CHAPTER 1

INTRODUCTION AND DESIGN OF THE RESEARCH

The universal garment trade is usually a buyer-driven value chain. The huge North American and European buyers have most of the control in the garment supply chain; they provide the specifications and the style of the garment, dictate the price, nominate the raw material suppliers, and even influence on the working conditions and welfare of the employees. The exhaustion and exploitation of the human capital are thought to have a direct bearing on the labour cost and to profitability. Poor working conditions and missing human resource policies are common in closely knit industrial clusters like the knitwear garment industry. However, organisations like fair wear foundations work with companies and factories to improve labour conditions for garment workers and buyer’s insistence on standards like OHSAS 18001 for occupational health and safety management systems force only the companies directly connected with the buyer. The peripheral organisations involved in subcontracting and supply of supporting services escape the pressure from the regulators. In many cases, customers may have little direct or permissible interest over the conditions inside the manufacturing plant. However, in a buyer controlled market such as garment industry they do have a considerable affect and can use the threat of dismissing orders to force their suppliers to follow standards in working conditions. The implementation of labour codes should not be just looks as compliance to the buyer’s requirement or mandatory requirement of the government
and regulatory bodies. Rather the motivation for adoption of better human resources policies should stem from the benefits in terms of the performance improvements that may lead to more profitability. Adoption of HRM practices should be looked as a more defensible ways to meet the requisites of a competitive price, excellent product quality, on-time delivery, compassionate labour and business relations. However, there is a need for support of this relationship empirically and this study addresses the issue by investigating the effect of human resources management system in organisations’ working conditions and on the performance of the firm.

1.1 ROLE OF HUMAN CAPITAL IN TEXTILE GARMENT INDUSTRY

Human capital management challenges in India are the difficulties in identifying, recruiting, rewarding and retaining talent. Human capital management has become a critical issue across the globe. Even in a land of billion people, identifying the right talent, training them and retaining them has become an uphill task. Human Resource starts when a man enters the organisation and it ends, when he leaves the organisation. Human Resource deals with the human dimension. Success or failure of an organisation depends on the effective coordination of the resources such as money, material, machinery and men. Among these, the role and operation of men are the most complex. All the activities of an organisation are initiated and completed by the persons who formulate the organisation. The man power is an ultimate resource of the organisation because they think and take right action during varying situations unlike machines. Therefore man power is the most significant resources of any organisation. Human Resource Management is broadly understood to cover personal management, personal administration and man power management.
The Indian Garment Industry undergoes majority of activities from production of raw material to supply of highly value added product to the consumers. From early 80s garments and textile range of products act as a major source of export growth in India. It is evident from the early records that “individual” attention plays a major role in the rate of production and profit. Thus 32% of the labour comprise for cost price of a textile industry. Therefore, the way people are directed, motivated or utilized will be decided upon whether the organisation will be prosperous and survive or ultimately fail. Hence people are the key element for competitive advantage, the researcher tries to capture the broad field and to address some of the relationships. It basically seeks to map the field and organize inputs and outcomes with a prominence on an unlock systems approach. The view can be tagged as sensible but fails to provide a clear focus for any test of the relationship between HRM and performance.

The role of human resource management in organisation is at counter stage. Managers are aware that HRM is a function that must play a vital role in the success of organisation. It is an active participant in charting the strategic course an organisation must take place to remain competitive, productive and efficient. Its focal point is people; people are the life blood of the organisation. The uniqueness of HRM lies in its emphases on the people in work setting and its concerns for the well living and comfort of the human resources in an organisation. The HRM function is much more integrated and strategically involved. HRM and every other functions must work together to achieve the level of organisation. Effectiveness is also required to compete locally and internationally. Textile is industry oriented field where lots of processes are there to carry out raw material\fibers to finished garment. In this they require technical skilful and motivated people. For textile, there are a little bit differences in
the scope and approach in Human Resource concept because here people think differently and expect differently. In textile, environment is different as compare to other organization or industry, here more interaction to be carryout so that around 80% of managers spend time in handling of human resources. A very common problem always exists in every textile oriented is conflict (grievance) in intra department or in worker and management, so this HR (HRM) play as a tool to resoles this problem efficiently. HRM increase the communication, coordination and involvement so that chances of misunderstanding will be minimized. Even in organisations with educated and experienced staff, due to the lack of cooperation on part of the management, the department cannot carry out its functions.

The basic concept of HRM is to attract and retain the right person at right place in right time with right remuneration. In textile, HRM should appoint the skilful employee at the correct place where he can express his capabilities, because if sensitive people are placed at spinning production then they will face so many problems. For textile, it is compulsory to treat the employee as an asset of the company. A simple human can be transformed as an asset by selection of right person for right place & by training him and providing adequate career development opportunity. In textile, a major issue is the wages and salary with time (promotional), so Human Resource took care about that and make structure in such way that it satisfies both i.e. worker (employees) and management. Human Resource play just like a bridge between management and employees, somebody termed this job as a thanks less job. The textile industry had gone through a tough phase, but now textile industries want to capture the global market, so they are thinking on overall improvement. Many issues such as better productivity and production, infrastructure up gradation, social compliance, labour problems, coordination and customer
relationship are still grappling the industry and efforts at small levels
towards the betterment of the existing scenario are on. However, amidst
realization and solutions to all these problems, one necessary aspect of
human resource management is the human resource development - which
can definitely help the industry to go a long way has been left out.
Extensive literature exists on the ‘new industrial relations’ or ‘human
resource management’ (HRM) as “cooperative labour relations” or
“human-centred labour relations” in order to get the best out of workers in
urban formal sector’s large enterprises which are the ‘internal-labour-
market-abode’ of the ‘permanent worker’ or ‘established worker’.

