

**Re-shoring & Offshoring Trends:
Managing Engineering Multinationals - A comparison of offshoring and
outsourcing strategies in UK and German multinational corporations**

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Re-shoring & Offshoring trends: Managing Engineering Multinationals - A comparison of offshoring and outsourcing strategies in UK and German multinational corporations.

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Abstract

UK and German headquartered engineering multinational corporations (MNCs) are compared with a focus on their outsourcing and offshoring initiatives. A novel conceptual framework is developed that uses differing varieties of capitalism (VoC) to compare and contrast a series of criteria. Underlying theory is taken from the resource based view (RBV) of the firm and global production networks (GPNs). The findings from a comparative case study were that in the UK, lower labour costs and reorganising the value chain were key reasons to outsource and offshore. The UK business was less risk adverse and seemed more flexible and agile in its sourcing policies. The German organisation was less inclined to outsource preferring to retain control of a wholly owned offshore business unit. A further difference was that management in Germany were reluctant to progress radical initiatives with the works council. There was little evidence of re-shoring.

Keywords: offshore, outsource, varieties of capitalism

1. Introduction

Offshoring and outsourcing represent on-going and accelerating (at least until recently) trends in the restructuring of firms and has become a major part of (although not an exclusive driver) the globalisation trend. Offshoring can be defined as the performance of tasks in a different country to that where the firm's headquarters is located; while outsourcing may be regarded as the performance of tasks under some contractual arrangement by an unrelated third party (Harms, Lorz and Urban, 2009). Mergers and acquisition have a high risk of failure (Mitchell, 2004) and in recent years organisations have therefore sought alternative means of non-organic growth such as partnerships, joint ventures and alliances (Financial Times, 2011). While the initial justification to offshore is typically to arbitrage labour costs, the rapid growth in demand for outsourcing may lead to cost increases (Economist, 2011) and justification increasingly becomes a complex balance of proximity to markets, suppliers, ability to innovate and institutional factors such as governance and immigration policy (Pisano, 2009). Further, there is an increasing trend to outsource and offshore activities that demand higher levels of skills. According to Kirkegaard (2008) few topics in international economics have risen faster to the top of the political agenda, while also being so poorly understood and quantified as has outsourcing. Recent economic pressures have led governments in the United States and Europe to 'encourage' multinationals to return jobs and investment back to home

markets (BCG cited in Economist 2011); beyond this, re-shoring has been motivated by poor or disappointing experiences in host countries, and declining economic conditions at home.

However, the institutional aspects of offshoring are under-explored and this research¹ aims to compare the practices, strategies and outcomes for case study firms from the UK and Germany, which are characterized by different capitalist models (Hall & Soskice, 2001; Lane, 1998). It is suggested that German firms for example, typically have stronger institutional links than typical UK competitors (Lane, 2008 cited in Morgan, Whitley and Moen). Furthermore, UK and German economies have different comparative advantages and industrial infrastructures, yet both countries also play host to a number of successful multinationals (MNC). The institutional context here can be understood as *both* the configuration of formal institutions (government, banks, trade unions and other firms) or as deeply embedded business practices and norms and ‘ways of doing business’. This will shed light on how UK and German competing organisations differ in managing global expansion, and take advantage of the various resources and support available.

Following German reunification (1990) a period of austerity and strict wage control took place in Germany, and this helped to drive investment at home together with a strong export led economic revival. In 2012 German productivity was assessed to be 24 percentage points ahead of the UK in terms of output per hour (Financial Times, 2013). UK productivity was also 16 percentage points below the G7 average – the widest gap since 1994. A contested area is that the UK has been retaining employees rather than losing jobs to offshoring, while new work is created by UK outsourcing providers (see below). Throughout the 2008-9 recession, increased part-time working in the UK and even the hiring of new employees occurred at a time of minimal growth (Financial Times, *ibid*).

1.1 Aim

To examine the extent to which the offshoring and outsourcing strategies of UK and German based multinational corporations (MNCs) are embedded in the institutional contexts of their respective home countries. This gives rise to a number of sub – questions:

1. What are the differences between UK and German based MNCs in the geographical, functional and temporal patterns of outsourcing and offshoring?
2. How far do mechanisms such as ownership, control, coordination and the degree of autonomy differ between the UK and Germany?
3. How is this reflected in divergent international divisions of labour regarding the employment of indigenous or ex-pat managers from the home country?
4. To what extent do preferences for cultural proximity affect location choices?
5. What is the influence of trade unions in the process of outsourcing and offshoring and how is this reflected in the structuring of the firms’ labour markets?
6. What evidence is there of a reversal in policy – re-shoring and why may it be occurring?

¹ This is part of a broader PhD Research study looking at two comparative UK and German case studies – airlines and engineering companies. The engineering case only is referred to here.

