preferred organizational configurations against a matrix of Hofstede's Power distance and Uncertainty avoidance indices. It is interesting in so far as it clearly shows that not only are the Germans more risk averse than their British colleagues, but it also indicates that their preferred organizational configuration is that of a professional bureaucracy, what Mintzberg describes as "the well oiled machine." A place for everything and everything in its place one might say, at the very least a clearly defined hierarchy and assigned responsibilities.

On the whole the British manager is much more comfortable with ambiguity than his German colleagues. This may to some extent be seen in a reflection of the two languages German and English, German being a more precise language but providing a more limited range of expression than English. As Lawrence says "*English is the language of irony and understatement, of illusion and metaphor, of the rendering of pastel shades of meaning, the language of "fudging."*" Lawrence, Edwards, (2000 p202). English can be both precise in a delightfully imprecise way and imprecise in a precise way. A practical example of this can be seen in the exercise of authority. When a British senior manager says to a subordinate "I think it would be a good idea if you" he is issuing an order, all be it indirectly, and it will be recognised as such. From practical experience the writer knows that if the recipient of this instruction happened to be a German he would not necessarily recognise it as

such. Whereas his British colleague might well be offended to receive an instruction couched in direct terms such as “do that or this” his German counterpart would find it perfectly acceptable preferring the direct to the indirect.

German managers consider the operating core of their organizations to be a, if not the, critical factor in the success or otherwise of their businesses. Their counterparts in the United Kingdom however prefer what Mintzberg calls an “Adhocracy” or “village market” form of organization and identify its “support” staff as being the key factor.

All of this is consistent with our analysis so far and the commonly accepted stereotypes of British and German managers we have previously described.

Figure 10: Mintzberg's five preferred organisational configurations plotted against a matrix of Hofstede's Power distance and Uncertainty avoidance indices

- 1. Preferred configuration**
- 2. Preferred coordination mechanism**
- 3. Key part of organisation**

Low **Power Distance** **High**

<ol style="list-style-type: none"> 1. Adhocracy 2. Mutual adjustment 3. Support staff <p style="text-align: center;">Great Britain</p>	<ol style="list-style-type: none"> 1. Simple structure 2. Direct supervision 3. Strategic apex <p style="text-align: center;">China</p>
<ol style="list-style-type: none"> 1. Professional bureaucracy 2. Standardisation of skills 3. Operating core <p style="text-align: center;">Germany</p>	<ol style="list-style-type: none"> 1. Full bureaucracy 2. Standardisation of work processes 3. Technostructure <p style="text-align: center;">France</p>

	USA	
	<ol style="list-style-type: none"> 1. Divisionalised form 2. Standardisation of outputs 3. Middle line 	

It is difficult to make a clear distinction between those differences in management style or approach that result from cultural as opposed to

structural or legislative differences. Indeed it might well be argued that the structure is as it is and the laws are as they are because of those cultural differences, but it is apparent that British and German managers are required to operate within differing sets of parameters. The framework of laws relating to industrial relations and corporate governance is one example and another is the way industry and business is financed.

Taking the former first the structure of the larger German companies is very different those of their British counterparts. As we have seen they are by law required to have two levels of management board, the Aufsichtsrat or supervisory board and the Vorstand or management board that reports to it. Again by law the supervisory board must have amongst its membership a number of representatives of the company's employees equal to the number of management representatives. The total number of board members depends on the size of the company. The management board is required to recognize a Betriebsrat or Workers council elected by all sections of the workforce and in theory separate and distinct from any trades union. Collective bargaining is for the most part conducted at a national or state level on an industry-by-industry basis. On the whole there seem to be a set of checks and balances in place which although they may seem somewhat restrictive, particularly the "Mitbestimmungsrecht" or right to be consulted and agree, when viewed through British eyes seem to encourage the search for consensus rather than confrontation. The absence of such confrontation should enable the manager to work towards longer-term objectives. In a number of ways this is also true of

the effects of the very different way German business is financed. A significant number of Germany's major companies are still in, or effectively in, family ownership, Miele the household appliance concern, BMW which is effectively in the ownership of the Quandt family, Quelle now a large conglomerate but formally a mail order house and retailer are examples that spring to mind, as is the Springer Verlag the publisher of Der Spiegel [The Mirror] probably Germany's most influential news periodical. Some have become "Stiftungen" [charitable trusts] Bosch the automotive components giant; Lidl the supermarket chain and ZF the world premier manufacturer of gearboxes are examples. Virtually all have been financed by loan as opposed to equity capital and many have interlocking ownership structures. See Figure 2. The key criteria for success in this situation are cash flow and the ability to continue to grow and still finance the debt not necessarily profits. Dividend payments to shareholders are a secondary consideration and the managers are not necessarily driven by short-term considerations such as the company's share price or the need to demonstrate a continual improvement in profitability quarter by quarter. Less time is spent on defensive measures as merger and acquisition activity has historically been low and hostile takeovers almost unheard of.

British business commentators have often written about the adverse effect of short termism and adversarial industrial relations although the latter has become less of a problem given the decline in the power of the trades unions post Thatcher. It would seem that German managers have more time to

realise their business objectives and this might perhaps colour, their approach to management.

There is sufficient evidence to suggest that although they may perform essentially the same tasks, British and German managers do manage differently. In fact the Nene study, as referenced by Lawrence and Edwards, (2000), shows that from seventy-two propositions put to the participants German and British managers exhibited a statistically significant different response to forty-three of them clearly indicating a difference in mind set. For example British managers were the only national group to respond negatively to the proposition: *Higher education and intelligence are important in enabling managers to see things clearly and make rational decisions.* Lawrence and Edwards from the Loughborough study (2000).

However the reasons they do manage differently do not appear to be linked, in any significant way, directly to their relative levels of academic achievement.

Rather they are on the one hand dictated by the political, legislative and financial frameworks within which the managers operate, which of themselves most probably have cultural determinates, and on the other by their own cultural mores and paradigms: what Hofstede (1984) has called "*the software of the mind.*" It is important to recognise that these paradigms are not a recent development but rather have evolved over many generations beginning as far back as the industrial revolution and burgeoning in the late eighteen and early nineteen hundreds. Wiener,(1981), Lane (1989) Keeble (1991), Lawrence and Edwards (2000).

6.3.5 Cultural influences upon performance evaluation, objective setting and behaviour

Although we have touched upon various aspects of this it would be remiss of us to move on without reiterating what we perceive as the linkage between the way performance or success are defined and measured and the way managers behave and the way managers behave and the way performance and success are measured. This is not purely sophistry; they are inextricably linked and interrelated. Individuals almost always seek to conform either to the norms of the group or society to which they believe they belong. As witness the work of Asch, (1952), Milgram, (1963, 1965) and Miller, (1986), as cited by Macionis and Plummer, (1997). It would appear that the individual's perception of his place both in his work group, including his relationships with his superiors and colleagues and his place in society, his self image Handy (1976, 1993 4th edition) if you will, are important in this regard. Mullins, (1999, 2nd Edition) tells us that within an organisation the degree of influence a leader can exercise will be dependant on the perception his subordinates have of the power he can wield. He describes the various aspects of power that a leader can employ. They include: -

- Reward Power
- Coercive Power
- Legitimate Power
- Referent Power

And

- Expert Power

Three of these aspects that seem particularly important in the context we are discussing are 'Reward Power' 'Coercive' power and 'Expert' power.

The first: 'Reward' power is based on the subordinate's *perception* of the leader's ability to influence his, the subordinate's personal circumstances favourably. By, for instance promoting him or recommending him for promotion, awarding him more pay or recognition or otherwise improving his working conditions or career prospects. The second 'Coercive' power is dependant on the subordinate's *perception* of his superior's ability to punish him by for example failing to recommend him for promotion or pay increases or even by dismissing him. These two are, if you like, the management equivalent of the 'carrot and the stick'. Most performance measurement and appraisal systems, which are linked to some form of incentive scheme, reflect, in one way or another, the mutual recognition of the existence of this balance of power.

'Expert' power on the other hand is based upon the employee's recognition or *perception* of his supervisor a peer or even a subordinate as an 'Expert' in a given field, i.e. someone who has specialised knowledge relating to a function or activity all be it that it might be in a relatively narrow or focussed way. It is not unreasonable to assume that possession of a Doctorate or PhD by its very nature and the title 'Doctor' go some way to qualifying one as an 'expert' in

many peoples eyes, particularly in Germany and thus, almost certainly confers some degree of authority or 'Expert' power on an individual.

Although these 'power' factors are likely to prove valid whatever the cultural or social context be it national, local or organisational the way and the extent to which they may be effectively employed will almost certainly differ. Although Hofstede's work, (1980, 1984, 1991, 1991) clearly identifies the implications for management of differing national cultures large organisations must surely themselves also develop their own cultures.

This is, of course particularly true of the large multinationals an example, which springs to mind, and which we have used before is IBM. Irrespective of the national culture within which it is operating IBM remains clearly identifiable as IBM. True, a few minor adjustments are made, such as the availability of wine at lunchtime in the French operating subsidiaries' canteens for example but essentially IBM's culture dominates. It is highly unlikely that a 'local' IBM manager, even one responsible for managing a very large national organisation with many thousands of employees would be allowed, or would even try to set objectives or standards of performance, even dress which did not conform with IBM's corporate culture or at least his perception of it.

One can identify other examples where, at least for a time, what are essentially organisationally bounded cultural imperatives rather than national cultures are, or have been, determinates of corporate behaviour. The large Quaker concerns such as Cadbury and Rowntree in the United Kingdom are examples or the

large German companies such as Bosch, ZF and Lidl that are today in effect charitable trusts. The behaviour of these organisations, the performance targets and objectives they set although undoubtedly reflecting the national culture within which they operate or at least that of the founding dynasties are also affected by their own corporate culture or identity.

Chapter 7: Does it really matter?

We have established that German senior managers are generally academically better qualified than their British counterparts. This as we have already discussed leads almost inevitably to the questions viz does it really matter? Are they “Better” managers? Do the companies they manage perform better than their British equivalents? Although it is not the primary objective of this thesis to try to answer this particular question it does have relevance to our research. This because, if for no other reason, it seems that the managers in Germany and Britain who are responsible for recruiting and promoting their successors whilst seeking to ensure the continuing success of the enterprises they are managing are apparently doing so against a significantly different set of criteria or paradigms. Why do German managers apparently place such emphasis on functional skills, as demonstrated by the appropriate academic or vocational qualification and their British counterparts on what one might call “Life” skills?

Earlier in this thesis the difference between what has been termed the “Anglo-Saxon” management paradigm namely that the most important attribute for a successful manager is knowing how to manage and the German which seems to be that the most important attribute for a successful manager is to be able to understand that which he is managing was discussed. This is a seemingly subtle but actually very significant difference reflecting as it does the apparent preference for generalisation in management in the United Kingdom and specialisation in management in Germany. Do German and British managers have differing perceptions of success? If one is to answer this question one first

has to try to define what is meant by “Better” performance or success. Certainly recent work by the Fraunhofer Institute carried out in collaboration with the Georgia Institute of Technology indicates that German and American managers do. Anon, Advanced Manufacturing Technology, (2001).

7.1 Defining performance or success

Given the preponderance of managers with financial backgrounds in British boardrooms a British manager would most probably try to answer the question “How successful is your company?” by referring to success in financial or at least quantitative terms - to “the bottom line” for example meaning by this the overall profitability of his company or its return on assets, return on shareholders equity or return on total capital employed. Some might mention “the top line” meaning turnover or sales growth and a few of the more sophisticated, pre the tragic events of September 11th appreciation in share price or earnings per share. Certainly since the late nineteen eighties or early nineteen-nineties there seems to have been an increasing preoccupation with performance measurement in British boardrooms. Lawrence, Edwards, (2000) and this has been expressed for the most part in financial terms.

How ever one should not assume that a German manager would necessarily chose to define success in the same way or even attribute the same priorities to the financial imperatives as his or her British counterparts. It would be specious to suggest that the profit motive does not exist in Germany, it most certainly does, but as we can see from the work of Lawrence, Edwards and others, German

managers do not place the same emphasis on profitability certainly not short-term profitability as a measure of success as do their British colleagues. An example of this is given by Lawrence. To try to determine the value sets of managers of various nationalities he asked each to respond to a number of propositions. The proposition - "Meeting short-term financial targets is the main criterion for promotion" whilst accepted by the British managers was rejected by the Germans. The German managers in his survey were more hostile to this proposition than were managers from any of the other national groups. Similarly in response to the proposition "Negotiations with third parties should focus on getting the best deal for one's own company not on building long-term relationships" whilst it was rejected by all the national groups was much more emphatically rejected by the Germans than the British who were in fact more sympathetic to the idea of maximising one's own company's advantage. A response that Lawrence felt was indicative of the longer sighted or longer term approach of the Germans relative to the British. Lawrence, Edwards, (2000).

A German manager then might well be expected, however, to express success in different terms. Not surprising perhaps given Germany's reputed preoccupation with Technik [Technology] he might first refer to the quality or technical excellence of his company's products and designs. Peter Lawrence in his Nene study also found that the proposition: '*Today well made products for which there is a known demand are likely to ensure a company's profitability*' whilst being rejected by a substantial majority of British managers was accepted by all the Continental European managers and particularly enthusiastically by the Germans. He might also address the continuity of his company, how long it had been in existence for

example or its market share. We have seen from Simon (1996) that the German “Mittlestand” (medium sized or ‘middle order’) companies and in particular Simon’s so called “Hidden Champions” which drive the German economy tend to have a dominant world market share in their individual chosen fields of activity and to have been around for some considerable length of time.

This does not necessarily mean that the German manager is unconcerned about profitability or that the British manager is obsessed by it. However one sees perhaps the influence of the different approaches to managing the overall economies that Smith (1994) characterised as The Anglo- Saxon approach as typified by Reganism and Thatcherism and Germany’s Sozialmarktwirtschaft. Lawrence and Edward’s work which as we have seen identified very significant differences in German and British attitudes with German and British managers disagreeing on over half the propositions put to them. It is hardly surprising then if they have different perceptions of what it means to be successful.

As we have noted many observers would at this point no doubt comment on the relatively short-term nature of the objectives likely to be set by or for British managers driven as they are by the requirements of their shareholders for share price appreciation or regular dividend payments or both. These in turn being driven by the requirement for profitability to be reported on a bi-annual and increasingly, given the US requirements, quarterly basis.

German managers, due in part to the ownership structure of German companies and different financial reporting requirements do not normally face the same immediate pressures and can afford to set longer term objectives. Here of course one is not speaking of absolutes not all British companies will be pursuing solely

the short term maximisation of profits to the exclusion of all else any more than all German companies will be ignoring them and concentrating their efforts entirely on long term product and market development. Lynch, (1997). However the tendency will be as we have seen for British and German managers to set objectives in line with what they perceive are the differing demands of the various stakeholders in the businesses and measuring their success or failure against these. Lawrence, Edwards, (2000), Lynch, (1997).

It would hardly be surprising if these perceptions were to reflect, or given that we are discussing senior managers, were determinates of the way companies sought to motivate their employees, for example through some form of compensation scheme providing an attractive financial incentive.

The potential link between performance measurement systems, the way managers are rewarded and their behaviour is discussed by Coates, Davis, Reeves and Zafir, (1996) in their book *Challenging short-termism*. They cite Marsh, (1990) who observes that, “ *when making investment decisions, individual managers will be concerned with not only the company’s interest, but also with the likely impact of the decision on their own personal costs, gains and risks; the well-known goal congruence problem*. Coates, Davis, Reeves and Zafir, (1996 p29)

We are told that a very high proportion of British companies have share option schemes, Coates, Davis, Reeves, and Zafar (1996), i.e. schemes linked to the company’s share price which are designed to provide a deferred incentive by vesting over a number of years thus providing a dual advantage to the companies

of providing an incentive to their, principally senior, employees to improve the company's, or at least that of its share price, performance and for them to remain with the company. On the other hand almost no German companies employed such schemes preferring to link their incentive schemes to the actual profitability of the enterprise or perhaps more importantly the achievement of previously agreed individual objectives. Almost inevitably then, it would seem these, managers will choose measure or at least define success differently.

7.2 Linking success to management

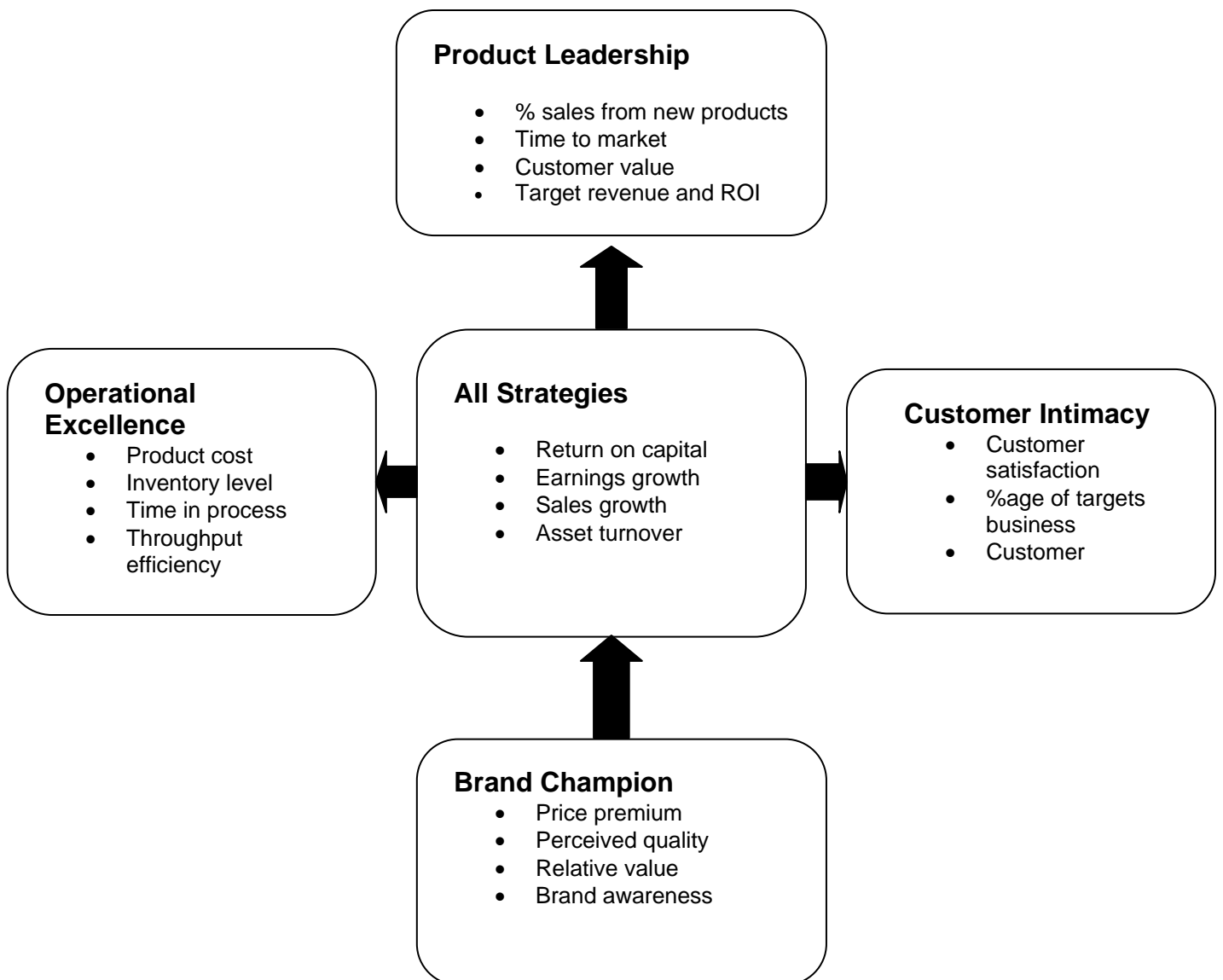
Whether or not a business is successful or not is of course dependent on many factors not only the competence of its managers. It is far too wide ranging a topic to be dealt with in any detail in this thesis but it is necessary for us to consider how the two might be linked, at least at the macro level, if we are going to look at the question "Do higher academic qualifications make for better managers?"

