Effect of Organizational Strategy on Universalistic or Contingent HR Practices in Indian Manufacturing

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This study seeks to understand the impact that the firm level strategies have on the kind of human resource practices adopted. Several similar studies have been conducted in the Western countries; the paper covers this literature extensively. A set of fifteen HR best practices were studied across various industries such as automobiles, oil & gas, infrastructure, power, chemicals, metals and mining etc in the Indian context. Also, the paper attempts to gauge whether the practices adopted in various organizations are universal to the industry or contingent to their respective corporate strategy – categorized as cost reduction, quality focus and flexible systems.

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Introduction

Several authors have established the link between HR practices and the firm level strategies. There are, however, divided opinions about the adoption of *Universalistic* approach to strategic HR (adoption of HR Best Practices) or *Contingency* approach. According to the contingency approach to strategic human resource management (SHRM), however, the impact of HR practices on firm performance is conditioned by an organization's strategic posture. The purpose of this study is two-fold. It attempts to understand the nature and approach of human resource practices adopted by Indian manufacturing companies. In order to do so, 15 best practices (Pfeffer 1994, Youndt et al. 1996) have been identified and compared across four categories of manufacturing firms in India, namely Automobiles and Auto ancillary, Oil and Gas, Metals, Minerals and Mining, and Miscellaneous (Power, Infrastructure etc.). The second objective of the study is to analyze whether Indian manufacturing firms, like the western ones, adopt HR practices corresponding to their long term corporate strategies.

SHRM & Importance of HR Practices

SHRM is the pattern of planned human resource deployments and activities to enable an organization to achieve its goals (Wright & McMahan 1992). Authors regard SHRM as having both vertical and horizontal dimensions, so that not only are HR practices linked to organizational strategy under SHRM, but the practices themselves should be strategically linked to ensure they are promoting the same goals (Truss & Gratton 1994). Thus, the distinguishing feature is that SHRM adopts a more macro perspective and focuses on HRM at the level of the firm.

It has become a widely held premise that 'people' provide organizations with an important source of sustainable competitive advantage (Prahalad 1983, Pfeffer 1994, Wright, McMahan & McWilliams 1994). Employee knowledge about products, processes, and customers that is embedded in routines and social interaction patterns can create organizational capabilities more difficult to imitate than readily purchased technological capabilities. This line of argument is consistent with the work of Cappelli and Singh (1993), Kogut and Zander (1992) and Pfeffer (1994) asserting that human resources can be a primary source of sustainable competitive advantage for a firm. Therefore, some work has been done on the establishment of the relationship between HR practices, their effectiveness and in turn their impact on the performance of the firm (Katz, Kochan & Gobeille 1983, Katz & Kochan 1998 & Weber 1985, Katz, Kochan & Keefe 1988). Studies show that comprehensive selection and training activities are frequently correlated with both productivity and firm performance (Kleiner et al. 1987). Arthur (1992) found that HR practices focused on enhancing employee commitment (e.g., decentralized decision making, comprehensive training, salaried compensation, employee participation) were related to higher performance. Conversely, he also found that HR practices that focused on control, efficiency, and the reduction of employee skills and discretion were associated with increased turnover and poorer manufacturing performance. "Today's market and competitive pressures require companies to develop and maintain a high level of coherence between their strategy (objectives), action programmes (implementation), practices (instantiation) and performance (realization)" (Laugen et al. 2005)

"Bundle" of HR Practices

The basic principle of the *best practice thinking* is that operations philosophies, concepts and techniques should be driven by competitive benchmarks and business excellence models to improve an organization's competitiveness through the development of people, processes and technology (Voss 1995b). Implicit in the notion of a "bundle" is the idea that practices within it are inter- related and internally consistent, and that "more is better" with respect to the impact on performance, because of the overlapping and mutually reinforcing effect of multiple practices.

Macduffie (1991) has reported that "bundles" of interrelated and internally consistent HR practices, rather than individual practices, are the appropriate unit of analysis for studying the link to performance, because they create the multiple, mutually reinforcing conditions that support employee motivation and skill acquisition. He also concluded that an HR bundle or system must be integrated with complementary bundles of practices from core business functions (and thereby with the firm's overall business strategy) to be effective. Furthermore, a bundle of interrelated, overlapping HR practices provides several ways for workers to acquire skills (for example, off-the-job and on-the-job training, job rotation, problem-solving groups) and multiple incentives to boost motivation (extrinsic rewards such as performance-based pay and intrinsic rewards from participating in decision-making and good job design, for instance).