2. Literature review

The purpose of the first contextual stage of the literature review is to review the varying definitions, challenges with measurement, recent trends, background issues to, and the debate around outsourcing and offshoring. This will help in understanding the motivation for offshoring and outsourcing. Firstly, some definitions because the two terms outsourcing and offshoring are sometimes confused and deployed in very different scenarios. This will provide a context for the changes that have been taking place at the level of a firm in response to globalisation and competition.

Offshoring means that work is moved outside the home country and therefore has geographical connotations, usually to a country which can perform the work at lower cost, or perhaps has special skills; although there might also be a business case for offshoring around new market entry and moving operations closer to the country of destination.

Outsourcing currently implies that an organisation decides to move selected activities from in-house (inside the organisation) to a third party or external supplier through a formal contract arrangement. The supplier may or may not be in the same country of origin as the organisation undertaking the outsourcing. The reasons for doing this may be multiple, but the usual starting point is to reduce costs, often labour and associated overhead charges. In so doing, the instigating organisation can be said to be reorganising its value chain and moving either core or support activities to the responsibility of another organisation.

Measurement difficulties often arise from problems associated with the identification beforehand and the allocation of costs and/or poor recording of government statistics. Offshoring work in particular may also be outsourced to a third party or indeed undertaken through a wholly owned subsidiary business (adapted from Contractor, 2010). Questions continue to be raised about the value of multinational expansion (Contractor, 2012).

A German perspective on the drivers and antecedents of manufacturing offshoring and re-shoring reviewed large data sets (Kinkel & Maloca 2009). Some 20 per cent of the organisations subsequently reverse their plan and re-shore within 4 years. This is mainly due to a lack of flexibility and poor quality. A deeper study of 39 German manufacturing companies confirmed a lack of attention to success criteria and competitive advantage. A UK study of offshore production in the years 2008-2009 (Liebl, 2010), found 14 per cent to have re-shored. This estimate for the UK has recently been updated by the Government's Manufacturing Advisory Service to 16 per cent (FT, 2013a). Reasons cited included: quality, shipping costs, difficulties in training, reduced flexibility, international payments, higher than expected quality assurance; or costs that were simply not accounted for in the offshoring move.

Three different but interrelated strands of theory have also been explored. From the fields of:

1. Operations, geography, economics and strategy, (Coe, N.M. et al, 2004) the concept of *Global Production Networks (GPN)*.
2. Business and economics, (Barney, J., 1991) the *Resource Based View (RBV)*; and finally from

3. Geography and economics, (Hall, P. and Soskice, D, 2001) the concept of differing *Varieties of Capitalism (VoC)*

The intention is to synthesise these differing approaches together with an understanding of offshoring to answer the research questions and to explore differences in how German and UK multinationals operate in specific business sectors, and manage offshoring / outsourcing processes in particular. This will also help in developing a conceptual framework – explored further under 3.1.1.

The lack of research on the interdependencies of geography and control is underplayed considering that firms operating in international markets face these decisions simultaneously (Dunning, 1988) and so whilst addressed in part by researchers of GPNs, the field is contested. Making these decisions independent of each other leads to short term, tactical sub-goal optimization. The strategic integration of these decisions can result in significant firm-level performance improvements (Banker et al., 1984). Most of the offshoring literature takes control decisions as a given. Similarly, the mainstream literature on outsourcing usually fails to explore the location decision.

Understanding the cost-benefit of offshoring and outsourcing is informed by RBV theory and concepts. This goes beyond the simple assumption of labour cost arbitrage towards the complexities of disaggregating home based processes and deciding what exactly to move offshore and where to locate it. Behaviour, whether rational or not, can be explored between buyers, suppliers and third parties in negotiating contracts and rents. If this can be combined with a better understanding of how to ensure that economic goals are embedded into social structures and the subsequent impact on behaviour then we have a compelling approach.

There are obvious limitations in clustering nation states, nevertheless broad comparisons seem possible. VoC can provide fascinating insights to the role of governments and institutions in juggling support and resources from the public to the private sector (and vice versa) also the extent to which institutions or the market influence prices and positioning. The real issue is the extent to which this benefits longer term growth and prosperity for firms and their shareholders. Whether coordinated versus liberal, production versus finance dominated, or corporatist versus pluralist private enterprise, most writers on VoC agree on distinct differences between UK and German systems of capitalism. The significant distinction is how German or UK MNCs then coordinate policy and whether they take their lead from the market or influential institutions to coordinate stakeholders. Further understanding of inter-firm linkages, power and competition is provided by the study of GPNs. The role of the lead firm is considered crucial in managing the impact of institutional policy on resource allocation decisions. Once offshore processes are sufficiently embedded that they add value back to the lead firm, further complex decisions are often required on (re)positioning (typically expensive) R&D and innovation resources, along with suppliers and customer markets. There seem to be several issues that are underplayed by existing literature.

