

**ENTREPRENEURS, HRM ORIENTATIONS
AND ENVIRONMENTAL FIT:
A UK-JAPAN COMPARISON IN HIGH TECH MANUFACTURING**

Centre for Business Research, University Of Cambridge
Working Paper No. 330

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September 2006

This working paper forms part of the CBR Research Programme on Enterprise and Innovation.

Abstract

Entrepreneurs cannot develop a business single handedly. One of the most important tasks the entrepreneur faces is to recruit, allocate work to, motivate and retain employees who will help the business to grow. Based on survey data, this paper examines the HRM orientations of UK and Japanese high tech manufacturing entrepreneurs, and identifies fundamentally different approaches to these tasks, at least as expressed by the entrepreneurs. The UK entrepreneurs espouse an employment relationship based on 'give and take' flexibility, while the Japanese entrepreneurs are more focused on raising or nurturing their employees. Reasons for the differences are explored, and relate to the entrepreneurs' backgrounds, as well as the business *and* social environment. Implications for the 'new employment relationship' are explored.

JEL Classification: L60, M12, M13, M14, M50

Keywords: entrepreneurship, HR management, high-tech small firms

Acknowledgements

We would like to thank S. Momose and T. Morishita for translating and administering the Japanese questionnaire, and K. Matsunaga for her help in the Japanese interviews. Financial support from Doshisha University's ITEC 21st Century COE (Center of Excellence) Program (Synthetic Studies on Technology, Enterprise and Competitiveness Project) in Japan, and the ESRC in the UK is gratefully acknowledged. We also thank Sanford Jacoby, and participants at the Centre for Business Research Summit on Innovation and Governance, 29-30 March 2006 Cambridge University, for helpful comments, but do not implicate them in any errors or indiscretions.

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Introduction

An entrepreneur cannot develop a business single handedly. One of the most important tasks the entrepreneur faces is to recruit, allocate work to, motivate and retain employees who will help the business to grow. This is no easy task. Kets de Vries sums up the difficulty, at least from the perspective of the 1970s:

What we frequently encounter in an entrepreneurial organization is an organizational structure and work environment completely dependent and totally dominated by the entrepreneur... We are also faced with an individual who refuses to delegate, is impulsive, lacks any interest in conscious, analytical forms of planning...¹

Stanworth and Curran (1989: 161) contend that this picture, which includes role ambiguity, role conflict and low levels of job satisfaction for employees, 'has emerged from repeated studies of the small business and must now be regarded as approximating the most "typical" pattern.' The pessimistic view of employment relations is well known, and will not be recounted here (cf. Rainnie, 1989).

As entrepreneurial businesses grow – in order for them to grow – their employment practices become more formalized, standardized and systematic, and this is accompanied by decentralization of authority (e.g. Pugh et al., 1976; more recently Kotey and Slade, 2005; cf. also Flamholtz, 1995). These practices may be accompanied by other 'high commitment' practices, such as single status, family friendly working arrangements, employee share ownership schemes and 'guaranteed' job security, which are more prevalent in larger workplaces (Cully et al., 1999: 80-82).

There are contrary views. Hornsby and Kuratko studied a sample of 247 small businesses in the US Midwest and found that 'the personnel practices of smaller firms are much more sophisticated than the literature leads one to believe,' especially in manufacturing (1990: 16). Moreover the respondents were *concerned* about the same issues, regardless of their size: 'The highest ranked issues in all three size categories focus upon the need to obtain and retain a quality workforce' (1990: 17).

This observation raises an interesting set of questions which cannot simply be answered by quantitative measures of formalization or high commitment practices. How do entrepreneurs believe they should go about obtaining and retaining a quality workforce? What kinds of factors influence their beliefs? What are the consequences of their beliefs, for instance on their ability to grow and innovate? These are questions addressed in this paper, through a comparison of Japanese and UK entrepreneurs and their small businesses engaged in high tech manufacturing. If Hornsby and Kuratko are right about sophistication of practices in manufacturing, this is likely to be amplified in high tech manufacturing, where, in contrast to the low levels of education and managerial skills in the study by Kets de Vries, many entrepreneurs have high levels of education, and previous managerial experience.

Baron *et.al.* have documented how models of employment relations espoused by founders have a pervasive effect on the development of human resource management within their organizations.² They develop a typology of employment models – star, engineering, commitment and factory – which exhibit considerable internal consistency, and are particularly influenced by founders’ views of attachment and motivation. Our approach is reasonably similar, although it was developed independently. Like Baron *et.al.*, moreover, we explore congruence or fit with the external social environment in which the businesses are situated, only in this case this means the UK and Japan.

The motivation for this research came from detailed answers to a 1998 survey of small ‘high tech’ entrepreneurs in the UK. In response to an open question (which did not ask specifically about HRM), there were numerous comments about the importance of people management and creating motivated teams to meet customer needs in specialized niches.³ The comments appeared to indicate an orientation which was different from that commonly found in traditional small firms, and from that of large firms. In fact, some of the respondents suggested that their orientations were consciously formed as a reaction to past negative experiences, mostly in large firms.⁴

A follow-up survey was designed to gather more systematic evidence on a number of issues raised by the first survey, including HRM orientations. The survey, moreover, was replicated in Japan, as part of a comparative study of entrepreneurship.⁵ To date, most comparative studies of employment relations

have focused on large firms (cf. Dore's [1973] classic UK-Japan comparison). Interest in the relations between institutions ('types of capitalism'), entrepreneurship patterns and HRM is still in its infancy (Casper and Whitley, 2002). This study, while still exploratory, seeks to provide new insights through its combination of quantitative and qualitative methods. The following hypotheses are explored:

Hypothesis 1

The HRM orientations of UK entrepreneurs will be systematically different from those of Japanese entrepreneurs.

Hypothesis 2

These differences are in part attributable to differences in the environments in which the entrepreneurs operate (need for 'fit'), and in part attributable to the entrepreneurs' backgrounds and business orientations.

Hypothesis 3

HRM orientations in 'high performing' businesses in both countries will retain many of these differences.

Data

The data comes from a) a questionnaire administered in the UK in December 2000-January 2001 and Japan in February-March 2002, and b) in-depth interviews of 25 respondents in the UK carried out in 2001 and 25 respondents in Japan in 2004-05. Details are given in the Appendix. The questionnaire targeted CEOs of 'high tech' businesses, determined by activity (SIC code – cf. Butchart, 1987; Hecker, 1999). Respondents to the questionnaire were asked whether they would be willing to take part in a follow-up interview, and the 50 interviewees were selected from this group on a theoretical sampling basis (Strauss and Corbin, 1998). Criteria for selection included indications of innovative activity, collaborative activity, geographic spread and sectoral balance. In order to create a comparable data set from the questionnaire non-manufacturing, large and old businesses were excluded. Some details of the entrepreneurs' businesses are given in Table 1.