Laugen et al. (2005) assumed that the best performing companies must be the ones deploying the best practices. In order to find out what are those practices, the highest performing companies in the 2002 International Manufacturing Strategy Survey database were identified, and the role 14 practices play in these companies was investigated. Their findings were that process focus, pull production, equipment productivity and environmental compatibility appears to qualify as best practices. Quality management and ICT may have been best practice previously, but lost that status. E-business, new product development (NPD), supplier strategy and outsourcing are relatively new, cannot yet be qualified as, but may develop into, best practice.

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Macduffie (1991) found that bundles of practices should be measured to capture the "organizational logic" of a production system. Flexible production plants with team-based work systems, "high-commitment" HR practices (such as contingent compensation and extensive training), and low inventory and repair buffers consistently outperformed mass production plants. Innovative HR practices are often studied in a vacuum, with more attention paid to isolating the effect of individual practices than to understanding how different HR practices interact to reinforce one another, or how they are linked to business functions and strategies. For those practices that were measured, Macduffie (1995) clearly distinguished between those that affect the organization of work and the way work tasks are carried out (called Work Systems) and those that reflect firm-level human resource policies affecting employees at all levels (Osterman 1994)

The best practice approach to manufacturing strategy encapsulates the world class manufacturing (WCM) philosophy and benchmarking (Laugen et al. 2005). Hayes and Wheelwright (1984) introduced the term WCM, and described this as a set of practices, including quality management, continuous improvement,

training and investment in technology. The implementation of these "best practices" would lead to superior performance (Flynn et al 1999: 250). Better performing manufacturing managers strongly demonstrate relationship-oriented practices, such as team building and support, participative leadership and delegation, especially when the emphasis on flexibility is high (Kathuria & Partovi 1999)

However, best practices are considered generic, that is, best for all companies, always. "The practices studied are often not accounted for and postulated as, rather than shown to be, best, always and for all" (Laugen et al. 2005). The potential influence of factors like type of industry, company size, processes and products is not considered, nor is the fact that practices, even the best ones, may become obsolete in the course of time (Davies & Kochhar 2002). Hence, it is imperative for companies to keep their firm strategy in mind while designing their HR practices.

Universalism vs. Contingency

Even if innovative HR practices generate skilled and motivated workers, the HR system must be integrated with the firm's production strategy for discretionary effort to be appropriately channeled toward performance improvement. It can be related to literature in organization theory and economics that examines systemic interrelationships among organizational practices, using notions of congruence, "fit," configurations, and complementarities. Firms generally organize human resource practices into systems that are consistent with their culture and business strategy (Osterman 1987). The "fit" hypothesis predicts that either mass or flexible production plants with a good fit between their HR and production strategies will perform well. Bundles of human resource practices are likely to contribute to improved economic performance only when three conditions are met: when employees possess knowledge and skills that managers lack; when employees are motivated to apply this skill and knowledge through discretionary effort; and when the firm's business or production strategy can only be achieved when employees contribute such discretionary effort (Greswell, Childe & Mull 1998).

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The universal, or "best practices," perspective implies a direct relationship between particular approaches to human resources and performance. Under *universalistic* mode of theorizing, there is a set of sixteen management practices such as participation and empowerment, incentive pay, employment security, promotion from within, training and development, job rotation etc. that constitute as best practices (Pfeffer 1995). These best practices can be universally adopted and are strongly linked to the firm's financial performance. There are seven strategic HR practices that are directly linked with financial performance (Delery & Doty 1996). These are internal career opportunities, formal training systems, appraisal

measures, profit sharing, employment security, voice mechanisms and job definition.

Another view is the *contingency perspective* which rests on the premise that the adoption of specific HR practices depend on the firm strategy. It posits that an organization's strategic posture either augments or diminishes the impact of HR practices on performance. The choice of HR practices depends on the firms' strategy of being defenders, analyzers, prospectors or reactors (Miles & Snow 2001). Contingency theorists argue that in order to be effective, an organization's HR policies must be consistent with other aspects of the organization. Authors have attempted to show how a number of HR practices are consistent with different strategic positions and how these practices relate to firm performance (Delery & Doty 1996). A central part of many definitions of HRM is that it involves a systematic attempt to link employment policies with business strategies. As such, distinctions can be made between 'hard', cost minimizing HRM policies (like short term employment contracts) to match price competitive product markets and 'soft', resource maximizing HRM policies (emphasizing staff development) to match quality sensitive product markets. In a study conducted by Youndt et al. (1996), results from a survey of 97 plants primarily support a contingency approach to human resource management (HRM).

