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Productivity

Focus : Human Resource Management

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1. An abstract of the paper not exceeding 100 words.

2. A declaration that the paper is original and has not been submitted elsewhere for publication.

3. A note about the author(s) not exceeding 50 words.

Productivity

Contents

A Conceptual Model of Human Resource Management in Public Service for Excellence and Productivity

Prabhat Kumar

Talent is like a plant. Its full growth requires nourishment, protection, and proper environment. In the absence of this, it is bound to perish. In the current national scenario of rapid economic growth, it is of utmost importance to identify talented people and to encourage them to the extent possible. These people form a nucleus around which further growth in terms of productivity will take place. There is no shortage of talented people. However, nourishment, protection, and environment are grossly in short supply to stimulate healthy growth. Proper environment for growth of excellence requires efficient as well as unbiased excellence. This identification procedure is briefly reviewed and its weaknesses are identified in this paper. A transparent and automatic performance-based evaluation procedure is then formulated to eliminate as many weaknesses of the existing scheme as possible to suitably reward the deserving employees. Adoption of proposed procedure may promote excellence and enhance productivity.

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A company institution organization may consist of a large number of employees with various qualities and characteristics. Each person is hired to handle certain responsibilities and discharge certain duties. This results in some measurable output, which is beneficial to the employer. This may lead in loss reduction, increased earnings, or enhancement in prestige on international/ national platform. The employer gives salary to each employee in return for his/her services. The amount of salary should obviously in some way be related to the output produced by the employee. This is a normal employer–employee relationship. In public service, government is the employer, which has no visible existence. So it has to operate through administrators such as Directors and Executive Officers. These individuals are human beings and are entitled to common weaknesses such as ego, personality cult, inferiority or superiority complex, favoritism, nepotism, bias, and attraction for opposite sex. These often upset the mentioned normal employer–employee relationship. Such happenings are particularly relevant in public services.

Several employees may dreceive the same salary with identical responsibilities and duties. One of these employees may be extra bright and talented or he/she may decide to work extra hard with utmost dedication and single-minded devotion to produce outstanding output, which may be many times more useful to the employer than the salary paid to the employee for his services. This kind of outstanding output amounts to excellence and extra productivity because in normal course, it would have required deployment of more resources.

This paper is devoted to find ways to encourage excellence, particularly in public sector where several non-technical factors often dominate. In particular, an existing excellence identification procedure is critically examined and its weaknesses are identified. It is found that such cumbersome procedures are counter productive as there is plenty of scope for maneuvering. These unnecessarily consume time, manpower, and money without always producing the desirable end result. Improvements to excellence identification procedures are suggested as well as illustrated. The proposed alternate procedures are suggested as well as illustrated. The proposed alternate procedure is simple, transparent, and automatic, and is primarily based on performance.

AN IDEAL SCENARIO

Complex employer–employee relations govern excellence and productivity in any organization. The ideal characteristics of players in this complex game are as follows. Although these may not be found all in one place and that too in the right proportion, it is desirable to know these. Figure 1 shows how system factors support efforts of an employee.
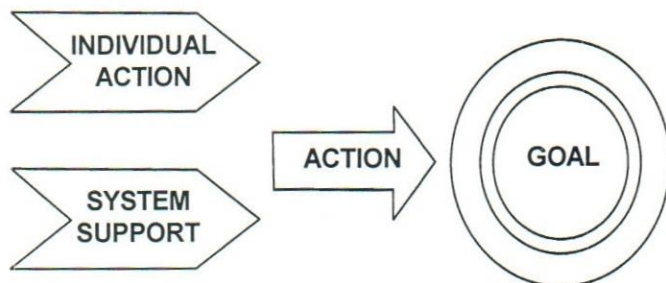
Fig. 1: Effect of System Support on Productivity

Core Values for an Ideal Employer

All of us do not have equal talent, but all of us should have an equal opportunity to develop our talents. (John F. Kennedy)

- Work culture and environment
- Target, vision, and focus
- Infrastructural support
- Resource mobilization
- Guidance and motivation
- Healthy competition
- Peace of mind

- Understandings, encouragement and appreciation
- Reward for hard work

Core Values for an Ideal Employee

Those, who want to succeed. Will find a way: those who don't will find an excuse. (Leo Anguila)

- Level of expertise
- Focus, intensity, and organization of effort
- Self confidence and faith in god
- Desire to excel or strong will to succeed
- Determination and dedication
- Hope and optimism without over confidence
- Courage to face failures
- Perseverance and patience
- Self-less service without ego
- Nature and family background

GROUND REALITIES

The management of a company/institution/organization should define what constitutes excellence and executive officers must always motivate employees towards excellence and productivity. In reality, neither the system is ideal nor are the employees. A senior employee may feel threatened on account of excellence of a junior employee. He may use his seniority to subdue or exploit or crucify the junior. The head of a company/institute/organization must prevent it and protect junior employees against any immoral and unprofessional act. But it rarely happens.