Firstly, institutional aspects of differing workplace environments and management groups largely responsible for decision making and policy setting of outsourcing and offshoring activity. If we consider the lead firm in a GPN, then there is an attractive argument that sustainable competitive advantage depends upon the firm's ability to manage the institutional context of its resource decisions (Oliver, 1997). Hence combining the resource based view with institutional perspectives from organisational theory overcomes some of the criticism of VoC (Granovetter, 1992) and seems

compelling in practice. Institutional theory assumes that individuals are motivated to respond to external pressures. A criticism of GPN research (Hess and Wai-chung Yeung, 2006) is that empirical studies have a preference for qualitative interviews with actors rather than empirical research data on the mechanisms and processes of GPNs. The ‘cultural clash’ that arose from European post socialist transformation over the past 17 years has attracted the attention of business partners from across the CEE. The body of organisational knowledge based on traditional, stable western market economies needs rethinking for sometimes unstable and ambiguous post-socialist environments (Soulsby and Clark, 2007). State Owned Enterprises (SOE’s) tend to have functional hierarchies designed to have instructions and targets handed down through the various levels.

Secondly, a hotly contested area includes groups of labour and the impact of offshoring on employment levels. It has been suggested that improvements in technology (that link tasks across distance and borders) lead to domestic job losses through offshoring but also create jobs from cost savings associated with enhanced trade. Employment takes time to adjust to improvements in offshoring technology (Kohler& Wrona, 2010. So whilst there may well be contested arguments for and against offshoring with disputes on the pros and cons there is also a level of misreporting which confuses the facts. This is interesting to note as data reported tends to focus on jobs lost through offshoring misrepresenting the true effect; reconciling jobs lost and new jobs created (elsewhere) is extremely difficult. Gorg (2011) proposed four policy implications regarding employment: that offshoring leads to higher job turnover in the short run. Low skilled workers suffer, higher skilled may benefit but no evidence of overall increased employment in the long run; and finally, globalisation leads to structural changes in advanced economies from manufacturing to service sectors.

Thirdly, the dynamic and contradictory nature of relationships associated with re-shoring. The underlying reasons could be a mixture of changes in policy, costs, customer requirements, and market and / or business strategic plans. Either when poor decisions are taken at an early stage, or when institutional pressures change so work may be returned (or re-shored) to the home country. We need to better understand when re-shoring is simply the consequence of an over enthusiastic initial response to the competition, a response to a radical change in the cost and business model or the more recent political and institutional pressure in the ‘national interest’.

3. Data & methodology

A mixed methods approach to a case study methodology is adopted with competitive comparisons drawn across the engineering sector for both UK and German headquartered MNCs. Seven semi-structured interviews with senior executives in Germany, UK, India and Czech Republic were undertaken. Initial research questions were refined and additional data requested. Further interviews were undertaken with supplementary visits to host and supplier locations, and data was triangulated by checking responses with four other major MNCs each with substantial China offshore operations (Appendix 4 Table 6). Interviews were with senior executives. Because the case studies inevitably comprise different sections of a business rather than the organisation as a whole the ‘unit of measure’ remains important in making comparisons and drawing wider implications. The methodology can be summarized as:

Table 1. Selected Combination of Approaches (author adapted from Saunders et al)

CRITERIA	SELECTION
Philosophy	Pragmatism – combining positivism and interpretivism
Approach	A combination of deductive and inductive
Strategy	Multiple case studies that are paired by sector with multinational corporations MNCs who are significant market players. To support the case studies some additional secondary data and / or research of archive material will be required to triangulate the findings.
Choice	Mixed methods
Time horizon	Cross sectional with some historical perspective to current time
Techniques & Procedure	Semi structured interviews , recorded transcripts, analysis using a mixture of quantitative and qualitative techniques, supplemented with additional secondary data collection.

3.1 Developing the Conceptual Framework

It has been suggested that a firm’s decisions might evolve from initial cost saving through the outsourcing of support activities as a first stage of disaggregating the value chain and then process improvement and further leveraging of labour cost savings through offshoring. Finally, if the economic circumstances in the home market change then politicians might in some manner influence MNCs to reverse their policy and restore work back into the home market – re-shoring or similar (McKinsey, 2012). While this appears logical at a generic level, it may be rather too simplistic, especially at the level of a firm.

3.1.1 Proposed theoretical conceptual framework

A taxonomy for the relationships between LMEs and CMEs and their predicted approach to outsourcing and offshoring activity is shown below in Table 2. The first column distils the key questions that have been identified towards outsourcing and offshoring. Column 3 lists what are considered to be key dimensions to be explored through the research and subsequent analysis. Columns 4 and 5 represent hypotheses of anticipated responses if the companies conform to the stereotypical national LME model for the UK and CME for Germany.