Cost Reduction, Quality Focus & Flexible Systems

Historically, under mass production, workers were hired to perform narrowly defined manual tasks requiring little skill, and were viewed as interchangeable parts. Turnover was high, but jobs were set up so any unskilled worker could learn them quickly, minimizing the costs of replacing workers. Absenteeism was high, but buffers of utility workers were established to provide coverage. Motivation was low, but close monitoring by supervisors and efficiency wages ensured adequate work effort. Workers were not expected to think on the job, and were in fact discouraged from doing so. The main concern of mass production managers was to prevent any disruption to the achievement of production quotas, and they developed buffers of various kinds, in part, as a safeguard against labor troubles (MacDuffie 1985).

In contrast, flexible production gives workers a much more central role in the production system. To identify and resolve problems as they appear on the line, workers must have both a conceptual grasp of the production process and the analytical skills to identify the root cause of problems. Developing an integrated conception of the production system requires that workers directly encounter problems, through the decentralization of production responsibilities such as quality inspection, equipment maintenance, job specification, and statistical process control (SPC) from specialized inspectors and engineers to shop- floor teams. Developing the skills for this problem-solving requires a variety of multiskilling practices, including extensive off- and on-the-job training, a few broad job classifications, allowing job rotation within and across teams, and "off-line" group problem-

solving activities (for example, employee involvement groups or quality circles).

The multiple skills and conceptual knowledge developed by the work force under flexible production are of little use unless workers are motivated to contribute mental as well as physical effort. Workers will only contribute their discretionary effort to problem-solving if they believe that their individual interests are aligned with those of the company, and that the company will make a reciprocal investment in their well- being. Thus, flexible production is characterized by such "high commitment" human resource policies as employment security, compensation that is partially contingent on performance, and a reduction of status barriers between managers and workers. The company investment in building worker skills also contributes to this "psychological contract" of reciprocal commitment (Cole 1979, Dore 1992). Overall, the evidence strongly supports the hypothesis that assembly plants using flexible production systems, which bundle human resource practices into a system that is integrated with production/business strategy, outperform plants using more traditional mass production systems in both productivity and quality.

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In general terms, researchers have made a distinction between "low road" strategies that focus on cost reduction and "high road" strategies tending to focus on quality, variety, or service (Osterman 1994: 179). Breaking this distinction down further, researchers have typically focused on three primary manufacturing strategies: cost, quality, and flexibility (Youndt et al. 1996). Each of these strategies, implies something different about the potential role of human resources in improving firm performance. Wright and his colleagues (1995) found that organizations exhibited higher performance when they have practices and competencies consistent with the organizations' current strategies (Table 1).

Methodology & Data Collection

This is a survey based research; the hypotheses have been addressed using questionnaire based survey methodology, which is a relatively inexpensive and effective way of obtaining information on a large number of cases. By careful choice of sampling strategy, the external validity or generalizability of the findings can be enhanced.

The questionnaire development used for the study included both in-depth interviews and a pretest. Interviews were conducted with six manufacturing sector managers from different companies and two academicians. The following issues were of interest during these interviews: (a) Did the operationalization of the research issue make sense to the practitioner? (b) What other items could be used to ensure exhaustion of

Table 1: Human Resource Practices Corresponding to Specific Corporate Strategies*