In India, particularly in public service, many actions should be taken. In reality these either do not happen or remain only on paper on account of bureaucracy, ego clash, personality clash, or whatever. Identification, motivation, encouragement, and protection of excellence are some such activities, which are not always recognized on account of human weaknesses. Desperation derives several talented people to go abroad to reap full benefit of their talent and they succeed there. Recent events at All India Institute of Medical Sciences, Delhi illustrate how system factors can corrupt entire research environment and adversely affect the moral or researchers (*The Times of India,*
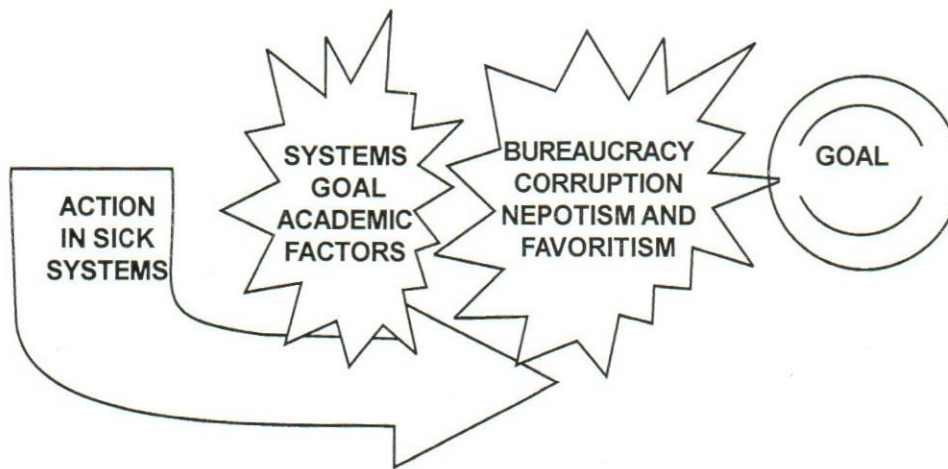
Fig. 2: Effect of Negative System Factors on Productivity

2007a, 2007b. Figure 2 shows influence of negative system factors in discouraging excellence and damaging productivity.

REWARD FOR EXCELLENCE

The excellence must be unquestionably rewarded to encourage the talented employee and to motivate several others to enhance productivity. Such an encouragement usually comes in the form of advance increments in salary or promotion to the next higher rank or both.

Perspective of Employer on Reward

A suitable reward to an employee for excellence is the best way to thank him/her for the extra effort. Besides, it recognizes that the extra hard work with dedication and devotion has been useful. It makes the employer realize that the employee is ready to shoulder bigger responsibilities so he/she may be considered for promotion to the next higher rank. The situation may, however, be different in private and public services. An excellent performance may speak much louder in private service than in public service.

Perspective of Employee on Reward

An employee derives satisfaction and encouragement from the reward for excellence. It acts as a tonic for the employee to work with renewed vigor and commitment. With more money, he/she may afford a higher standard of living for his family. With a promotion to the next higher rank, he/she may command more respect in office and at home. But enhanced responsibilities associated with higher rank somewhat offsets the enjoyment. To ensure that upward

movement through the hierarchy does not draw enemies, the employee must accept the award with grace and humility. Public service suffers from the weakness that it allows an employee to become passive and remain content with the present salary or he/she may use means other than excellence to obtain promotion to next higher rank. Incidents from Indian Army can be cited here in which reported encountered were found to be fake. Such unusual things do happen in reality.

Damaging Factors

A total insulation from the system is not possible for human beings. Those ambitious employees, who are unable to move up in the hierarchy within a suitable time period, may suffer from frustration and stagnation. An opposite side of this is desperation, which may come when excellent performance of an employee fails to receive its due credit, or it is unduly delayed. It sends wrong signals to other younger employees and thus, it is counter productive. These negative factors must be avoided at all cost. While desperation can be eliminated through better administration, frustration and stagnation can be controlled by using modern techniques of management (CSIR, 1997) and spiritual guidance (SPARC, 2007).

UNPROFESSIONAL PRACTICES

The definition of excellence involves several loosely defined and qualitative terms like outstanding, measurable, and useful output. Such terms allow maneuvering and are likely to be misinterpreted in public service. It is not unusual to find undeserving employees to receive reward for excellence worth the name. In addition, nobody can challenge the

award because it usually has backing of a committee recommendation. Complete elimination of such corrupt practices in public service cannot be guaranteed. However, excellence can be identified through an air-tight procedure. It shall minimize influence of corrupt practices to a certain extent. An existing excellence identification procedure is critically examined subsequently to see how it destroys excellence.

EXISTING EXCELLENCE IDENTIFICATION PROCEDURE

There is nothing more frightful than ignorance in action. (Goethe)

The existing scheme to be discussed subsequently (CSIR, 2001) is based strictly on seniority and confidential report (CR).

Performance Evaluation

The existing excellence identification scheme operates through the following steps:

1. The work done by a government servant during 12-month period (April 1 to March 31) is entered into Annual Performance Appraisal Report (APAR). This report is submitted to a Reporting Officer.

2. The Reporting Officer holds a senior rank than the employee, whose performance is under assessment. The Reporting Officer grades the performance of the employee as (a) Outstanding; (b) Excellent; (c) Very Good; (d) Good; (e) Satisfactory; (f) Fair; and (g) Poor.

3. Reporting Officer also provides critical appraisal of the performance of the employee:

    ● Highlights of significant achievements
    ● Short falls relevant to the assigned task

4   The Reporting Officer also sketches employee profile as:

    ● Intelligence
    ● Creativity and motivation
    ● Ability to work in a team
    ● Sense of responsibility/discipline
    ● Leadership quality

These attributes are to be classified under: (a) Outstanding; (b) Very good; (c) Good; and (d) Satisfactory.