The Indian Garment industry is extremely dissimilar in size and
its geographic focus. It is diversely situated throughout the Indian sub-
continent. Indian garment sector bind with HRM is taking more initiatives
to uplift the Indian Economy. Even small region of a sector flourish well in
this textile sector which is the greatest strength of this unit. There are more
than 2000 spinning units of large scale and over 500 mills which are
engaged in converting the raw materials to finished goods. In South India
the regions of Tirupur, Chennai, Erode and Bangalore are prominent and in
North, cities like Ludhiana, Surat, Panipat, and Delhi are well known, for
the garment industry.

1.2 PURPOSE OF THE STUDY

Garment exports are a vital source of income and employment
for many developing countries. Although working conditions are often
poor, this labour intensive industry provides tens of millions of jobs,
particularly for women. The low skill requirement of mass production
techniques and women’s historic lack of voice and general docility have
made them an attractive option for many Garment company owners. But it
also makes their bargaining power low and turns them into a particularly vulnerable part of the workforce. However, many observers also recognize that the Garment industry provides poorer countries with a good opportunity to engage in industrial upgrading and to develop their human capital. A number of other nations such as Japan, Taiwan and South Korea relied heavily on the Garment industry in the early stages of their economic development. In short, due to the Garment industry’s historically important role in the development of poorer nations, the particular role of women in the industry and the fact that very little detailed research has been conducted in this context make the Garment an ideal environment in which to study the performance effects of HRM. The results will be of interest to business managers, trade economists, labour rights activists, international labour organisations and governments engaged in trade negotiations alike.

India, in the post-quota environment, it is expected to become one of the world's largest market economies manufacturing and exporting garments, it’s very scale is making it worthy of closer analysis (McKinsey 2004). Although China is expected to be the largest global Garment manufacturer in post-quota, many consider it to be a special case, because of its unique economic type. The experience of the Indian garment industry may therefore be more comparable with other nations than China’s, hence it is selected for closer examination in this study. The results of this study should also contribute to the discussion of India's internal economic policy. The Garment industry is one of India's largest foreign exchange earners, but the industry is plagued by problems of low productivity and there is much scope for improvement. In India the garment industry is dominated by small scale manufacturers and sub-contractors in contrast to many of its international competitors where production scales for export are typically larger. India’s Garment supply base is a medium quality, relatively high
fashion, but small volume business. Part of India’s challenge is to be competitive in the post-quota era, and this situation can be turned around and scale up by making the necessary investments, particularly in innovative work practices.

1.3 STATEMENT OF THE RESEARCH PROBLEM

This study has three distinct but related areas of analysis that raise a number of key research questions. The first area is the main line of inquiry concerned with the sort of benefits firms enjoy from investing in their workforce in a context where labour is typically considered a cheap and disposable resource within limited investment returns. If it can be shown in this south Indian context that HRM has a tangible positive impact on the performance of firms then these assumptions will have to be reconsidered. However, before this, primary area of analysis can be addressed. The second area is to ascertain the exact components and characteristics of the HRM systems in the Indian export garment firms among the sampled firms. This part of the analysis will be both descriptive and exploratory, because little previous research exists on the topic. The third area of analysis examines a critical driver of best practice with regard to HRM systems. One of the key assumptions in the literature is that for developing countries the main driver for improved working conditions and labour standards is pressure from foreign buyers insisting that their vendors adopt higher process standards. This assumption will be tested in this dissertation. It may be possible that some domestic producers will seek to innovate and adopt advanced HRM practices on their own initiative for competitive reasons.

These three areas of analysis lead to the following research questions:
What are the characteristics and components of the HRM systems in place at South Indian garment manufacturers?

What effect do particular policies and practices, and systems of practice have on performance?

Is pressure from a foreign buyer always required for the presence of advanced HRM practices?

1.4 OBJECTIVES OF THE STUDY

India has large desire as a provider in the international market for garments. In 2015, the prospect of grabbing these determinations will become a certainty with the termination, in large part, of the proportion system that had overseen export garment production since 1974 that relentlessly reduced India’s shipping capacity. However, the performance of the Indian Garment industry is not where it needs to be for the country to support an instant and real task to the main global traders, China is in specific. India is lacking asset in its physical and human capital. Spending in social investment, in learning, presents contests from determining what is suitable and mandatory to see a performance effect in a specific situation, to measure some of its impalpable aids. Managers everywhere face with the query of how much to capitalise in their labour force, what the settlement will be and whether the welfares will cover the costs of that asset. For Indian organisations, these queries are even tougher to retort since little investigation has been completed that directly narrates to their own skill.

This study also seeks to find out whether there are any concrete paybacks to capitalizing in human resources in a framework in which
labour is normally so cheap and not reusable that any asset in learning should be kept to least in order to keep invention costs down. If India does choose to take up the task of improvement where does the learning on invention and best run-through in human resource management initiate from and what influence speed up this procedure, as time is short? One of the best probabilities for Indian export garment companies to participate in the global market arises from their capability to take advantage of the learning conveyed from their patrons in the United States and Europe. This association among the Indian manufactures and their overseas buyers is at times strained and is not a business between contemporaries, if India wants to upgrade its necessities to hold this task and learn to contend.

The key primary objective of this study thus is to find out what do particular policies and practices, and systems of practice have on performance and the secondary objective of the study is to analyse whether the pressure from a foreign buyer always required for the presence of advanced HRM practices. This deliver a careful account of the several workplace performances used by Indian garment productions and to scrutinize the effect of these diverse practices on their performance. As well as finding HRM practice in one part of the world so that it can be related with that in another and probing the performance effects of these firm-level strategy ranges, the work also pursues to analyse the source of much of the learning in this part; the extraneous consumers. In short, the purpose is to expose the facts of workplace practices in a situation that has not been extensively investigated in the past and in a textile industry which is a vital source of incomes for low income groups and basis of foreign exchange for many under developed nations.