Table 1: Characteristics of the entrepreneurs' businesses

'High tech' manufacturing, 1-199 employees, founded 1945→;			
UK n = 113; Japan n = 223; Total n = 336			
		UK (%)	Japan (%)
Size	1-19employees	26.5	20.2
	20-49 “	45.1	30.5
	50-199 “	28.3	49.3
Sector	Instruments	45.1	52.0
	Computers, electronics	25.7	39.0
	Other manufacturing	29.2	8.9
Founding	1945-79	43.4	65.9
	1980-89	28.3	21.5
	1990-	28.3	12.6

Before continuing, some clarification of our use of 'entrepreneur' is in order. Much early research sought to identify traits of entrepreneurs, or to distinguish entrepreneurs from other groups such as managers or traditional small business owners. Gartner (1988), however, argued that 'Who is an entrepreneur?' is the wrong question. For him, an entrepreneur is someone who creates organizations, and entrepreneurship is a set of activities involved in organization creation (also Gartner and Cater, 2005).

Our research interest in HRM as outlined above fits broadly with this view. We make one important qualification, however. Comparative quantitative studies of entrepreneurship which use the criterion of starting a new business, notably the Global Entrepreneurship Monitor, show Japan to have extremely low levels of entrepreneurship.⁶ At the same time, Japan has an extremely high proportion of small businesses in its industrial structure (Whittaker, 1997). This apparent contradiction is seldom discussed, but is related to small business longevity – the high numbers of small businesses are a legacy of the 1950s and 1960s, when startup rates were high.

Existing small businesses, we contend, can and do provide a platform for entrepreneurial activities, as is recognized in the Japanese term ‘second founding.’ Many businesses grow spectacularly not under their founder, but under the second or subsequent generation of owner; Nintendo is a well-known example (it was founded in 1889). In this study, therefore, we relax the condition of founder. Instead, we restrict our sample to ‘high tech’ businesses, where some form of innovativeness can be expected if a business is to remain viable.⁷ In the UK, 82% of our sample are founders, while in Japan the figures is half (49.8% A further twenty nine percent are relatives of the founder, mostly sons.) Relatedly, the Japanese businesses tend to be older (Table 1). The case interviews, we feel, vindicate our decision not to exclude non-founders. In some cases the interviewee had taken over an ailing business and turned it into a completely new company. In fact, it was not always clear-cut who should be considered the founder.

Thus instead of creating a new business *per se*, therefore, our entrepreneurs carry out new economic activity or ‘new combinations’ in a Schumpeterian (2000) fashion. Unlike Schumpeter, however, we do not necessarily see the entrepreneur as swimming against the stream and facing social ostracism; our hypotheses assume some kind of fit with the environment, at least as far as HRM orientations go. In addition, we select a group of ‘high performing’ businesses (which both grew and reported novel innovations in the past two years) and examine whether there are any special orientations on the part of these entrepreneurs.

How to obtain and retain a quality workforce

The questionnaire respondents were asked to rate ten items in response to the following question: ‘Some personnel policies are more important than others in recruiting and keeping good personnel. How important are the following for you?’ A five point Likert scale was given, ranging from ‘not at all’ (1) to ‘crucial’ (5). The ten items listed assumed that the entrepreneurs had at least an implicit theory of motivation, and would stress either intrinsic or job-related items, extrinsic reward items, and/or supporting or environmental items.⁸

Table 2 presents the means, standard deviations, rankings and significance levels of the means for the ten items for both the UK and Japanese sub-samples. Before discussing them, we should note some caveats. The table shows clearly the often-noted Japanese tendency to avoid extremes; while the UK means range from 1.92 to 4.06, the Japanese means range from 2.89 to 3.83, and with smaller standard deviations. On seven items, too, their means are higher. Second, ‘providing incentives for individual excellence’ is poorly worded, as incentives can be pecuniary or non-pecuniary. UK entrepreneurs might naturally opt for the former, but the Japanese translation is likely to have nudged the Japanese respondents towards the latter. Unfortunately neither of these points was picked up before the full surveys were carried out.

With these cautions in mind, let us look at the results. The rankings appear to suggest that financial incentives are given a low priority in both countries. On this much there is broad agreement.⁹ Yet not only are the means significantly different for all but 7) and 8), but a Spearman rank correlation test confirms that there is no correlation in the rankings ($\rho=.46$ $p=.18$ $n=10$), indicating that the UK and Japanese respondents’ HRM orientations differ.

Table 2: HRM orientations of UK and Japanese entrepreneurs

HR Policy	UK			JAPAN			SIG
	Mean	SD	Rank	Mean	SD	Rank	
Paying top rates	3.17	.91	6	3.43	.85	6	.01
Giving challenging job assignments	3.58	.83	2	3.82	.85	2	.05
Providing/facilitating training and education	3.08	.88	8	3.58	.78	4	.01
Providing a stable and supportive work environment	4.06	.79	1	3.54	.77	5	.01
Offering flexible/family friendly work arrangements	3.54	1.11	3	3.17	.81	9	.01
Providing incentives for individual excellence	3.27	1.03	5	3.83	.71	1	.01
Providing a good welfare and fringe benefit package	2.97	1.03	9	2.89	.83	10	NS
Providing an attractive physical working environment	3.15	1.01	7	3.28	.78	7	NS
Giving employees a financial stake in the company	1.92	1.07	10	3.20	.95	8	.01
Encouraging autonomy in decision making	3.36	.96	4	3.76	.80	3	.01

This provides support for Hypothesis 1. To explore it further, we subjected the responses to a factor analysis (initial principal component using varimax rotation). As far as the overall sample went, this revealed two factors, explaining 43.2 percent of the total variance. The first factor (explaining 23.75 percent of the variance) was labeled 'individual' as the orientations reflected considerations towards individuals. The second factor (explaining 19.27 percent of the variance) was labeled 'environment' as the items reflected organizational/environmental considerations. Table 3 presents the results.

To further confirm whether the orientations of the Japanese entrepreneurs differed from the UK entrepreneurs, a discriminant function analysis was performed based on the two factors. Table 4 presents the standardized coefficients. Seventy five percent of the subjects were correctly classified. Both factors significantly differentiate between the Japanese and UK entrepreneurs, but the individual factor is the stronger discriminator (Wilks lambda=.804, $F(1,320)=78.11$, $p<.0001$) compared to the organizational environment factor (Wilks lambda=.750, $F(1,321)=53.21$, $p<.0001$).