Performance measurement used to be considered a relatively straightforward topic. Was the business profitable? Was its profitability improving or declining? In extreme cases was it in fact able to survive or not? Today there are somewhat more sophisticated tools available probably the most popular of these at the moment is the "Balanced Scorecard." Slater et al (1997). Developed by Kaplan and Norton (1996) the balanced scorecard, an example of which is given in Figure 10, is a multi dimensional performance measurement and analysis system which attempts to provide a method of linking a subset of both tangible and intangible objectives to an overall business objective and measuring performance

against it. Interestingly enough this sophisticated form of 'Management by objectives' is proving just as popular with German as it is with British companies. In theory each individual function in an organisation at each level within the organisation would have its own scorecard. All individual objectives contained within each of these individual scorecards would then link together to enable the organisation to meet the company's overall objectives. One can envisage the Balanced Scorecard approach being welcomed by those managers who recognise the importance of those intangible aspects. Based on the work of Lawrence it would seem that they are more likely to be German than British Companies.

Figure 10

The strategic scorecard (An example of the balanced score card technique as applied to corporate strategy)



Even though tools such as the balanced scorecard exist they do not necessarily give a clear indication of the manager's impact on the business. One automatically assumes that if a company is successful it is well managed and if not it is not but let us ask ourselves if it is really that simple. Most airline companies today are in trouble and whilst it is true they may have overextended themselves or generated too much debt in the good times should they have really been able to foresee the catastrophic effects of September 11th and if they had would they have been able to do anything about it? On the other hand this is also true of the telecommunications giants who have also seem to have overextended themselves. Have they been badly managed? It is difficult to tell and in any event arguably what is important in this regard is not necessarily the company's actual performance but its performance relative to its competitors. For the purposes of this research we will confine our evaluation to global indicators, i.e. comparing Britain with Germany rather than comparing individual German and British companies such as, for example Hoover with Miele, Jaguar with BMW or British Airways with Lufthansa

One such global indicator is Gross National Product or Gross Domestic Product per head. Tables 21 and 22 show an international comparison of comparative standards of living and GDP.

Table 20: Comparative living standards

	Consumption per capita (\$)	Passenger cars per 1000	TV sets per 1000	Doctors per 1000
Germany	10,733	480	556	3.2
Austria	10,546	382	478	2.3
Belgium	12,090	387	451	3.7
Denmark	10,402	311	536	2.8
Finland	8,814	386	501	2.6
France	11,395	413	407	2.8
Ireland	11,546	464	319	3.0
Italy	11,029	478	421	1.7
Japan	11,791	283	613	1.7
Netherlands	10,726	562	485	2.5
Spain	8,412	307	400	4.1
UK	10,942	361	434	1.5
US	16,444	568	814	2.3

Source: OECD Economic Survey

Table 21: Comparative economic indicators internationally

	GDP per capita Billion US\$	GDP growth over 5 years (%)	GFCF* % GDP	Savings % GDP	Consumer prices (%) (Q2 1996)
Germany	27,826	0.8	18.5	21.0	2.9
Austria	24,670	2.5	24.8	25.3	3.4 (1994)
Belgium	22,515	1.6	17.4	22.2	2.8 (1994)
Denmark	20,546	1.9	14.8	17.0	2.1 (1994)
Finland	15,208	(1.6)	14.3	16.6	3.3(1994)
France	19,201	1.1	18.1	19.0	2.4
Ireland	15,212	4.7	15.1	19.5	2.7(1994)
Italy	18,681	1.0	16.4	18.8	4.2
Japan	20,756	2.1	28.6	31.2	0.2
Netherlands	18,589	2.3	19.3	24.4	2.8(1994)
Spain	13,561	1.5	19.8	18.8	5.6(1994)
UK	17,650	0.8	15.0	13.5	2.3
US	25,512	2.1	17.2	16.2	2.9

Source: OECD Economic Survey * Gross fixed capital formation (GFCF)

Another which may be itself a determinate of GNP is labour productivity.

Productivity in the United Kingdom has nearly always appeared to be low relative to Germany. As discussed previously this is an area of some contention, not the fact that productivity itself is lower but the reasons why this should be so. As we have seen in the mid-nineteenth century, the United Kingdom boasted the highest economic output per capita of any nation in the world, and its material standards of living were without equal. Ever since then, it has gradually lost ground. It now ranks bottom of the league of G7 countries, trailing the leader, the United States, by 30 percent. Lovegrove et al (1998 p44).

Today, in comparison with Germany the United Kingdom has no significant manufacturing industry. In the last 100 years and particularly the last fifty years it has been decimated. Martin Wiener describes this in some detail in his book *“English Culture and the Decline of the Industrial Spirit.”* Wiener (1981), attributing the decline in the main to the disdain of the British upper and middle (educated) classes for industry (or trade).

Lest the reader should prefer to ascribe this decline to the advent of socialist politics or social welfare systems in the United Kingdom it is worth reminding ourselves that in both considerations Germany was and most probably still is ahead of the United Kingdom in these respects. See tables 22 and 23.

Table 22: Years of introduction of social welfare schemes in Western Europe (Countries ranked by year of introduction of measures on occupational injuries).

	Occupational Injuries	Health	Pensions	Unemployment
Germany	1884	1883	1889	1927
Austria	1887	1888	1927	1920
Norway	1894	1909	1936	1938
Finland	1895	1963	1937	
Italy	1898	1928	1919	1919
Holland	1901	1929	1913	1949
Sweden	1916	1953	1913	
Denmark	1916	1933	1922	1944
France	1946	1930	1910	1967
United Kingdom	1946	1911	1925	1911
Belgium	1971	1944	1924	1944

Source Flora et al (1983: 454) McMillan Press

Table 23: European socialism: founding dates and political structures

(Ranked by year of founding of socialist or labour party)

	Year party founded	Universal male suffrage	Universal female suffrage	Labour vote c. 1914 (%)	Industrial workforce, 1906-11(%)
Germany	1875	1871	1919	35	39
Denmark	1876-8	1901	1920	30	24
Belgium	1885	1895	1948	9	45
Norway	1887	1898	1913	26	26
Austria	1889	1907	1918	16	24
Sweden	1889	1907	1921	30	25
Italy	1892	1919	1945	18	27
Netherlands	1894	1917	1919	19	33
Finland	1899	1906	1906	43	11
France	1905	1848	1944	15-20	30
UK	1900-6	1918	1928	6	45

Source: Sassoon (1996); Siaroff (1994: 98); Droz (1977: 341); Bernstein and Milza (1990: 60-1).

Siaroff reference from 'work, welfare and gender equality: a new typology', in Sainsbury, D.

(Ed), *Gendering Welfare States*, London: thousand Oaks, New Dheli: Sage Reprinted by

permission of Sage Publications Ltd

Great Britain has been unable to compete either with the Germans or Japan and latterly Korea let alone the USA. Is it a coincidence that each of these competitor nations place great store in education and training?

If one looks at table 23 taken from a paper entitled, *Britain's Record on Skills* by Layard, R., McIntosh, S., Vignoles, A., (2001), although there appears to be little difference in the percentage of graduates in the total work force, not necessarily in management though, there is a very significant difference in the level of education of the work force as a whole. Forty-five percent of German shop floor (process) workers in a study of the chemical industry had received a craft apprentice training as against twenty-three percent in Britain. In the engineering industry the situation was even worse with fifty-seven per cent of German shop floor workers holding craft-level qualifications as opposed to only twenty per cent in the United Kingdom. In the engineering and technology disciplines Germany produces approximately two thirds more graduates at Bachelor degree level per 100 of population than does Britain, more than five times as many people qualified to Masters degree level and a third more Doctorates. Mason, G., Wagner, K., (1994 p64-5).

Could it be that well educated and better-trained workers require less supervision, i.e. less management?

Unfortunately despite the United Kingdom's government's attempts the relative situation does not seem to be improving in fact if any thing the gap seems to be widening. See table 24.

Carr, (1992 p83) in his paper *Productivity and skills in vehicle component manufacture in Britain, Germany, the USA and Japan* says for example

“No British chief executive interviewed claimed postgraduate qualifications either in 1981/3 or in 1989/90. Three out of six German chief executives interviewed in 1982 had educational qualifications beyond Diplom Ingenieur or Diplom Kaufman [Masters Degree equivalents].

He also said that the proportion appeared to have remained about the same in 1989/90. Twenty percent of these German executives also held Doctorates.

Table 24: Qualifications held in the workforce, 1998 (percentage)

	At least degree	At least 'A' level	At least 'good GCSE'	Skills index (UK=100)
Germany	22	74	83	109
France	23	45	73	103
UK	24	36	55	100
US*	22	29	50	97

Source: The Skills audit (1996), published by the DfES and the cabinet Office

Note: Economically active population aged 16-65 (for women in the UK 16-59).

***US results are for 1994**

Similarly when one looks at literacy and numeracy skills amongst the adult population Germany, once again, fares significantly better than the United Kingdom. See Table 25.

Table 25: Literary and numeracy among adults

	Literacy		Numeracy		Skill index (Britain = 100)
	% In group 1	% In groups 1&2	% In group 1	% In groups 1&2	
Sweden	7	28	7	25	112
Germany	14	49	7	33	107
Netherlands	11	41	10	36	105
Belgium (Flanders)	18	47	17	40	104
Switzerland (German)	29	55	24	40	104
USA	21	46	21	46	102
Britain	22	52	23	51	100
Ireland	23	52	25	53	99

Source: IALS Note: population aged 16-65

Mason and Wagner citing the Engineering Industry Training Board (1989) tell us that the number of professional engineers and scientists employed in British industry and holding at least a First degree rose by some 55% between 1978 and 1988. However over the same period the employment of technician level engineers declined by 19% this at a time when overall employment was falling by some 36%. Although no detailed information was apparently available about the trends in the relative employment of First and Higher degree graduates in technical subjects they felt that some, all be it tentative, conclusions might be drawn from the fact that the growth rates in the number of home students qualifying at First, Masters, and PhD levels in engineering and technology subjects were all within the range of 35 -50 per cent. Mason, Wagner, (1994 p70-71). This can be seen in Table 26.

Unfortunately we can also see that during the same period the graduation of similarly qualified graduates from the Germany Universities and Fachhochschulen grew at an even faster rate.

Table 26: The rate of growth in numbers of ‘home’ (as opposed to overseas) students gaining Bachelor and Higher degree awards in science and engineering subjects in Britain and (West) Germany, 1980 – 1990. (Percentage change rounded to nearest five percentage points).

Britain

	First Degree	Masters Degree	Doctorate
Chemistry	+25	+5	+20
Physics	+20	+40	+35
Mathematical sciences	+60	+140	+85
Engineering and Technology	+40	+50	+35

Germany

	Diplom (FH)	Diplom (Uni)	Doctorate
Chemistry	+20	+170	+70
Physics	-20	+190	+70
Mathematical sciences	+260	+110	+70
Engineering and Technology	+50	+115	+45

Source: Innovation and the Skill mix, Mason, G., Wagner, K., (1994)

According to Mason and Wagner the apparent disparity between the demand for Postgraduate engineers and scientists in industry in Germany and Britain as opposed to Bachelor degree graduates reflects in part the higher value placed upon the years of practical industrial experience that such candidates gain whilst their colleagues are still involved in full time education. They posit that it may be considered one of the strengths of the British system of higher education that it is relatively efficient at producing young First degree graduates whose intellectual capability (though not the academic standards reached) is at least equal to that of much older German university graduates holding qualifications equivalent to an MSc. Mason, Wagner, (1994 p74).

In the writer's opinion this may be one interpretation too far. It may just be a question of availability. British students may graduate with a First degree after three or in some cases four years and although a German student may in exceptional cases qualify with a Diplom after five years the norm, as we have seen, is around seven years. He or she does not have the opportunity of pursuing a three year (Bachelors) degree as the German system of higher education does not provide for this. Although it should be said that even if it did attempt to do so the innate conservatism of both German business and society might limit its acceptance.

Mason and Wagner also discuss the comparatively limited use of Postgraduates in British manufacturing industry. They believe that this lack of use is a reflection of two negative factors. The first of these is an apparent wide spread concern by British employers that Postgraduates may be 'too specialised' and less prepared or likely to acquire the requisite commercial and practical skills than their First degree

compatriots. The second concern is the relatively slow, by international standards, growth of investment in research and development by British manufacturing industry which tends to be the main area of employment for Postgraduate scientists and engineers.

The prevalence of complaints about 'over specialisation' in Britain is, they say, hardly surprising given that the further period of study required for a graduate degree comes on top of what is in Britain at least an extended period of narrow, focused education which first starts with 'A' level courses at the age of sixteen or even earlier. In Germany by contrast Postgraduates are seen as broadly educated individuals who have also a proven area of specialist expertise; to this is added in many cases the valuable experience of involvement in cooperative studies involving joint university, Industry and or research institutes. Mason, Wagner (1994 p73).

Many observers attribute the productivity gap between Germany and Great Britain, principally, to the lack of an adequate system of vocational education and the paucity of graduates entering British industry. Others ascribe it to the lack of adequate capital investment, restrictive employment practices and trade barriers. Whatever the reasons it would seem unlikely that one could bake a world beating cake even given the recipe if one lacks the ingredients.

By almost any measure German industry at least German manufacturing industry has outperformed British industry. This must surely be, to some extent, attributable to "Better" management. Better management of the German economy and better

management of German industry. It may be true that the German juggernaut has slowed in recent years but consider the enormous costs both fiscal and social that Germany has had to bear since Reunification. Could Britain have coped so well?

7.3 The differences between “Managers” and “Leaders”

Here once again is a topic that has been the subject of considerable debate. What is the relationship between leadership and management? Often the terms are considered to be synonymous; there is though a very significant difference between the two. Although a manager may be also a leader and a leader a manager the two are not necessarily one and the same thing. Managers tend to adopt impersonal or passive attitudes towards goals. Leaders adopt a more personal and active attitude towards them. Managers see themselves more as maintainers of the status quo with which they identify, and from which they gain rewards. Leadership does not necessarily take place within the hierarchical structure of the organisation. Leaders work within an organisation but their sense of identity does not depend on membership of it. They search out opportunities for change. Mullins, (1999 5th Edition p286). Leadership and management are two distinctive and complimentary systems of action. Each has its own function and characteristic activities; both are necessary for success in an increasingly complex and volatile business environment. Kotter,(1990 p102).

The leadership of an enterprise is, arguably, the responsibility of its board of directors and in particular that board's managing director or chief executive. *"The board of directors was created to be a vehicle for leadership for public companies. In the current debate about corporate governance that fact has gone relatively unnoticed."* Pannetta,,(2003 p17).

Using the POST (Policy, Objectives, Strategy and Tactics) acronym as used by the military to define the rank and priority of decision-making the board is responsible for determining policy and setting the objectives. Operational managers are responsible for deciding which strategies and tactics they need to use to attain those objectives within the bounds of the policy laid down. To draw upon, but not necessarily condone, a current example the US executive office might determine that it is the declared objective of United States to topple the Iraqi regime and that almost any means may be used to accomplish this. Except that it is US policy not to use atomic or biological weapons and to try to minimise civilian casualties. The US military will then seek to achieve this objective within the given policy constraints

It follows then that an organisation needs both good leaders and good managers. An effective chief executive is likely to be both. Schettler,(2002 p66). Mazur (2002 p16) says that leadership counts for so much because it eventually works its way through to the bottom line. As Mullins (1999 p254) said quoting Belbin *"There is a clear implication that leadership is not part of the job but a quality that can be brought to a job ... The work that leadership encompasses in the context clearly is not assigned but comes spontaneously"*. Leadership can be seen primarily as an inspirational process. Managers tend to adopt impersonal or passive attitudes towards goal. Leaders adopt a more personal and active attitude towards goals. Mullins, (1999

p254). In so far as there may be such people as pure “managers” or pure “leaders” this may be true but of course the likely hood is that very few such individuals exist. Most surely exhibit both qualities to a greater or lesser extent it is surely a question of balance.

In a Sunday Times survey the top 100 firms to work for, according to employee opinion, would have generated an average return over the last five years of 25.4% compared with 6.3% for the FTSE all share index as a whole. Perhaps more tellingly over the very difficult period of the last year or so they have a negative return of only 5.9% as compared to the index’s 15.6%. Of course it just may be that employees simply enjoy working for successful companies. Again Goleman’s (1998 p94) research amongst 4000 executives showed that most people who make it to the top are actually pretty bright. What distinguishes leaders is their ability to engage with and motivate their employees whilst handling their emotions and relationships in a positive way.

Effective leaders have to gain the respect of their employees who in return expect them to be both competent and trustworthy. Schettler, (2002 p67). The work of Rajan and van Eupen (1996 p23-25) gives some examples of what they believe distinguishes Leaders from Managers. See Figure 11 and what they believe to be the Key leadership skills.