Such a cautious investigation of the influence of precise workplace follows on firms and workers not only helps to fill a break in the
HRM performance literature by providing new suggestion from an evolving country, but it also has broad practical, policy and social inferences. For example, it could help with the choice on who should pay for such office inventions: the Indian constructor, the foreign purchaser or the Indian government. The results of this study will be united with the contributing producers in order to help them assign their resources more competently in the area of HRM and work organisation. Indian producers will have to retain their costs down while raising almost all their other values if they are going to have a chance of competing effectively at a comprehensive level in this industry. The careful distribution of resources in the area of human capital is going to be dangerous to any future triumph.

Similarly the buyers are also looking for ways to impact and improve working conditions and manufacture procedures at these industrial launches while keeping prices down. The purchasers might be eager to cost share with the producers on reserves in the workforce which are shown from the results of this work to make a perceptible impact on the performance methods that they consider critical to their own corporate model. The Indian government is also facing with a similar task to the global companies of how to keep its competitive advantage: the manufacture low cost goods, while evolving its human capital for monetary growth. A study on the effect of specific human capital reserves should help with the distribution of the management’s scare possessions by proposing possible areas to sponsor firms that invest in their labours. The state regime may also choose to invest more in its own training services as the benefits of such an outlay become clear and more real. Further spurring the management into action would be evidence that the benefits of such workplace modernizations are valid and significant beyond the export market. Most garment workers in India earn their living making
clothes for the local market. Therefore an ancillary aim of this work is to show the pressure from a foreign buyer which is not always essential for the existence of best practice in HRM at a manufacturing firm. It shows that the welfares of learning in this situation are accessible and that constructive spill overs are taking place that help more than just the few. The capability, to reveal that Indian fabrications are reassigning the learning, they are attaining through their foreign buyers from their disseminating units to their other units business for the domestic market has vital inferences for the sustainability of best exercise in India as a whole.

1.5 METHODOLOGY

The principal research objective question of this study is whether outlay in human resources management can subsidize to a firm’s production efficacy by refining the skills, welfare and reliability of workers. If it does then those employers who invest in more advanced HRM systems should have lower staffing and training costs, higher invention productivity, and a better quality product. While the revenues to outlay in human resources have been demonstrated to a large degree in the advanced world framework, the aim in this thesis is to find out whether this exemplary also holds in a low cost labour environment. In a developed world framework similar firms are normally more eager to invest in their human capitals since they expect to see remunerations that cover the cost. In addition they imagine the value of the goods that they manufacture to rise and their profit margins along with it, as learning escalations and the skills of their labour force progress. In a low-cost labour situation where the labour supply is high for comparatively low-skilled engineering jobs, can an outlay in human capital be improved in the same way?
Figure 1.1 Factors of production efficiency independent and dependent variables

Figure 1.1 maps out the factors of production competence in an establishment and shows the relationships that is being investigated in this study (marked by the arrow in bold). The association between the independent variable of the HRM systems in place and the dependent variables such as their production efficacy, modification, employee turnover, absenteeism and lethargy rates are analysed separately.

The methodology used to test these associations is both quantitative and qualitative in nature. Data were composed on all of the variables marked in Figure 1.1 so that the prime relationship, as marked, could be tested and the other independent variables, from the peripheral contextual factors to the formation specific factors, could be hold persistent. Reviews were accompanied with 400 export garment industrial units in two south Indian cities; Tirupur and Chennai so that a set of panel data could be compiled to track variations in HRM systems and the performance consequences over time. Focus group discussions and interviews with individual employees were done in person by the researcher.
The practices in the shop floor were also observed. All units were visited at least once, while numerous visits over two years were made to many institutions, predominantly those that are the subject of the case studies. The basic data from this statistics set, describing the various HRM schemes in place at the firms, are shown in Chapter 3. Four sets of manufacturing firms were then nominated to test precisely the affiliation of interest; HRM on performance. The firms designated as case studies were carefully coordinated rendering to the variables that account for performance change so that the effect of the flexible of interest could be verified on performance.

The major study concentration is : What consequence does precise strategies and performs, and systems of practice, have on performance? The key proposition to be tested is: Advanced HRM systems convey higher manufacture competences than customary methods.

But before this, the chief area of exploration can be addressed. The first task was to determine the exact mechanisms and features of the HRM systems at the Indian export garment firms in this study. This part of the study is both vivid and investigative, because little preceding research exists on the topic. The related research question is: What are the features and mechanisms of HRM systems employed in south Indian export garment industrialists? The final area of study inspects a critical driver of best practice and culture with respect to HRM systems. The postulation in much of the works and media that export firms in evolving countries will only adopt inventive and progressive HRM systems if they are required into it by their foreign consumers due to diverse product and progression values between the local and export clothing markets. But it may be conceivable that some domestic manufacturers seek to modernize and adopt progressive HRM practices on their own creativity for modest
reasons. Thus a third research question arises: Is burden from an external buyer always required for the occurrence of advanced HRM practices?

This study examines the performance effects of HRM systems in the Indian Garment industry. A large body of literature examines the performance effects of a firm's choice of employment practices, as discussed in Chapter 2. Yet the body of actual empirical evidence examining the productivity effects of work practices is limited, particularly in a context outside the developed world. This study addresses this gap by assembling a new data set to test some of the hypotheses which have been developed on the HRM-performance relationship.

1.6 SAMPLE SELECTION

The sample for this study include 400 Garment manufacturing units in south India that produce mainly casual wear for the US and European export markets. The unit of analysis for the study is the manufacturing unit, i.e. the assembly plant. An exporting firm may have multiple manufacturing units where each unit caters one buyer. Therefore, each unit may be differently in various aspects because they have to comply with the respective buyer’s requirements. In research on HRM systems, a number of authors recommend keeping the units as the focus (Wright & Gardener 2000). For example, Osterman (1994) warns of; “The risks inherent in surveys that rely on reports of corporate human resource personnel about practices in branch plants on the other side of the country”. He adds; “The great advantage of surveying units, as opposed to firms, is that the respondent in an unit is likely to know the facts”. Some units in the sample belong to the same firm. Most of the firms selected for the study agreed only inclusion of any one of their units for data collection.
However, a few firms allowed as many as five of their manufacturing units to be included into the study.