Strategy	Corresponding Items
COST	A1: CNC and related technology is being implemented in my organiza tion, mainly to eliminate wastage
	A2:Decision making skills amongst employees are NOT NEEDED in my organi zation.
	A3:Performance appraisals in my organization are based on error reduction and process standar dization.
REDUCTION	A4:Regular trainings to enhance technical skills are NOT required in my organization.
	A5:HR department has a purely administrative (and not development oriented)role in my organization.
	A6:The compensation of most of the employees in my firm is based, strictly, on their job description (tasks done in the organization) only.
QUALITY	B1:The main mission of my organization is customer satisfaction.
	B2:The top management at my organization is focused on product reliability rather than waste elimination.
	B3:The competitive advantage of my firm comes from its intellectual capital (hu man resources) rather than its plant, machinery and equipment.
FOCUS**	B4:Regular trainings are arranged to improve problem solving, troubleshooting and analytical skills of the employees.
	B5:Performance appraisal at my organization takes into consideration the continu ous improvement of the employee.
	B6:Employees are encouraged and thus, rewarded for quality related initiatives taken by them.
	B7:Continuous efforts are made by the HR department of my firm to up-skill or multi-skill the employees.
	B8:There is high degree of interdependence in the work of different employees of my firm.
	B9:Group based (Team based) incentives are a common norm in my firm.
	B10:Skill based compensation system is adopted in my firm.
	C1:My organization's work systems are responsive and adaptable to the changing environment.
FLEXIBLE	C2:The work systems can be easily scaled up or down to meet client deliveries.
	C3:My organization can easily change the scope of product offerings (by produc ing smallerlots) as and when required.
	C4:My organization always accommodates the non-standard orders of the clients.
SYSTEMS**	C5:Use of Computer Integrated Manufacturing has increased in my firm over the last few years.
	C6:Most of the employees in my organization are highly skilled to deal with non-routine circum stances.
	C7:Most of the employees of my organization possess high degree of analytical and problem solving skills.
	C8:Performance appraisal in firm is more developmental (and not measurement based) in nature.
	C9:There is high degree of interdependence in the work of different employees of my firm.
	C10:Group based (Team based) incentives are a common norm in my firm.

* Adapted from Youndt et al. (1996)

** Some items have been modified/re-worded after content and face validity with industry executives

all HR practices? (c) Should any items be re-worded to make them suited to the manufacturing professionals' understanding? The resulting questionnaire was then pre-tested with 10 respondents of the industry.

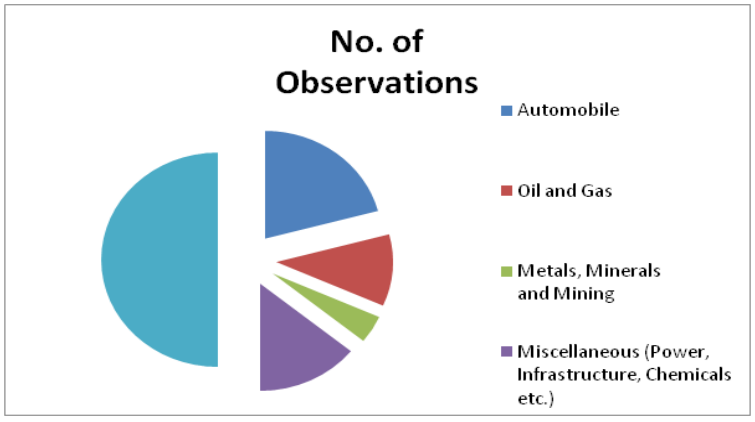
The final questionnaire has three main sections. Section I of the questionnaire is a general Fact Sheet – comprising data of the respondent such as her experience, designation etc. and information regarding the long term strategy of the firm. Section II of the questionnaire has 17 items and is based on Likert Scale with points 1 to 7, where 1 means Low (unless specified otherwise) and 7 means High (unless specified otherwise). Out of these 17 items, 15 are for the HR best practices and the remaining 2 ask the respondents about fixed and variable pay percentages.

Snow and Snell's (1993) work provides empirical support for the general assumption that a tighter fit between human resource competencies and strategy leads to superior performance (Baird & Meshoulam 1988, Miles & Snow 1984, 1994). Several authors have also determined the HR practices that are associated with typical corporate strategies. In Section III, based on these works, key HR practices were identified and then categorized according to the three different corporate strategies (Table 1). After careful examination of literature and expert advice, six, ten and ten HR practices were identified for cost reduction, quality focus and flexible systems strategies respectively. These items were *content and face validated* with the help of industry experts. There were minor changes in the existing scales also based on the inputs of the respondents. The final questionnaire was prepared after the validity through interviews and first round of pretesting.

Based on convenience sampling, employees from various organizations were asked to fill up the questionnaires. The name of the organization was an optional field in the questionnaire such that the remaining responses are not biased. Follow up mails were sent to clarify responses that were unclear or not internally consistent to aid the later interpretation of data analyses.

Data was collected from 60 respondents by means of the questionnaire. These respondents represent automobiles and auto ancillary, oil and gas, metals, min-

Figure 1: Industry-wise Sample Information



erals and mining and few samples from the power, infrastructure, chemicals, solar industries. The distribution across the four categories and the names of some of the companies has been listed in Table 2.