Figure 12: Differences between Managers and Leaders

The Manager

- Administers
- Is a copy
- Maintains
- Focuses on systems and structure
- Relies on control
- Has a short-range view
- Asks how and when
- Has his eye always on the bottom line
- Imitates
- Accepts the status quo
- Is the classic good soldier
- Does things right

The Leader

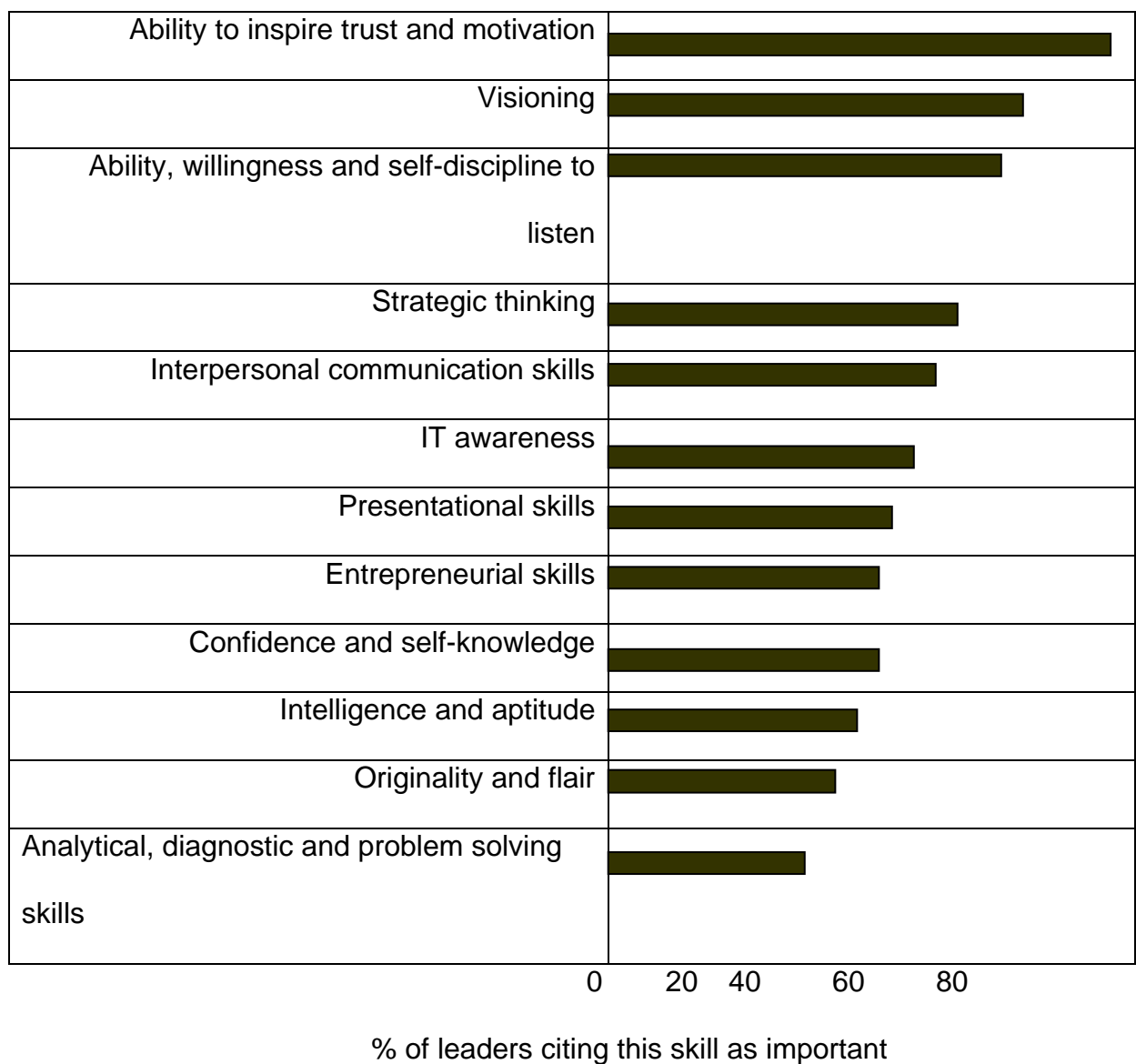
- Innovates
- Is an original
- Develops
- Focuses on people
- Inspires trust
- Has a long-range perspective
- Asks what and why
- Has his eye on the horizon
- Originates
- Challenges it
- Is his/her own person
- Does the right thing

Source: Leading People, Rajan and van Eupen (1996)

It would be difficult to contend that a Postgraduate education of itself necessarily helped to develop all the attributes required of either a manager or a leader

although it would almost certainly help in some respects. Similarly the key skills required by a leader, see Figure 11, are unlikely to be acquired through the simple expedient of researching a doctoral thesis alone although, once again, some of the leadership skills might possibly be so enhanced.

Figure 13: Key Leadership Skills



Source: Leading People, Rajan and van Eupen (1996)

It would seem possible if not probable that the German highly focussed approach to management recruitment and development with its emphasis on specific job related skills may, at least initially, not prepare its candidates quite as well for management and or leadership roles as the British more generalised approach does, however, most major German companies do have extensive in-house management development and induction programmes for their new entrants. Lawrence, Edwards, (2000 p104-105). It may be that these compensate but it would appear difficult for them to gain cross-functional experience once they are established in a given functional area, as transfers between functions do not seem to be the norm.

Rajan and van Eupen (1996 p27-28) interviewed a number of senior British executives about leadership. Although all of the respondents expressed the same sentiments about the importance of leadership to a business and attributes of a good leader we can detect in some of their responses the slight antipathy towards intellectuals or intellectual achievement. For example, one of the responses from the managing director of an investment bank was *“leaders should chart course, lead by example, monitor by exception, to learn by communication. We don’t need an Einstein, but someone who can see the staff through the eyes of the clients, understand their emotions, capitalise on their specialities and motivate them to go beyond their capacities.”* Another, the chairman of an insurance broker said, *“Rocket scientists are lethal. They think of numero uno and nobody else. In this business, the leader has to look above the immediate horizon and developing*

emotions about the future, unless we know where we are going we will never know whether we've got there.

It is perhaps interesting that both these individuals were involved in service rather than manufacturing industries, but overall it seems that the British consider that a good leader is more likely to be a generalist than a specialist. Goleman (1998 p94) said, *"IQ and technical skills are important but emotional intelligence is the sine qua non of leadership."* Kotter (1991 p102) asserts that most (American) corporations are over-managed and under-led. He also argues that strong leadership with weak management is no better if not worse than weak leadership with strong management. He says, *"of course, not everyone can be good at both leading and managing. Some people have the capacity to become excellent managers but not strong leaders; others have great leadership potential, but for a variety of reasons, have great difficulty becoming strong managers. Smart companies value both kinds of people and work hard to make them a part of the team. The real challenge is to combine strong leadership and strong management and use each to balance the other."*

However Kelly, (1988, 1991 p143) argues that without good "followers" leadership is an irrelevance. He is unconvinced that corporations succeed or fail on the basis of how well they are led although he concedes that "leaders" are important.

Mintzberg (1975, 1990,1991,1999 p31) said *"no job is more vital to our society than that of the manager. It is the manager who determines whether our social institutions serve us well or whether they squander our talents and resources."*

What is the reader to make of this? Well although there are undoubtedly differences between “leading” and “managing”, both are important to the success of an enterprise. There is an implication, although not one to which the writer would entirely subscribe, that “Management” is tangible whilst “Leadership” is not, that “leadership” is a talent, i.e. something one is born with and “management” a skill, i.e. something that can be learnt or acquired. This suggests that one need not necessarily be highly or even well educated to exercise this talent. However the writer finds it difficult to accept that given a better education one would not find oneself in a better position to realise the full potential of one’s talents. One might ask the question “Do higher academic qualifications make for better leaders?” The answer of course is, of themselves, most probably not. It seems unlikely though that they, or the acquisition of them, would lead to the obscuration of any innate leadership qualities that the individual might already have had.

Chapter 8: Conclusions

8.1 What have we learnt?

There can be little doubt following our review of the current literature and analysis of the data available from both German and British sources that German managers are, for the most part, academically better qualified than their British colleagues.

Although one may argue about matters of equivalency - what exactly is the relationship or relative worth of a British Bachelors degree or a 'Professional' qualification such as that of a chartered accountant as compared to a German Diplom for example or even between a British PhD and a German Doctorate this, in the writer's opinion, would not alter, substantially the conclusions to be drawn.

The question this thesis asks is "Are there significant differences between the level of academic achievement (qualification) of German senior managers and their British counterparts?" The evidence in this regard seems overwhelming with nearly three times as many German as British managers having degrees. Handy, C. (1986 part1, p1). This is particularly true at management board level in the larger companies with as we have seen over 50% of German board members having Doctorates and indeed in the 100 largest Graetz (1996) identifies a remarkable 69.9% as being so qualified.

In the United Kingdom based on data from the Institute of Directors – Reward Surveys and the DfES certainly less than 3% and probably less than 1% of British company directors are as equally well qualified. We would reemphasise this does not necessarily mean that British senior managers and directors are necessarily less

intelligent or even less well “Educated” than their German counterparts but they are in general academically less well qualified.

We sought to determine why this should be by examining the potential causal factors, having first classified them into three broad categories - structural, social economic and cultural⁶. We determined that it was unlikely that any of those identified as being structural or socio-economic in nature were of themselves of sufficient significance to be considered the primary cause of the clear difference in the level of academic attainment of British and German managers we had identified. This is not to say that they are unimportant as they interact and all do, or have had to some degree influence on the situation which pertains today. . For example as our research shows a Doctorate appears to be sine qua non for entrance into the higher ranks of German management at least in the major companies. This must almost certainly be a consideration for German graduates planning a career but is unlikely to be such for their British counterparts. Our findings show that this is most probably a self perpetuating condition with like tending to recruit like, Keeble (1992 p110, p150), but how and why did this come to be? Paradoxically, as we have seen, differences in the two systems of higher education mean that there might be an age differential of up to ten years or even more in those gaining doctorates in the two countries. This, one might have thought, should provide an incentive for post graduate study in the United Kingdom and a disincentive in Germany however as our research has shown this does not appear to be the case.

⁶ A more detailed description of the categories and rationale for this is given in Chapters 4 p48 and 6 p123

We were therefore drawn almost inescapably to the conclusion that to be able to understand why this disparity exists and how it has developed we needed to examine the historical and cultural perspectives of the issue in some greater depth.

There seems to be a clear thread running through the work of socio historians, if we may call them that, such as Wiener (1986), Keeble (1992) and Lawrence and even that of those writing more specifically about management, for example Handy (1987), Constable, McCormick, (1987), Cooper, Kirkcaldy, (1992), Lawrence, Edwards, (2000), which indicates that the British intelligentsia or the upper and upper middle classes of which by either education or antecedents they tend to be part continue to have a marked antipathy towards business or what they might term 'trade' and even it must be said academia. This seems to be particularly true of manufacturing industry. It would seem that from the mid or late eighteenth hundreds through until at least the late nineteenth fifties or early sixties the, what might be termed, elitist universities such as Oxford and Cambridge and the aspiring "red bricks" concentrated on providing what might be termed a "classical" education for its scholars.

Correlli Barnett is particularly scathing about this. Writing in his book "The Lost Victory: British dreams, British realities 1945 - 1950" he says

"There was yet another factor, one which at the same time bore directly on Britain's general lack of technological dynamism – the nature of the British governing elite and intelligentsia created by the Victorian public school (as remodelled by Dr Arnold and his followers) and Oxbridge. For these institutions saw their purpose not as turning out technocrats to lead an industrial nation, but as forming Christian gentlemen, knights in a stained glass window by Sir Edward Burne-Jones to serve in public life,

the Church, the law or the civil service, or bring enlightened administration to the Empire.” And “The Public school and Oxbridge moreover taught the future governing intelligentsia and elite to despise ‘trade’ as beneath a gentleman, equally to despise any form of education that might be deemed vocational (such as technology) rather than ‘liberal’ (like the classics). These high minded snobberies were to shape the subsequent character of the new university colleges founded in the late nineteenth century as well as the development of grammar schools.” Correlli Barnett, (1995 p14/15).

If we accept this, and the work of Martin Wiener, published in his book - English culture and the decline of the Industrial Spirit. Wiener, (1986), together with that of Shirley Keeble presented in her book – The ability to manage: a study of British management 1890 – 1990. Keeble, (1992), certainly indicates that we should, it is not only a truly damning indictment of, or rather the lack of, foresight of those in positions of power in politics, industry and academia at the time but gives a significant pointer as to why even today a certain antipathy towards industry and academic achievement, which is apparently not evident in Germany, still persists in Britain.

Therefore despite the influence of what we have termed structural factors such as the differences in the way the respective economies are managed, the way business and industry is financed, and the differences in the educational systems, secondary, higher and vocational and those of a socio-economic nature, for example career progression and life time earnings which we have identified we remain convinced that the primary causal factors are cultural in nature.

8.2 The Implications of the outcomes of this research

In the course of this research an attempt has been made to address primarily two questions. The first of these was - are German “senior”, i.e. those occupying positions at the highest or higher levels within German companies, managers generally better qualified “academically” than their British counterparts? - and more specifically did more of them have Postgraduate qualifications especially Doctorates? than their British colleagues. This answer to this question was clearly yes with at least ten times as many senior managers in Germany having Doctorates than in the United Kingdom. In the boardroom the difference was even more significant with nearly 70% of the board members of Germany’s largest one hundred companies having Doctorates (see Figure 2.) Graetz, (1996).

That so few British company directors have Postgraduate qualifications let alone Doctorates is perhaps no longer surprising to the reader, that this should be the case, given the apparent long standing and well established antipathy of the British upper and upper middle classes towards “trade and industry” identified within this thesis. After all, as we have seen, individuals from these social classes still form the overwhelming part of the graduate population in Britain (see Figure 8). It follows therefore that we can expect a significant majority, if not nearly all, of those with Doctorates to have come from an upper or upper middle class background.

This is likely to have had, in the writer's opinion, a dual effect. Firstly, given the information we have, it seems not unreasonable to expect that these individuals will most probably not have had the pursuit of a career in management in industry or business as their primary objective hence fewer of them have sought employment there.

Secondly as we have seen those in positions of authority are prone to recruit and promote people who match their own stereotypes. So even if such individuals had chosen to seek employment or preferment in industry they would have had to overcome the British manager's prejudice against the intellectual and the paradigm which goes along the lines that anyone with a Doctorate is probably "too clever", "too academic", "too impractical" or "over-qualified".

Obviously the same cannot be said of Germany, or can it? The majority of Germany's graduate population also comes from the upper and upper middle classes as do its senior managers (see figure 7, Tables 1 and 2), yet Doctorates predominate in the boardroom. Once again this might be seen to be a case, as in Britain, of like recruiting like. There seems to be little or no prejudice against academic qualification amongst German managers, indeed quite the reverse seems to be true, There is also no discernable antipathy towards trade and industry as far as Germany's intelligentsia is concerned. There is a saying in German which is perhaps apposite "Eine Flasche im Keller ist relativ wenig, eine Flasche im Vorstand ist relativ viel!" [One bottle (colloquial German for fool or idiot) in the cellar is relatively little; one bottle (fool) on the board is relatively a lot.]

Whether or not anything should or could be done to change the situation in either country is not the topic of this paper after all “Breaking into the charmed circle” as Keeble, (1992 p 110) puts it or rather breaking the charmed circle in either country whatever benefits it might or might not bring is likely to be an extremely daunting task. As witness the relative success or otherwise of the initiatives, which have been with us for a number of years, to employ women and ethnic minorities let alone the handicapped in senior management roles. Incidentally, although this would require substantiation, these initiatives have seemingly been more successful in the United Kingdom than in Germany.

The writer believes that there would be potential benefits from change. Some twenty years ago and then Chief Executive of a successful and rapidly growing electronics company headquartered in a decidedly unattractive South Wales valley he decide to address an acute shortage of qualified personnel by targeting female graduates, yes even those with Postgraduate degrees and Doctorates. The exercise was an almost unqualified success. Not only were these young women prepared to accept employment in the South Wales valleys, something their similarly qualified male compatriots were apparently not prepared to contemplate, they sought to demonstrate that they were in every way their equals. He similarly offered to support financially any employee of the company, and indeed any child of any employee, who qualified for university entrance in their pursuit of a degree. A number of the company’s apprentices took advantage of this offer some of them subsequently attaining M. Sc’s. These were not altruistic measures the benefits accruing to the company far out weighed their costs. Unless well educated individuals can be

attracted to a career in manufacturing industry which is already at a very low ebb in the United Kingdom it may disappear altogether.

This is not to say that the German paradigm is any better than the British – different yes - better well that is open to debate. As we have seen the overall approach in Germany seems to be more focussed than in Britain. For example in Britain having a degree is seen as some form of intellectual benchmark whilst in Germany although the same is, to some extent, undoubtedly true it is also seen as being indicative of having certain specific skills or knowledge appropriate to a particular occupation or industry. It would be highly unusual for example for an individual with an arts, social science, or geography degree in to find a job in industry. This, in the writer's opinion, may lead to a somewhat blinkered approach – this is substantiated by the Booz, Allen and Hamilton report of 1973. Lawrence, Edwards (2000 p98). If all the members of a company's management have very similar backgrounds, who is going to provide the impetus for "lateral" thinking? as De Bono calls it. De Bono (1993). The Germans are, it seems as a whole, less entrepreneurial and innovative than the British. There are many reasons for this but one of them may be the lack of cross fertilisation that the German approach engenders.

It might well be that British industry would do well to employ more academically qualified specialists and German industry to hire more generalists. There seems however little likelihood that given their longstanding nature that either paradigm will easily be broken.

Chapter 9: Recommendations for further research

During the course of this research we have identified a number of areas that seem to merit further consideration and research. They include:-

- Does it make any difference? Do higher academic qualifications actually make for better managers and can this be clearly demonstrated by reference to relative company performance or some other parameter.
- Is there a correlation between the overall level of education in a country or society and its level of productivity?
- Is there some correlation between the intellectual activity in a society and that society's ability to innovate or be entrepreneurial?
- Does the relatively earlier start to a graduate's career in Britain and its consequent length as opposed to Germany affect career development? Are British managers more likely to have changed employers for example? Or spent a longer time in any given position in an organisation? Or have worked in a greater variety of functions (Sales, Manufacturing, Human Resources) than their German counterparts and if so what implication might this have for the businesses they manage.