5   The APAR report with this evaluation goes to a Reviewing Officer, who is supposed to be even senior in rank to the Reporting Officer. The Reviewing Officer may exercise the following options:

    ● Accept the evaluation of Reporting Officer
    ● Make changes (the grading can be raised or lowered by at most one step)

6. The final grading and critical appraisal are not communicated to the employee.

Assessment and Promotion Procedure

7. This is a time-bound promotion scheme in which APAR reports of an employee are opened after a fixed period. A Screening Committee evaluates performance contained in the APAR reports and various grading. If the cumulative performance of the employee during this period is above the threshold value, he becomes eligible for consideration of promotion to the next higher rank.

8. The successful employees are asked to prepare a work report according to prescribed format, which essentially is a statement of the work, which the employee has done during assessment period. At least 12 copies of this document are submitted.

9. The employee presents his performance before an Assessment Committee. The findings of Assessment Committee determine the promotion or rejection of the employee. There is no place for an appeal against the findings of the Assessment Committee. The Right-to-Information (RTI) act is a recent phenomenon, which has not been fully effective as yet but can be used (*The Times of India*, 2007c).

10. The assessment period of unsuccessful candidates is augmented by another year and above cycle of Steps 7 to 9 is repeated. However, there should value progressively diluted in successive cycles of assessment (CSIR, 2001).

Weaknesses

It is better to deserve without receiving than receive without deserving. (R.G. Ingersoll)

- It is obvious that the present excellence identification scheme is complex and puts heavy demand on time, money, paperwork, and manpower. Senior officers may not have that much spare time so as to go through each APAR individually for its satisfactory evaluation.

- There is no transparency in the entire procedure.

- After an employee has submitted APAR report, the control of employee over his/her work performance becomes nil. Grading of performance is strictly at the mercy of other people, whose only virtue is their seniority.

- R&D is a heavily compartmentalized and specialized business. It is difficult to imagine that a single senior person can satisfactorily evaluate performance of all his subordinates with respect to a common datum.

- The performance identification goes through three hurdles in initial stage, Reporting Officer, Reviewing Officer, and Screening Committee, and another one at the final stage, namely, the Assessment Committee. Each of these hurdles is like a black box. Each unsuccessful candidate ends up with a sense of dissatisfaction and bitterness.

- Since CRs are not disclosed to the employee, he is effectively prevented from making suitable amendment to any shortfall in one assessment year during the following assessment years.

- The existing evaluation fails to distinguish between an outstanding and a normal employee because several of them may be promoted together.

- The dilution of threshold value for successive evaluations amounts to lowering of standard and contradicts the definition of excellence.

- The effort of employee is duplicated in preparation of work report and presentations. It is also difficult for any employee to remember all his work after a gap of nearly five years or more.

- Several good workers are poor at presentation for lack of speaking power. This excellence identification procedure depends upon salesmanship.

- It is necessary for an employee to maintain good public relation to obtain good CR, which is difficult to ensure all the time. The evaluation scheme must be independent of personal factors as far as possible.

IMPROVED EXCELLENCE IDENTIFICATION PROCEDURE

Responsibility gravitates to the person, who can shoulder it. (Elbert Hubbard)

Desirable Features

The description and analysis of the existing excellence identification scheme suggests that it should have the following features:

- The procedure must be based on performance alone and should encourage excellence.

- The procedure must be simple and automatic as far as possible.

- The employee must be able to participate in the evaluation procedure.

- Involvement of outsiders must be reduced to minimum.

- The paperwork and duplication of effort must be avoided.

- The employee must get his deserving promotion without undue delay.

- It should be able to promote healthy competition among employees.

- It should never look like a charity at the mercy of seniors.

Essential Requirements of Proposed Procedure

The employer must prepare the following documents:

1. There must be a list of productive activities and their numerical equivalent depending upon the degree of difficulty and utility of the activity to the employer in international and national context.

2. There must be an accumulated threshold score which an employee must secure in order to become eligible for consideration for promotion to the next higher rank.

Identification Procedure

The proposed procedure is described through following steps:

1. For each trade of the company/institution/ organization, the employer gives to employees engaged in a particular trade a list of productive activities and their numerical equivalent. This shall depend upon the degree of difficulty and utility of the activity to the employer.

2. The account of each employee is set at zero at the beginning of assessment period or at the time of joining duties.

3. As soon as an employee completes a productive activity, the corresponding score is deposited in his/her account.

4. When total accumulated score of an employee reaches the prescribed threshold value, the employee submits his/her claim for consideration for promotion to next higher rank.

5. The head of the institution examines the claim or he/she may appoint a committee to do so. If the claim is authentic, the employee is promoted to the next higher rank.

6. The account of the promoted employee is reset at zero and go to Step 2.

ILLUSTRATIVE EXAMPLE

Pleasure in job puts perfection in the work. (Charles Reade)

Consider that there is a National Research Institution. Various trades such as finance, administration, documentation, documentation, workshop, and R&D are involved in its functioning. Table 1 gives its Quality Policy, which is essentially a statement of range of activities with decreasing complexity. It takes into account facts such as (a) basic aim for the institute and its vision, and (b) frontier areas of activities in which employees are encouraged to engage. The last three activities may not involve R&D but are essential.