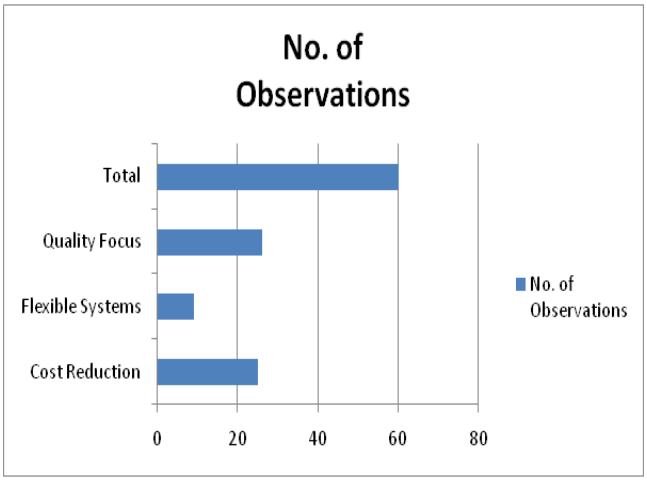
Results

Factor analysis is best suited to identifying the interrelationships among a set of items in a scale, all designed to measure the same construct. It is less appropriate for assessing a "bundle" for a particular strategy which is not a scale but an index (DeVellis 1991) consisting of a set of interrelated variables, each of which represents a different construct. All items were found to be internally consistent and the components were able to explain more than 60% variance in each case.

Table 2: Participating Respondents' Organizations

Industry	No. of Observations	Corresponding firms from which data was collected
Automobiles & Auto Ancillary	25	1. Chrysler India 2. L&T Limited 3. Tata Cummins Ltd. 4. Tata Motors 5. Daimler India 6. Timken India Ltd. 7. Mahindra & Mahindra 8. Ashok Leyland 9. TVS 10. Maruti Suzuki India Ltd. 11. Minda Corporation Ltd. 12. Telcon
Oil & Gas	13	1. Bharat Petroleum Corporation Ltd. 2. ONGC 3. BOC India Ltd.
Metals, Minerals & Mining	5	1. Bharat Aluminium Company Limited 2. Vedanta-Sterlite Industries India Limited 3. Uranium Corporation of India Ltd. 4. Nalco India
Miscellaneous (Power, Infrastructure, Chemicals, EPC, Steel, Watch, Solar etc.)	17	1. Titan Industries Ltd. 2. Jubilant Life Sciences Limited 3. Solar Semiconductor Pvt. Ltd. 4. Reliance Power 5. NTPC Ltd. 6. HCC

Fig. 2: Frequency Distribution of the Corporate Strategy in the Sample



Descriptive Statistics: On an average, respondents have experience of 6.75 years and 3.05 years (Table 3) overall which shows that the respondents for this study are fairly senior execu-

tives, most of them being senior managers in their respective organizations. Also, since they have been in their respective organizations for three years on an average, they understand the long term corporate strategy adopted.

Data Analysis

Contrary to what literature suggests, the salary structure across all the firms is roughly the same. Typically, one would expect to see a greater variable component – incentives and benefits in quality focused organizations and higher fixed salaries in cost reduction type of firms. However, these 60 responses have revealed that in India, there is no difference in the salary structure (Pay breakup) across different industries within the manufacturing sector (Table 4). It has also been seen that all industries have similar compensation practices (Table 5). Thus, we see that the benefits of variable pay and the concept of strategic compensation have not been developed in Indian manufacturing firms. Unlike the western countries, where contingent pay system is seen as a method to boost firm performance, Indian companies are yet to utilize the practice effectively. There is no distinction across various strategies which means that Indian manufacturing sector believes in '*one size fits all'* and follows universal practices rather than the contingency theory.

Table 3: Respondents' Key Demographics

Respondents' Data	Average	Standard Deviation
Number of years of experience	6.75	3.05
Number of years of experience in the current organization	3.82	2.75

Indian manufacturing sector believes in '*one size fits all*' and follows universal practices rather than the contingency theory.