- How do German and British managers spend or allocate their time? Mintzberg (1991,1999) has written extensively about 'The Managers Job' It would be interesting to see whether or not the behaviour of British and German managers differs significantly in this respect.
- Similarly it would be interesting to make a broader comparative study including what might be, in this context, viewed as the two extremes - Japanese managers and their American counterparts in this respect.
- Although much has been written about the class backgrounds (Sozialherkunft) of German managers, little work seems to have been published about British managers in this regard.
- There seems to be an increasing worldwide trend towards credentialism. Brittan, (2000), McMenamin, (1998), Taylor, McGugan, (1995). One should question the implications and indeed the desirability of this development.
- There is also the question of the inter-relationship if any between credentialism and collectivism and individualism.

And finally but not exclusively

- Why do the earnings of the female holders of Doctorates in Germany tend to exceed those of their male counterparts during the later stages of their respective careers? (See Tables 11 and 12).

The first of these it would seem is to examine the question as to whether or not higher academic qualifications actually make for 'better' (more effective) managers. This is likely to entail a very substantial piece of research. First one would have to determine and agree what the key performance indicators should be against which relative performance should or could be measured. One might also, and probably would, need to consider the question of equivalency of academic and other qualifications. Not only between for example First degrees, Masters degrees and Doctorates in the countries in the study but also between degrees in different disciplines particularly the MBA and for example, the German Diplom Betriebswirtschaft. Another difficult and perhaps contentious task would be the relative placement of those so called professional qualifications given so much prominence by the British. Are we to classify these as vocational qualifications remembering that as we have seen the German authorities also classify PhDs as vocational qualifications?

An attempt might be made to make comparisons between the performance of companies operating in the same industries or fields of activity in each of countries.

This might be complicated somewhat by the fact that although Germany and Britain are both members of the European Economic Union the failure of the United Kingdom to join most of the other members of the community in monetary union means that it is not subject to the same fiscal constraints in terms of interest and exchange rates as is Germany which has. This in turn may affect the performances of the individual economies which could impact the performance of indigenous companies.

It is not, however, the writer's intention to present a research proposal here but merely to identify a topic, which linking as it does to the second and third areas for potential study that we have suggested and which given the discussion about the value of education in the population at large and the merits of a vocational as opposed to an academic education, might prove worthy of further investigation. - Is there a correlation between the overall level of education in a country or society and its level of productivity? And might there be some correlation between the level of intellectual activity in a society and that society's ability to innovate or be entrepreneurial?

Another possible area of research is more concerned with the individual than the economy or society as a whole – how, for example, do the factors or their differences identified in this current thesis affect the career or personal development of the individual manager? Do British managers by virtue of a potentially longer career tend to have had experience in a broader range of functional areas than their German counterparts? Will they have changed jobs or even employers more often? Has their

development been affected and if so in what ways, their willingness to take risks or to be innovative or entrepreneurial.

In association with this, one might ask whether or not there are any significant differences in the ways German and British managers actually manage - how they allocate their time and/or assign their priorities for example? Are German managers really able to take a longer term business perspective than their British counterparts and if so is this reflected in the way they manage? If one had the time and resource it might also prove interesting to also look at Japanese and American managers in this respect both because they seem to represent the outside edges of the management behaviour envelope and have the greatest similarities with British in the case of the Americans and Germans in the case of the Japanese managers. See Table 16 and Hofstede (1980, 1984, 1991),

As we have seen much seems to have been written about the 'Sozialherkunft' [Class origins] of German managers. Hartmann (1996), Kraiss (2000), Enders, Bornmann (2000). It might be interesting to see how the background and antecedents of British managers compare.

The question of 'credentialism' in society is, seems becoming ever more contentious. On the one hand credentialism seems to have its advocates. The current socialist government in the United Kingdom might, with its emphasis on the educational system providing the opportunity for each individual to obtain 'proper' qualifications and the broadening of access to higher education so that more students may receive a university education be considered by some to be one of these.

However, there is also a considerable body of opinion expressing doubts about the desirability of a credential society. See for example Brittan, (2000), McMenamin, (1998) McGugan, (1995). It would seem to the writer that the material covered in this current thesis might well be considered as relevant to the overall credentialism argument.

In this context it might well be worthwhile to look at the interrelationship between credentialism and collectivism in society, if indeed any such relationship exists.

Finally, although by no means exhaustively, during this research we observed that data existed which seemed to indicate quite clearly that German women with Doctorates seemed to earn more than their male counterparts especially in the mid to latter years of their careers at least relative to other graduates without Doctorates.

See Tables 10 and 11.

This proposition would first have to be proven because we are drawing on information which is presented in such a way as to demonstrate the relative incomes of those with Doctorates as opposed to other university graduates and although the mean of 100 is defined as being median graduate income it is not quite clear how this has been defined. Assuming though that the information could be validated it would be interesting to determine why this should be so as it seems to go against the normally accepted paradigm that men earn, on the whole, more than women.

References

1. Anon, Bundesministerium für Bildung und Forschung, (2001), *Qualifikationsstrukturbericht 2000*, BMFB Publik, Bonn, Germany
2. Anon, Bundesministerium für wirtschaftliche Angelegenheiten, (1998), *Die Lehre*, BWA, Bonn, Germany.
3. Anon, (2001), *Cultural differences in manufacturing surveyed*, *Advanced Manufacturing Technology*, December 15th. v22 i12 p3 (1). United States.
4. Anon, (2001), *Degrees and Higher Degrees held by people of working age in management, UK 2001*, DfES (Department for Employment and skills), Labour Force Survey, Autumn 2001.
5. Anon, (1991), *Directors Awards 1991*, March, The Reward Group, London.
6. Anon, (2001), *Directors Awards 2000/2001*, November, The Reward Group, London.
7. Anon, (1998), *European companies can't get enough of technology*, *Market Europe* 9:5 5, May, PRS Group, USA.
8. Anon, (2003), *First destinations of higher education students in the academic year 2001/02*, HESA SFR 95, National Statistics Agency, United Kingdom.

9. Anon, (1999), *Highest qualification by age*, Labour Market Spotlight - Labour Market Trends, July, DfES, London.
10. Anon, (2000), *Highest qualification held by older people and the unemployed*, Labour Market Spotlight - Labour Market Trends, December, DfES, London.
11. Anon, (1998), *Managers by age and qualification*, Labour Market Trends, June, DfES, London.
12. Anon, (2001), *Managers by age and qualification*, Labour Market Spotlight - Labour Market Trends, February, DfES, London.
13. Anon, (2002), *Managers by age and qualification*, Labour Market Spotlight - Labour Market Trends, January, DfES, London.
14. Anon, (2002), *More education means higher earnings – for life*, Occupational outlook quarterly, 46(3): 48 September, Us Bureau of Labour Statistics, United States.
15. Anon, (1999), *Technology balance of payments*, STI Scoreboard of Indicators, Science and Technology, OECD
16. Anon, (2002), *The cautious classmate; German Business schools*, The Economist (US) July 27, p na.
17. Barnett, C., (1972), *The collapse of British Power: The pride and the fall*, Eyre Methuen, United Kingdom.

18. Barnett, C., (1995), *The Lost Victory: British dreams, British realities 1945 – 1950*, Macmillan, London, United Kingdom.
19. Bassanini, A., Scarpetta, S., Visca, I., (2000), *Knowledge, Technology and Economic growth: recent evidence from OECD countries*, OECD, Brussels, Belgium.
20. Battu, H., Belfield, C.R., Sloane, P.J., (2000), *How well can we measure graduate over-education and its effects?* National Institute of Economic & Social research, U.K.
21. Berman, E., Vasconcellos, E., Werther, W.B. Jr., (1994), *Executive levers for the strategic management of technology*, Business Horizons, Jan – Feb v37 n1 p53(9), JAI press Inc, USA.
22. Boddwyn, J., (1992), *Fitting socially in fortress Europe: understanding, reaching, and impressing Europeans*, Business Horizons, Nov – Dec 1992 v35 n6 p35 (9), JAI Press Inc.
23. Brittan, S., (2000), *The flaw of education, education, education: The multiplication of credentials for employment contributes neither to true learning nor to the national economy*, The Financial Times June 8th p21, Financial Times Information Ltd., London, England.
24. Brunsson, N., Sahlin-Anderson, K., (2000), *Constructing Organizations*, Organization Studies July v21 i4 p721, Walter de Gruyter and Co, Berlin.

25. Butcher, S., (2001), *Germans shunning careers in banking*, Financial News April 2nd, London Financial News Publishing Ltd., London UK.
26. Carr, C., (1992), *Productivity and skills in vehicle manufacturers in Britain, Germany, the USA and Japan*, National Institute Economic Review Feb n13p; p79 (9), NIESR U.K.
27. Chandler, A.D., (1990), *Scale and Scope: The dynamics of industrial Capitalism*, Harvard University Press, Harvard, MA.
28. Chittenden, T., (2003), *Personal conversation*, The Law Society, London UK.
29. Collins, R., (1979), *The Credential Society*, Academic Press, NY, NY.
30. Coates, J.B., Davis, E.W., Reeves, N.B.R., Zafir, R., (1996), *Challenging Short termism*, The Chartered Institute of Management Accountants, Butterworth Heinemann, London, UK.
31. Constable, J., McCormick, R., (1987), *The Making of British Managers*, British Institute of Managers and Confederation of British Industry, Corby Northants, UK.
32. Cooper, C., Kirkcaldy, B., (1992), *Cross – Cultural differences in occupational stress among British and German managers*, Work & Stress v6 n2 p 177 (90).

33. Croft, M., (1999), *UK lags behind in innovation race while America pulls ahead*, Brand strategy 4-5 August, Centaur Publishing, United Kingdom.
34. Davies, S., Saunders, M., (1997), *Freedom of movement for Professionals*, Journal of Applied Management Studies Dec v6 n2 p199 (20). United Kingdom
35. De Bono, E., (1990), *Lateral Thinking: A Textbook of creativity*, Penguin, United Kingdom.
36. De Bono, E., (1993), *Serious Creativity*, Harper Collins, United Kingdom.
37. De Cremer, D., (2002), *Relations of self-esteem concerns, group identification, and self-Stereotyping to In-Group favouritism*, Journal of Social Psychology June v141 i3 p389, Heldref publications, USA.
38. De Rudder, H., (1999), *Access to Higher Education in Germany*, Higher Education in Europe, Vol. xxiv No.4.
39. Drees, M., (1995), *Internationale Karriere und Promotion*, Der Karrierheberater, 10/95.
40. Eberwein, W., Tholen, J., (1993), *Euro-Manager or splendid isolation?* De Gruyter, Berlin, Germany.

41. Ebling, G., Gottschalk, S., Janz, N., Niggemann, N., (1999),
Zukunftsperspektiven der deutschen Wirtschaft – Innovationsaktivitäten im Verarbeitenden Gewerbe, ZEW, Mannheim, Germany
42. Egelin, J., Eckert, T., Griesbach, H., Heine, C., Heublein, U., Kerst, C., Leszezensky, M., Middendorf, E., Minks, K., Weitz, B., (2003),
Indikatoren zur Ausbildung im Hochschulbereich, : Studie zum Innovationssystem Deutschlands Nr. 10-2003, Zentrum für Europäische Wirtschaftsforschung, Mannheim, Germany.
43. Ekvall, G., (1997), *The Organisational Culture of Idea management, in Strategic Innovation and Change: A collection of Readings*, Tushman, L., Editor, Oxford University press, Oxford.
44. El-Khawas, E., (1990), *Uniting German Higher Education*, Change, November – December.
45. Enders, J., Bornmann, L., (2001), *Karriere mit Dokortitel?*, Campus Verlag, Frankfurt am Main. Germany.
46. Gellart, G., (1996), *Recent Trends in German Higher Education*, European Journal of Education, Vol. 31 No. 3.
47. Goleman, D., (1998), *What makes a Leader?* , Harvard Business Review November - December, Harvard Business School Publishing, Cambridge MA., USA
48. Graetz, F., (1997), *Der Beste Weg zum Doktorhut*, Der Volks und Betriebswirt n 1/9.

49. Grix, J., Editor, (2002), *Approaches to the study of contemporary Germany: research methodologies in German Studies*, University of Birmingham Press, Edgbaston UK.
50. Grunert, J., Kleff, V., Norden, L., Weber, M., (2002), *Mittlestand und Basel II: Der Einfluss der neuen Eigenkapitalvereinbarung für Banken auf die Kalkulation von Kreditzinsen [Medium sized companies and Basel II: The effect of the new capital sufficiency agreements for banks on the calculation of loan interest.]*, ZEW, Mannheim, Germany.
51. Guellec, D., van Pottlsberghe de la Potterie, (2001), *Research and Development and productivity growth: Panel data analysis of sixteen OECD countries*, OECD, Paris, France.
52. Hahlen, J., (1997), *Hochschulstandort Deutschland*, 24th June, Statistisches Bundesamt, Germany.
53. Hahn, H., (1998), *Education and society in Germany*, Berg, Oxford UK.
54. Handy, C. et al, (1987), *The Making of Managers*, NEDO, London UK.
55. Harding, R., & Paterson, W., (2000), *The Future of the German Economy*, Manchester University Press, Manchester UK.
56. Hartmann, M., (1996), *Top Manager: Die Rekrutierung einer Elite*, Campus Verlag, Frankfurt am Main.
57. Hartmann, M., Kopp, J., (2001), *Elitenselektion durch Bildung oder durch Herkunft?, Promotion, soziale Herkunft und der Zugang zu*

Führungspositionen in der deutschen Wirtschaft, Kölner Zeitschrift für Soziologie und Sozialpsychologie 53 s 436-466.

58. Heumann, W., (2000), *Wo die Promotion lohnt*, Welt am Sonntag, 28 May 2000.
59. Heuer, C., (2002), *Wie nützlich ist ein Dokortitel [How useful is the title Doctor]*, Der Spiegel July 8th. Springer Verlag, Hamburg Germany.
60. Hickson, D., (Ed.), (1993), *Management in Western Europe*, De Gruyter, Berlin, Germany
61. Hofstede, G., (1980, 1984), *Culture's Consequences*, Sage, Newbury Park Ca.
62. Hofstede, G., (1991), *Cultures and Organisations*, Harper Collins Business, London UK.
63. Hofstede, G., (1999), *The Universal and the specific in 21st Century Global Management*, Organisational dynamics 33 – 44 Summer, American Management Association.
64. Howard, R., (1990), *Can small businesses help countries compete?* Harvard Business Review, November – December, Harvard Business Publishing, Boston MA, USA..
65. Jagger, N., Davies, S., Lain, D., Sinclair, E., Sinclair, T., (2001), *Employers views of Postgraduate Physicists*, Institute for Employment Studies, February, EPSRC, Swindon.

66. Jagger, N., Morris, S., Pearson R., (2001), *The Target for higher Level Skills in an International context*, The Institute for Employment studies.
67. Johnson, G.J., Johnson, W.R., (2000), *Perceived Over qualification and Dimensions of Job satisfaction*, The Journal of Psychology September v134 i5 p537.
68. Jurgens, U., Naumann, K., Rupp, J., (2000), *Shareholder value in an adverse environment: the German case*, Economy and Society v 29 i1 p54 (30).
69. Kaplan, R., Norton, D., (1996), *The Balanced Scorecard*, Harvard Business School Press, Cambridge MA
70. Katzenstein, P., (1987), *Policy and Politics in West Germany – The Growth of a semi sovereign state*, Temple University Press, Philadelphia, Pa.
71. Keeble, S.P., (1992), *The ability to manage*, Manchester University Press, Manchester, UK.
72. Keers, P., (1987), *A gentleman's wardrobe*, Weidenfield & Nicolson, London, UK.
73. Kelly, R., (1988, revised 1991), *In Praise of Followers*, , Harvard Business Review March - April, Harvard Business School Publishing, Cambridge MA., USA

74. Kessler, (1997), *Zur Geschichte des Managements bei Krupp, Von den Unternehmungsanfängen bis zur Auflösung der Firma Krupp AG (1811 – 1943) [A History of Management at Friedrich Krupp AG]*
75. Kluge, J., Meffert, J., Stein, L., (2000), *The German road to innovation*, The McKinsey Quarterly Report Spring p99.
76. Kotter, J., (1990, 2001), *What leaders really do*, Best of HBR, Harvard Business School Publishing, Boston MA.
77. Kraus, B., (2001), *An der Spitze – von Eliten und herrschenden Klassen [At the top – about the elite and the ruling classes]*, UKV Verlagsgesellschaft, Konstanz, Germany.
78. Lane, C., (1989), *Management and Labour in Europe*, Edward Elgar, Aldershot UK..
79. Lawrence, P., (1998), *Issues in European management*, Macmillan, Basingstoke / London United Kingdom.
80. Lawrence, P., Edwards, V., (2000), *Management in western Europe*, Macmillan Press Ltd., Basingstoke UK..
81. Layard, R., McIntosh, S., Vignoles, A., (2001), *Britain's Record on Skills*, Centre for Economic Performance, London School of Economics.
82. Lazlo, A., Dostal, W., Behringer, F., Haak, C., et al, (2002), *Berufsbildungsbericht 2001*, Bundesministerium für Bildung und Forschung, BMFB Publik, Germany.

83. Lightfoot, R., & Kester, W., (1991), *Note on Corporate Governance Systems: The United States, Japan, and Germany*, Case 9-292-012 rev Dec 92, Harvard Business School Publishing, Boston Ma.
84. Lodge, G., & Vogel, E., Editors, (1987), *Ideology and National Competitiveness*, Harvard Business School Press, Boston Ma.
85. Lööf, H., (2003), *Dynamic Optimal Capital Structure and Technological change: Discussion paper No. 03-06*, Zentrum für Europäische Wirtschaftsforschung, Mannheim, Germany.
86. Lovegrove, N., Harris, Lewis, Fidler, Mullings and Anthony, (1998), *Why is Labour productivity in the United Kingdom so Low?* The McKinsey Quarterly Autumn i4 p44 (1).
87. Lubatkin, M., Floyd, S., (1997), *In search of a European model of strategic management*, European Management Journal, 15 p 612 - 623
88. Lynch, R., (1997), *Corporate Strategy*, Prentice Hall, Harlow, Essex, UK.
89. Macionis, J., Plummer, K., (1997, 2002 2nd Edition), *Sociology A global introduction*, Pearson Education Ltd, Harlow, Essex, United Kingdom.
90. Maguire, S., R., (1993), *Worker tenure in 1991*, Occupational Outlook Quarterly Spring v37 n1 p24 (14), U.S. Government printing office.
91. Mant, A., (1997), *Intelligent Leadership*, Allan and Unwin Pty, Australia.