It is intended that this conceptual framework and taxonomy will help to explore differences in the rationale, success and lessons between the UK and Germany for the engineering sector. The variables or dimensions chosen include the choice of location for outsourcing and / or offshoring which is essentially the reason or motivation that the company has for making the change, the control and coordination mechanisms in place, the levels of involvement and participation and finally, an ability to cope with changes in circumstances. The UK and Germany are compared using differing concepts of varieties of capital. The assumptions set out below and summarized in Table 2 are drawn from the literature (Lane, 1998; Lane and Probert, 2009; Whitley, 1997) in some cases reflecting a view that LMEs and CMEs are polar extremes, in other cases that over time there is some convergence and middle ground.

Taking each in turn, it is predicted that the motivation for outsourcing and offshoring will differ in that an LME will focus on short term cost cutting, budget control and shareholder interests. Initially, arbitrage of lower wages will be an inducement. If offshore they might also have a preference for English language speaking countries and traditional trading zones. On the other hand CMEs whilst also regarding low cost as a 'given' will focus on medium and longer term benefits in quality and performance and therefore a reluctance to outsource losing control and potentially intellectual property, if they offshore preferring central or European locations with a cultural or language similarity. This makes assumptions, such as all companies in a particular country will to at least some extent mirror and practice some of the characteristics associated with that classification of VoC. Also, the model can be regarded as rather static when in reality countries, sectors, markets and individual company approaches are dynamic and adapt to differing economic situations. So for countries such as Poland, Hungary or the Czech Republic the VoC positioning may be regarded by some as having shifted from a 'Transitional' positioning to a 'Pluralist Private Enterprise' (LME) or even to a 'Mixed' central position.

Thus there is a link to the second dimension of ownership and related aspects such as control and coordination and degrees of autonomy. This draws on GPN theory to the extent that policy and practice become embedded in the supply chain, the network and the territory. Also LMEs might be expected to be heavily focused upon the needs of the shareholder, strict cost and budget control as referred to above and an arm's length approach towards strategy – do what you have to do to meet budget and hence a high level of autonomy, as long as the local business stays within budget. A CME however, might be expected to be more likely to follow a multiple stakeholder model with a balanced approach to the differing needs of customers, suppliers, employees as well as shareholders; this is often referred to as market driven and customer focused. A CME might also be predicted to retain tight control over strategy, policy setting and resource allocation, and hence comparatively low levels of local autonomy, with a more hierarchical structure and somewhat slow to change with major decisions to be ratified centrally. A CME is therefore more constrained by institutional factors that influence managerial decisions such as 'what to offshore or outsource' and 'where to'?

The RBV and associated work on dynamic capabilities helps to inform us on how the lead company will manage core competences and resources. In deciding to transfer work from in-house and the home market are there sufficient skilled resource to help the business transition work to either a third party or to an offshore subsidiary? With regard to managerial division of labour, LMEs might recruit local expertise with only a minimum of expatriate managers. Such individuals are often attracted to the lifestyle and financial benefits and choose to stay longer term. In terms of cultural proximity they are more likely to be flexible and opportunistic with a low(er) level of concern other than an ability to speak and work in English where possible. CMEs may be predicted to invest more initially in setting up offshore operations with a comparatively high level of expatriate managers to transfer processes, set-up operations and organize training of a local workforce. Gradually they might transfer expertise to local management. Compared with LMEs a higher level of priority would be given to cultural proximity in terms of behaviour's and language.

One of the key institutional factors to be explored is the role played by the trade unions and works council; and the inter-relationships with employees and management. For LMEs it is assumed that the influence is low or even non-existent, management will 'push the boundaries' once a decision has been taken within legal requirements and may be confrontational to enforce the decisions considered essential for the future of the business,

especially at a time of poor economic prospects. CMEs on the other hand, are assumed to be more consultative, actively avoiding confrontation.

Finally, we address evidence of a reversal in policy and returning work to the home country. For LMEs this might be influenced by political pressure or economic incentives. With CMEs we are assuming that this may be more likely to be a result of a change in market focus and /or strategy or a loss of intellectual property rights.

So, a theoretical projection is shown below in Table 2 presenting a series of hypothesis on what we might expect from a MNC headquartered in either the UK (LME) or Germany (CME). The case study will provide a 'test' for the conceptual framework of the theory both in use and practice covering products such as pumps, valves and seals for the offshore oil and gas industry together with software / hardware for the automotive components market. See Table 3 (engineering) for summaries also further analysis in with preliminary findings (to date) in Table 4.