The main centres for garment manufacture in India are Delhi in the North, Bombay in the centre (West coast) of the country, and Bangalore, Tirupur and Chennai in the South. Table 1.1 shows the breakup of Indian Garment exports region wise in terms of volume and value.

**Table 1.1  Indian garment exports by region**
*(April 2010-March 2011)*

<table>
<thead>
<tr>
<th>Location</th>
<th>Garment Exports by Volume (% of total Exports)</th>
<th>Garment Exports by Value (% of total Exports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>14.24%</td>
<td>15.62%</td>
</tr>
<tr>
<td>Mumbai</td>
<td>12.79%</td>
<td>12.75%</td>
</tr>
<tr>
<td>Kolkata, Jaipur, Ludhiana combined</td>
<td>10.83%</td>
<td>10.69%</td>
</tr>
<tr>
<td>Tirupur</td>
<td>14.59%</td>
<td>12.53%</td>
</tr>
<tr>
<td>Bangalore</td>
<td>11.37%</td>
<td>11.97%</td>
</tr>
<tr>
<td>Chennai</td>
<td>11.19%</td>
<td>11.44%</td>
</tr>
<tr>
<td>Other Regions</td>
<td>24.99%</td>
<td>25.00%</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

(Source: Apparel Export Promotion Council (AEPC), New Delhi)

The sample for this study comprised of Garment manufacturing units based in two South Indian cities; Tirupur and Chennai, situated in Tamilnadu. This narrow sample was carefully selected from Tirupur and Chennai because of the type of clothing that these locations manufacture,
geographical trends of production and to test the variation in HRM practice within the same cultural setting (State of Tamilnadu). In order to be able to compare performance across different firms it was necessary to try to minimize the heterogeneity of the sample by choosing firms that manufacture similar product. The South India specializes in mass production of casual wear, whereas the North India is dominated by firms that do shorter production runs of more varied and complex garments such as those with extra bead work or special types of printing and dyeing. It is harder to compare production efficiency across firms for this type of varied and higher value-added product. This study can be conducted with more accuracy among firms that work on longer production runs of more comparable product. The firms in this study produce goods of medium complexity; classic tops (shirts), pants, jackets and undergarments. These products require similar skills from the workers and capital investments.

Tirupur and Chennai are also known for producing woven garments which are the focus of the case studies that make up an important part of this study, rather than knits. Tirupur, also situated in Tamil Nadu, is an important centre for garment exports but it manufactures knitwear in tiny and traditional manufacturing units. Tirupur is only just emerging from a cottage industry style of manufacturing and as such it is not the place to study the possible performance enhancing effect of innovation in HRM. Further, due to the small scale nature of firms in Tirupur and lack of technology, the quality of data coming from its firms would make a quantitative study very challenging. Production in the south of India has also been trending up more over the last three years than the North. On a regional level, Tirupur is trending up most quickly and so this study will
increasingly be a reflective of the HRM systems of Indian Garment exporters as whole.

Tirupur and Chennai were furthermore selected as the focus of this study because of the large range of HRM practices, including some of the most advanced and innovative methods in practice at firms there. This experimentation with new methods by firm owners allows for a careful comparison and contrast between the components of the different systems and their performance effects. By contrast, HRM practice in the north of India which still supplies roughly half of India’s Garment exports, is more homogenous. In the north of India the Garment firms employ male workers exclusively. This makes Garment production in the north unusual in comparison to global Garment production, which is dominated by low skilled female labourers. In the north of India Garment manufacture is performed by highly skilled male production workers, whose families often consist of generations of garment tailors. Twenty five years ago almost all Indian garment manufacturing took place in the north of the country and was done by these highly skilled tailors who stitched the entire garment.

Then Taylor’s mass production systems were introduced into the south of the country and have more recently taken over production in the north too. The male machine operators who work in the north now are typically migrant labourers, and they work for at least part of the year in the countryside. The legacy of migrant labour and highly developed tailoring skills, that employee retention levels for Garment firms in the north, are extremely low. This situation acts as a disincentive to owners for investing in the HRM systems of their Garment firms. Technical training is not required and attempts to boost retention in the face of dominant migrant labour are perceived as a losing battle. Payment is by calculating the piece rate, on top of a base minimum wage, and there are no other
benefits. Due to these reasons, Garment manufacture in the north of India is not a suitable location for studying the performance effects of alternative HRM systems. Moreover, because of its particular legacies, any findings from the North India would not be easily transferable to other Garment manufacturing locations in the rest of the developing world.

The selection of particular firms within Tirupur and Chennai was based on the scale of the firm, its location and the product manufactured. In total there are around 20,000 registered garment exporters in India but many are tiny consist of 50 to 60 machine units or smaller. In order to gather a representative sample of Indian exporters, the top 500 exporters in Tirupur and Chennai were selected from the Apparel Export Promotion Council’s (AEPC) list. All exporters are required to register with the AEPC. Firms are listed in descending order of their share of Garment exports volume. Firms were approached and asked if they were interested in participating in this study based on the AEPC list.