92. Mason, G., (1996), *Graduate utilisation in British Industry*, National Institute Economic Review May n 156 p93 (11), NIESR UK.
93. Mason, G., Wagner, K., (1994), *Innovation and the skill mix: chemicals and engineering in Britain and Germany*, National Institute Economic Review May n148 p6 (12), NIESR UK.
94. Mayer, M., Whittington, R., (1999), *Euro-elites: top British, French and German managers in the 1980's and 1990's*, European Management Journal, August v17 i4 p 404 (6).
95. Mazur, L., (2002) *Upbeat leaders can help boost the bottom line*, Marketing April 4th p16 (1), Haymarket Business Publications Limited.
96. Mclarty, R., (1999), *The skill development needs of SME's*, Journal of applied management studies, June v8 I1 p103(9), United States.
97. McMenamin, B., (1998), *The Tyranny of the Diploma*, Forbes Dec 28th p104(1), Forbes Inc. USA.
98. Mintzberg, H., (1990, revised 1991), *The Managers Job*, , Harvard Business Review, Harvard Business School Publishing, Cambridge MA., USA.
99. Mintzberg, H., Quinn, J.B., Ghoshal, S., (1999), *The Strategy Process*, Prentice Hall Europe, Pearson Education Limited, Harlow, Essex, UK.
100. Mullins, L., (1999), *Management and Organisational behaviour*, Prentice-Hall, Harlow.

101. Norton, D., (2001), *Measuring the contribution of Human Capital*, Balanced Scorecard Report, July – August, Harvard Business School Publishing, Boston MA.
102. Norton, D., (2001), *Managing the development of Human Capital*, Balanced Scorecard Report, September - October, Harvard Business School Publishing, Boston MA.
103. OECD, (2001), [http\\WWW.OECD.Org](http://WWW.OECD.Org).
104. OECD, (2002), *Education at a Glance Briefing notes – Germany*, OECD, Paris.
105. OECD, (2002), *Education at a Glance Briefing notes – United Kingdom*, OECD, Paris.
106. Panetta, L., (2003), *It's not just what you do it's the way that you do it*, Directors and Boards Winter 2003 v27 i2 p17(5), Directors and Boards.
107. Peng, C., C., Saporito, M., Chen, P., (2002), *Individualism, collectivism, and opportunism: a cultural perspective on transaction cost economics*, Journal of Management 28(4): 567(17) no. 4, Elsevier Science Publishers Ltd.
108. Peters, T., Waterman, R., 1982, *In search of Excellence*, Harper Collins, Hammersmith, UK.
109. Prais, S.J., (1989), *Qualified manpower in engineering: Britain and other industrially advanced countries*, NISR, UK.

110. Punt, T., Cole, W., (1999), *Routes into the Solicitors' Profession and the Utilisation of Professional Time – Research Study 36*, The Law Society, London UK.
111. Quinn, B., Anderson, P., Finklestein, S., (1996), *Managing Professional; intellect: Making the most of the best*, Harvard Business Review March – April, Harvard College, Boston Ma.
112. Rajan, A., van Eupen, P., (1996), *Leading People*, Centre for research in Employment and Technology in Europe, Tunbridge Wells, United Kingdom.
113. Reich, R., (1994), *Jobs: skills before credentials*, Training April v31 n4 p38 (2), VNU Business media, USA.
114. Rodriguez, M, E., (1992), *Engineering education in the United Kingdom and continental Europe*, Industrial Management March – April v34 n2 p14 (2), Institute of Industrial engineers, London UK.
115. Rolf, H., Anderson, T., (2002), *The Recruitment of Trainee Solicitors*, The Law Society, London UK.
116. Saunders, M., Lewis, M., Thornhill, A., 2000, *Research Methods for Business Students*, Prentice Hall, Harlow, UK.
117. Schettler, J., (2002), *Leadership in Corporate America*, Training September v39 i9 p66 (8), VNU Business Media.

118. Schlechty, P., (1993), *Schooling, Business, and the new American Dream*, Business Horizons, Sept – Oct v36 n5 p3 (6), JAI Press Inc.
119. Schmidt M., (1987), *Policy of the Middle Way*, Journal of Public Policy 7, 2, p 135 – 177.
120. Schroeter, B., (2002), *Habitus statt Leistung*, Die Welt Samstag 2nd Februar Seite B1.
121. Siegfried, J., (1994), Higher Education and Economic Growth, Industrial Labour Review, April v47 n3 p523 (3), Cornell University, USA.
122. Senge, P., (1990), *The Fifth Discipline: The Art and Practice of the Learning Organization*, Harvard Business School Press, Boston Ma.
123. Sibson, J., (1994), *Maximising Employee Productivity*, Amacom, USA.
124. Simon, H., (1992), *Lessons from Germany's Midsized Giants*, Harvard Business Review, May – June, Harvard Business School Press, Boston Ma.
125. Simon, H., (1996), *Hidden Champions*, Harvard Business School Press, Boston Ma.
126. Slater, S. F., Olsen, E.M., Reddy, V.K. (1997), *Strategy based performance management*, Business Horizons July – August v40 p37 (8), JAI Press Inc.
127. Smith, E., (1994), *The German Economy*, Routledge, London, UK.

128. Spence, M., (1973), *Job market signalling*, The Quarterly Journal of Economics, Vol. 87 No.3 August 355-374, The MIT Press, Cambridge Ma. USA.
129. Spence, M., (1976), *Competition in salaries, Credentials, and signalling prerequisites for jobs*, The Quarterly Journal of Economics, Vol. 90 No.1 February 51-74, The MIT Press, Cambridge Ma. USA.
130. Steedman, H., (2001), *Five years of the modern apprenticeship initiative: an assessment against continental European models*, National Institute Economic Review, October p75.
131. Storey, D., (1994), *Understanding the small business sector*, Routledge, United Kingdom.
132. Sutherland, J., (2002), *You don't have to be thick to work in British politics, but it seems to help*, The Guardian February 11th.
133. Tayeb, M., (1993), in *Management in Western Europe – Hickson, D., Ed.*, De Gruyter, Berlin, Germany
134. Taylor, R.S., McGugan, I., (1995), *Devoured by degrees*, Canadian Business September v68 n9 p26 (10), CB Media Ltd. Canada.
135. Tetzeli, R., (1991), *PhDs: another way to the top*, Fortune June 17th v123 n13 p8(1), Time Inc., New York, New York, USA...
136. Thurley, K., Wirdeness, H., (1989), *Towards European Management*, Pitman Publishing, London UK.

137. Tjeldvoll, A., (2001), *The Comprehensive school experiment revisited*; Book review – Comparative Education Review August v45 I3 p425.
138. Towner, N., (2002), *We must stop qualifications Catch 22*, Computer Weekly May 2nd p40, Reed Business Information Ltd., United Kingdom.
139. Weech, W., (2001), *Training across cultures: What to expect*, Training & Development 55(1): 62-64 January. American society for training and development Inc.
140. Wever, K., Allen, C., 1992, *Is Germany a Model for Managers?* Harvard Business Review, September – October, Boston, Ma. USA.
141. Weaver, K., (1995), *Negotiating Competitiveness*, Harvard Business School Press, Boston Ma.
142. Wiener, M.J., (1981), *English Culture and the decline of the Industrial Spirit 1850 – 1980*, Penguin, London.
143. Winkleman, R., (2003), *Employment prospects and skill acquisition of apprenticeship-trained workers in Germany*, Industrial & Labour Relations Review 49(4): 658-672 July, Cornell University USA.
144. Wood, L., (2002), *Doctoral Programmes*, The Financial Times January 21st p12, Pearson, London, UK.

Bibliography

1. Abrashof, D., M., (2002), *Communicate purpose and meaning: think your company is a tight ship?* Chief Executive (US) May pS30 (2), Chief Executive Publishing.
2. Altman, Y., Baruch, Y., (1998), *Cultural theory and organisations: Analytical method and cases*, Walter de Gruyter and Co. Berlin, Germany.
3. Anderson, J., (1997), *Interests and the wall of ideas: Germany's eastern trade policy after unification*, Comparative Political Studies, v30 n6 p675 (24), Sage Publications Inc.
4. Anon, (2001), *Brain Drain at the B- Schools*, Business Week March 5th. i3722 p 106.
5. Anon, (2001), *Der Arbeitsmarkt für besonders qualifizierte Fach- und Führungskräfte: Jahresbericht 2000*, Bundesministerium für wirtschaftliche Angelegenheiten, Bonn, Germany.
6. Anon, (2002), *College at work: outlook and earnings for college graduates*, Occupational Outlook Quarterly, 46(3): 2, September, US Bureau of Labour Statistics
7. Anon, (2003), *Do you deserve a raise?*, World Trade 14(1) p42(8), Business News Publishing Company, United States.

8. Anon, (2000), *Education – degrees of choice*, The Economist (US) July 15th. V 356 i 8179.
9. Anon, (2001), *Engineers offer golden hellos*, Employee Benefits 35 February, Centaur Publishing, United Kingdom.
10. Anon, (2002), *Rewarding Service*, Employee Benefits 38 January, Centaur Publishing limited, United Kingdom.
11. Anon, (1999), *Germany – Economic aspects*, Institutional Investor, v33 i1 p37, Euromoney Institutional Investor PLC. London.
12. Anon, (2000), *Old dogs, new tricks. (Re-engineering efforts by European companies)*, The Economist (US) April v355 i8 168 p18. Economist Newspaper Ltd.
13. Anon, (2001), *The blackboard jungle; British election briefing: education*, The Economist (US) May 12th p13, Economist Newspaper Ltd. Anon, (2002), *Many UK companies continue to recognise long service with cash bonuses*, Employee Benefits 38 January. Centaur Publishing, United Kingdom.
14. Antoniou, A., (2002), *MBA's prise open the door to the board*, Personnel Today, July 16 p 16, Reed Business Information Ltd London.
15. Bareham, J., Bourner, T., Ruggeri Stevens, G., (2000), *The DBA: What is it for?* Career Development International 5/7 p 394 – 403.

16. Barritt, D.P., (1957), *The Stated Qualifications of Directors of Larger Public Companies*, Journal of Industrial Economics, July p220-4
17. Bassanini, A., Scarpetta, S., (2001), *Does Human capital matter for growth in OECD countries? Evidence from pooled mean group estimates*, OECD Paris France.
18. Belfield, C.R., Harris, R.D.F., (2002), *How well do theories of job matching explain variations in job satisfaction across education levels? Evidence for UK graduates*, Applied Economics, 34(5): 535(14), March 20, Routledge London.
19. Bellinger, R., (1998), *Bridging the academia-workplace gap*, Electronic Engineering Times Feb 16th n993 pS3 (1).
20. Betts, R., (1965?), *Characteristics of British Company Directors*, Journal of Management Studies February p71 – 88.
21. Bevan, s., Toye, J., Frost, D., (1995), *Managers for the Millennium*, Institute of Employment Studies.
22. Beresford, P., (1993), *Do MBAs and NEDs affect company performance?* Corporate Register March.
23. Bischof, R., (1997), *The Reunited Germany*, Doing Business with Germany. Millar & Reuvid Editors, Kogan Page, London.

24. Booth, A., L., Fancesconi, M., Garcia-Serrano, C., (1999), *Job tenure and job mobility in Britain, parts 1 through 7*, Industrial and labour relations review 53(1) 43 – 70 October, Cornell University, United States.
25. Booth, R., (1997), *Performance management: making it happen*, Management Accounting (British) November v75 n10 p28 (3), The Chartered Institute of Management Accountants, United Kingdom.
26. Bossidy, L., (2001), *The job no CEO should delegate*, Harvard Business Review March, Harvard Business School Publishing, Cambridge MA., USA
27. Bourner, T., Bowden, R., Laing, S., (2001), *Professional Doctorates in England*, Studies in higher Education v 26 n1.
28. Bowen, W., Rudenstine, N., (1993), *In pursuit of the PhD*, Princeton University Press, Princeton NJ., USA.
29. Braddock, D., (1986), *The PhD Degree: What It is and where it takes you*, Occupational Quarterly Outlook Summer 1986 v30 p8 (10) U.S. Government printing office.
30. Breiger, R., (1990), *General Social stratification: towards a new research agenda* (Review), Administrative Science Quarterly, March v44 i1 p20 (4), Cornell University, Johnson Graduate school, USA.

31. Buggie, F., (2001), *The four phases of innovation*, Journal of Business Strategy Sept. v22 i5 p36.
32. Carnoy, M., (1994), *Efficiency and equity in vocational education and training policies*, International Labour review, March – April v133 n2 p221 (20), International Labour Office, Switzerland.
33. W. Chan Kim, R., Mauborgne, (1997), *Fair Process: Managing in the Knowledge Economy*, Harvard Business Review July – August, Harvard, Boston MA.
34. Calori, R., De Woot, P., (1994), *A European Management Model*, Prentice Hall, Hemel Hempstead UK.
35. Conradt, D. (2001), *The German Polity 7th. Edition*, Addison-Wesely Longman Inc., New York NY.
36. Cooper, C., Kirkcaldy, B., (1995), *Executive stereotyping between cultures: the British vs. the German manager*, Journal of Managerial Psychology, v10 No.1 p3 (6).
37. Cosca, T., (1998), *Earnings for college graduates in 1996*, Occupational Quarterly Outlook Fall 1998 v42 n3 p20 (10) U.S. Government printing office.
38. Currie, G., (1997), *Management development and a mismatch of objectives*, Leadership and Organizational development Journal August 1997 v18 n6-7 p304 (8), MCB University Press Ltd UK.

39. Cusumano, M., Gawer, A., (2002), *The Elements of platform Leadership*, MIT Sloan Management review, Spring v43 i3 p51(8), MIT, Cambridge Mass., USA
40. Dess, G., Lumpkin, G., McKee, J., (1999), *Linking Corporate Entrepreneurship to Strategy, Structure and process*, Entrepreneurship: Theory and Practice Spring v23 i3 p85.
41. Dodt, A., Stein, L., Strack, S., (1999), *Do-it-yourself Silicon Valley*, The McKinsey Quarterly Summer p61, Mckinsey & Company Inc.
42. Donkin, R., (2002), *Falling prey to the US management guru*, The Financial Times October 24th p14, Financial Times Information Limited.
43. Dorgan, S., Dowdy, J., Whawell, P., (2001), The McKinsey Quarterly Autumn p129, Mckinsey & Company Inc.
44. Dowling, M., Albrecht, K., (1991), *Technical workers and competitive advantage: what we can learn from the Germans*, Business Horizons, Nov – Dev 1991 v34 n6 p68 (8), JAI Press Inc.
45. Eklund, R., B., Hebert, R., F., (1975), *A History of economic theory and method*, Magraw Hill, USA.
46. Engwall, L., Zamagni, V., (1998), *Management Education in Historical perspective*, Manchester University Press, Manchester UK.

47. Eraut, M., (2001), *The Role and Use of Vocational Qualifications*, National Institute Economic Review October p88, National Institute of Economic and Social Research.
48. Eyre, P., Smallman, C., (1998), *Euro management competences in small and medium sized enterprises*, Management Decision Jan – Feb v36 n1 p34 (9).
49. Feldman, (1996)
50. Fenton O’Creevy, M., (2001), *HR practice: vive la différence. Various forms of capitalism across Europe influence the way relations between workers and employers are managed*, The Financial Times Nov 26th. P6.
51. Festing, M., (1997), *International human resource management strategies in multinational corporations*, Management International review, Annual v37 n SPEISS p43 (21).
52. Gabaro, J., (1992), *Managing people and organisations*, Harvard Business School Publishing, Cambridge MA. USA
53. Gales, B., (1997), Book review *Zur Geschichte des Managements bei Krupp, Von dem Unternehmungsanfängen bis zur Auflösung der Frie. Krupp AG (1811 – 1943*. Business History January n1 p110 (2), Frank Cass & Company Ltd. U.K.
54. Garlick, R., (1983), *The Shaping of Today’s Leaders*, Chief Executive, July/ August.

55. Gandz, J., (2002), *Train dogs, develop leaders*, Ivey Business Journal May v66 i5 p8 (3), University of Western Ontario, Canada.
56. Geppert, M., Williams, K., Matten, D., (20001), The social dimension of change; Management in Multinational Companies An Anglo – German comparison, European Business Management School, Swansea, UK.
57. Gibson, S., (1998), *FAG Kugelfischer – a German Restructuring*, Case No. 9-298-046 rev May 222 1998, Harvard Business School Press, Boston Ma.
58. Grix, J., (2001), *Demystifying Postgraduate Research*, University of Birmingham Press, Edgbaston UK.
59. Guellec, D., Potterie, B., (2001), *Measuring Productivity*, OECD Economic studies summer p103 (24), OECD Publications.
60. Hales, J., Stratford, N., Sherr, A., (1998), *Continuing professional development in the solicitors profession – Research Study 32,,* The Law Society, London, England.
61. Hamel, G., Prahalad, C., 1994, *Competing for the Future*, Harvard Business School Press, Boston MA.
62. Hare, P., Lugachev, M., (1999), *Higher Education in transition*, Europe-Asia studies January v51 i1 p101, Carfax Publishing Company.