Like Table 4 (which has only compensation details), Table 6 also talks about the various HR best practices and their relationship with the various corporate strategies. Here too we find that all practices are almost identically followed in various industries irrespective of the strat-

Table 4: Salary Pattern vis-à-vis Corporate Strategy – The Contradictory Reality

Compensation Related Data/ Corporate Strategy	Cost Reduction	Quality Focus	Flexible Manufacturing System	Manufacturing Sector
Fixed Salary component as a percentage of total salary	5.67	5.66	5.66	5.63
Incentive pay and Benefits (variable pay) as a percentage of total compensation	3.53	3.55	3.61	3.62

All values are on a scale of 1 to 7 where 1 denotes low and 7 denotes high

Table 5: Salary Pattern Corresponding to the Four Categories of Industries

Compensation Related Data/Corporate Strategy	Automobile & Auto Ancillaries	Oil & Gas	Metal, Minerals & Mining	Miscellaneous (Power, Steel, Infrastructure, Chemicals etc.)	Manufacturing Sector
Fixed Salary component as a percentage of Total Salary	5.64	5.64	5.67	5.63	5.63
Incentive Pay and Benefits (Variable pay) as a percentage of Total Compensation	3.22	3.22	3.57	3.62	3.62

All values are on a scale of 1 to 7 where 1 denotes low and 7 denotes high

egy of the firm. Some minor differences have, however, been found. For instance, there are more training and skill development opportunities provided by the firms that follow flexible manufacturing strategies. This is in accordance with and supported by literature as well. Promotions are usually from within the organization in case of flexible manufacturing systems. These organizations also have a lower need for cross-functional teams.

Table 6: Best practices (Universalistic Approach) Adopted for Different Strategies

HR Best Practice*	Cost Reduction	Quality Focus	Flexible Systems
1. Employment Security	5.81	5.83	5.81
2. Recruitment and selection practices	4.88	4.86	4.88
3. Employee ownership of tasks and work modules	4.86	4.83	4.83
4. Sharing of organization level information with all employees	4.58	4.45	4.54
5. Employee participation in organization level policy related decisions	3.49	3.36	3.47
6. Employee empowerment	4.42	4.40	4.46
7. Frequency of job redesign	3.44	3.45	3.44
8. Opportunities for training and skill development	4.19	4.16	4.22
9. Emphasis on cross training of employees	3.72	3.72	3.75
10. Presence of cross functional teams	4.54	4.52	4.46
11. Symbolic egalitarianism	3.82	3.81	3.81
12. Wage Compression	4.28	4.29	4.31
13. Promotion Systems**	5.12	5.09	5.14
14. Adoption of 360 degree Appraisal Process	3.68	3.59	3.59
15. Feedback Mechanism	3.61	3.50	3.59

*On a scale of 1 to 7 where 1 denotes low and 7 denotes high

**On a scale of 1 to 7 where 1 denotes External Labor Market and 7 denoted Internal Labor Markets

Universally accepted best practices in the manufacturing sector were also studied across various industrial categories (as described in Table 2). Some interesting results have been obtained here. Oil and gas industry has been consistently ranked low on almost all the best practices (values have been highlighted in Table 7). Out of the 15 HR best practices, oil and gas industry has secured least ratings in 12 practices. The only policies where the oil and gas industry has fared well are employment security, recruitment & selection practices and wage compression. The complete results are shown in Table 7.

Oil and gas industry has been consistently ranked low on almost all the best practices.

In terms of the HR practices adopted by the various firms according to their corporate strategies, there were 6 practices identified for Cost Reduction, 10 for

Table 7: Best Practices (Universalistic Approach) Adopted across Different Industries

HR Best Practice*	Manufacturing Sector In India	Automobile and Auto Ancillary Industry	Oil and Gas Industry	Metal, Minerals and Mining Industry,	Miscellaneous (Power, Steel, Infrastructure Chemicals etc.)
1. Employment security	5.83	5.78	6.03	5.83	5.83
2. Recruitment and selection practices	4.88	4.82	4.86	4.88	4.88
3. Employee ownership of tasks and work modules	4.87	4.80	4.58	4.83	4.87
4. Sharing of organization level information with all employees	4.50	4.49	4.33	4.53	4.50
5. Employee participation in organization level policy related decisions	3.43	3.42	3.28	3.45	3.43
6. Employee empowerment	4.47	4.33	4.14	4.43	4.47
7. Frequency of job redesign	3.47	3.35	3.14	3.47	3.47
8. Opportunities for training and skill development	4.23	4.13	3.89	4.17	4.23
9. Emphasis on cross training of employees	3.78	3.60	3.22	3.74	3.78
10.Presence of cross functional teams	4.50	4.47	4.31	4.50	4.50
11.Symbolic egalitarianism	3.87	3.75	3.50	3.79	3.87
12.Wage compression	4.35	4.25	4.42	4.29	4.35
13.Promotion systems**	5.12	5.07	5.22	5.12	5.12
14.doption of 360 degree appraisal process	3.58	3.60	3.33	3.64	3.58
15.Feedback mechanism	3.58	3.49	3.39	3.57	3.58