Table 2 Conceptual Framework - Theoretical Projection

Question	Approach	Dimensions	Liberal market economy UK (LME)	Coordinated market economy GERMANY (CME)
What are the differences in the geographical, functional and temporal patterns of outsourcing and offshoring?	Outsource	Motivation	<ul style="list-style-type: none"> • Cost cutting and employee reduction • English speaking countries • Traditional trading zones 	<ul style="list-style-type: none"> • Quality and performance, cost control is 'a given'. • Central / Eastern Europe preferred
How far do mechanisms such as ownership, control, coordination and the degree of autonomy differ?		Ownership	<ul style="list-style-type: none"> • Shareholder driven 	<ul style="list-style-type: none"> • Multiple stakeholder
		Control & Coordination	<ul style="list-style-type: none"> • Arm's length on strategy. Strict cost and budget control 	<ul style="list-style-type: none"> • Tight HQ control of strategy, policy and resources
		Degree of autonomy	<ul style="list-style-type: none"> • High – if meet financial targets then local control 	<ul style="list-style-type: none"> • Low • Hierarchical structure • Can be slow to respond to change
How is this reflected in divergent international divisions of labour regarding the employment of indigenous or ex-pat managers?	Offshore or	Managerial Division of labour	<ul style="list-style-type: none"> • Low initial use of ex-pat managers who then stay on 	<ul style="list-style-type: none"> • High initial use of ex-pat managers for set-up and training. Subsequently local management
To what extent do preferences for cultural proximity affect location?	outsourced offshore	Cultural Proximity	<ul style="list-style-type: none"> • Low, flexible, opportunistic 	<ul style="list-style-type: none"> • High – language, behaviour

What is the influence of trade unions in the process of outsourcing and offshoring and how is this reflected in the structuring of the firms' labour markets?	or reverse offshore (Re-shore)	Relationship with employees / Trade Unions	<ul style="list-style-type: none"> • None, limited to legal requirements • Push the limits • Can be confrontational to enforce desired changes 	<ul style="list-style-type: none"> • Consult widely • Actively avoid confrontation • Opportunistic – use growth to create additional jobs elsewhere
What evidence is there, and why of a reversal in policy – re-shoring?		Change of policy	<ul style="list-style-type: none"> • Loss of initial cost-benefit. • Political pressure or economic incentives 	<ul style="list-style-type: none"> • Loss of intellectual property • Change in market focus or strategy

4. Empirical analysis

4.1 Discussion of the manufacturing and engineering sector. (Let us call the UK engineering company 'C' and the German engineering company 'D').

With seven semi-structured interviews (see Table 5) at 'C' and 'D', in some depth and detail it is possible to draw some general points regarding answers and relevance to the research questions. This engineering case study does provide insights on differences in approach with respect to competences, technology transfer around the world and the development of key alliances; as postulated by Lynn and Salzman (2009).

There are similarities in focus for both UK and German companies – to initially cut costs, keep prices down and then to improve efficiencies, processes and customers service. The method of delivery however, is different. The UK company 'C' takes a long term view but with short term deliberate steps towards partnership and then integration and acquisition, utilizing outsourcing and offshoring where appropriate. The German company 'D' however, prefers to retain centralised control by establishing a subsidiary business offshore from the outset, with no or little consideration of outsourcing. There is also little evidence of synergies across the German group. Both 'C' and 'D' companies have grown and employment has been largely protected, although the United States division of 'C' has reversed a policy to move work to Mexico back into the US. It would also seem that complex work offshored to India by 'D' has subsequently had to be re-worked in Germany.

For summary of findings and comparison with conceptual framework (see Appendix Table 3). The key challenges for the engineering businesses include:

1. On-going cost control, especially in the UK company which is Shareholder driven.
2. Customers ask for, and expect lower prices and local supply.
3. Competitor pressure within the market and industry sector.
4. Preferred tendency with 'C' to try a joint venture and then acquisition, integrate and restructure to reap rewards.
5. More control if it is a wholly owned subsidiary of 'D', can then avoid issues of IP with a third party.

5. Conclusions

It is well known that Germany has managed its economy in such a way that it has been less exposed to the economic pressures suffered by much of the rest of Europe. To some extent this has allowed management to move operations offshore but not outsource, gain the benefit of lower costs (some 10 per cent at least) without losing jobs at home. However, as costs increase at a faster rate in many overseas markets the search for productivity benefits and efficiency gains continues. The basic components of a 'coordinated market economy' seem to prevail with evidence of institutional coordination, long term planning but also central control and an aversion to risk. The UK Company was quicker to outsource, favoured short term cost savings but was also more flexible and agile, taking risks with trade unions and suppliers and customers to seemingly favour shareholders. In many respects this is consistent with the 'liberal market economy' capitalist model. In both cases the choice of location was often different, as was the approach to delegation and autonomy suggesting differing views on governance. The underlying theoretical constructs of varieties of capitalism, the resource based view and global production networks were each found to be of value. See Tables 3 & 4

(Research Questions 1 & 2). German Companies use expatriate managers for the short term but then mostly rely on local skills. UK companies use local staff from the outset. German companies also place more emphasis on language, near shoring and cultural empathy (Research Questions 3 & 4). UK companies may have a tendency to be adversarial with trade unions, forcing job reductions when considered to be essential whereas German companies were cooperative and averse to conflict where possible (Research question 5). Only isolated cases of re-shoring were evident from the two companies (Research question 6).