Table 3: Principal component analysis for the total sample

HR Policies	INDIVIDUAL	ENVIRONMENT
Giving employees a financial stake in the company	.661	-.077
Encouraging autonomy in decision making	.656	.037
Giving challenging job assignments	.648	.097
Providing/facilitating training and education	.648	.137
Providing incentives for individual excellence	.646	.137
Paying top rates	.396	-.005
Providing a stable and supportive work environment	-.052	.750
Offering flexible/family friendly work arrangements	-.100	.732
Providing a good welfare and fringe benefit package	.158	.647
Providing an attractive physical working environment	.236	.596
<i>Cronbach alpha</i>	.68	.64
<i>Eigenvalue</i>	2.37	1.92
<i>Variance Explained %</i>	23.75	19.27
<i>Cumulative Variance Explained %</i>	23.75	43.02
<i>KMO .723 Bartlett Chi-sq 456.82 df 45 Sig .000</i>		

Table 4: Standardized canonical discriminant function coefficients

	Function
	1
HRM ORIENTATIONS INDIVIDUAL	.993
HRM ORIENTATIONS ENVIRONMENT	-.536

The fact that the correlation of the ranking among the ten HRM orientation items was not significant, and differences of the means of eight were statistically significant, suggests that Japanese entrepreneurs not only differ from their UK counterparts, but they may view the relationships among the items differently as well. To explore this possibility separate factor analyses were conducted on the Japanese and UK sub-samples. Tables 5 and 6 present the results.

Table 5: Principal component analysis for the UK sample

UK SAMPLE			
HRM orientations (item rank)	ORG CLIM	OWNERSHIP	UK-RECOGNITION
Offering flexible/family friendly work arrangements (3)	.746	.116	-.155
Providing a stable and supportive work environment (1)	.673	-.069	.166
Providing an attractive physical working environment (7)	.496	.130	.370
Providing a good welfare and fringe benefit package (9)	.448	.311	.310
Encouraging autonomy in decision making (4)	.139	.697	-.090
Giving challenging job assignments (2)	.398	.618	.171
Giving employees a financial stake in the company (10)	-.323	.601	.140
Paying top rates (6)	-.138	-.151	.752
Providing/facilitating training and education (8)	.248	.199	.641
Providing incentives for individual excellence (5)	.307	.306	.404
Eigenvalue	1.91	1.52	1.48
Variance Explained%	19.12	15.18	14.80
Cumulative Variance %	19.12	34.31	49.11
KMO .740 Bartlett Chi-sq 126.56 df 45 Sig .000			

Table 6: Principal component analysis for the Japanese sample

JAPAN SAMPLE				
HRM orientations (item rank)	GROWTH	ORG CLIM 1	ORG CLIM2	J-RECOGNITION
Encouraging autonomy in decision making (3)	.773	.074	-.052	.182
Providing incentives for individual excellence (1)	.730	-.204	.276	.072
Providing/facilitating training and education (4)	.691	.115	.059	-.052
Giving employees financial stake in the company (8)	.533	.512	-.152	.189
Providing an attractive physical working environment (7)	.022	.796	.209	-.001
Providing a good welfare and fringe benefit package (10)	-.014	.778	.211	-.022
Offering flexible/family friendly work arrangements (9)	-.046	.133	.843	.054
Providing a stable and supportive work environment (5)	.187	.248	.779	-.016
Paying top rates (6)	-.023	.052	.069	.913
Giving challenging job assignments (2)	.459	-.050	-.040	.604
Eigenvalue	2.14	1.65	1.52	1.28
Variance Explained %	21.39	16.46	15.17	12.79
Cumulative variance %	21.39	35.86	53.02	65.82
KMO .678 Bartlett Chi-sq 386. df 45 Sig .000				

The factor analysis for the UK sub-sample revealed three factors, explaining 49.11 percent of the total variance. The first factor, explaining 19.12 percent of the variance, is identical to the organizational/environment factor in the total sample. The individual factor of the total sample breaks into two factors. One of these, explaining 15.8 percent of the variance, was labeled ‘ownership.’ Two of the variables relate to jobs, and might be seen as ‘job ownership.’ Another possible interpretation of the variable is ‘opportunity’. The third factor appears to be a rather complex mixture, but appears to relate to ‘recognition’ of individual employees. (This is different from ‘recognition’ in the Japanese sample, hence we use the prefixes UK and J respectively. In one sense this is confusing, but we feel

the nuances of the factors *in their specific contexts* are conveyed in this way.)

Factor analysis of the Japanese sample revealed four factors, explaining 65.82 percent of the total variance. Again the individual factor of the total sample split into two, but so did the organizational climate factor. In the Japanese sample, the first factor, explaining 21.39 percent of the variance, is a complex mixture of four items relating to how the individual works, is trained and comes to identify with the company. After a close analysis of the Japanese case interviews, discussed below, we have called it ‘growth,’ but in fact the Japanese expression ‘*ikusei*’ or ‘raising/nurturing’ is probably closer to the mark. The second and third factors, explaining, 16.47 and 15.17 percent respectively, represent the organizational climate or environment factor. Japanese entrepreneurs seem to distinguish between items which might enable employees to work with ‘peace of mind’ – ‘background’ items for them, but ranked extremely highly by the UK entrepreneurs (third and first, respectively) – and more tangible or visible items of physical working environment and fringe benefit package, which both groups assigned low priority to. The fourth factor, explaining 12.79 percent of the variance, is labeled ‘J-recognition’, and it is somewhat different than the ‘recognition’ factor of the UK.

The underlying factor structure between entrepreneurs’ HRM orientations in Japan and the UK are primarily different when it comes to the ‘individual’ factors, but the item ranks suggest the factors are also given different weightings.

Figure 1: Overview of HRM orientation factors in the UK and Japan

	UK	Japan
Organization/ Environment	<ul style="list-style-type: none"> • Organization climate 	<ul style="list-style-type: none"> • Background • Foreground
Individual	<ul style="list-style-type: none"> • Ownership • UK-Recognition 	<ul style="list-style-type: none"> • Growth • J-Recognition

Figure 1 presents a diagrammatic representation of the underlying structure in both samples. Note that the organizational climate factor in the UK contains two

of the top-ranked items, and appears to feature more prominently in the minds of the UK entrepreneurs than the two organizational climate factors in Japan. Note, too, that the two individual factors are somewhat different between the two countries. These differences cannot be interpreted from the data alone. To do this we turn to the case interviews.

Interpretation through case interviews

Clearly there are differences between the UK and Japanese entrepreneurs in terms of HRM orientations. Further tests reveal that these are not the result of size or sectoral differences. The differences need further interpretation and explanation. To do this, we turn to our case interviews of 25 entrepreneurs in both the UK and Japan, conducted between 2001 and 2005 (see the Appendix for details). Here we stress differences between the UK and Japanese entrepreneurs, although there were of course differences within these groups as well.

Flexibility and family friendliness

In terms of discourse, the first notable difference between the UK and the Japanese interviews was how much more prominently employee and HRM matters featured in the former. It was clear that for the UK entrepreneurs, managing employees effectively was crucial to the delivery of their products or services, and they spent quite a lot of time thinking about it and worrying about it. In this, they did not fit the image of the entrepreneur depicted by Kets de Vries. Many of the Japanese entrepreneurs, on the other hand, appeared closer to that image, at least superficially. The focus of their discourse was very much on the product or service, and while they might have spent time thinking and worrying about employee management, it did not figure in their accounts nearly as much, and when it did, it figured differently.