*On a scale of 1 to 7 where 1 denotes low and 7 denotes high

**On a scale of 1 to 7 where 1 denotes External Labor Market and 7 denoted Internal Labor Markets

Quality Focus and another 10 for Flexible Systems (Table 1). We expected to get higher values for the first six questionnaire items (Section B) only for Cost Reduction. Similarly, higher values (relatively) were expected for the next 10 items only in the organizations that follow a Quality Focus. However, the results were not distinctly in such terms. In most cases, the results show that comparable values have been marked by the respondents of all the three categories. For instance, in organizations that have a long term strategy of Cost Reduction, performance appraisals are based on error reduction and process standardization. The results from these 60 respondents indicate that irrespective of the company strategy, the stated policy is true for all. Similarly, literature suggests that Quality Focus firms believe that their competitive advantage comes from their intellectual capital rather than their plant and machinery. The results, however, indicated exactly the opposite (values being 4.5 for Cost Reduction, 4.3 for Quality Focus and 6.13 for Flexible Systems). On an average, Cost Reduction firms can scale up (or down) their work systems more than Flexible Systems which again goes against the basic concepts. Use of CIM is more in Quality Focus firms than in Flexible Systems. Thus, we see that most of the results do not support the existing literature.

Irrespective of the company strategy, the stated policy is true for all.

However, there were some items which fully supported the initial expectations regarding the HR practices being in line with the corporate strategy of organizations. The elimination of waste is the main purpose of CNC and related technology in Cost Reduction companies and the results support this. Also, results clearly stated that regular trainings for technical enhancement of skills amongst employees are not provided in Cost Reduction type companies. Customer satisfaction as the organization's mission was rated the highest for Quality Focus firms. Employees are rewarded for quality related initiatives in Flexible Systems and Quality Focus firms. In Quality Focus firms, continuous efforts are made to up-skill or multi-skill employees. Only flexible manufacturing systems are able to accommodate the non-standard orders of the clients. Quality Focus firms compensate their employees based on their skills rather than their job description.

Conclusion

Based on the results presented here, it can be concluded that by and large**,** Indian manufacturing companies are still not mature in their human resource practices. They are still practicing the mantra of 'one size fits all', which is inappropriate given the current competitive pressures. In order to enhance performance, firms should look at HR and other administrative practices that correspond to the corporate strategy of the firm. It is essential for firms to realize and quantify the impact that effective human resource practices can have on their operational and financial performance. Hence, utilization and appropriation of the true potential of their human resources, is a must for every organization.

Indian manufacturing companies are still not mature in their human resource practices.

The limitations of this study constrain the interpretation of the findings and point to several issues for future research. First, this study only examined cross-sectional differences among manufacturing firms. Gaining a clearer understanding of the relationships between HR systems and strategy will require longitudinal analysis. Secondly, the study does not include the performance of these companies and strictly goes by the literature on the topic available. Therefore, testing the performance of the companies in addition to their HR practice-corporate strategy link can be an extension of this study.

References

Arthur, J. B. (1992), "The Link between Business Strategy and Industrial Relations Systems in American Steel Minimills", *Industrial and Labor Relations Review,* 45: 488-506.

Cappelli, P. & Singh, H. (1992), "Integrating Strategic Human Resources and Strategic management", in D. Lewin, O. S. Mitchell & P D. Sherer (Eds.), Research Frontiers in Industrial Relations and Human Resources: 165-192. Madison, WI: Industrial Relations Research Association.

Davies, A.J. & Kochhar, A.K. (2002), "Manufacturing Best Practice and Performance Studies: a Critique", *International Journal of Operations & Production Management*, 22(3):289-305.

Delery, J.E. & Doty, D.H. (1996), "Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictions", *Academy of Management Journal,* 39(4): 802-35.

Flynn, B.B., Schroeder, R.G. & Flynn, E.J. (1999), "World Class Manufacturing: an Investigation of Hayes and Wheelwright's Foundation", *Journal of Operations Management*, 17: 249-69.

Greswell, T., Childe, S. & Mull, R. (1998), "Three Manufacturing Strategy Archetypes – a Framework for the Aerospace Industry", in Bititci, U. & Carrie, A. (Eds), Strategic Management of the Manufacturing Value Chain, Kluwer Academic Publishers, Dordrecht: 53-61.