References

- Banker, R.D. et al (1984) Estimating the most productive scale size using data envelopment analysis. *European Journal of Operational Research* (July), 35-44
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Coe, N.M., Hess, M. et al (2004) Globalizing regional development: a global production networks perspective *Trans Inst British Geographers* 29 (4): 468-484
- Contractor, F.J. et al (2010). Reconceptualising the Firm in a World of Outsourcing and Offshoring: The Organisational and Geographical Relocation of High-Value Company Functions, *Journal of Management Studies* 47:8 December
- Contractor, F.J. (2012). Why do Multinational Firms exist? A theory note about the effect of multinational expansion on performance and recent methodological critiques. *Global Strategy Journal* 2, 318-331, Wiley.
- Dunning, J. H. (1988). *Explaining International Production*. London: Unwin Hyman.
- Economist (2011), *Business, multinational manufacturers*, May 14th, pg. 73
- Financial Times, 2011, *Editor's Choice, feature on Offshoring* by Prof Jérôme Barthélemy, Essec Business School, May 26th
- Financial Times (2013). 'Data show yawning productivity gap between UK and G7 peers'. O'Connor, S. September 18.
- Financial Times (2013a). One in six UK manufacturers reverse offshoring in growing trend. November 25
- Gorg, H. (2011). 'Globalisation, offshoring and jobs'. ILO / WTO report.
- Granovetter, M. (1992) 'Economic institutions as social constructions: a framework for analyses, *Acta Sociologica*, 35, 3-11.
- Hall, P. And Soskice, D. (2001). 'Varieties of Capitalism: The Institutional Foundation of Comparative Advantage'. Oxford University Press, Oxford.
- Harms, Lorz and Urban, 2009. *Offshoring along the Production Chain*. CESifo Working Paper 2564.
- Hess, M. and Wai-Chung Yeung (2006), 'Whither Global Production Networks in economic Geography? Past, Present and Future', *Environment and Planning*, Vol. 38
- Jensen, P.D.O. and Pedersen, T. (2011). The Economic geography of Offshoring: The Fit between activities and Local Context, *Journal of Management Studies* 48:2 March
- Jones, R., Kierzkowski, H. and Lurong, C. Cited in Harms, Lorz and Urban, 2009. *Offshoring along the Production Chain*. CESifo Working Paper 2564.
- Kinkel, S. and Maloca, S. (2009). Drivers and antecedents of manufacturing offshoring and re-shoring. A German perspective. *Journal of Purchasing & Supply Management* 154-165
- Kirkegaard, J.F. (2008). Offshoring, Outsourcing and Production Relocations—Labor Market Effects In The OECD and Developing Asia, *The Singapore Economic Review*, Vol. 53, No. 3, 371-418

- Kohler, W. And Wrona, J. (2010) *Offshoring Tasks, yet creating Jobs?* CESifo Working Paper 3019
- Lane, C. (1998). 'European Companies between Globalisation and Localisation: A Comparison of Internationalisation Strategies of British and German MNCs', *Economy and Society*, 27(4), 462-485
- Lane, C. and Probert, J. (2009). 'National Capitalisms, Global Production Networks Fashioning the Value Chain in the UK, USA and Germany'. Oxford University Press, Oxford.
- Leibl, P., Morefield, R. and Pfeiffer, R. (2010). *A study of the effects of re-shoring in the EU*. Proceedings of the 13th International Conference. American Society of Business and Behavioural Sciences.
- Lynn, L. and Salzman, H. (2009). 'The new globalisation of Engineering: How offshoring of advanced engineering affects competitiveness and development'. *Economics, Management and Financial Markets*, 4, 1. March. Addleton, New York.
- McKinsey (2012). *Manufacturing the future: The next era of global growth and innovation*. McKinsey Global Institute and McKinsey Operations Practice, November.
- Mitchell, A.J. and Hill, S. (2004) The Great M&A Gamble, *The Ashridge Journal* 360°, Autumn
- Morgan, G., Whitley, R. and Moen, E. (2006). 'Changing Capitalisms? Complementarities, Contradictions and Capability Development in an International Context', pp78-109, Oxford University Press, Oxford
- Oliver, C. (1997) 'Sustainable competitive advantage: combining institutional and resource based views'. *Strategic Management Journal*, 18:9, pp. 697-713
- Pisano, G. (2009) 'Restoring American Competitiveness', *Harvard Business Review*, July-August.
- Soulsby A. and Clark E. (2007). 'Organisational theory and the post socialist transformation: Contributions to organisational knowledge.' *Human Relations* Vol. 60(10), Sage.
- Whitley, R. and Kristensen, P. H. (Eds) (1997). 'Governance At Work: The Social Regulation of Economic Relations'. Oxford University Press, Oxford.