Both groups seemed to be looking for broadly similar employees. Fit with the organization culture was crucial. This meant hiring people with a 'positive' attitude, people who were not nine-to-five clock watchers. They were looking for people enthusiastic about work, willing to learn, willing to take initiative. Subsequently, however, their paths diverged.

The UK entrepreneurs sought to recruit the above people, and to integrate them

into a team of like-minded employees, creating a strong *esprit de corps*. Employees sometimes had to go the extra mile, to spend long hours working before a deadline, for instance. Willingness to do this could not be taken for granted. It had to be voluntarily offered. To ensure that this discretionary effort was forthcoming, a tradeoff made was in terms of flexibility. In return for such discretionary effort, which could be expected to have a negative impact on the employee's private life, flexibility was offered. The employee could take time off to see to events at his/her daughter's school. There was give and take on the issue, as long as there was not an imbalance towards the take.¹⁰ This helps to explain the importance of flexible, family-friendly work arrangements for the UK entrepreneurs. The following quotes illustrate this, their link to a 'stable and supportive work environment,' and indeed concern for supportive family relations

'We have an employee who has been with us 12 years. Last week he was on holiday in America, but every day he was on the phone, asking his people, following them up. It's that culture – we work hard, we play hard and we want to be profitable... And finally, success is when I see my people happy, when on a Friday night at 6 or 7 o'clock there are still people were saying sorry we really can't go, we've just got to get this done. That is success because people aren't going to be here on Friday night if they aren't committed.'

'I take an interest in their lives and they respond by doing the same with me and the company... You know, it's a serious employee, has been here a long time, done a good job, has a problem – they get paid, you know, whatever their condition is and exceptional absences from work...'

'These guys are the A team. They will stick with me through thick and thin. We work as a team. Nobody says that's not my job, or I'm too busy with my job to help you with yours... Immense flexibility. If you want to go four hours early today that's no problem, so long as it's not happening constantly. No recording, no clocking in and out... Also we often need to meet a deadline, say for a large order for Australia. We've had them working all night, have worked through till four in the morning, then I will go out and get a big pile of pizzas and a crate of beer.'

'We know everyone's family, and we network and have events like picnics, evenings out with families. Whatever this company does in terms of

entertainment, we always involve families... We have some very dedicated people and it's to thank them for allowing their husband or wife to work so hard.'

The Japanese entrepreneurs, on the other hand, needed to make no such tradeoff. They wanted to recruit similar people, and they had the same needs as far as Friday evening or weekend work went. But this was *expected* of their employees. What they were expected to offer their employees in return – and their families – was first and foremost stable employment, which they largely saw in terms of personal responsibility rather than HRM orientation, and then average or better wages and conditions and opportunities for growth through work – incentives for individual excellence and challenging job assignments.

To some extent, of course, this reflects the different labour market conditions in both countries. Greater fluidity in the UK presumably presses entrepreneurs to be sensitive to employee needs for flexibility. But it is more than that. It reflects different social or family relationships as well. The UK employee could not be expected to give all when this created family tensions. The potential for family tensions was considerable, judging from the complicated family arrangements recounted by some of the entrepreneurs. This explains their attempts to create goodwill in the families themselves through family events. In effect, employees' families were part of the implicit contract. There had to be give and take for them as well.

The Japanese entrepreneurs, however, could more easily assume acquiescence on the part of their employees' families. Certainly they knew about their employees' families, and sometimes if there were tensions at home, but offering flexibility to deal with it happened at the margins. 'Mature' employees would not only go the extra mile for the development of the company, which would benefit everyone including themselves, but in doing so should not let family matters impinge on their work.

In brief, the comparison highlights a neglected dimension of environmental 'fit.' It is not just the competitive environment that the entrepreneurs must be mindful of, or even the institutional (labour market) environment, but the social environment as well. This impacts on the company most visibly through the

employment relationship. The UK entrepreneurs were well aware of this need for fit from *their own* family lives, moreover. The stability in their social environment, on the other hand, allowed the Japanese entrepreneurs to take this for granted, and to interpret individual dedication to the company in terms of individual commitment and maturity. Quite a few of the Japanese entrepreneurs, in fact, prided themselves on the fact that they worked harder and longer hours than anyone else; hardly grounds for sympathy in terms of family-work balance from their employees, even if it was sought.

Specialization and delegation

A second set of observations also calls for qualifications to the autocratic/chaotic entrepreneur picture, again with divergence on the part of the British entrepreneurs. It also calls for caution if not qualification to the many studies which see HRM practices in entrepreneurial businesses as emerging gradually from a state of chaos and high informality towards greater formalization, specialization and systematization, accompanied by delegation as the company grows. In a very general sense, this may happen, but a comparison reveals significant differences related to the backgrounds of the entrepreneurs, how they start their business, and how they grow it.

Many of the UK entrepreneurs started their business with a small team of colleagues from a former business. From the inception, there was a specialization, and while there was a CEO, his role appeared to be more like a team leader than someone with absolute authority. This was reinforced by a sense of shared enthusiasm and partnership in a new adventure at the time of founding. It seems that this ethos and division of labour more easily leads to a division of labour and delegation when employees are recruited. Moreover, the backgrounds of many of the entrepreneurs, especially experience in a variety of companies and in a variety of management positions, also seemed to facilitate early delegation and a division of labour.

Many of the recruits were highly qualified and expected to have challenging work delegated to them from an early stage, moreover.¹¹ If they weren't promised it, they wouldn't join the company, and if they didn't get it, they would quit. High levels of qualifications seemed to enhance collegiality and delegation. In this

environment, the entrepreneur was like a conductor.

In Japan, however, there was a different set of dynamics. Quite a few of the entrepreneurs had felt frustrated at aspects of HRM at their previous large company – seniority in promotions and work assignments, lack of opportunities to develop individual creativity, and so on – which instilled a desire to give their employees opportunities for individual excellence and challenging job assignments.

‘Old established companies like M have lots of graduates from the top universities. I was not one of them, so even though I had the most patents, they were reluctant to take up my ideas. From that, I felt the importance of individual creativity, bringing it out and applying it. I try not to impose my ideas on others, but to encourage them to come up with suggestions, and to experience the joy of inventing.’

‘I was quick in doing my work, but the others did a lot of overtime. I was seen as half-hearted, and they were seen as loyal. I didn’t think rewards should be based on time worked. And the differences were so small – just a few thousand yen after several years. I believe pay should be based on performance, not on years of experience, education or gender.’

These convictions, on the other hand, were tempered in practice by pressing business needs, which the president felt acutely, but thought that not all employees did likewise. He did not see himself as a conductor so much as a locomotive, pulling along a train which frequently threatened to go off the rails. Often he had started the business by himself, or with a ‘right hand’ man, but the locus of authority was clear and undisputed.¹² His years of work in R&D in a large company, or R&D and sales, and his focus on technology as the core of the business, both gave him confidence that he knew best how to develop the company, and put pressure on him to maintain control of many activities as well. This made it difficult to delegate, especially when there was still a risk of staff turnover. The fact that he relied on a small number of clients initially, who he alone had personal relations with, further reinforced this tendency.