Table 2 gives a list of suggested productive activities for R&D workers. It must be noticed that there is a close relationship between statement of quality policy and numerical score of productive activities. For the purpose of illustration a list of productive activities for R&D is proposed. A similar list of productive activities for other trades of the organization such as finance and administration may be prepared. The score in the last column is suggestive with emphasis on high quality research leading to publications or patent. It may be redesigned to emphasize a particular thrust area of work and with equal ease to discourage some other activity of relatively smaller importance.

Notes

The credit may be claimed after the completion of activity. In the case of team effort, such as publication of a multi-authored paper, the score shall be equally divided between several members. A letter of acceptance from publisher, sponsoring agency, or supervisory body is enough to mark the completion of productive activity.

Threshold Score

This may be fixed at 500 points. This means that as soon as an employee of the National Research Institute accumulates 500 points in his account, he/she may submit his/her claim for consideration for promotion to the next higher rank. It must be noted that there is no lower limit on the number of years in which 500 points may be accumulated. A hard working employee may earn promotion much sooner than an easy going employee.

Penalty Clause

1. In case of a false claim, a penalty of 50 points shall be imposed. This is more of a deterrent than punishment.

2. If an employee is unable to accumulate 500 points after say 20 years of service, the terms and conditions of his employment must be re-evaluated .

Weaknesses

The proposed scheme assumes that all the employees shall continue to remain active throughout the employment period and be willing to give something to the government/ employer in return for the salary. Also, success of proposed scheme requires definition of journals of high standard.

Discussion

The proposed identification scheme is designed to promote dedication, devotion, and hard work in public service. The threshold value of 500 ensures that the chance of promotion will come in about five years. For example, as per the working condition in India it may take about one year to do enough work for making a good publication of international standard or a national level patent. It brings a score of 100 points for single authored paper or patent. It should take about five years to reach the threshold value if work continues at same pace. In the existing identification scheme also (CSIR, 2001) the assessment is conducted

Table 1: Quality Policy of a National Research Institute

No.	Policy	Description
1	Basic and applied research	This involves independent in-house or sponsored research which can be published in refereed journals of high reputation.
2	Collaborative research	This involves joint research with universities and other institutions of excellence.
3	Research for infrastructure development	The aim of this research is to assist the government through rain harvesting, rural roads, sanitation, drinking water, waste management, bio-gas generation, etc.
4	Research for poverty alleviation	This involves development of building materials, recycling of waste, low cost housing and temporary shelters for disaster mitigation, etc.
5	Dissemination and training	The major objective here is to take research from laboratory to field.
6	Documentation and publicity	This requires preparation of monographs, training material, pamphlet, and other publicity material.
7	Resource generation	This involves design checking construction supervision for external agencies, and miscellaneous field work.

Table 2: List of Productive Activities with Numerical Equivalent for R&D

No.	Statement of Productive Activity	Score
1	Publication of papers in refereed journals of high standard	100
2	Development of process with patent	100
3	Compilation of book	60
4	Development of equipment or process for import substitution	50
5	Organization of a national level conference	50
6	Completion of a sponsored R&D project	2 per lakh
7	Compilation of a monograph	30
8	Paper published in a national level conference	05
9	Organization of training course, summer school or winter school	10
10	Training program in field for 100 trainees	25
11	Collaboration with international agencies	25
12	Each commercial exploitation of patented process	20
13	Laboratory testing for external agencies	5 per lakh
14	Invited paper or lecture	20
15	Invitation for chairing a session in a national level conference	20
16	Conference duties other than chairing a session	05
17	Each citation of published research	05
18	Each best paper award	10
19	Completion of M Tech thesis joint supervision	05
20	Completion of PhD thesis joint supervision	15
21	Learning a new trade through training	10
22	Design consultancy	5 per lakh
23	Construction supervision	10 per project
24	Technical paper review for reputed journal	05
25	Noteworthy achievement in an extra curricular activity	05

after a gap of about five years. So the two schemes are almost compatible in this regard. The difference comes from the fact that in the proposed scheme, there is no lower limit on the number of years to earn 500 points and to become eligible for promotion and that the employee controls his promotion options. The harder a person works, the sooner he gets the reward. These aspects are not available in the existing procedure (CSIR, 2001). A study of the two rewarding procedures explains: (a) Why excellence in public service has become a rare phenomenon, (b) What must be done to rectify the situation.

CONCLUDING REMARKS

It is not unusual to find in public service that, while rewards are being distributed, the most deserving person is either left out or the reward is much too small and it may come too late. This is not a desirable situation and must be avoided as far as possible. It is necessary to ensure that only the productive employees are rewarded.

This paper shows that the existing excellence identification scheme besides being complicated has numerous weaknesses. It is necessary to thoroughly revise it, or even better, abandon it. A new transparent, automatic, and performance-based scheme is proposed in this paper, which may be evaluated for adoption, with or without refinements. In the proposed scheme, the employee himself plays the role of reporting and reviewing officers, so it is like self-empowerment. The role of screening and assessment committees are combined. Unless hard work is protected and rewarded, it is likely that, in the absence of healthy competition, dedication and devotion vanish in due course of time. This shall kill the productivity as well.

The most important feature of the proposed procedure is that it replaces tension and mental worry with confidence so that an employee can continue his relentless march in pursuit of excellence and keep focused on productivity. It may reverse brain-drain. The proposed procedure highlights weaknesses of the existing excellence identification procedure and provides direction for a fresh thinking.