63. Hawthorn, F., (1998), *The Big Blue case: does innovation matter?* Institutional investor September 1st. p197 (1).
64. Heidenreich, R., (1998), *Economics and institutions: The Socioeconomic approach of K.W. Knapp*, Journal of Economic Issues XXXII (4): 965-984 December, Association for Evolutionary Economics.
65. Heifitz, R., Laurie, D., (1997), *The work of leadership*, Harvard Business Review January – February, Harvard Business Publishing, Cambridge, Mass, USA.
66. Henzeler, H., Späth, L., (1993), *Sind die Deutschen noch zu retten?*, [Hawthorn, F., (1998), *The Big Blue case: does innovation matter?* Institutional investor September 1st. p197 (1).
67. Heidenreich, R., (1998), *Economics and institutions: The Socioeconomic approach of K.W. Knapp*, Journal of Economic Issues XXXII (4): 965-984 December, Association for Evolutionary Economics.
68. Henzeler, H., Späth, L., (1993), *Sind die Deutschen noch zu retten?*, [Can the Germans still be rescued?], Bertelsmann, Munich Germany.
69. Herrigel, G., (1996), *Industrial Constructions – The sources of German Industrial Power*, Cambridge University Press, Cambridge UK

70. Hopkins, N., Rae, C., (2001), *Inter-group Differentiation: Stereotyping as a function of status hierarchy*, Journal of Social Psychology June v141 i3 p323, Heldref Publications, USA.
71. Howell, J., Higgins, C., (1990), *Champions of technological innovation*, Administrative Science Quarterly June v35 n2 p317 (25), Cornell University graduate School of Management, USA.
72. Jeffries, A., Drysdale, L., Haq, T., (1996), *Cultural considerations matter*, Management Accounting July-August v74 n7 p12 (3), CIMA UK.
73. Jonathan, D., et al, (2001), *The Innovative organization*, The McKinsey Quarterly Spring p21.
74. Kent, S., (2002), *Leadership in crisis*, Personnel Today June 18 p2, Reed Business Information Ltd., UK.
75. Kirkcaldy, B., et al. (1997), *Leisure and work beliefs of British senior managers*, Journal of Management development ay – June v16 n 5-6 p392 (13).
76. Kirkcaldy, B., Cooper, C., (1991), *Work attitudes and leisure preferences: sex differences*, Personality and Individual Differences V13 n3 p329 (5).
77. Köke, Jens (2002), *Corporate Governance in Germany*, ZEW Economic Studies, Bd. 17, Heidelberg/New York.

78. Lehrer, M., (2000), *Has Germany Finally Fixed its High-Tech Problem?* California Management Review v 42 No. 4 summer, University of California, Ca.
79. Leonard, D., Straus, S., (1997), *Putting your whole companies brain to work*, Harvard Business Review July - August, Harvard College, Boston Ma.
80. Luffman, G et al, 2000, *Strategic Management*, Blackwell, Oxford, England.
81. McQuade, K., & Gomez-Casseres, B., (1990), *Hoechst and the German Chemical Industry*, Case 9-390-146 rev. 28/5/91, Harvard Business School Press, Boston, Ma.
82. Mennerich, E., C., (1998), *Business Transformation Strategies in Britain and Germany: A Quest for Total Quality*, PhD Thesis, University of Birmingham.
83. Meyer-Larsen, W., (2000), *Germany Inc.*, Wiley & Sons, NY, NY.
84. Miles, L., (2002), *The benefit of qualifications*, Marketing, Dec 7 p43, Haymarket Publishing Ltd., London UK.
85. Millar, R., Reuvid, J., (1997), *Doing Business with Germany*, Kogan Page, London.

86. Moon, Y.S., Franke, G. R., (2000), *Cultural influences on Agency Practitioners' Ethical Perceptions*, Journal of Advertising v29 i1 p51, American Academy of Advertising
87. Murray, C., (2001), *Daimler, BMW, Volkswagen quit interface effort*, Electronic Engineering Times January 22nd. P1.
88. Muschewske, R., (1997), *Is your board a high – performance team?* Directors and Boards Spring v21 n3 p48(3), IDD Information services, United States.
89. Nelsen, B., (1995), *Technocracy at work*, Industrial and labour relations review July v48 n4 p851 (2), Cornell University, USA.
90. Nicholson, N., (1998), *How hard wired is human behaviour?* , Harvard Business Review July - August, Harvard Business School Publishing, Cambridge MA., USA
91. Oberender, P., (1997), *The structure of German Industry*, Doing Business with Germany. Millar & Reuvid Editors, Kogan Page, London.
92. OECD, (1994), *The Measurement of Scientific and Technical activities using Patent data as science and technology indicators*, OECD, Paris.
93. OECD, (1997), *Patents and Innovation in the international context*, OECD, Paris, France.

94. Ondracek, J. Bauerschmidt, A., (1998), *Willy Korf – German Entrepreneur*, *Entrepreneurship: Theory and practice*, winter v23 i2 p49 (2).
95. O'Toole, J., Galbraith, J., Lawler, E, E, (2002), *When Two (or more) Heads are Better than One*, *California Management review* Vol 44 No 4 Summer, EBSCO Publishing, Ca USA.
96. Pearson, R., (2001), *The disappearing graduate recruitment market*, The Institute for Employment studies.
97. Pearson, R., Aston, J., Bates, P., Jagger, N. (2001), *The IES Graduate review 2000: a diverse and fragmented market*, The Institute for Employment studies.
98. Pearson, R., Aston, J., Bates, P., Jagger, N., (2001), *The IES Annual Graduate review 2000: a diverse and fragmented market*, The Institute for Employment Studies.
99. Peppard, J., Fitzgerald, D., (1997), *The transfer of culturally grounded management techniques: the case of business reengineering in Germany*, *European Management Journal* August v15 n4 p446 (15).
100. Phelan, T.J., Phelan, J.C., (1983), *Higher Education and early life Outcomes*, *Higher Education* 12 p 665 (80).

101. Pfeffer, J., Sutton, R., (1999), *The Smart talk trap*, Harvard Business Review May - June, Harvard College, Boston Ma.
102. Poole, M., Langan-Fax, J., Omodei, M., (1993), *Contrasting subjective and objective criteria as determinates of perceived career success: a longitudinal study*, Journal of Occupational and Organizational Psychology, March v66 n1 p39 (16), British Psychological Society, UK.
103. Rauch, A., Frese, M, Sonnentag, S. (1999), *Cultural Differences in Planning/Success Relationships*, Journal of Small Business Management, Oct. v38 i4 p28.
104. Rommel, G., Kluge, J., Kempis R et al, (1995), *Simplicity Wins – How Germany’s mid-sized industrial companies succeed*, McKinsey & Company Inc., Harvard Business School Press, Boston Ma.
105. Rosenzweig, P., (1994), *National culture and Management*, Harvard Business Review, Boston Ma.
106. Ruf, B., Chusmir, (!991), *Dimensions of success and motivation needs among managers*, The journal of Psychology Nov v125 n6 p631(10), Heldref Publications.
107. Schaede, U., (2000), *The German financial system in 2000*, Harvard Business School case study, HBS, Boston Ma.

108. Schefczyk, M., Gerpott, T., *Qualifications and turnover of managers and Venture Capital-Financed firm performance: An empirical study of German venture capital-investments*, Journal of Business venturing 16 p145-163, ElsevierScience Inc., New York NY.
109. Schreyer, P., Pilat, D., (2001), *Measuring Productivity*, OECD Economic studies summer p127 (44), OECD Publications, Paris, France,
110. Seligman, D., (2002), *The story they all got wrong (correlation between education and earnings)*, Forbes Nov25 v170 i11 p124, Forbes Inc. USA.
111. St. Clair, G., (2000), *Qualification Management in Information services*, Information Outlook, June v4 i6 p32.
112. Stern, R., Barely, S., (1996), *Organisations and social systems: organisation theory's neglected mandate*, Administrative Science Quarterly March v41 p146 (17), Cornell University Johnson Graduate School USA.
113. Stern, S., Ed. 1992, *The Times Guide to Germany*, FAZ, Frankfurt, Germany.
114. Takata, Y., (1996), *Power theory of economics*, Journal of Economic Issues, XXX (4): 1216 – 1219 December, Association for Evolutionary Economics, United States.

115. Tamkin, P., (2002), *Current Work – Measuring Management*, Institute for Employment Studies. <http://www.employment-studies.co.uk/research/14520801.html>, 25/01/02.
116. Tannenbaum, R., Schmidt, W., (1973, revised 1991), *How to chose a leadership pattern,,* Harvard Business Review, Harvard Business School Publishing, Cambridge MA., USA.
117. Taylor, K., (2002), *The impact of technology and trade upon the returns to education and occupation*, Applied Economics July 20th 34(11) 1371 (7), Routledge Journals, United Kingdom.
118. Temple, J., (2001), *Growth of Education and Social Capital in the OECD countries – Economic Department working paper No. 263*, OECD, Paris, France.
119. Thomke, S., 2001, *Enlightened Experimentation: The New imperative for Innovation*, Harvard Business Review. Boston Ma.
120. Tiessen, J., (1997), *Individualism, Collectivism, and Entrepreneurship: A framework for international comparative research*, Journal of Business Venturing 12(5): 367 – 384 September, Elsevier Science Inc., United States.
121. Tompkins, J., (1997), *Recruiting professors as Board Members*, Directors & Boards Winter v21 n2 p31 (4), Investment Dealers Digest Inc.

122. Utsch, A., Rauch, A., et al, (1999), *Who becomes a small-scale entrepreneur in a post socialist environment?* Journal of small Business Management July v37 I3 p31 (1).
123. Uyterhoeven, H., (1997), *The Battle of Mannheim*, Case No. 9-397-098 rev April 15 1997, Harvard Business School Press, Boston Ma.
124. Uyterhoeven, H., (1997), *Four Years Later*, Case No. 9-397-099 rev May 12 1997, Harvard Business School Press, Boston Ma.
125. Vandamme, F., (2000), *Labour mobility within the European Union*, International Labour Review Winter v139 i4 p437.
126. Vossen, R., (1998), *Relative strengths and weaknesses of small firms in innovation*, International Small Business Journal, April-June 1998 v16 n3 p 88 (7).
127. Waterman, R., 1994, *The frontiers of Excellence*, Beasly, United Kingdom
131. Yochelson, J., (1999), *3 rd. Annual competitiveness survey: Global innovation*. Chief Executive (US) June i145 p42 (6), Chief Executive Publishing, USA.

DEGREES AND HIGHER DEGREES HELD BY PEOPLE OF WORKING AGE IN MANAGEMENT, UK, 2001

United Kingdom

Thousands and percentages

Numbers in employment (thousands)	All people in employment																
	111 Corporate Managers & Senr Officials	112 Production Managers	113 Functional Managers	114 Quality and Customer Care Managers	115 Financial Instlt and Office Storage Managers	116 Mngrs in Distrib, Retail Officers	117 Protective Service Officers	118 Health and Social Services Managers	121 Mngrs in Farming, Hort, Forestry etc and Leisure Managers	122 Hospitality in Service Industries	123 Managers in Other Service Industries managers						
27,425	110	563	1,145	112	345	511	69	165	36	300	512	3,668					
with																	
Higher degrees	24	30	124	*	12	11	*	22	*	*	24	271					
of which																	
Doctorate	*	*	17	*	*	*	*	*	*	*	*	35					
Masters	17	20	85	*	*	*	*	16	*	*	18	186					
PGCE	267	*	*	*	*	*	*	*	*	*	*	12					
Other post grad degree or professional qualification	182	*	15	*	*	*	*	*	*	*	*	36					
First degrees	3,235	39	88	333	18	51	43	15	31	26	59	706					
Other degrees	399	*	15	52	17	*	*	*	*	*	10	115					
Proportion	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%					
with																	
Higher degrees	5.0%	21.4%	5.3%	10.8%	*	3.5%	2.2%	*	13.5%	*	4.7%	7.0%					
of which																	
Doctorate	0.7%	*	*	1.5%	*	*	*	*	*	*	*	0.9%					
Masters	2.6%	15.1%	3.6%	7.4%	*	*	*	*	9.8%	*	3.5%	4.8%					
PGCE	1.0%	*	*	*	*	*	*	*	*	*	*	0.3%					
Other post grad degree or professional qualification	0.7%	*	*	1.3%	*	*	*	*	*	*	*	0.9%					
First degrees	11.8%	35.2%	15.7%	29.1%	15.9%	14.7%	8.5%	21.8%	18.5%	8.6%	11.5%	18.2%					
Other degrees	1.5%	*	2.8%	4.6%	*	4.8%	*	*	*	*	2.0%	3.0%					

Source: DfES estimates from the Labour Force Survey, autumn 2001
 * - Estimate less than 10,000. Too small to be reliable.

Appendix 1: Example of data from DfES

Appendix 2: Example of data from LAE

Datensatz: LAE 2001

Zielgruppe: Berufsgruppe: (Leitende Angestellte)
4.897 Fälle = 1.050 Tsd.

Sortierung Keine Aufsteigend OK

	Gesamt			Leitende Angestellte					
	Fälle	Tsd.	Fälle	Gesamt			bis 99 Beschäftigte		
	Fälle	Tsd.	Fälle	Tsd.	Vertik. %	Horiz. %	Fälle	Tsd.	Vertik. %
Gesamt	4.897	1.050	4.897	1.050	100,0	100,0	1.884	404	100,0
Leitende Angestellte									
Gesamt	4.897	1.050	4.897	1.050	100,0	100,0	1.884	404	100,0
bis 99 Beschäftigte	1.884	404	1.884	404	38,5	100,0	1.884	404	100,0
100 bis 999 Beschäftigte	1.540	330	1.540	330	31,4	100,0	0	0	0,0
1.000 und mehr Beschäftigte	1.473	316	1.473	316	30,1	100,0	0	0	0,0
Vorstandsmitglied/ Geschäftsführer/ Direktor	1.049	225	1.049	225	21,4	100,0	541	116	28,7
Abteilungsleiter/ Prokurist/Handlungsbevollmächtigter	850	182	850	182	17,4	100,0	212	46	11,3
Andere Angestellte mit selbständiger Leistung in verantwortl. Tätigkeit	2.998	643	2.998	643	61,2	100,0	1.131	242	60,0
Schulbildung									
Volksschule, Hauptschule	335	72	335	72	6,8	100,0	168	36	8,9
Weiterführende Schule ohne Abitur	1.434	308	1.434	308	29,3	100,0	605	130	32,1
Abitur, Hochschulreife	418	90	418	90	8,5	100,0	185	40	9,8
Studium ohne Abschluß	112	24	112	24	2,3	100,0	28	6	1,5
Studium mit Abschluß	2.598	557	2.598	557	53,1	100,0	897	192	47,6
Berufsbildung									
Abgeschlossene Lehre	2.447	525	2.447	525	50,0	100,0	961	206	51,0
Meisterprüfung	650	139	650	139	13,3	100,0	305	66	16,2
Fachschulabschluß	1.087	233	1.087	233	22,2	100,0	410	88	21,7
Ingenieurschule	307	66	307	66	6,3	100,0	95	20	5,0
Polytechnikum	21	4	21	4	0,4	100,0	7	2	0,4
Fachhochschulabschluß	1.271	273	1.271	273	26,0	100,0	416	89	22,1
Universitäts-/ Hochschulabschluß	1.294	278	1.294	278	26,4	100,0	477	102	25,3
Promotion/ Habilitation	177	38	177	38	3,6	100,0	68	15	3,6
Sonstiges	159	34	159	34	3,2	100,0	51	11	2,7
Ausbildungsbereich									
Biologie	44	9	44	9	0,9	100,0	20	4	1,0
Chemie	133	29	133	29	2,7	100,0	30	6	1,6
Physik	90	19	90	19	1,8	100,0	37	8	2,0
Mathematik	105	22	105	22	2,1	100,0	43	9	2,3
Sonstige Naturwissenschaften	77	17	77	17	1,6	100,0	42	9	2,2
Medizin/ Pharmazie	124	27	124	27	2,5	100,0	58	13	3,1
Architektur	48	10	48	10	1,0	100,0	25	5	1,3
Ingenieurbau	322	69	322	69	6,6	100,0	127	27	6,7
Informatik	288	62	288	62	5,9	100,0	85	18	4,5
Wirtschaftsingenieur	157	34	157	34	3,2	100,0	49	10	2,6
Ingenieurwissenschaft/ Techn. Wiss.	726	156	726	156	14,8	100,0	180	39	9,6
Wirtschaftswissenschaften	593	127	593	127	12,1	100,0	177	38	9,4
Sozialwissenschaften/ Psychologie	151	32	151	32	3,1	100,0	74	16	3,9
Kommunikationswissenschaften	123	26	123	26	2,5	100,0	51	11	2,7
Rechtswissenschaften	91	20	91	20	1,9	100,0	34	7	1,8
Geisteswissenschaften/ Philologie	94	20	94	20	1,9	100,0	58	12	3,1
Kaufmännische Ausbildung	1.897	407	1.897	407	38,7	100,0	767	165	40,7
(Andere) technische Ausbildung	593	127	593	127	12,1	100,0	205	44	10,9
Handwerk	738	158	738	158	15,1	100,0	384	82	20,4
Sonstiges	370	79	370	79	7,6	100,0	146	31	7,8
Gesamt									
				Leitende Angestellte					
				100 bis 999 Beschäftigte			1.000 und mehr Beschäftigte		
	Fälle	Tsd.	Fälle	Tsd.	Vertik. %	Horiz. %	Fälle	Tsd.	Vertik. %

<http://www.immediate.de/LAE2001/CD-ROM/cgi-bin/Lae01d.dll>

31/01/02

Appendix 3: Example of data from IAB

Verwertung beruflicher Qualifikationen 1984, 1992 und 1998
16- bis 64-jährige Erwerbstätige¹⁾ in Deutschland

	Alle erwerbstätigen									Nur hochqualifizierte			
	keine Berufsausbildung		Berufliche Bildung im Ausland	Lehrabschluss ²⁾		Fachschule	Berufliche (Fach-) Ausbildung			keine Ausbildung	Lehrabschluss ²⁾	Fachschule	Berufliche (Fach-) Ausbildung
	Duales	Akademisches		Duales	Akademisches		Duales	Akademisches	Zusammen				
Tätigkeit in anderen Berufen	Anzahl												
1984	8,9	4,8	30,0	48,9	37,8	71,0	49,6	79,8	49,8	X	X	X	X
1992	37,4	18,8	33,1	58,7	58,2	79,7	80,2	39,7	96,4	19,0	54,7	80,8	80,0
1998	38,0	18,2	37,0	62,1	68,8	77,6	80,6	38,8	95,2	27,6	57,1	87,4	80,0
Qualifikationsniveau entspricht der Tätigkeit	in %												
keine	in %												
1984	18,6	22,1	108	4,1	11,1	1,0	8,1	18,8	6,0	X	X	X	X
1992	18,7	18,2	9,0	4,4	4,8	2,0	8,7	12,1	6,0	22,0	7,8	1,8	8,0
1998	18,0	22,1	10,1	2,0	1,8	2,1	8,6	12,8	6,0	10,7	8,8	1,1	4,1
Spezialqualifikationsausbildung	in %												
1984	8,0	2,2	30,1	68,4	42,8	33,1	46,1	18,2	45,1	X	X	X	X
1992	24,6	14,4	30,8	64,2	68,1	21,8	80,8	28,7	48,8	19,8	54,2	28,1	43,4
1998	28,0	18,0	35,0	68,0	68,1	22,0	82,0	21,8	80,4	40,0	62,8	20,1	82,2
Wissenschaftler³⁾	in %												
1984	8,2	0,2	0,0	1,0	1,2	40,0	10,6	7,8	10,2	X	X	X	X
1992	2,2	0,1	0,0	1,0	2,8	83,2	13,2	6,1	12,8	8,7	2,8	82,2	28,0
1998	4,8	1,8	0,8	2,0	2,4	87,0	16,8	9,8	18,8	8,0	8,8	48,8	20,8
Wissenschaftler in angrenzenden Berufen	in %												
1984	49,0	01,2	40,8	11,0	18,8	1,8	16,1	88,4	17,8	X	X	X	X
1992	28,0	67,8	81,1	18,0	21,8	1,4	12,0	47,8	16,1	83,8	18,8	1,7	11,8
1998	41,1	78,7	84,1	18,4	28,2	1,8	13,0	88,2	17,2	28,7	18,4	2,8	11,1
Wissenschaftler in anderen Berufen	in %												
1984	79,7	88,1	87	28,0	22,8	80,4	42,2	16,8	88,0	X	X	X	X
1992	81,8	78,0	34,0	22,8	28,1	80,8	28,0	14,8	82,0	8,0	13,8	84,1	23,1
1998	81,8	82,7	27,6	22,8	22,8	78,8	28,2	10,1	87,0	7,0	10,2	67,8	10,7

1) Erwerbstätige einschliesslich geringfügig oder unregelmässig Erwerbstätige, ohne Personen in betrieblicher Ausbildung, in Erziehungsjahren oder in Wehr-Zivildienst. - 2) Lehrabschluss, Fachschulabschluss, Abschluss dualer Berufsausbildung, Weiterbildung, andere berufliche Ausbildung, wenn nur in der Fachschulabschlussausbildung. - 3) Die Qualifikationsausbildungsgeschichte entspricht der Fachschulabschlussausbildung 1984 und nur in den neuen Ländern erhoben. - 4) Keine eigene Ausbildung oder keine, querschnittsgewichtet.