Due to the business culture in India it is hard to engage in genuine random sampling. The response rate for a randomly mailed survey is likely to be close to zero so a more direct and personal approach was required. Of the firms that were approached, only a handful declined to participate, gave an estimated response rate of around 93 percent. This was due to the individualized attention given to each firm and the support of a number of foreign buyers for this project. A number of key buyers provided introductions to some of their vendors and the biggest exporters in these two cities. These firms were not put under any pressure to participate in the study. The firms were all guaranteed anonymity in the study results.
While aiming to obtain a representative sample of exporters based on the AEPC top 500 lists, attention was also paid to the secondary issues of product and location. Firms would only be selected to be in the sample if they produced Garment in the medium value and skill categories of tops, pants, jackets and undergarments. Firms were also selected based on their location within Tirupur and Chennai thereby further controlling for variables such as the tightness of the labour market were analysed. Because the majority of firms in the sample are located in these two main Garment manufacturing areas. The sample for this study includes the majority of the top 10 exporters from Tirupur and Chennai including some of the largest exporting firms in India.

According to the AEPC the top 500 exporters in each region account for almost all the exports of the region, with a strong emphasis on the top 20. The majority of firms in the sample account for the top 20 exporters in both Tirupur and Chennai. Only four of the exporting firms in the sample fall outside the top 20 exporters of either city, but even these are still on the top 500 list. As such the study sample is not only representative of the two regions, but accounts for a good proportion of the almost 25 percent of Indian Garment exports (by value) that originates in these two regions. Despite selecting firms from the top 500 exporters, the firms in the sample are of sizes varying, from almost 3000 workers to 300. They also exhibit a wide variety of HRM systems.

Three firms included in the sample manufacture garments solely for the domestic Indian market, instead of for export to the US and Europe. One firm manufactures for both the domestic Indian and export markets. Despite the different consumer markets for their goods, these domestic market firms are situated in the same locations as the export manufacturers, they produce very similar product and compete for the same labour.
Other manufacturers for the domestic market were visited as part of this study in order to gauge a better sense of general practice, but were not included in the sample. The domestic market firms were included in order to test whether the presence of a foreign buyer is always required for the implementation of more evolved HRM systems.

This dissertation follows a theory-testing approach of research and more specifically theory tracing in the context of the Van Evera (1997) and Mahoney (1999, 154-196) typologies. The causal link between HRM systems and performance is being examined and evidence is being sought for its effects. Figure 1.1 maps out the determinants of production efficiency and shows the process that is being traced in this dissertation; the relationship between the independent variable of the HRM systems in place at the Garment firms and the dependent variables of production efficiency, defect rate, employee turnover, absenteeism and tardiness.

1.7 CHOICE OF VARIABLES

This study seeks to examine the relationship between the human resource management system and five dependent variables as shown in Figure 1.1.

1.7.1 Independent Variable

The independent variable in this study is the HRM system in place at each Garment-manufacturing units. The HRM system is comprised of the policies, practices and philosophies that firms use to extract the optimum performance from their workers. By using the term system, it is implied that there is some sort of internal logic and consistency to the policies and practices chosen by the firm.
The HRM systems consist of four broad areas of HR policy and practice. They are:

- Recruitment
- Training
- Performance Management and
- Communication

Detailed information on these four areas are collected in order to fully describe the different approaches that firms take to manage their workforce. The recruitment policy aspects include measurements on the amount of screening done on new hires, while the training element includes everything from on the job (OTJ) technical training for production workers to management training for supervisors. The performance management variable incorporates details on the use of performance pay and benefits to encourage retention, while communication includes a gauge on the amount of information shared with the workers, workers’ capacity for voice and the general data management abilities of management.

The HRM systems are determined by a number of external fixed effect and factory specific variables. These variables are held constant in the matched pair analysis discussed in Chapters 5. These external and firm specific variables not only contribute to determining the HRM system in place they also impact production efficiency directly and so need to be held constant during an evaluation of the primary relationship in order to test the HRM on performance.
1.7.2 Dependent Variables

The performance of a firm can be measured in many ways. In much of the literature, in examining the performance effects of HRM, the dependent variable is the overall productivity of the firm or the impact on the bottom line. These are valid and commonly used outcome indicators, other than HRM, which influence the overall profitability of the firm. These include the efficacy of the firm’s logistics, input costs, access to finance and external market conditions to name just a few. Many of these and other financial data are simply not publicly available and nowhere they provided by any of the firms in this study. Almost all the firms in the study sample are privately held. This study therefore seeks to examine the relationship between HRM and productivity at an earlier stage in the production process and before these other intervening variables come into play.

There are 5 dependent variables in this study. They are Alteration rate, Production efficiency, Employee turnover, Absenteeism and Tardiness.

The five dependent variables can be analysed separately, but the four dependent variables alteration rate, employee turnover, absenteeism and tardiness, contribute to the production efficiency achieved by a firm. Lower rates in alteration, turnover, absenteeism and tardiness, or else being equal, will raise production efficiency. The five dependent variables were chosen because they represent some of the primary indicators that the Garment firms use to measure their own performance. Before the variables were chosen, extensive consultation was conducted with independent HRM specialists in India, Human Resource personnel at the factories and
Garment industrial engineers whose responsibilities include the monitoring and improvement of performance on the production floor.

1.7.2.1 Impact of production efficiency

There are many different ways to measure efficiencies within a Garment firm; these include throughput time, lead time, cycle time and the ratio of target to actual production for the day which is referred to as production efficiency in this context. The calculation of production efficiency is described in Figure 1.2.

<table>
<thead>
<tr>
<th>1. Setting the target:</th>
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<tr>
<td>56 machines in a line x 480 minutes in a day = 30 SAM for the style</td>
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<tr>
<th>2. Revising the target:</th>
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<tr>
<td>(896/100)*75 = 672 pieces per line per day</td>
</tr>
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<table>
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<th>3. Production efficiency:</th>
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<tbody>
<tr>
<td>Actual production of 450 pieces = 67% production efficiency for line Target</td>
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</tbody>
</table>

| 67% production efficiency for line Target |
| 1) Pick up 2) Position 3) production of 672 pieces |

| Standard Allocated Minutes (SAM) |

Figure 1.2 Calculation of production efficiency

There are 480 minutes in the standard workday (8 hours = 480 minutes). Each style has a standard allocated minute value known as a ‘SAM’ (Standard Allocated Minute value). The SAM is the industrial engineer's calculation of the period of time taken for each operation in the style. In the example mentioned above, the SAM for this style is 30 minutes. This means that there is 30 minutes worth of operations required for this garment to be made. There are 56 machines operations
required for this style (assuming there no doubling up of machines on one operation at certain points in the line), some operations may take more than a minute and others may take less. The 30 minutes does not include the waiting time of pieces between each operations.