ACKNOWLEDGEMENT/DISCLAIMER

References

Central Building Research Institute (CSIR) (1997), Lecture Notes on Transformational Leadership Workshop, CSIR, Roorkee, India December 22–24.

Central Building Research Institute (CSIR) (2001), *CSIR Scientists Recruitment and Assessment Promotion Rules*, New Delhi, India.

Spiritual Applications Research Centre (SpARC) (2001) "Academy for a Better World," Conference on Spirituality in Research, Mount Abu, September 7–10.

The Times of India (2007a), "AIMS Docs Go on Strike," The Times of India, August 29, p.1.

The Times of India (2007b), "GBM to Decide Future Course," The Times of India, August 29, p. 9.

The Times of India (2007c), "NRI Groups Fund RTI Projects to Weed out Corruption," *The Times of India*, December 9, p. 3.

Action is the foundational key to all success.

— **Pablo Picasso**

Corporate Reputation Management: The Study So Far

Madhuchhanda Mohanty and Bibhuti Bhusana Pradhan

Corporate reputation has attracted interest from a wide range of academic disciplines. It is also a growing focus for business and media attention. Corporate reputation is still relatively new as an academic subject. It is becoming a paradigm in its own right, a coherent way of looking at organizations and business performance, but it is still dogged by its origins in a number of separate disciplines. This paper examines the construct, the key elements, strategic aspect, measurement, and importance of corporate reputation in creating value for organizations.

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Companies with good reputation attract good employees, who produce new and innovative products and serve customers well. Earnings grow, employees and customers remain happy, and the strong reputation continues. On the other hand, companies at the bottom of the reputation list, with low reputation ratings, have their own reasoning. Bad performance causes financial problems. Both the company and its employees and its customers lose, which makes the bad performance even worse (Vergin, 2003). Corporate reputation affects the way in which various stakeholders behave towards an organization. Not surprisingly, CEOs see corporate reputation as a valuable intangible asset (Institute of Directors, 1999). A favorable reputation encourages shareholders to invest in a company; it attracts good staff, retains customers (Makham, 1972) and correlates with superior overall returns (Roberts and Dowling, 1997). However, many of these claims have been challenged as being anecdotal or based on measures of reputation that are flawed or conceptualizations of reputation that are unclear. There are a number of issues here relevant to academicians working in the emerging area of reputation studies. According to a survey conducted at the World Economic Forum, 2005, in Davos, 24% of the senior executives in attendance regarded reputation as the leading factor to be considered when formulating a company's strategy, second only to product and service quality.

The Landscape of Reputation/Genesis of the Term "Reputation"

While the topic has become increasingly popular, from an academic perspective, the concept of corporate reputation remains unclear. Within the reputation paradigm, there is arguably no source as yet which captures the entirety of the concept of reputation. There is a definitional problem in reputation-related literatures. Some of the definitions within the literature overlap whereas some are conflicting. The

treatment of reputation will vary depending upon which theoretical perspective is invoked (Whetten, 1997). Whetten discusses the three remarkable work conducted in this area.

1. Fombrun and Van Riel (1997) have defined corporate reputation from the perspective of six distinct academic subject areas. The most marked difference exists in the definition of reputation from an economist's perspective and those working from a marketing or strategy perspective. According to economic perspective it is perceived that it will defend its markets (Clark and Montgomery, 1998), and from a marketing or strategy perspective it is defined as the accumulated impression that stakeholders form their interactions with and communications received about the firm (for example, Fombrun and Shanley, 1990). Reputation has been seen as a valuable intangible asset from an accounting perspective. Enron and other similar cases have added further focus on the accounting perspective, for example, over statement of profits and the use of financing methods that allow companies to incur debts without disclosing them on their balance sheets. Wrong accounting practices can threaten not only a firm but

Table 1: Categorization of Corporate Reputation Literatures

Discipline	Categorization of Reputation
Accountancy	Reputation seen as an intangible asset and one that can or should be given financial worth.
Economics	Reputation viewed as traits or signals. Perception held of the organization by an organization's external stakeholders.
Marketing	Viewed from the customer or end-user's perspective and concentrating on the manner in which reputations are formed.
Organizational behavior	Viewed as the sense-making experiences of employees or the perception of the organization held by an organization's internal stakeholders.
Sociology	Viewed as an aggregate assessment of a firm's performance relative to expectation and norms in an institutional context.
Strategy	Reputation viewed as assets and mobility barriers. Since reputations are based on perception, they are difficult to manage.

Source: Fombrun and Van Riel (1997).

also the auditor of the firm's accounts. The reputation literature emphasizes that employees stay longer with a firm with a good reputation (IOD, 1999; Markham, 1972). The financial and organizational aspects of reputation cannot be seen in isolation. The trend is consistent with marketing and organizational behavior perspectives too. Within the organization perspective, the internal issues such as mission and vision are being

related to the external image (Hatch and Schultz, 1997). This may reflect the increasing awareness by practitioners and academics of the fact that internal and external aspects of organization reputation cannot be treated separately (Abratt, 1989; Fombrun, 1996). The distinction, therefore, between the perspectives of corporate reputation adopted by different academic subject areas (Table 1) is becoming blurred and less useful for understanding the reputation paradigm.