Appendices

Appendix 1 Engineering Case Summary

Table 3 UK and German Engineering compared

Question	Approach	Dimensions	Liberal market economy (LME) UK	Coordinated market economy (CME) GERMANY
What are the differences in the geographical, functional and temporal patterns of outsourcing and offshoring?	Outsource	Motivation	UK, Czech Republic, China Less keen on India. Catering, administrative and revenue accounting, engineering, maintenance, repair and overhaul. Cost	India, Vietnam, Czech Republic – ‘lead’ global roles in Asia, Europe and North / South America. Embedded software applications, IT systems, accounting, call centres. In Czech Republic – the development of new automotive platforms; R&D, Engineering and Manufacturing. Local expertise and cost.
		Ownership	Offshore through Joint Venture then wholly owned acquisition. Financial control via HQ, but freedom to run business locally.	Now wholly owned, offshore subsidiaries, budget control and OEM contact through HQ.
How far do mechanisms such as ownership, control, coordination and the degree of autonomy differ?		Control & Coordination	Global operations via HQ	HQ with OEM, divisional control and global coordination from HQ

		Degree of autonomy	Relatively high	Relatively high in terms of design and delivery. Close budget and resource planning and monitoring from HQ.
How is this reflected in divergent international divisions of labour regarding the employment of indigenous or ex-pat managers?	Offshore or	Managerial Division of labour	Kept to a minimum	Ex-pat initially as senior manager. Replaced with local after 5 years, maybe 5 ex pats out of 10,000 local employees. In Czech Republic initial training of engineers in Germany then on-site over 2 years. Ex pats may stay.
To what extent do preferences for cultural proximity affect location?	outsourced offshore or	Cultural Proximity	Significant preferences through experience	Less important – although with the Czech Republic there are advantages of proximity, similar markets, some ease of language and cultural affinity.
What is the influence of trade unions in the process of outsourcing and offshoring and how is this reflected in the structuring of the firms' labour markets?	reverse offshore (Re-shore)	Relationship with employees / Trade Unions	Redundancies where required	Avoid conflict, timed to coincide with growth to avoid job losses in Germany. Few issues in Czech republic – weak union but also free labour market and plant growth offering security.
What evidence is there, and why, of a reversal in policy – re-shoring?		Change of policy	Mexico back to the US	Stories of complex work being returned from India to Germany for rework.

Appendix 2 Table 4: Interpretation of initial pilot research questions – headline comparison of Engineering sector case studies: approaches to offshoring and outsourcing. Source: author

RESEARCH QUESTION	FINDING
<p>To what extent are German and UK multinational companies displaying different varieties of capitalism and how does that effect decisions and strategies related to the deployment of outsourcing and offshoring?</p>	<p>To some extent the differences here are subtle rather than significant. There is some evidence of Corporatist / coordinated behaviour in Germany and liberal by the UK company. A huge reluctance to outsource anything other than Travel services by the German organisation is apparent. The similarities are common – both employ high quality engineers and other specialists, both are keen to cut cost and improve efficiencies. Both have grown and are successful.</p>
<p>What is distinctive about the governance of German and UK multinational firms?</p>	<p>The role of MNC in transferring technology is a key FDI flow Both cases meet the usual criteria high R&D, large share of professional and technical workers, complex technical products, high levels of differentiation. Advantages come from ownership, location and internalization (Dunning, 1988); and democratic countries such as India and Czech Republic tend to attract more FDI with lower country risk, debt risk. What is unusual with the German case here is that there is little communication across the group only between headquarters and a specific subsidiary.</p>
<p>How is the above reflected in idiosyncratic patterns of outsourcing and offshoring at both a national and sector level?</p>	<p>The UK case suggests that they will deploy whatever approach is most applicable, especially for short term gain; also that the German organisation will avoid outsourcing in favour of controlled offshoring.</p>
<p>Which functions or processes are moved offshore, where to and why?</p>	<p>Not so much functions as products and then the entire business support system that is required for those products in both Germany and the UK.</p>
<p>In what ways does the embeddedness of firms influence the motives, control and strategy of the parent multinational company?</p>	<p>In Germany long term development of FDI has resulted in considerable growth and recognition that maturity is now close to optimum in India leading to the establishment of a second, smaller clone in Vietnam. The UK company have restructured and developed a global strategy, a current priority of which is to coordinate common IT platforms across the sites.</p>
<p>To what extent are outsourcing and offshoring policies reversible, and what is the experience in Germany and the UK?</p>	<p>None observed here within Europe but the US division of the UK Engineering company has reversed a policy to move work from the US to Mexico.</p>

Appendix 3

Table 5: List of semi structured face to face and telephone Interviews

(typically 1hour each)