The SAM takes into consideration of the difficulty of the seam and the fabric used. Some types of fabric, such as those with more elastic or with a striped or checked pattern on them are harder to work than simpler styles and fabrics. Allowance will be made for this in the target SAM. The SAM includes the time taken for the operator to reach down and pick up the piece and in order to assist with benchmarking in the industry the International Labour Organisation (ILO) has recommended that firms apply the international standard, of Standard Allowed Minutes (SAMs) which are set for most Garment operations. Some firms implement this international standard for production targets through a software program called Global Sewing Data (GSD) that creates a database of targets for each factory by modifying the standard to their factory-specific machinery and styles in production.

The production manager will balance the production lines by placing the more skilled workers on harder tasks or placing two operators doing the same operation side by side on slower or harder tasks. In this way all the workers on the line have the same target number of pieces to produce on a day but each (one is) given (a) task matched to their capabilities so that the speed of pieces down the line ideally remains constant and bottlenecks are avoided. Piles of garments accumulating at one or more points in a line are a sign of a poorly balanced line. As it can be seen from Figure 1.2, production efficiency is based on what is achieved during the standard, legal 8-hour day. There are other production efficiency measures of what is achieved during off-standard time, i.e. during the
whole time that the factory is in operation of that day (includes overtime). The production efficiency being used in this study is the former; what was achieved during the standard 8-hour workday.

1.7.2.2 Alteration rate

There are also many different ways for a firm to measure product quality or defects. These quality measurements can be taken at various stages in the production process. For example, the first quality checks are done for stains and snags on the materials when they arrive the warehouse and then known as the consignment defect rate is performed in the finishing section in the last stages of production. The consignment defect rate is the number of defects found once the garments have already been filtered at least once, then reworked, packed and is ready for shipment. The overall defect rate of work in progress usually incorporates defects due to worker error and fabric defects such as stains or snags which are not the fault of the operator. In this study only defects due to worker error are of interest because they are directly related to the HRM systems through training and retention policies. Therefore one particular defect rate was chosen for this study; the alteration rate. The alteration rate is the DHU (defects per hundred pieces) taken at the end of the line. It is a record of the number of pieces which can be altered or reworked because they were caused by worker error. The alteration might be done on the main assembly line by the operator who made the fault, or it may be done on a dedicated rework assembly line.

1.7.2.3 Employee income

The last three outcome indicators are straightforward monthly performance measures collected by the Human Resource departments of
most firms. Employee turnover is defined in this context as the ratio of employees leaving the firm in any given month against the total number of employees on the payroll of that month. High rates of employee turnover, typically at least 10 percent a month, is one of the main challenges confronting this industry presently as discussed in Chapter 3. As such it is one of the most important outcome indicators for this study.

1.7.2.4 Absenteeism and tardiness

Absenteeism and tardiness were chosen as complimentary additional outcome indicators to employee turnover. In a mass production environment it is important that workers turn up for work on time so that the productions lines can start on time and do not become un-balanced. Low levels of worker absenteeism and tardiness are taken to be indicators of a dedicated and healthy workforce. The assumption here is that if absenteeism and tardiness levels are high workers are either not committed enough or do not have the resources to get to work efficiently or are too unhealthy to do so. These indicators are related to the HRM systems in as much as the provision of free transport (coaches) and payment of incentives and healthcare benefits should influence these behaviours.

1.7.3 Conceptual Model

From the independent variable and dependent variable identified for the study and their relationships as explained in the Figure 1.1 a conceptual model is developed (Figure 1.3). This model will be empirically tested.
Figure 1.3  Conceptual model

1.8  DATA COLLECTION AND ANALYSIS

There is much disagreement over the most effective method of analysis to adopt when looking at the HRM-performance relationship and many authors have raised methodological concerns (Gerhart et al 2000, Huselid & Becker 2000). The issues raised are the merits of using cross section or time series data, comparisons between or within industries, or whether statistical methods are sufficient on their own. As an alternative approach Ichniowski & Shaw (2003) have prescribed their own compelling methodology for this type of study that they refer to as insider econometrics. In order to test the HRM-performance relationship, they suggest visiting a large number of work sites that have production process, conducting field research to understand the process thoroughly;
interviewing a range of people to develop alternative views of the process and the human resource management practices, and finally gathering accurate panel data on production, technology and organisational practices from the broadest possible sample of worksites using this process. The methodology of this dissertation follows the insider econometrics approach; on-site in-depth interviews of multiple respondents provide a rich source of econometric panel data for a controlled sample of work sites. In addition 80 carefully selected firms from this sample are selected for detailed analysis in order to tease out more of the complexities in the relationship between HRM and performance, complementing the quantitative approach.