Höchster allgemeiner und berufsbildender Abschluss nach Erwerbsstatus
16- bis 64-Jährige in Deutschland (1998, alte und neue Bundesländer)

Höchster allgemeiner und berufsbildender Abschluss (Anteile in %)	Erwerbstätige ¹⁾	Erwerbslose ²⁾	Erwerbslosen ³⁾	Nicht-Erwerbspersonen	Wohnbevölkerung
Keine abgeschlossene Berufsausbildung, höchstens Hauptschulabschluss ⁴⁾	10,3	21,9	12,9	32,8	17,6
Keine abgeschlossene Berufsausbildung, aber Realschulabschluss oder Abitur ⁵⁾	4,9	4,1	7,0	9,2	7,5
Lehrabschluss, höchstens Hauptschulabschluss ⁴⁾	22,0	29,2	21,8	25,3	22,6
Lehrabschluss, Realschulabschluss oder Abitur ⁵⁾	21,4	17,6	20,6	10,6	18,3
Fachschule ⁶⁾	9,6	6,1	8,6	5,1	7,8
Fachhochschulabschluss	4,7	1,5	4,1	1,2	3,4
Abschluss Universität/Hochschule	11,8	7,4	10,5	3,5	8,9
Berufliche Bildung im Ausland	2,8	4,4	2,8	2,4	2,7
Anderer berufsbildender Abschluss ⁷⁾	11,7	7,3	10,9	8,6	10,4
Keine Angabe	0,7	0,5	0,7	1,3	0,9
Zusammen	99,9	100,0	99,9	100,0	100,1
Nachrichtlich					
Faltzahl hochgerechnet in Tausend	32 971	4 842	40 934	12 302	53 288
Faltzahl ungewichtet	6 610	1 056	8 418	2 342	10 769

1) Erwerbstätige einschliesslich geringfügig oder unregelmässig Erwerbstätige, ohne Personen in betrieblicher Ausbildung, in Erziehungsjahren oder in Wehr-/Zivildienst. - 2) Arbeitslos Gemeldete sowie Personen, die nicht arbeitslos gemeldet sind, aber möglichst sofort (wieder) eine Erwerbstätigkeit aufnehmen wollen. - 3) Erwerbstätige und Erwerbslose (einschliesslich Personen in betrieblicher Ausbildung, in Erziehungsurlaub, in Wehr- oder Zivildienst). - 4) Einschliesslich 8. Klasse DDR. - 5) Einschliesslich Fachhochschulreife sowie 10. Klasse DDR. - 6) z.B. Meister-, Technikerschule einschliesslich Ingenieur-Meisterabschluss DDR. - 7) Berufsschule, Handelsschule, Schulen des Gesundheitswesens, Beamtenausbildung, andere berufliche Ausbildung.

Quelle: Eigene Auswertung des SOEP, querschnittsgewichtet.

Appendix 4:

Example of data from the Reward Group / Institute of Directors Surveys. (2001).

Qualification of Directors						
Qualification	Chairman	Chairman A Chief Exec	Managing Director	Other Directors	Rank 1 Manager	All
A Fully Executive						
Doctorate Phd	3		1	2	3	2
Master's Degree (MA)	6		4	8	7	6
Bachelor's Degree	39	58	46	35	25	38
Professional Qualification	19	9	16	19	17	17
HNC/HND			1	2	1	2
Part Professional Qual	3				1	
'A' Level/ONC/GNVQ - Advanced					1	
GCSE/'O' Lev/C&G/RSA 3/GNVQ I			1		1	1
B Partially Executive						
Master's Degree (MA)	64	67	47	22	7	4
Bachelor's Degree	29	33	21	39	22	39
Professional Qualification			5			33
HNC/HND			16			1
C Non-Executive						
Doctorate Phd					7	5
Master's Degree (MA)	40		50	1	1	1
Bachelor's Degree	28	100		49		46
Professional Qualification	4		25	21		23
						2

Appendix 5:

Semi Structured Interview Framework

No.

Date

Company.....

Name.....

Position.....

Question 1: Please describe briefly your company's activities and scope

Note for interviewer; service, manufacturing, finance, construction?

Global International, National?

Question 2: How many do you employ a) In the UK b) Elsewhere?

a)

b)

*Note for interviewer: try to ascertain where elsewhere is and if it includes Germany
try for comparative data*

Question 3: How many of these would you classify as a) Managers b) Senior managers?

a)

b)

Note for interviewer: outline the definitions we are using of "Management" and "Senior Management"

Question 4: How likely are they to have a) a degree b) a Postgraduate degree c) A professional qualification or d) a Doctorate?

a) 1 2 3 4 5

b) 1 2 3 4 5

c) 1 2 3 4 5

d) 1 2 3 4 5

Question 5: Within what age are they likely to be a) when joining the company b) when first entering management c) when first attaining a senior position?

a) 15 – 20 25 – 30 30 – 35 35 – 40 40 – 45

a) 20 – 25 25 – 35 35 – 40 40 – 45 45 – 50

a) 25 – 30 30 – 35 35 – 40 40 – 45 45 – 50

Note for interviewer: outline the definitions we are using of “Management” and “Senior Management”

Question 6: Does your company have a clearly defined management recruitment policy? If so please describe it

Note for interviewer: Try to check whether or not the policy is clearly defined i.e. written down if yes try to obtain a copy.

Question 7: Does your company have a clearly defined management development policy? If so please describe it.

Note for interviewer: Try to check whether or not the policy is clearly defined i.e. written down if yes try to obtain a copy.

Question 8: What would you say are your company's criteria for promotion and advancement?

Question 9: How important to career development do you personally consider a) academic qualifications b) vocational qualifications C) “professional” qualifications?

a) 1 2 3 4 5

b) 1 2 3 4 5

c) 1 2 3 4 5

Question 10: How important does your company consider a) academic qualifications b) vocational qualifications C) “professional” qualifications to be?

a) 1 2 3 4 5 b) 1 2 3 4 5

c) 1 2 3 4 5

Question 11: We have described the basis of our thesis and the research questions we are trying to answer. Do you have any observations you would like to make or can you suggest any reasons as to why the current apparent dichotomy exists?

Question 12: We would like to thank you for the time you have spent with us but before we do are there any questions you would like to ask us?

Note for interviewer: Please note the questions asked and on conclusion offer the interviewee an abstract of the conclusions of the research when it is finished

Appendix 6:

Semistrukturiertes Interviewrahmen

Nr.

Datum

Firma

Name.....

Stellung.....

**Frage 1: Beschreiben Sie bitte kurz die Aktivitäten
und Umfang Ihrer Firma**

Bemerkung für den interviewer; Dienstleistung, Fertigung, Finanzwesen, Bau?

Global International, National?

Frage 2: Wie viele Angestellte hat die Firma a) in D b)

Sonst?

a)

b)

Bemerkung für den interviewer: stelle fest wo sich die anderen befinden und ob
Deutschland darunter ist versuche vergleichbare Daten heraus zu finden.

**Frage 3: Wie viele davon kann man unter folgenden
einreihen a) Managers b) Senior managers?**

b)

b)

Bemerkung für den Interviewer:

Beschreibe die Definitionen, die wir für
“Management” und “Senior Management”
anwenden.

**Frage 4: Wie wahrscheinlich ist es, dass sie a) ein
Studium b) ein Postgraduate Studium c) eine
professionelle Qualifikation oder d) einen
Doctor haben?**

a) 1 2 3 4 5

b) 1 2 3 4 5

c) 1 2 3 4 5

d) 1 2 3 4 5

**Frage 5: Wie alt sind sie wahrscheinlich, wenn sie a)
in die Firma eintreten b) wenn sie in die
leitende Angestelltenebene aufsteigen c)
wenn sie ihre erste leitende Position
erreichen?**

**a) 15 – 20 25 – 30 30 – 35 35 – 40
 40 – 45**

**a) 20 – 25 25 – 35 35 – 40 40 – 45
 45 – 50**

**a) 25 – 30 30 – 35 35 – 40 40 – 45
 45 – 50**

Bemerkung für den Interviewer:

Beschreibe die Definitionen, die wir für
“Management” und “Senior Management”
anwenden

**Frage 6: Hat Ihre Firma eine klar definierte
Anstellungspolitik für leitende Angestellte?
Wenn JA, beschreiben Sie diese bitte**

Bemerkung für den Interviewer: Versuche
herauszubekommen, ob oder nicht diese Politik
klar definiert ist. In Schriftform, und dann eine
Exemplar davon zu erhalten.

**Frage 7: Hat Ihre Firma eine klar definierte
Managemententwicklungspolitik? Wenn ja,
beschreiben Sie diese.**

Bemerkung für den Interviewer: Versuche
herauszubekommen, ob oder nicht diese Politik
klar definiert ist. In Schriftform, und dann eine
Exemplar davon zu erhalten.

Frage 8: Was sind Ihrer Meinung nach die Kriterien Ihrer Firma um befördert zu werden und voran zu kommen?

Frage 9: Wie wichtig zur Karriereentwicklung ist Ihrer Meinung nach a) eine akademische Qualifikation b) vocational qualifications C) "professionelle" Qualifikation?

a) 1 2 3 4 5

b) 1 2 3 4 5

c) 1 2 3 4 5

Frage 10: Für wie wichtig halt Ihre Firma a) eine akademische Qualifikation b) vocational qualifications C) “professionelle” Qualifikation?

a) 1 2 3 4 5 b) 1 2 3 4 5

c) 1 2 3 4 5

Frage 11: Wir haben die Grundlage unserer Dissertation beschrieben und die Forschungsfragen, die wir zu antworten versuchen. Haben Sie irgendwelche Bemerkung die Sie machen wollen, oder können Sie gründe angeben, warum die offensichtliche derzeitige Dichotomie existiert?

Frage 12: Wir möchten uns bei Ihnen für die uns zur Verfügung gestellte Zeit bedanken, aber zuvor wollen wir Ihnen die Gelegenheit geben selber Fragen über unser Arbeit zu stellen.

Bemerkung für den Interviewer: Bitte notiere die Fragen, die gestellt werden und bieten Sie der interviewten Person die Möglichkeit an, ein Abstract am Ende der Forschung zukommen zu lassen.

Appendix 7: Higher Education qualifications obtained in the UK by mode of study, domicile, gender and subject area 2000/2001

	Total HE qualifications obtained	First Degrees					Higher Degrees			Other Postgraduate			
		Total first degrees	First class	Upper second class	Lower second class	Third class/Pass	Total higher degrees	Doctorate degrees	Other higher degrees	Total other PG	PGCE PG quals	Other PG quals	
1 Total full-time	380915	244120	23860	111605	78040	15770	14950	61605	10660	50945	34880	20625	14255
2 UK domiciled	310840	216230	20880	101385	68410	12620	12930	28030	6460	21570	30690	19855	10830
3 Female	177285	120915	11175	61500	36525	5025	6895	13305	2855	10450	20400	14315	6085
4 Male	133555	95310	9705	39885	31885	7600	6235	14725	3605	11120	10290	5540	4745
5 Overseas domiciled	70075	27895	2985	10220	9630	3145	1915	33575	4200	28375	4195	770	3425
6 Female	33680	13560	1360	5465	4715	1170	840	15515	1525	13985	2245	625	1620
7 Male	36385	14335	1620	4750	4910	1975	1075	18060	2670	15390	1950	145	1805
Subject area													
8 Medicine & dentistry	8350	6095	235	530	95	100	5130	1985	880	1105	220	0	220
9 Subjects allied to medicine	36080	16360	1920	8125	4810	690	810	1995	615	980	550	0	550
10 Biological sciences	22755	17775	1675	8830	5645	980	445	3900	1880	2020	270	5	260
11 Veterinary science	760	615	35	65	25	0	495	135	70	65	15	0	15
12 Agriculture & related subjects	4145	2285	170	915	790	175	235	790	165	625	25	0	25
13 Physical sciences	16465	11975	1875	4855	3800	1140	305	3885	1840	2040	270	15	255
14 Mathematical sciences	5355	4075	1020	1360	1065	530	100	895	355	540	75	20	55
15 Computer science	22630	13055	1545	4795	4405	1495	810	4820	275	4545	1255	5	1250
16 Engineering & technology	27415	18425	2770	6660	5625	2005	1365	6395	1480	4915	610	0	610
17 Architecture, building & planning	7985	5115	355	2145	1860	390	380	1130	105	1025	1015	0	1015
18 Social, economic & political studies	32020	21125	1595	10550	7335	1110	540	7805	815	6985	975	15	960
19 Law	17890	9230	415	4855	3320	450	185	3185	135	3050	4745	0	4745
20 Business & administrative studies	48900	30340	1755	12975	11365	2425	1820	11805	300	11505	1555	45	1505
21 Librarianship & information science	8100	5225	340	2695	1790	215	185	1560	35	1525	720	0	720
22 Languages	19325	15205	1715	9075	3785	415	210	3075	615	2455	315	65	250
23 Humanities	12620	9420	955	5760	2325	225	155	2900	630	2270	160	15	150
24 Creative arts & design	28555	22740	2420	10840	7605	1455	415	2880	110	2775	975	65	915
25 Education	34770	11525	705	5195	4625	590	410	1375	235	1140	20900	20345	550
26 Combined	26960	23540	2155	11385	7765	1375	860	1495	130	1365	235	30	205

Source: Higher Education Statistics agency

Appendix 8: Examinations passed - Institutes of higher education – Germany 2000/1

Institutions of higher education		
Examination passed		
Specification	Year of examination	
	2000	2001
Baden-Württemberg	31 866	31 375
Bavaria	30 092	29 636
Berlin	14 710	14 656
Brandenburg	3 398	3 320
Bremen	2 591	2 806
Hamburg	7 565	6 452
Hesse	17 342	16 689
Mecklenburg-Western Pomerania	2 767	2 966
Lower Saxony	18 986	18 571
North Rhine-Westphalia	48 986	45 170
Rhineland-Palatine	10 732	10 249
Saarland	2 623	2 385
Saxony	9 898	10 275
Saxony-Anhalt	3 920	4 039
Schleswig-Holstein	5 522	5 330
Thuringia	3 845	4 174
Germany	214 473	208 123
Viz.:		
Females	96 077	95 661
Foreigners	12 791	13 803
Average age	29.0	29.0
Examinations passed according to groups		
Diplomas (U) and First state examinations ¹	94 999	92 414
Females	42 599	42 945
Foreigners	7 318	8 155
Average age	28.5	28.5
Doctor's degrees	25 780	24 796
Females	8 852	8 752
Foreigners	1 926	2 017
Average age	32.7	32.8
Teaching qualifications	26 938	24 959
Females	19 157	17 987
Foreigners	251	295
Average age	28.0	28.3
Diplomas at Fachhochschulen	66 260	65 954

Source: Federal Statistics Office Germany

Appendix 9: Participation rates in higher education: by social class, 1991/92 -

1998/99

Title: Participation rates in higher education: by social class, 1991/92-1998/99: Social Trends 30

Description: Young people (aged 21 and under) from the partly skilled and unskilled socio-economic groups are particularly under represented in higher education in Great Britain. The participation rate for the unskilled group more than doubled from 6% in 1991/2 to 13% in 1998/9. However their participation rate is still only a fraction of that for the children of professional families. This, in part reflects lower achievements at A level and equivalent for these groups

Source: Department for Education and Skills; Office for National Statistics; Universities and Colleges Admission Service