There was often a difficulty in recruiting (and retaining – large companies poached good engineers) employees of the calibre seen necessary, and hence these raw recruits required ‘raising.’ Even if postgraduates with high technical

skills could be recruited, moreover, there was still a tendency to see them as apt to allow technology fascination to over-ride commercial sense. Mid-career hires, too, needed to be integrated into the corporate culture, which took time.

‘Work has to be enjoyable, but it also has to make money. It shouldn’t just be enjoyable by yourself, but for those around, and customers.’

‘For the first 10 years I had to do everything – lay the rails to go on... Japanese school education nowadays is very problematic. It promotes a funny kind of egalitarianism – no losers. But in business there are only gold medals – nothing else. You either get the order or you don’t. This year’s keyword is “tatakai” (fight). It’s in the notebook, look. I check how each of my employees are doing – 30 minutes each per month. The critical thing is to get values aligned.’

Thus the early years were spent with the president and perhaps a ‘right hand man’ battling to establish the business, and the next years when employees were hired to ‘raising them’ to create a viable company core. This might involve providing incentives for individual excellence, challenging job assignments and autonomy, but the autonomy was in fact within prescribed bounds, and only gradually increased. The president was still firmly in control (and not initially interested in relinquishing it). In fact, two or three of the entrepreneurs indicated that their preferred company size was 30 employees. ‘This is because I can still oversee everything. If it grows bigger than that, the best idea would probably be to spin out another company.’¹³ It was only when the company got to have about 60 employees that the president started thinking seriously about systematic organization and delegation. In some cases, at that point the company had established a strong competitive base, and was poised for substantial growth. The ‘raising’ had been accomplished, potential leaders identified, values aligned and employees were ready for new challenges through product diversification. Challenging job assignments and autonomy took on a more substantial meaning at this stage.

Training and education

As this brief account suggests, the Japanese cases were closer to the orthodox view of the evolution of HRM practices, sometimes in slow motion. A third observation relates to contrasting notions of education and training. The British entrepreneurs were more likely to see their employees as independent actors, and

to take for granted on-job training in their accounts (which is not to say some did not happen). They encouraged their employees to go on courses, however, and sometimes set aside a fixed portion of turnover, or established target hours for them to do this, hoping that they would gain new insights and motivation, and that they would diffuse the knowledge in the company.

Some Japanese entrepreneurs encouraged their employees to go on external courses, too, but in most instances, an emphasis was placed on on-job training. This is hardly surprising, since the entrepreneur was the locomotive, and the direction of knowledge or skill transfer was from him. ‘Raising’ employees through OJT, moreover, was not just about skills, but about acculturation, which was seen to take place slowly.¹⁴ In this sense, the meaning of education and training was very different.

While the qualitative differences were striking, it is unclear to what extent there were quantitative differences, as training and education costs are difficult to calculate. In terms of itemized, budgeted expenditure, it seems as if the UK entrepreneurs spent more, given the extent of external courses. This contradicts functionalist theories of human capital which hold that employers are reluctant to invest if they cannot be certain of recouping their investments (i.e., where external labour markets are developed). The interviews suggest that training and education considerations are part of more complex calculations which differ in the two countries, involving autonomy and motivation and the implicit contract of the employment relationship in the UK, and ‘raising’ employees gradually or at least pulling them along by the entrepreneur in Japan.

Company culture

Further evidence to support these arguments comes from a question on company culture in the questionnaire survey. Respondents were asked: ‘How strongly do you agree with the following general statements about your business?’ Again a

five point Likert scale was used, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The results are given in Table 7. The contrast between the means of ‘My business is a personal place; it’s like an extended family’ signals its positive meaning for the UK entrepreneurs, and its negative meaning for Japanese entrepreneurs. This negative reaction has been intensified by long years of small firm advisors and commentators who condemn Japanese small firm owners for mixing family and business, and the association of family-like business as backward.

Table 7 Company culture

	UK			JAPAN			
	Mean	SD	Rank	Mean	SD	Rank	SIG
My business is a personal place; it is like an extended family	3.96	.86	2	2.11	1.05	5	.01
Employment is competitive; measurable goals are important	3.59	.89	5	4.26	.75	1	.01
There are clear rules which employees are expected to follow	3.70	.84	3	3.76	.72	3	NS
People here are able to make decisions autonomously	3.68	.80	4	3.51	.84	4	NS
Team work and joint problem solving are encouraged here	4.42	.56	1	3.78	.75	2	.01

Teamwork and joint problem solving were ranked highly by both groups, but in the UK this meant teamwork with specialization and to some extent devolved authority (ideally, at least), while in Japan it meant teamwork in the sense commonly used for quality circles, within bounds. These bounds were set out in ‘measurable goals’ most strongly supported by Japanese entrepreneurs. We interpret this as trying to keep employees on their toes, and ‘raising’ them by establishing tangible goals to work towards.

The ‘high performers’

Finally, do the differences between the two countries that we have outlined so far also apply to ‘high performers’? Is there a set of orientations associated with high

performance which might suggest ‘best practice’ regardless of country, or is ‘best practice’ context-dependent, dependent on ‘fit’? To address this question we looked at self-reported figures on turnover and innovation in the past two years.¹⁵ Our ‘high performance’ indicator requires both turnover growth and novel innovation (new to both company and industry). Interestingly, thirty five percent of both the UK and Japanese samples qualified, reducing the UK sample to 40 and the Japanese sample to 78.¹⁶

As with the total sample, we carried out a Student t-test on each of the HRM orientations. The results are given in Table 8. Comparing this table with Table 2, we see that the basic scores and rankings are similar. For the UK sample, however, offering flexible/family friendly work arrangements becomes even more important (rank 3 to second equal), as do training and education and physical work environment (moving from seventh and eighth respectively to sixth equal). The tendencies noted for the total UK sample, therefore, appear even stronger.

For the Japanese high performers the order of the first and second-ranked items are reversed, although the original difference was tiny. Likewise the order of the fifth and sixth-ranked variables are reversed, as are the seventh and eight-ranked variables. The result is that the variables of the two ‘individual’ factors – growth and stretch – are given somewhat more priority, and organization/environment variables are given somewhat less. Thus the overall effect, if anything, is to heighten the contrast between the UK and Japanese entrepreneurs in terms of HRM orientations.