2. According to Rosa Chun (2005) it is possible to identify three schools of thought that are in current use within the reputation paradigm: evaluative; impressional; and relational. The differences between them relate more to which stakeholders are taken as the focal point, rather than their subject area or epistemological base. Stakeholders can typically be grouped as internal (for example, employees, managers) and external (for example, customers, shareholders). Whereas the evaluative and impressional schools are concerned mainly with single stakeholder interests, the relational school is based upon stakeholder theory which recognizes that different stakeholders may have different expectations of a company. The relational school focuses on the views of both "internal" and "external" stakeholders and appears to provide a relatively new lens for the development of the reputation paradigm.

In the *evaluative school*, reputation is assessed from its financial value or from the short-term financial performance of the organization. Rooted in the areas of strategy and economics, reputation research had been pre-occupied with performance. The view became popular once reputation began to be recognized as a "competitive advantage" or an "intangible asset." Media reputation rankings such as Fortune's America's Most Admired Company (AMAC) annual survey and various approaches to brand valuation fall within this school of thought. The key audiences are "explicit" stakeholders, whose main interests are the firm's financial attributes, such as shareholders, the CEO, or investment advisors. Since 1990, there has been greater interest in the stakeholders' emotional association with a firm, which will influence the firm's long-term financial performance. Researchers whose interests concern implicit stakeholders and a firm's non-financial attributes can fall into either the impressional or relational school.

Image, identity and personality are typical terms used in the *impressional school*. Here, reputation is assessed in terms of the relevant stakeholders' perceptions or impression of the organization rather than any financial

figure or performance. Many reputation studies by marketing and organizational researchers in the 1990s fall within this school (Balmer, 1997; Bromley, 1993). The major stakeholders here are employees or customers. While the organizational literature has focused on relationships between employees and their organizations, the marketing approach has focused on ideas relevant to customers and corporate image management or corporate identity management. Brown, who introduced the term "corporate association" into reputation literature, defines reputation as a set of mental associations possessed by an individual outside the company, which is similar to image as used by market scholars (Brown et al., 2005).

While researchers in the impressional school tend to see reputation as a reflection of the accumulated perception of the single stakeholder, the *relational school* sees reputation as an equal reflection of the internal and external view of the organization. Several authors have considered multiple stakeholders including employees, customers, suppliers and investors, and community (Post and Griffin, 1997). Corporate reputation is a perceptual representation of a company's past actions and future prospects that describe the firm's appeal to all of its key constituents (Fombrun, 1996). Since such conceptualization represents multiple stakeholders' perceptions, corporate reputation here represents a collective and multidimensional construct, which is an aggregated perception of many individuals. Therefore, an organization does not have a single reputation–it has many. For this group of researchers, image is distinguished as the outsider's perception, whereas reputation includes both internal and external stakeholders. This school emphasizes differences between the views of different stakeholders, but also contains the idea that internal and external views are linked. Hatch and Schultz (1997) contributed to the conceptual background of the "relational school" by linking image, identity, and culture. David and Miles (1998) saw reputation management as the alignment between three elements, "how others (customers) see ourselves," "who really are," and "what we say we are." In case where different stakeholders have differing views of the same company, an unfavorable reputation might contaminate a favorable reputation (Carter and Deephouse, 1999). Any "relational differences" or "gaps" between the external and internal views has been seen as crucial in reputation management.

These ideas are intuitively attractive but are conceptually-based. Recently, empherical studies have changed the idea that gaps are bad, especially when employees' views are more favorable than those of customers (Davies and Chun,

2002), or that alignment is a necessary condition for commercial success, as different stakeholders have different sources of satisfaction (Chun and Davies, 2006).

3. Barnett et al. (2006) identified three distinct clusters of meaning in the definitional statements: reputation as a state of awareness; reputation as an assessment; and reputation as an asset.

The first cluster reputation as a state of awareness encompasses those definitions that referred to a term or used language indicating that observers or stakeholders had a general awareness of a firm, but did not make judgments about it. The single most commonly used term for defining corporate reputation was perception.

The second cluster is reputation as an assessment. It includes those reputations that referred to a term or used language indicating that observers or stakeholders were involved in an assessment of the status of the firm. These include references of corporate reputation as a judgment, an estimate, an evaluation, or a gauge.

The third cluster, reputation as asset, incorporates those definitions that refer to reputation as something of value and significance to the firm. This group includes references to the term as a resource or as an intangible, financial, or economic asset.

These three clusters encapsulate the breadth of recent definitions of corporate reputation. While some overlaps in the clusters may exist they are relatively distinct.

Key Elements of Corporate Reputation

It is important to define explicitly the key variables that are used in any research of corporate reputation as well as to delineate formally the expected relationships between those variables. The interdisciplinary or cross-disciplinary nature of research of reputation is then a source of problems, the most obvious being terminological (Mel war and Jenkins, 2002). The main terms most often used interchangeably with, or as key variables of, reputation is "image" and "identity" (Whetten and Mackey, 2002). The definition of reputation used by individual authors is dependent on how these other key elements, identity, and image are defined.

Image: How Others See Us

In the marketing literature, the terms image and reputation are used interchangeably without making clear any relationship between what can be seen usefully as two distinct concepts. Early research into corporate image focused on retail store image and corporate (brand) image

in the marketing discipline. Studies on corporate image have generally focused on the effect of advertising, corporate logo, brand preference, or interaction with employees (Kennedy).