1.8.1 Quantitative Methodology

Among the methodological criticisms, the literature is a concern that the cross sectional nature of much of the data leads to possibilities of reverse causality; making it possible that high performance leads to the implementation of better HRM practices (Edwards & Wright 2001). To address the issue this study uses a panel data set of monthly observations on the HRM systems and performance of Garment firms. The primary research tool used to gather the panel data for this study is a four part data collection instrument to identify the characteristics of HRM systems, the timeline of their adoption and the diffusion of their practice (see Appendix I for the survey). Data on the timing and scale of production process changes and investments were also collected via the survey. Data on the performance outcomes were collected monthly via email. Altogether a total of eight months were spent in data gathering in the field by the researcher between February 2011 and August 2011. This was followed up by email and telephone contact from August 2011 to December 2011. The survey was conducted in person by the researcher in
English and supplemented with open-ended interviews and tours of the production floor at each firm in order to gauge a better sense of production and HR processes and methods. Each firm was visited at least once and sometimes up to five or six times in total during the field research in India. Factories visits were followed up with phone calls and emails. A pilot survey was conducted in the fall of 2009, revised and the main survey instrument was implemented during April/May 2010 and July/August 2010 visits to Tirupur and Chennai. The four part data collection instrument can be viewed in Appendix I.

The survey was designed to elicit information on all of the variables that determine production efficiency. With regard to the aim of building a rich description of the HRM environment, most variables were collected for the entire firm. But emphasis was placed on collecting data for the core production employees rather than the staff who perform administrative tasks at the firms. The core job was defined as the largest group of non-managerial workers at this location who are directly involved in making the product at the firm. No single answer regarding, for example training, is likely to be applicable to all occupational groups within a firm. The appropriate survey questions sought to disaggregate the responses among managers, supervisors, cutters, operators, packers, checkers and helpers.

Data were also collected via the survey on variables, other than HRM, that impact production efficiency. Benefits deriving from economies of scale, the degree of knowledge transfer from foreign buyers and the sophistication of the equipment also impact the production efficiency of a firm and so data were collected on these and similar variables. In addition to collecting information on all the variables, information was also gathered on the timing and degree of any re-engineering of production and
the frequency of batch setting for new styles because of their impact on production efficiency. One of the methodological concerns in this type of research is the possibility of respondent bias because many studies (Arthur 1994, Huselid 1995, MacDuffie 1995) issue questionnaires to Human Resource managers who may be more likely to report positive associations between Human Resource practices and performance, and may not have the required knowledge to comment on performance across different levels of their organisation (Purcell 1999). Osterman (1994) describes how in his research considerable thought went into the selection of respondents; “Although in many cases a human resources person might be appropriate, automatic selection of people in this position was avoided. Years of open-ended interviews with firms suggested that too often HRM staffs, even at the firm level are not in touch with work organisation”.

For these reasons in this study multi personnel at each firm were interviewed and responded to the survey according to their own particular area of expertise and responsibility. The Production Manager and industrial engineers handled the technical training and measurement issues, the Factory Manager answered questions about the buyers and capital investment while a representative from human resources handled payroll and recruitment issues. The key outcome indicators on monthly performance; production efficiency, alteration rate, turnover, absenteeism and tardiness were submitted over email by the industrial engineering and Human Resource departments of each firm every month but one month is in arrear. Firms submitted as much information as they were able. Some factories are in the early stages of computerization, while others have invested more in technology and were able to give more detailed output, such as a breakdown of the data by line and some also provided individualized outcome data for a random sampling of 10 percent of their
production workers. Once data on the independent and dependent variables have been collected then analysis will be conducted to study the relationship between the different HRM systems and each of the five production efficiency indicators, controlling for the other determinants of production efficiency at the firm. The term HRM system implies that there is some sort of fit required between the HRM policies and practices in place at a firm and its organisational and strategic priorities. As well as the relationship between the independent variable and the main five dependent variables, the interaction effects between elements of the HRM systems will be examined for complementarities and substitutability. In the context of Garment manufacturers in south India for example one would expect a difference of strategy between those firms which recruit predominantly inexperienced workers (fresher) and those that recruit only experienced workers. Such strategic decisions will be examined to see how well they fit with the HRM systems in place. The descriptive statistics from the survey data will provide a background and benchmark, against which the 4 case studies discussed below, can be measured. However these statistics cannot be substitute for a richer more qualitative description of exactly how HRM and work organisation impact the performance at firms.

### 1.8.2 Qualitative Methodology

Much of the literature on the performance effects of HRM calls for more qualitative approaches to be adopted to complement the standard statistical analysis in order to understand some of the more nuanced performance effects and to obtain a better description and understanding of exactly how HRM impacts performance (Becker & Gerhart 1996, Guest 1997, Ichniowski et al 1997). This study will take the hypotheses and findings from the quantitative part of the analysis and use qualitative case studies to test and explore the relationship between the independent and
dependent variables further. In addition to the main survey responses, further standardized but open-ended interviews will be conducted with personnel of internal and external to the firms selected to be case studies. These will include interviews with the owners of each firm and with external sources such as their service providers and buyers. The aim will be to get a better sense of some of the overarching company philosophies of governing practice at the firms and a clear picture of the firms’ performance in terms of the criteria selected by the buyers such as on time delivery, quality and general management aptitudes.

The controlled comparison case study method (Collier & Mahoney 1996, Mahoney 1999) and specifically the method of difference will be used in the qualitative part of this study. This particular case-study method employs comparison and attempts to eliminate rival interpretation by choosing cases that match in important respects (George 1979, Lijphart 1971). Cases are selected and these are as similar as possible except the variable of interest in the context of the HRM systems. The respondents or their matched partners function as their own control, lowering the level of unexplained variance or error. The method of difference offers two additional advantages compared with single case design. The contrast between cases that are similar in several ways creates an interesting puzzle. Variation in the cause and the effect, plus the elimination of some competing interpretations by case selection, supplies more rigorous support for a causal hypothesis than most single case studies, or multiple case studies that have not been selected to control for competing interpretations. This method of difference approach was used in a similar context to this dissertation by Frenkel & Scott (2002) in their matched pairing of two footwear firms in China in order to examine the influence of code compliance and workplace practices on factory performance.
In this study four matched pairs have been selected according to the main variables that account for performance difference; product, location, buyers and HRM.