Table 8 'High performers' compared (UK n=40; Japan n=78)

HR Policy	UK			JAPAN			SIG
	Mean	SD	Rank	Mean	SD	Rank	
Paying top rates	3.20	.79	6	3.58	.78	5	.05
Giving challenging job assignments	3.73	.85	2	3.99	.88	1	NS
Providing/facilitating training and education	3.20	.94	6	3.65	.74	4	.01
Providing a stable and supportive work environment	4.25	.63	1	3.52	.77	6	.01
Offering flexible/family friendly work arrangements	3.73	1.09	2	3.19	.84	9	.01
Providing incentives for individual excellence	3.25	1.03	5	3.93	.70	2	.01
Providing a good welfare and fringe benefit package	3.05	1.18	9	2.88	.73	10	NS
Providing an attractive physical work environment	3.20	.91	6	3.32	.72	8	NS
Giving employees a financial stake in the company	1.83	.96	10	3.36	.93	7	.01
Encouraging autonomy in decision making	3.68	1.02	4	3.77	.84	3	NS

The decreased sample size prevents us from repeating the factor analysis exercise, but it is unlikely that the structures would change significantly. Spearman's rank correlation again shows a non-significant correlation between the countries ($\rho=.46$ $p=.18$ $n=10$). We should add, too, that the company culture rankings remain unchanged for the high performers.

Concluding discussion: A new employment relationship?

We return to the three hypotheses:

- 1 *The HRM orientations of UK entrepreneurs will be systematically different from those of Japanese entrepreneurs.*
- 2 *These differences are in part attributable to differences in the environments in which the entrepreneurs operate (need for 'fit'), and in part attributable to the entrepreneurs' backgrounds and business orientations.*
- 3 *HRM orientations in 'high performing' businesses in both countries will retain many of these differences.*

Our answers to the hypotheses are all affirmative, but the differences were not those we expected. We had expected different weightings on extrinsic and intrinsic motivation orientations, as well as environmental factors, perhaps with the UK entrepreneurs scoring higher on extrinsic motivation orientations, and Japanese entrepreneurs giving more weight to the environmental factors. We never expected extrinsic motivation orientations to be rated quite so low, or the environmental factors to be rated to highly by the UK entrepreneurs, or so lowly by the Japanese entrepreneurs. In order to explain this puzzle, we turned to our case interviews, and discovered plausible explanations, and that the same variable sometimes took on a very different meaning through its relationship with other variables, and in a different social context. These meanings cannot be discovered through regular survey tick-box methods.

In our concluding comments we would like to draw out the implications of our findings for the debates on the ‘new employment relationship,’ and outline how we might develop this research.

In recent years there has been a growth in attempts to portray the ‘new employment relationship’ which has emerged in the aftermath of restructuring in the 1980s and 1990s.¹⁷ Such writings often argue that the old ‘psychological contract’ or exchange of loyalty for job security has been abandoned as market forces have penetrated the employment relation, placing much of the burden of flexibility on employees. This gives rise to a contradiction; employees are required to offer more for less – higher discretionary commitment in exchange for insecurity and stress. The contradiction is presumably managed by high commitment ‘fudges’ or by pecuniary mechanisms.

Our findings suggest that high tech entrepreneurs in the UK are seeking to construct a new psychological contract, by trying to make the workplace more personal and responsive to employee needs, to secure high commitment and discretionary effort. This implicit contract is most noticeable in businesses with highly educated workforces, even very small ones. And these businesses tend to be ‘high performing’ in the sense we have used it here. If ‘communities of loyalty’ have given way to ‘communities of purpose’ (Heckscher, 1995), it is this exchange which underlies the latter. UK entrepreneurs do not prioritize financial rewards.

Indeed, ‘communities of purpose’ might be a good way to describe these businesses given that the entrepreneurs seek to establish internal trust relations through this exchange which can then be applied to relations with customers. Relative homogeneity in terms of education levels facilitates this, as does that fact that most of these businesses are not engaged in routine or volume manufacturing. It was notable that in businesses where entrepreneurs expressed what might be considered ‘traditional’ attitudes towards the employment relationship – emphasis on control, and concerns about trust or employee willingness to exert discretionary effort (on a generalized rather than individual basis) – were often businesses which included rather traditional manufacturing operations.¹⁸

In Japan, there appears to be greater continuity with small firms of the industrial era (cf. Whittaker, 1997), which is not surprising given that Japan’s post-industrial transition (in the sense of declining employment in manufacturing) started in the early 1990s, and although there was a wave of restructuring in the late 1990s-early 2000s, it was more muted than in the UK in the 1980s. Most Japanese businesses studied here were founded before this restructuring. Japanese entrepreneurs did appear to be adapting to their changing environment in their quest to secure and retain quality employees by offering challenging job assignments, incentives for individual excellence, and autonomy in decision making earlier than they might have in the past. But their social environment was still more stable, and they do not appear to have fundamentally altered the basis of the employment relationship or effort-reward exchange. It may well be that had we obtained data for high tech *non-manufacturing* businesses in Japan, more recently founded than the manufacturers in our survey, the differences with the UK businesses would have been smaller. Unfortunately, we do not have this data.

We have explored only a small part of our data, both on HRM orientations and practices, and their relations with wider aspects of entrepreneurship such as entrepreneurs’ business orientations and competitive advantages. This will be our next task. There is a need for exploratory research such as this, we believe, before we embark on an even more ambitious project on comparative entrepreneurship. Ideally, however, we would work with a bigger data set, which encompasses non-manufacturing high tech activities, and more countries.

Notes:

¹ Kets de Vries, 1977: 63; cited in Stanworth and Curran, 1989: 160.

² Baron, Burton and Hannan, 1996; Hannan, Burton and Baron, 1996.

³ The open question asked: 'In the space below, please recall any critical events or experiences which influenced a) your approach to business, and b) the development of your business.' Comments like the following were common: 'Allow people the freedom to use their own creativity for the good of the company. Keep the family atmosphere as far as possible. Delegate and allow people the freedom to make mistakes.' 'To provide good quality products and service to customers with appropriate rewards to all our staff... Pay staff as much as can be afforded rather than as little as one can "get away with".' 'To harness the expertise of our team to work in partnership with our clients to provide customers high quality solutions. To ensure that every employee is valued as a real business asset...'

⁴ 'When I was an employee, I saw continual Customer dissatisfaction caused by co-workers who lacked Technical Expertise, and pressure to achieve Unrealistic Objectives,' and so on.

⁵ See the Appendix for further details of the study, as well as the definition of 'high tech'.

⁶ www.genconsortium.org

⁷ In other words, we incorporate the concept of entrepreneurship as emergent activity, or the discovery and exploitation of opportunities (Shane and Venkataraman, 2000). Davidsson et.al. comment on this distinction: 'There seems to be a movement towards consensus that entrepreneurship is about emergence' and argue that 'studies that seek to measure a nation's entrepreneurial behaviour through the creation of new firms or the intention to create a new independent business may understate the true extent of entrepreneurship' (2001: 13, 10).

⁸ This is similar to Baron et.al.'s (1996) 'work', 'money' and 'love', although love is somewhat different, and our job items incorporate their (separate) 'control' variable.