UK COMPANY 'C'	GERMAN COMPANY 'D'
Slough Dec 2011 VP Operations	Stuttgart Oct 2011 VP Engineering
Slough Dec 2011 Director Group Operations	India Dec 2011 Company President
	Prague Jan 2013 Director
Follow up Nov 2012	Follow up Nov 2012

Appendix 4. Comparative summary from ‘other’ interviews. Thematic / Content Analysis

To help triangulate the findings and as a check of the data and their interpretation it was decided to undertake some further interviews, again in the engineering sectors but not the aforementioned case study organisations. Each of the chosen organisations were multinational corporations, of mixed origin and HQ base (see Table 6 below), and each with a significant presence in China. The interviews of approximately one hour duration each took place in Shanghai during two trips Spring 2013 and Spring 2014. The interviewees were senior managers mainly working in procurement and supply chain roles.

Key messages from the ‘other’ multinationals interviewed in China (see Table 6 below):

- A number of these organisations have separate profit centres / business units with headquarters located in different countries. This is a result of mergers, acquisition and subsequent restructuring. In terms of designating a variety of capitalism (Hall & Soskice, 2001) the original country is shown first and assumed to be dominant.
- Transport and Engineering sectors are reasonably homogeneous. Sub sectors e.g. Transport: automotive, rail, aerospace display similar characteristics as does Engineering: Power, automation, building products.
- Wholly owned subsidiaries preferred, outsourcing currently largely limited to components but expected to move towards sub-assemblies that offer more added value, consolidation of complex supply chain, higher skills and different capabilities needed.
- P & L responsibility retained at HQ but sourcing concentrated regionally.
- Consideration given to reduce manufacture in Asia when US local market labour rates are attractive. More consideration given now of total costs including material and transport.
- Management teams very international, mixed nationalities with wide experience.
- Culture, language and geography are considered to be important. (Table 6 Thematic Analysis from semi structured interviews).

Table 6 Comparison with four sector compatible MNCs – each with a major China offshore base.

INDUSTRY SECTOR	ENGINEERING			
	Company E (automotive)	Company F 2 Divisions (aerospace & rail)	Company G (robotics)	Company H (building products)
HQ LOCATION	Swedish / US	French Canadian /German	Swedish / Swiss	US
VARIETY OF CAPITALISM MODEL (Hall & Soskice)	CME / LME	LME/CME	CME/CME	LME
NO. EMPLOYEES & COUNTRIES	56,000 employees in 29 countries	Aerospace: 76,000 employees in 26 countries Rail: 34,900 in 59 countries	147,000 employees in 100 countries	8,500 employees in 8 countries
CURRENT OUTSOURCING / OFFSHORING INITIATIVE	Outsource: Training of procurement staff	Offshore: Use China as a wholly owned low cost base from which to export (especially for Rail). Good local supplier network in China.	Offshore: Factories are all wholly owned subsidiaries. There is international (becoming global) sourcing of parts / components. Now a gradual shift towards sub-assemblies (added value). Will require adaptation of supply chain and a change in supplier skills / capability.	Outsource: 100% of Laminate flooring <10% of total cost is labour so policy will now be reviewed with lower costs in the US (70% of total sales). Offshore: Ceiling products are manufactured local to market.
CULTURAL PROXIMITY	Follow the customer – wherever market need	International management team. Culture, language and geography are regarded as important. Railway is conservative and expects suppliers to work in local	Shanghai serves Asia market, Sweden the European and US the Americas. Fit with supplier regarded as key. Very international	China provided a low cost offshore site primarily for flooring products and also access to SE Asia markets

		language.	management teams.	
TRADE UNIONS	Work closely with local management	Discussions take place but no current issues.	Trust is important especially between Europe and China.	‘Employee Club’ reviews work conditions, pay and vacation period. Employee turnover is high, workers return to their rural village and do not then come back to work. Government Policy under review on rural versus urban entitlement to health, education and property.
DRIVER		Low cost, some innovation. Little added value at moment but expected to increase.	Strategically identifying changes in core and secondary supplier parts. More added value in a shift to sub-assemblies	
COST / BENEFIT		Supplier Enumeration Approval Process. Total cost of ownership is reviewed and there are comprehensive QA systems. 30% average saving.	European Committee reviews local cost versus India / China benchmarks. Review total cost of product.	
TRENDS / CHANGES			Supply chain becoming more important and consolidated. Different suppliers with different skills and capabilities required for the future.	
CONTROL / LOCAL DEVOLVEMENT		Orders placed on a regional basis – in-line with legal entity. Close relationships with local suppliers.		Product managers in US have P&L responsibility. Close communication and regular travel to meetings.

LABOUR COSTS				Senior management costs in US, Europe and China are similar. Blue collar worker costs in China are cheaper 2500 to 3500 Yen per month.
RE-SHORING	A number of instances. Process and control and quality the main reason.	No evidence yet in rail. Prevalent in automotive. No political pressure to date.		