The matched pairs are:

Two firms making the same product for the same buyer in the same location, but with different HRM systems.

Two firms making the same product for the same buyer with similar HRM systems situated in the same state but in different labour market conditions.

Two production units belong to the same firms, making the same product for the same buyer but one is located in Tirupur and the other in Chennai.

Two production units belong to the same firms, making the same product in the same location, but one is for the domestic market and the other for the export market.

With the first pairing, the aim is to explore the assumption in the literature that location accounts for a large part of performance difference between firms. The second paring of two firms based in Tirupur is the prime case to test the performance difference derived from alternative HRM systems. The third case aims to explore whether there is any different performance outcome between two firms that appear to have similarly advanced HRM systems. Finally, in order to explore the assumption that good practice requires the external influence and pressure of a foreign buyer, two units from the same firm but with different end consumer markets are examined.
Case study methodology allows the researcher to probe the origins of practices and behaviours and to humanize the subjects by providing a narrative and direct quotes from the subjects. However, the richness of this description and the analysis comes at a price: the results are harder to generalize and transfer into other contexts.

1.9 DESCRIPTION OF TERMS

In this study human resources management (HRM) is used as a term that comprises (a) specific human resource practices such as staffing, selection, and performance valuation; (b) formal human resource strategies, which direct and moderately oblige the expansion of specific practices; and (c) predominant human resource attitudes, which stipulate the values that inform an organisation’s policies and practices (Jackson & Schuler 1995). Ideally, these comprise a system that fascinates progresses, inspires, and holds employees who certify the actual operational and existence of the organisation and its associates. There are many different production efficiencies at a firm that contribute in different ways to its overall productivity. The particular production efficiency that is used as the primary performance outcome in this study is the ratio of target to actual production achieved (no. of pieces) during the standard 8 hours work day. This is a commonly used measure of efficiency within the industry that is why it was chosen for this study. In the text the term firm is used to refer the corporate entity: the supplier to the buyer. The firm is also often referred to a vendor, a term commonly used by the buyers in this industry. The term firm is used to refer the multiple manufacturing units that are owned by the firm and make up the firm. Most firms have multiple firms. The terms manufacturer, unit, factory and plant are used interchangeable to refer the firm. Work organisation is a broad concept related to HRM which refers to how work is designed at a firm. In this manufacturing context of
production work, organisation refers to the length of the work day, the male - female ratio, production lay out, job definitions, reporting structures and methods of working such as individual versus team work.

1.10 SCOPE AND LIMITATIONS OF THE STUDY

This study investigates rehearsal and learning in a sample of export garment firms in south India over a two year period. The aim is to generalize the lessons learned from this framework to other topographical situations and industries, where it is apt and possible. Almost all the theory and sign about the connection between HRM and performance is based on study in the United States, Europe and the East Asian countries. Because very little study has been done in the area of HRM and performance in an evolving country context. This study is an effort to signify practice in a diverse part of the world and to hope that the outcomes in India will be more pertinent to the experience of other evolving countries than the research shown in established market economies.

This work has four main contexts. Firstly the cases were certain from a single country and a single business; India and the garment industry. Hence the assumptions reached are mostly related to this country and in this industry. Part of the reason for regulating the study to one location and one business was to control the heterogeneity of production methods in diverse countries and product markets, thereby creating it easier to study the effect of HRM on performance. But this benefit brings with it restrictions in the degree to which the discoveries can be relocated to other frameworks. Secondly firms were designated affording to their share of Indian exports, which means that though they are descriptive of exports they may not be so illustrative of manufacturing for the whole of India where the mainstream of production is directed in the familiar economy in
tiny firms consist of 10 to 100 machines. The third limitation arose during the research progression. The primary aim was to conduct a more inclusive arithmetical analysis on the impact of HRM on performance across the whole sample set of 400 export garment firms. However, this widespread quantifiable analysis was forced by the fact that although all the firms provided data on their HRM systems and manufacture procedures and some performance consequence measures, not enough firms provided enough performance outcome data to allow for proper numerical regression exploration. Therefore this study is more intensive on the four case studies than any arithmetical regression analysis. Fourthly the design of the case studies was set up to assess the exact association between the independent variable of HRM and work organisation and the dependent variable of performance, exemplified in the production competence, alteration, attrition, absenteeism and delay rates. Other implications are also drawn in the conclusion about factors which regulate the HRM schemes in place at firms, such as the local labour market, firm age and organisation sluggishness, but the experiment was not intended to test this specific association and the inferences drawn in this area should be stared as hypothetical.

1.11 CHAPTER SUMMARY

This study seeks to conduct careful theory testing analysis in a new context with a new data set. The performance effects of multiple approaches to HRM are examined in 400 Indian Garment manufacturing firms. Both quantitative and qualitative approaches are combined to take advantage of the different benefits of each methodology to gain greater insight into the hypotheses being tested. The quantitative approach provides a broader overview of general and more representative practice among firms and thus allows more robust testing of correlations between
the variables under examination. The qualitative approach of the case studies provides a more in-depth and nuanced description of practices, policies and philosophies at each firm. It not only provides a lot of detail as to how the practices co-exist with each other and how practice has evolved over time, but also why and in what manner it was implemented, plus the management philosophy behind some of this decision making. This sort of information is not available from the statistics. The focus of this study are the four case studies presented in Chapters 5 and so the text has a more qualitative approach overall although qualitative analysis is interspersed with numerical data from each firm within the case studies to complement the narrative and illustrate arguments. Although focus on the case studies makes the findings of this research less easy to generalize from, because the sample size is so small, the case study approach with its in-depth analysis is perhaps more useful at this point because so little research has been done to test the impact of HRM on performance in a developing country context. This dissertation will expose many new potential areas of research on which quantitative analysis can be done in the future once the data collection methods of firms in this region are more consistent and exhaustive.