⁹ Not only do they rank low in the UK, but they are not correlated with other items. In Japan correlations are more extensive, suggesting greater comprehensiveness in HRM orientations. Correlograms (not presented here) show this visually.

¹⁰ We might add that employees who did not achieve ‘fit’ with what the entrepreneur was seeking – who were seen as taking more than they were giving – were ‘let go.’

¹¹ In the original sub-samples, 6.2% (13.4%) of the UK (Japanese) entrepreneurs reported that 50% or more of their employees were university graduates, 42.0% (59.8%) that 10% or more were graduates, and 22.3% (18%) that none were graduates. For the case companies, the respective figures were 32.0% (50.0%), 80.0% (71.4%) and 8.0% (23.8%). The UK case figures included a significant number of Ph.Ds.

¹² Evidence here is again based on interviews. We are unable to show this statistically, as we are not confident that our data distinguishes adequately between active and sleeping partners, especially in Japan.

¹³ Twenty employees is often cited as a cut-off or plateau figure for many (UK) businesses as it is at this stage that the limits of informality become apparent: Roberts et.al., 1992; 255.

¹⁴ For UK entrepreneurs, moreover, acculturation or fit was achieved through the head, perceptually, rather than gradually through the head via the body, so to speak.

¹⁵ Respondents were asked: ‘Over the past two years, what has happened to your turnover? (stayed the same; increased, by _%; decreased by_%). The question on innovation is compatible with the Oslo Manual indicators, and is used by the Centre for Business Research, Cambridge. Entrepreneurs were asked if they had introduced in the past two years innovations (product, process, logistics, service, means of delivering product or service) in the past two years which were a) new to their business but not their industry, or b) new to their business as well as their industry.

¹⁶ 57.5% (48.4%) of the UK (Japanese) entrepreneurs reported increased turnover in the past two years; 59.2% (64.1%) of UK (Japanese) entrepreneurs reported

novel innovations (new to their company and industry). As we do not have panel data on these indicators, our conclusions must be tentative.

¹⁷ See for instance, Kanter, 1993; Heckscher, 1995, Cappelli et al., 1997, Blair and Kochan eds, 2000, for the US. The extent of change in the US has been disputed; see for instance the exchange between Cappelli and Jacoby, 1999. On the ‘high commitment’ workplace, see for instance Applebaum and Batt (1994).

¹⁸ These observations are tentative; more research needs to be done in this area.

Annotation:

1) ‘High tech’: The definition of ‘high tech’ derives from Butchart (1987), which identifies four digit SIC industries based on R&D intensity, and the proportion of scientists, professional engineers and technicians in the workforce. These were modified in the light of Hecker (1999) to give a more up to date classification, and to facilitate comparison between the UK and Japan. (See Whittaker, 1999; Quince and Whittaker, 2002).

2) ‘Venture’ in the Japanese surveys refers to businesses identified as: founded since 1965 (not rigorously enforced), with innovative management, a recognized position in their market or industry, evidence of entrepreneurship and without *keiretsu* affiliation.

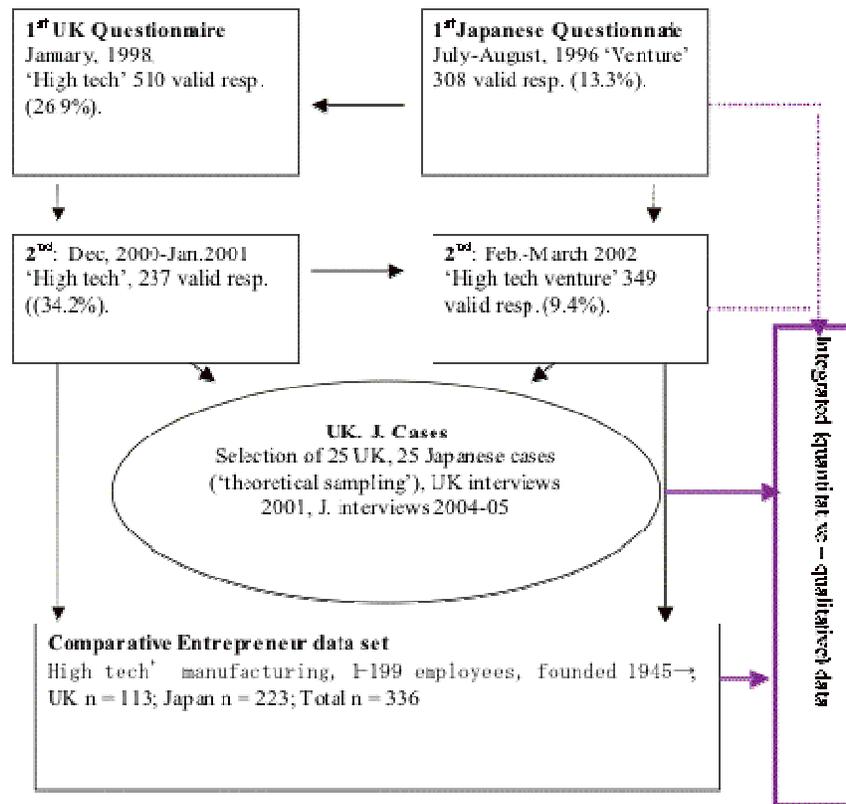
References

- Applebaum, E. and R. Batt (1994), *The New American Workplace*, Ithaca: ILR Press.
- Arthur, J. (1994), 'Effects of Human Resource Systems on Manufacturing Performance and Turnover' in *Academy of Management Journal*, 37/3 pp.670-87.
- Baron, J., D. Burton and M. Hannan (1996), 'The Road Taken: Origins and evolution of employment systems in emerging companies' in *Industrial and Corporate Change*, 5/2, pp.239-74.
- Blair, M. and T. Kochan eds. (2000), *The New Relationship: Human capital in the American corporation*, Washington D.C.: Brookings.
- Boxall, P. and J. Purcell (2003), *Strategy and Human Resource Management*, Basingstoke: Palgrave Macmillan.
- Butchart, R. (1987), 'A New UK Definition of the High Technology Industries' in *Economic Trends*, No.400.
- Cappelli, P. (1999), 'Career Jobs are Dead' in *California Management Review*, Vol.41, No.1, pp.146-67.
- Cappelli, P., L. Bassi, H. Katz, D. Knoke, P. Osterman and M. Useem (1997), *Change at Work*, New York: Oxford University Press.
- Casper, S. and R. Whitley (2002), 'Managing Competences in Entrepreneurial Technology Firms; A comparative institutional analysis of Germany, Sweden and the UK,' Centre for Business Working Paper No. 230, University of Cambridge.
- Cully, M., S. Woodland, A. O'Reilly and G. Dix (1999), *Britain at Work: As depicted by the 1998 workplace employee relations survey*, London: Routledge.
- Heckscher, C. (1995), *White Collar Blues: Management Loyalties in an Age of Corporate Restructuring*, New York: BasicBooks.