Worcester (1972) suggested four image categories: product class image; brand image; user image; and corporate image. Corporate image is subcategorized as product reputation, customer relations, employer role, ethical reputation, and others. Although initially reputation is regarded as an independent variable which drives corporate image, it was later regarded as a dependent variable, something that resulted from being a good employer, being seen as offering good service and being honest and reliable. However, the two terms are used interchangeably in much of the service quality literature.

The most common and recent definition of image in the context of reputation is "a summary of the impressions or perceptions held by external stakeholders" (Bromley, 1993; Davis and Miles, 1998). Among external stakeholders, the main focus is on customers, so that image is defined not as what the company believes, but what the customers believe or feel about the company from their experiences and observation (Bernstien, 1984). The definition is close to the definition of "corporate image" used by marketing scholars such as "attitudes and feelings consumers have about the nature and underlying reality of the company" or the result of how consumers perceive the firm.

Other researchers, in particular from the organizational behavior discipline define image as the internal members' belief about outsiders' perceptions and use reputation to refer to an outsider's perceptions of an organization. For researchers who define both image and reputation as specific to an outsider's perceptions, reputation is distinguished as having an accumulated historical meaning. Image differs from reputation in this, whereas the former concerns the public's latest belief about an organization, reputation presents a value judgment about the organization's qualities built over a period and focuses on what it does and how it behaves. This distinction between image and reputation is useful; we can form an image of an organization without any real experience of it, whereas something deeper, often referred to as reputation, implies something grounded in experience.

Image may change quickly by means of advertisement compared to reputation which requires more time and consistent effort to build internally and externally. However, in a crisis, both image and reputation can be damaged very quickly.

In summary, corporate reputation might best be seen as involving the alignment between the internal and external stakeholders' perceptions of a firm, especially those of the most important stakeholders, employees, and customers (Hatch and Schultz, 2001).

Identity: How We See Ourselves

Identity is variously defined in the literature, but there are two main themes. Organizational identity is an answer to the questions' who we are or "how do we see ourselves?" in other words the employees' perception of the organization (Albert and Whetten, 1985). It refers to what members perceive, feel, and think about their organization and concerns those organizational characteristics that are most central, enduring, and distinctive (Albert and Whetten, 1985). Culture and organizational identity are similar concepts in many ways. If identity is "how we see ourselves" and culture "how we do things around here," one will relate to the other. Hatch (1993) differentiates between the two, saying that "organizational identity which is how we define and experience ourselves is influenced by our beliefs which are grounded in and justified by cultural assumptions and values." Culture is not something that can be easily changed or manipulated by top management strategy. In contrast, identity, how people understand themselves in relation to culture and values, is more conscious and reflexive, thus, more amenable to change. Culture can be changed only when identity changes. Identity is more open than culture to "outside" influence (Fiol et al., 1998). Corporate culture or personality has been more popularly seen as an input to corporate identity creation, in which a mission statement is a projection of culture through the adjectives used to define it (Swales and Roger, 1995).

Organizational identity is often distinguished from *corporate identity* in the literature. If organizational identity is an organizational behavior term, corporate identity, which is also referred to as strategic identity or desired identity, is used more popularly in the marketing domain. Corporate identity or desired identity refers to visual cues such as name, logo, and symbols, or the strategic cues of identity such as vision, mission, and philosophy, which are conceptualized as part of the strategic process linking corporate strategy to company image and reputation (Dowling, 1994). This definition of corporate identity becomes part of the external corporate image management process involving any public relations effect (Abratt, 1989). More recently, researchers have increasingly acknowledged unique characteristics or corporate personality rooted in

the behavior of members of the organization and should reflect how employees identify themselves with the company (Stuart, 2002). It supports the claim that the most notable trend in the subject of corporate identity in the 21st century is in the emphasis of the role of employees and the interplay between internal and external perceptions of an organization. Here, corporate identity is closer in definition to organizational identity; they may even be interdependent, but they are not synonymous. One benefit of such a trend is compatibility with business practice. Inside organizations, it is unusual to find a reputation department functionally responsible for managing reputation. Instead, such responsibility appears to be one of the roles of a board member, often the CEO. This is not surprising, as image is concerned with external issues, the responsibility for which is the marketing and corporate communications. The internal perspective, which is referred to as identity, is a concern of human resource management. All management, particularly in a service business, is concerned with what creates reputation, including every contact the stakeholders have with the organization. This implies that there are two key elements in corporate reputation.

Determinants of Corporate Reputation

Corporate reputations are summative representations of stakeholders' opinions of firms, which depend on their success in meeting the expectations of stakeholders (Fombrun and Shanley, 1990). Corporate reputation is determined by the stakeholders' recognition of the company, that is, through their representations that they are aware and agree with the status and management of the company's intangible assets. A firm's current reputation is determined by the signals that the public receives concerning its behaviors, whether directly from the firm or via other information channels, such as the media or stock market. A firm's reputation is determined by signals concerning social performance, financial performance, product quality, ownership composition, size, media visibility, and the type of industry. These are discussed further.