Time: 1991/92 to

Frame: 1998/99

Geographic Coverage: Great Britain

Universe: Higher education

Measure: People participating in higher education

Units: See Table

=====

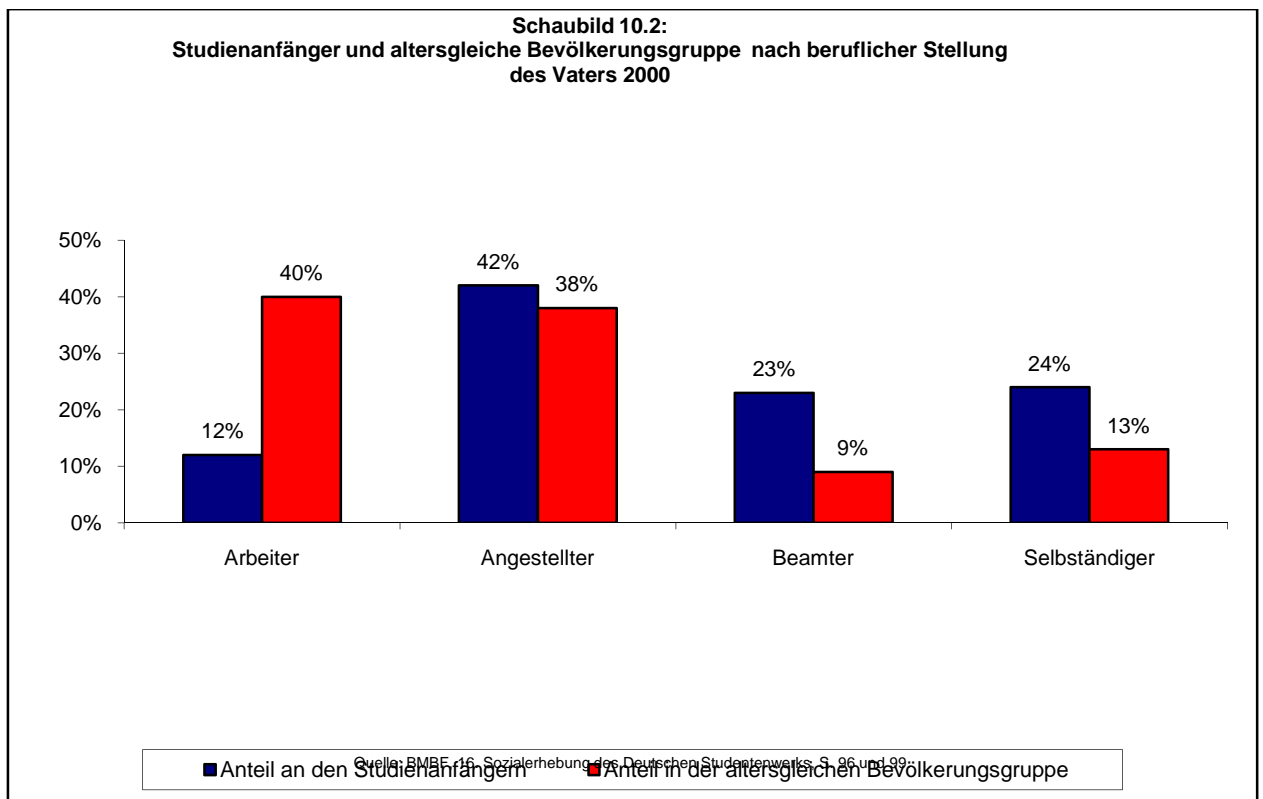
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Table <1>

	1991/92	1992 /93	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998/ 99
Professional	55	71	73	78	79	82	79	72
Intermediate	36	39	42	45	45	47	48	45
Skilled non-manual	22	27	29	31	31	32	31	29
Skilled manual	11	15	17	18	18	18	19	18
Partly skilled	12	14	16	17	17	17	18	17
Unskilled	6	9	11	11	12	13	14	13
All social classes	23	28	30	32	32	33	33	31

Appendix 10: Studienanfänger und altersgleiche Bevölkerungsgruppe nach beruflicher Stellung des Vaters 2000⁷

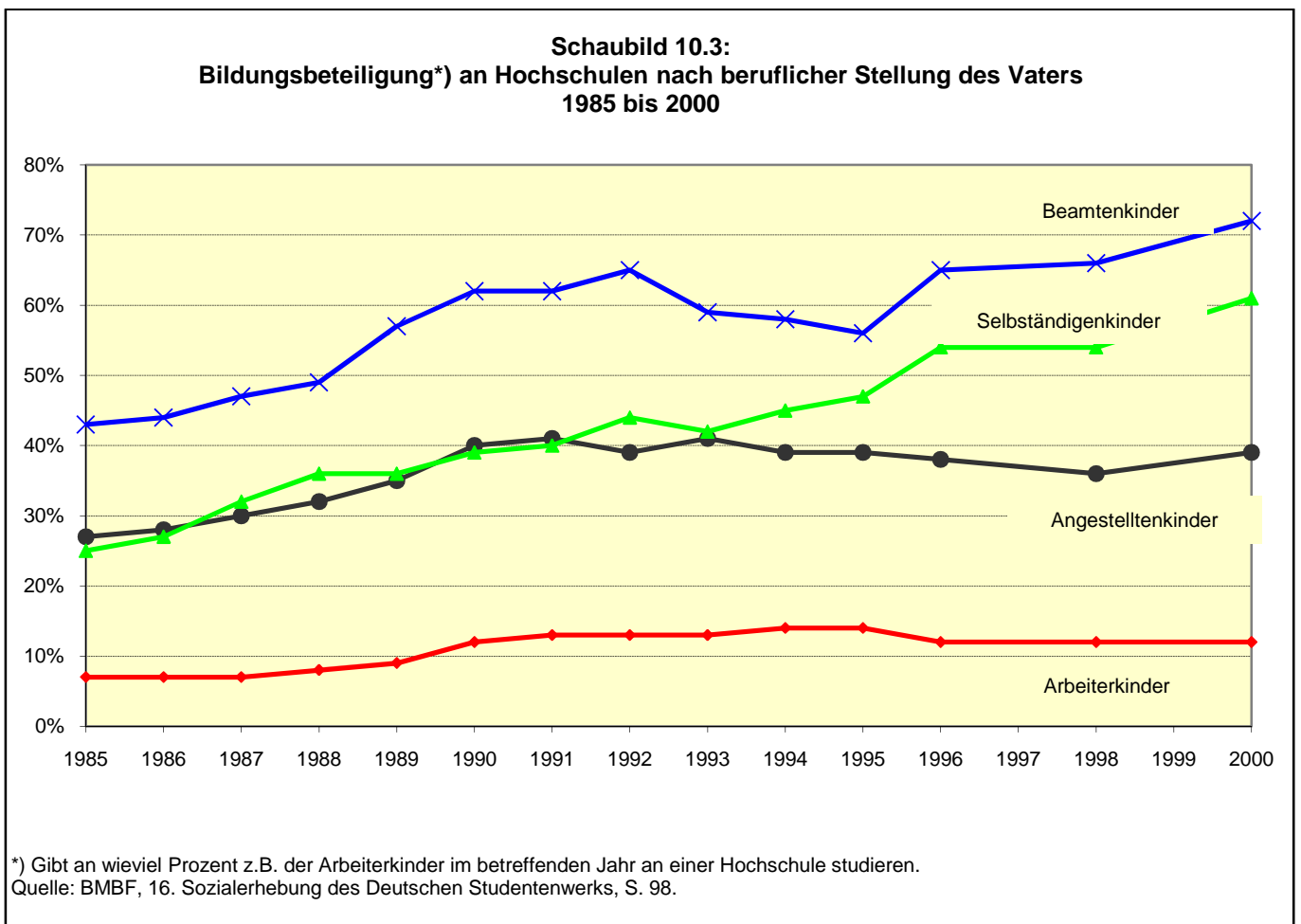
[Entrants into higher education in similarly aged population groups classified by the occupation of the father.]



Source: Statistisches Bundesamt (Federal Statistics Office
Germany)

⁷ Arbeiter = Worker (manual), Angestellter = Employee, Beamter = Civil servant / government employee with tenure, Selbständiger = self employed. Anteil an den Studienanfänger = % of those commencing studies, Anteil in der altersgleichen Bevölkerungsgruppe = % of the same age group

Appendix 11: Bildungsbeteiligung an Hochschulen nach beruflicher Stellung des Vaters. 1985 bis 2000.⁸
 [Participation in higher education classified by the students' fathers' occupation.]



Source: Statistisches Bundesamt (Federal Statistics Office Germany)

⁸ Beamtenkinder = Children of civil servants, Selbständigenkinder = Children of the self employed, Angestelltenkinder, = Children of employees, Arbeiterkinder = Children of Manual workers

Appendix 12: Technology balance of payments OECD 1999

Table 11.5.1. Technology balance of payments

	In millions of US dollars				As a percentage of GDP							Receipts/payments ratio (%)		
	Receipts		Payments		Balance		Receipts		Payments		Balance		1985	1997
	1985	1997	1985	1997	1985	1997	1985	1997	1985	1997	1985	1997	1985	1997
Canada	797.8	1 261.3	586.2	989.8	-151.4	271.5	0.11	0.23	0.16	0.17	0.04	0.15	73	127
Chile	23.8	1 139.9	160.8	506.9	-145.9	277.0	0.01	0.03	0.06	0.12	-0.08	-0.09	9	26
China	6 678.6	37 676.0	1 780.0	9 411.0	5 898.6	25 265.0	0.16	0.33	0.03	0.12	0.12	0.21	571	338
Australia	68.6	228.7	187.4	368.0	-119.3	-139.8	0.04	0.06	0.11	0.09	-0.07	-0.13	36	62
Japan	981.9	6 573.8	1 279.0	3 623.4	-2 297.1	2 350.2	0.07	0.16	0.05	0.09	-0.02	0.03	80	190
Korea	11.3	1 77.4	229.2	1 947.6	-284.2	-1 834.6	0.00	0.02	0.00	0.04	0.01	0.01	4	6
New Zealand	..	20.2	..	8.2	..	12.0	..	0.03	..	0.01	0.01	0.02	..	246
Austria	23.8	157.6	113.5	489.6	-89.8	302.0	0.04	0.09	0.17	0.35	-0.13	-0.24	15	27
Belgium	673.9	4 380.3	781.6	3 447.2	-1 227.7	902.6	0.85	1.79	0.56	1.42	-0.13	-1.37	86	136
Czech Republic	..	42.9	..	98.0	..	-55.0	..	0.08	..	0.17	..	-0.10	..	44
Denmark	..	161.0	..	106.8	..	32.6	..	0.22	..	0.28	..	..	14	14
Finland	4.4	66.2	106.8	465.1	-102.4	-386.9	0.02	0.15	0.20	0.37	0.10	-0.12	4	14
France	893.3	2 164.2	1 063.0	2 989.2	-1 095.6	-825.7	0.12	0.18	0.20	0.21	-0.13	0.06	84	72
Germany	1 172.8	11 065.2	1 672.4	3 666.1	-2 599.6	-2 690.8	0.39	0.55	0.27	0.63	-0.08	0.10	71	85
Greece	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungary	..	0.2	..	1.2	..	-1.0	..	..	..	..	..	..	..	..
Iceland	..	100.8	..	3 416.2	..	-3 315.4	..	0.08	..	0.18	..	-0.15	..	16
Ireland	..	1 207.2	..	245.9	..	-401.8	..	0.14	..	0.13	..	-0.09	..	3
Italy	144.2	1 207.2	245.9	1 562.2	-401.8	355.0	0.05	0.11	0.13	0.14	-0.09	-0.03	26	77
Netherlands	1 196.2	2 292.8	1 503.9	2 135.5	-307.8	65.3	0.45	0.93	0.17	0.19	-0.24	0.02	40	101
Norway	28.1	1 38.1	..	290.4	-28.1	-172.2	0.04	0.07	0.12	0.18	-0.08	-0.11	37	41
Poland	..	165.8	..	411.4	..	-245.6	..	..	..	..	..	..	..	48
Portugal	..	170.8	..	532.2	..	-361.2	..	..	..	..	..	..	..	34
Spain	137.5	161.8	541.2	1 073.8	-414.2	-912.1	0.26	0.03	0.33	0.20	-0.25	-0.37	25	15
Sweden	87.4	147.1	49.5	43.9	38.1	407.2	0.49	0.25	0.05	0.03	0.04	0.22	170	916
Switzerland	870.2	2 771.9	232.8	1 262.6	637.4	-1 030.3	0.30	1.09	0.13	0.49	0.60	0.59	374	230
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	1 437.2	2 902.8	921.8	3 586.9	115.4	-689.7	0.23	0.28	0.20	0.31	0.03	-0.06	113	81
European Union	5 376.5	28 432.9	7 289.0	29 358.7	-1 913.4	-10 922.8	0.21	0.35	0.26	0.49	-0.07	-0.13	74	72
Total OECD ^a	14 406.2	111 150.2	13 150.2	56 603.8	1 247.1	15 031.1	0.16	0.22	0.17	0.25	-0.04	0.07	129	128

1. 1995 instead of 1997
 2. 1986 instead of 1985
 3. 1986 instead of 1987
 4. 1992 instead of 1987
 5. 1984 instead of 1987
 6. Including intra-zone flows. Data partly estimated.
 Source: OECD, Directorate for Science and Technology, Paris 1999.

Appendix 13: Berufliche Stellung des Vaters der Promovierten nach Promotionsfach⁹ (in Prozent) [The profession of the fathers of successful doctoral candidates classified by area of study (in percent)]

	Biologie	Elektro- Technik	Germanistik	Mathematik	Sozial- wis.	Wirtsch.- wis.
Selbständiger	26	22	23	16	22	31
Selbständiger Akademiker	11	5	8	3	6	11
Anderer Selbständiger	15	17	15	13	16	20
Beamter	21	20	29	31	26	14
Beamter in höherem Dienst	9	8	12	16	14	8
Beamter in gehobenem Dienst	8	9	12	9	7	4
Beamter in mittlerem/ einfachen Dienst	4	3	5	5	5	2
Angestellter	37	42	33	37	36	40
Leitender Angestellter	8	6	6	5	8	11
Angestellter in verantwort. Tätigkeit	17	23	18	20	20	20
Angestellter in ausführender Tätigkeit	12	13	9	12	9	9
Qualifizierter Arbeiter	14	14	12	14	13	12
Nicht erwerbsfähig	3	2	2	3	3	3
Gesamt	100	100	100	100	100	100
(n)	(359)	(333)	(365)	(360)	(33 9)	(359)

Source: Enders, J., Bornmann, L., (2000), Karriere mit Doktor title?

⁹ A Translation of the terms used in the table are given in appendix 16

Appendix 14: Die Sozial Herkunft deutscher Topmanager¹⁰ (in Prozent) [The social origins (background) of German senior managers (in percent)]

Beruf des Vaters	Banken	Versicherung	Energie/ Bergbau	Industrie	Handel	Dienstleistung	Insgesamt
Landwirt (bis 20 ha.)	-	-	-	2.7	3.0	-	1.8
Landwirt (20 – 50 ha.)	-	-	-	-	3.0	-	0.5
Landwirt (über 50 ha.)	-	4.2	-	1.4	-	-	1.5
Akademischer Freiberufler	-	4.2	5.9	5.4	3.0	-	3.1
Selbständiger Unternehmer (bis 10 beschäftigte}	11.5	8.4	5.9	9.0	9.1	11.1	8.8
Selbständiger Unternehmer (10 u. m. Beschäftigte}	7.7	12.5	17.7	21.5	33.3	22.2	21.9
Beamter (einfacher/mittlerer Dienst)	7.7	4.2	11.8	8.0	6.1	11.1	7.5
Beamter (gehobener Dienst)	7.7	16.7	11.8	12.2	6.1	11.1	10.5
Beamter (höherer Dienst)	19.2	12.5	21.5	13.5	18.2	22.2	16.0
Angestellter (einfacher Ang./Sachbearbeiter, Meister)	7.7	4.2	5.9	6.7	-	-	5.0
Angestellter (Prokurist/Abteilungsleiter)	15.4	4.2	-	6.8	12.1	-	8.0
Direktor, Geschäftsführer, Vorstandsmitglied	15.4	8.3	5.9	12.2	3.0	11.1	10.2
Arbeiter (inkl. Meister)	7.7	20.7	11.8	2.7	3.0	11.1	5.2
Insgesamt	100.	100.0	100.0	100.0	100.0	100.0 ³	100.0

¹⁰ A Translation of the terms used in the table are given in appendix 16

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Source: Hartmann, M., (1996), Topmanager p 31

Appendix A15: Bildungsherkunft der Promovierten* nach Promotionsfach (in Prozent)¹¹. [Highest educational qualification of the candidate's parents by field of study]

	Biologie	Elektro- Technik	Germa- nistik	Mathe- matik	Sozial- wissen.	Wirtsch- wissen
Promotion	14	10	13	13	11	13
Hochschulabschluss	16	16	18	22	17	13
Fachhochschulabschluss	7	10	8	6	9	8
Abitur	8	11	8	7	9	10
Mittlere Reife	23	23	25	18	23	22
Hauptschule	31	31	28	34	31	33
Kein Abschluss	-	-	1	-	1	1
Gesamt	100	100	100	100	100	100
(n)	(361)	(347)	(386)	(376)	(351)	(364)

* Höchster Bildungsabschluss der Eltern (von Mutter oder Vater)

Source: Karriere mit Dokortitel? Enders, Bornmann (2000)

¹¹ A Translation of the terms used in the table are given in appendix 16

Appendix 16: Translation of terms used in the tables 13.14,15

Abitur	University entrance qualification
Anderer Selbständiger	Other Self Employed
Angestellter	Employee
Angestellter in ausführender Tätigkeit	
Angestellter in verantwortlichem Tätigkeit	Employee with supervisory responsibilities
Banken	Banks
Beamter	Civil servant
Beamter in höherem Dienst	Senior civil servant
Beamter in gehobenem Dienst	Higher civil servant
Beamter in mittlerem/einfachen dienst	Lower ranked civil servant
Beruf des Vaters	Fathers occupation
Biologie	Biology
Deinstleistung	Service industry or provider
Direktor	Director – a title not necessarily a member of the board of directors
Elektro-Technik	Electronics and Electrical engineering
Fachhochschule Abschluss	Degree from a Technical university or polytechnique
Freiberufler	Self employed

Germanistik	Classics
Gesamt	Total
Geschäftsführer	Literally Business leader but usually a senior board member responsible for a discreet function
Handel	Trade or retail
Hauptschule	Secondary school
Hochschuleabschluss	Graduation from the equivalent of a Polytechnique
Höchster Bildungs Abschluss von Eltern	Highest academic qualification of the parents
Industrie	Industry
Ingesamt	In Total
Keine Abschluss	No academic qualifications
Landwirt	Land owner or farmer
Leitender Angestellter	Management personnel
Mathematik	Mathematics
Meister	Time served artisan usually a foreman in industry
Mitterreife	Roughly equivalent of CSE's
Nicht erwerbsfähig	Not available for employment
Promotion	Doctorate
Qualifizierter Arbeiter	Total
Sachbearbeiter	Clerk
Selbständiger	Self Employed
Sozialwissenschaft	Social Science