Hayes, R.H. & Wheelwright, S.C. (1984), Restoring Our Competitive Edge: Competing through Manufacturing, John Wiley, New York, NY.

Kathuria, R. & Partovi, F.Y. (1999), "Workforce Management Practices for Manufacturing Flexibility", *Journal of Operations Management*, 18: 21-39.

Katz, Harry, Thomas A. Kochan, & Kenneth Gobeille (1983), "Industrial Relations Performance, Economic Performance, & QWL Programs: An Interplant Analysis." *Industrial and Labor Relations Review*, 37, (1) (October): 3-17.

Katz, Harry, Thomas A. Kochan &Jeffrey Keefe. (1988), "Industrial Relations and Productivity in the U.S. Automobile Industry", *Brookings Papers on Economic Activity*, 3: 685-715.

Katz, Harry, Thomas A. Kochan & Mark Weber (1985), "Assessing the Effects of Industrial Relations and Quality of Working Life on Organizational Performance", *Academy of Management Journal,* 28 (3) (September): 509-27.

Kleiner, M. M., Block, R. N., Roomkin, M. & Salsburg, S. W. (1987), Human Resources and the Performance of the Firm. Madison, WI: University of Wisconsin.

Kogut, Bruce & Udo Zander (1992), "Knowledge of the Firm, Combinative Capabili-

ties, and the Repli- cation of Technology", *Organization Science,* 3 (3) (August): 383-97.

Laugen, B., Acur, N., Boer, H., Frick, J. (2005), "Best Manufacturing Practices: What do the Best-performing Companies Do?" *International Journal of Operations & Production Management*, 25 (2):131 – 50

MacDuffie, John Paul (1991), "Beyond Mass Production: Flexible Production Systems and Manufacturing Performance in the World Auto Industry" Diss., Sloan School of Management, M.I.T.

MacDuffie, J. P. (1995), "Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry", *Industrial and Labor Relations Review,* 48: 197-221.

Miles, R., & Snow, C. C. (1984), "Designing Strategic Human Resource Systems", *Organizational Dynamics,* 13(1): 36-52.

Osterman, P. (1994), "How Common Is Workplace Transformation and Who Adopts It?" *Industrial and Labor Relations Review,* 47: 173-88.

Osterman, Paul. (1987), "Choices among Alternative Internal Labor Market Systems" *Industrial Relations,* 27 (1) (February): 46-67.

Ouchi, W. G. (1977), "The Relationship between Organizational Structure and Organizational Control", *Administrative Science Quarterly,* 22: 95-113

Pfeffer, J. (1994), Competitive Advantage through People. Boston: Harvard Business School Press.

Prahalad, C. K. (1983), "Developing Strategic Capability: An Agenda for Top Management", *Human Resource Management,* 22: 237-54.

Snell, S. A. (1992), "Control Theory in Strategic Human Resource Management: The Mediating Effect of Administrative Information", *Academy of Management Journal,* 35: 292-327.

Snell, S. A. & Dean, J. W., Jr. (1992), "Integrated Manufacturing and Human Resource Management: A Human Capital Perspective", *Academy of Management Journal,* 35: 467-504.

Snell, S. A., & Dean, J. W. Jr. (1994), "Strategic Compensation for Integrated Manufacturing: The Moderating Effects of Job and Organizational Inertia", *Academy of Management Journal,* 37: 1109-40.

Snell, S. A. & Youndt, M. (1995), "Human Resource Management and Firm Performance: Testing a Contingency Model of Executive Controls", *Journal of Management,* 21: 711-37.

Truss, C. & Gratton, L. (1994), "Strategic Human Resource Management: a Conceptual Approach", *The International Journal of Human Resource Management*, 5(3), September

Voss, C.A. (1995a), "Alternative Paradigms for Manufacturing Strategy", *International Journal of Operations & Production Management,* 15 (4): 5-16.

Voss, C.A. (1995b), Manufacturing Strategy: Process and Content, Chapman & Hall, London.

Wright, P. M. & McMahan, G. C. (1992), "Theoretical Perspectives for Strategic Human Resource Management", *Journal of Management,* 18: 295-320.

Wright, P. M., McMahan, G. C. & McWilliams, A. (1994), "Human Resources and Sustained Competitive Advantage: A Resource-based Perspective", *International Journal of Human Resources Management,* 5: 301-26.

Youndt, Snell, Dean& Lepak Ouchi, W. G. (1978), "The Transmission of Control through Organizational Hierarchy", *Administrative Science Quarterly,* 21: 173-92.