- Davidsson, P., M. Low and M. Wright (2001), 'Editor's Introduction: Low and Macmillan ten years on: Achievements and future directions for entrepreneurship research' in *Entrepreneurship Theory and Practice*, Summer, 5-15.
- Dore, R. (1973: 2000), *British Factory – Japanese Factory: The origins of national diversity in industrial relations*, Berkeley; University of California Press.
- Flamholtz, E. (1995), 'Managing Organizational Transitions: Implications for corporate and human resource management' in *European Management Journal*, 13/1, pp39-51.
- Gartner, W. (1988), 'Who Is an Entrepreneur? Is the Wrong Question' in *American Journal of Small Business*, 12/4, pp.11-32.
- Gartner, W. and N. Carter (2005), 'Entrepreneurial Behaviour and Firm Organizing Processes' in Z. Acs and D. Audretsch eds, *Handbook of Entrepreneurship Research*, New York: Springer.
- Hannan, M., D. Burton and J. Baron (1996), 'Inertia and Change in the Early Years: Employment relations in young, high technology firms' in *Industrial and Corporate Change*, 5/2, pp.503-35.
- Hecker, D. (1999), 'High Technology Employment: A broader view' in *Monthly Labor Review*, June.
- Heckscher, C (1995), *White Collar Blues: Management loyalties in an age of corporate restructuring*, New York: Basic Books.
- Hornsby, J. and D. Kuratko (1990), 'Human Resource Management in Small Business: Critical Issues for the 1990s' in *Journal of Small Business Management*, 28/3 pp.9-18.
- Jacoby, S. (1999), 'Are Career Jobs Headed for Extinction?' in *California Management Review*, Vol.41, No.1, pp.123-45.
- Kanter, R. M. (1977; 1993), *Men and Women of the Corporation*, New York: Basic Books.
- Kets de Vries, M. (1977), 'The Entrepreneurial Personality: A person at the

- crossroads' in *Journal of Management Studies*, 14/1, p.53.
- Kotey, B. and P. Slade (2005), 'Formal Human Resource Management Practices in Small Growing Firms' in *Journal of Small Business Management*, 43/1 pp.16-41.
- Pfeffer, J. (1998), *The Human Equation: Building profits by putting people first*, Boston: Harvard Business School Press.
- Pugh, D. and D. Hickson (1976), *Organizational Structure in its Context: The Aston programme I*, Aldershot: Gower Publishing.
- Rainnie, A. (1989), *Industrial Relations in Small Firms*, London: Routledge.
- Roberts, I., D. Sawbridge and G. Bamber (1992), 'Employment Relations in Smaller Enterprises' in B. Towers ed. *Handbook of Industrial Relations Practice*, London; Kogan Page.
- Schumpeter, J. (1961), *The Theory of Economic Development: An inquiry into profits, capital, credit, interest, and the business cycle*, New York: Oxford University Press.
- (2000), 'Entrepreneurship as Innovation' in R. Swedberg ed., *Entrepreneurship: The social science view*, Oxford: Oxford University Press (extracted from Schumpeter, 1961).
- Shane, S. and S. Venkataraman (2000), 'The promise of Entrepreneurship as a Field of Research' in *Academy of Management Review*, 25/1, pp.217-26.
- Stanworth, J. and J. Curran (1989), 'Employment Relations in the Small Firm' in P. Burns and J. Dewhurst eds., *Small Business and Entrepreneurship*, Basingstoke: Macmillan.
- Strauss, A. and J. Corbin (1998), *Basics of Qualitative Research: Techniques and procedures for developing grounded theory*, Thousand Oaks: Sage.
- Whittaker, D.H. (1997), *Small Firms in the Japanese Economy*, Cambridge: Cambridge University Press.
- Wilkinson, F. (2000), 'Human Resource Management and Business Objectives and Strategies in Small and Medium Sized Business', University of Cambridge Centre for Business Research Working Paper Series WP 184.

Appendix: Design of study and data set



The initial Japanese survey was carried out by Momose and Morishita in 1996, and published in 1997 (see figure). Entrepreneurs/businesses were selected from the *1996 nen ban Nikkei bencha bijinesu nenkan* (Nikkei Entrepreneurial Business Annual, 1996), and Toyo keizai's *Kaisha shikiho jojo, tento kaisha ban '96* (Company Quarterly Listed and Over-the-Counter Companies 1996) and *Kaisha shikiho mijojo kaisha ban '96* (Company Quarterly Unlisted Company Edition 1996). The questionnaire was constructed without a view to international comparisons.

Difficulties in identifying a matching sample in the UK led to a decision to focus on CEOs of businesses in 'high tech' industries, as viability in these industries was likely to necessitate entrepreneurial behaviour. The sample was based on single site, independent businesses listed on the Dun and Bradstreet data base in

January, 1998. The questionnaire was modified in the light of findings from Momose and Morishita (1997), and to ensure questions were relevant and meaningful to UK entrepreneurs.

In order to follow up on questions raised by the first questionnaire, and to facilitate direct UK-Japan comparisons, a second questionnaire was constructed in 2000, and sent to just under 400 respondents of the original survey, and just under 400 new CEOs. The additional businesses comprised roughly 200 founded before January 1997, biased towards larger businesses and drawn from activities under-represented or not included in the previous study, and 200 founded since 1997, again drawn from the Dun and Bradstreet data base.

The UK questionnaires included both manufacturing and service businesses. It proved difficult to identify the latter for the second survey in Japan, and the decision was made to survey businesses from the original sources, most of which were manufacturers, but to limit the businesses to those with SIC activities comparable to the UK study ('high tech'). This was unfortunate if unavoidable because it foreclosed exploration of the changing pattern of manufacturing in its links with manufacturing services, which was particularly pronounced in the UK. New Japanese businesses were added to the survey from Toyo keizai's *Nihon no kaisha 78000* (Japanese Companies, 78000), 2001 edition.

From respondents to the second survey who indicated a willingness to be interviewed, 25 case CEOs/businesses were selected in each country. Selection criteria in the UK included indications of innovative activity, collaborative activity, geographic spread and sectoral balance. Selection of the Japanese interviewees was carried out with a view to comparison with the UK cases, while ensuring sufficient coverage for electronics activities, which were heavily represented in Japan. A relatively high proportion came from the Kyoto and Kansai area. Interviews were carried out at the entrepreneur's business, were recorded, and lasted between one hour and two and a half hours. In some cases further clarifications were sought by telephone.

In order to construct an integrated data base from which UK-Japan comparisons could be meaningfully carried out, further restrictions were imposed. This

involved focusing on businesses with fewer than 200 employees (mainly reducing the Japanese sample), engaged in manufacturing (mainly reducing the UK sample), and founded since 1945 (mainly reducing the Japanese sample). The result is 113 UK and 223 Japanese manufacturing businesses with fewer than 200 employees founded since 1945. Table A-1 shows this process, and gives some details of the composition of the data set.