Social performance: The strength and the direction of the relationship between corporate reputation and social performance may be contingent upon the activity a company is engaged in since industry environments are correlated with significant pressure from institutional and other stakeholders (Pfeffer and Salancik, 1978; Scott, 1995). This suggests the industry may play a moderating role in the relationship between reputation and social performance

because of the presence of industry-specific stakeholder pressures for improved social responsiveness from primary stakeholders such as employees, customers, communities, and legal and regulatory bodies. Such pressures typically arise because of the close association between some economic activities and severe social and environmental externalities that lead to increased pressure on companies to respond. Moreover, satisfying the demands of those constituencies for improved social responsiveness is in the interests of companies because firms are typically dependent upon them for resources that are necessary to their continuing survival and success. Existing evidence suggests that the nature of focal social issues varies systematically across different industries. Earlier empirical work has identified a number of sectors as having particularly high environmental impacts, for example, metals resources, paper and pulp, power generation water, and chemical sectors (Bowen, 2000; Clemens, 2001; Sharma, 1997). Other industries are associated with alternative issues, for example, the tobacco and alcoholic drinks industries are associated with high social issues. They are thought to produce high social externalities (for example, crime and health) and are subject to regulatory regimes (competition, safety, and taxation). Similarly the defense and pharmaceutical industries receive particular attention from ethical pressure groups, and the profile of workplace health and safety concerns is relatively high in the construction and resource extraction sectors.

Financial performance: Corporate reputation is partly formed by signals concerning current financial performance whether such signals arise out of accounting data or movements in stock prices (Fombrun and Shanley, 1990). Strong financial performance generally signals an effective corporate strategy, good management, and good resource allocations, thus helping a firm establish or maintain a good reputation (Roberts and Dowling, 2002), particularly among groups of financial stakeholders such as creditors, investors, and external analysts (Fama, 1970; Fombrun and Shanley, 1990). While external agents view financially successful companies favorably, they tend to be risk-averse. Therefore, if two firms exhibit similar level of financial performance, it should be the firm that appears to be offering less risk that gains the better reputation (Fombrun and Shanley, 1990). In addition a higher degree of leverage should bring lower reputational assessments as it constitutes a burden upon future returns that may threaten the medium and/or long-term viability of the firm.

Product quality: A link has often been drawn between a firm's reputation and the perceived quality of its product

range, such that firms perceived to produce high quality goods tend to enjoy better reputations. In light of this, one should expect reputation to be augmented by those activities most closely associated with the vertical differentiation of products: technological advancements and the cultivation of a strong brand image. Reputation is increasing in a firm's research and development (R&D) and advertising intensities.

Ownership composition: Recent evidence suggests that the composition of a firm's shareholder constituency across a broad spectrum of investors groups exerts a significant influence on various aspects of firm behavior. Institutional investors are motivated to become more engaged with corporate management because of their increased visibility and that they are "tied in" to their investments in the sense that given their size, they have reduced flexibility to sell investments without significantly damaging their value (Ryan and Schneider, 2002). A strong pressure of institutional shareholders may therefore signal to other stakeholders that the firm's performance is keenly monitored and deemed to be satisfactory by these relatively well-informed and experienced investors.

Size: Firms grow as a result of some measure of effectiveness in their corporate strategic history, thus, larger firms should be expected to garner a better reputation than smaller rivals. Larger firms also tend to be more visible to external agents, that is, agents wish to hold more information regarding the activities of larger firms—an imbalance which may bias their assessments of corporate reputation. Also the media exposure not only increases the stock of available information, but also sets the context within which it is viewed. For both reasons, one should expect the extent of media exposure to influence assessments of corporate reputation. Many empirical studies employ firm's size as a measure of visibility to external agents. However, Brown (2000) argues that size is an unsatisfactory proxy because it captures much more than an organization's visibility.

Media visibility: Media research agencies monitor the incidence of advertisements at the brand level throughout the main advertising media and estimate the levels of expenditure incurred. In the wake of ethic breaches and accounting failures, even reputable firms are making an effort to win back public confidence through media visibility.

Type of industry: Reputation varies systematically across sectors. This is to say, some business activities may predispose a firm to a better reputation than do other

activities. Industry may be classified as business services, chemicals, construction, consumer products, engineering, finance, etc. Although all enterprises dream of achieving a perfect reputation, not all of them can approach this goal in the same way, for example, an oil industry multinational whose potential management errors could pose a serious threat to the environment in which it operates and a regional bank, whose main asset should be the trust of its customers and shareholders have little in common when it comes to prioritizing the most important variables that make up their corporate reputation.

Strategic Aspect of Reputation

A growing body of research argues that good corporate reputations have strategic value for the firms that possess them. Firms with assets that are valuable and rare possess a competitive advantage and may expect to earn superior returns. Those whose assets are also difficult to imitate may achieve sustained superior financial performance (Barney, 1991; Grant, 1991). Within this line of reasoning, intangible assets—such as good reputation—are critical not only because of their potential for value creation, but also because their intangible character makes replication by competing firms considerably more difficult. Not surprisingly several studies confirm the expected benefits associated with good reputations (Fombrun and Shanley, 1990; Landon and Smith, 1993; Podolny, 1990). Good reputation is a valuable asset that allows a firm to achieve sustained superior financial performance. Reputation is viewed as a global perception of the extent to which an organization is held with a high esteem or regard.

Where does good reputation come from? At a very general level, "reputation is determined by the value (quality) of the actor's previous efforts" (Podolny and Phillips, 1996). In many cases, the firm's external constituencies may identify these efforts. As such, managers engage in explicit reputation-building activities (advertising, sponsorships) in order to improve their firms' reputation (Fombrun, 1996). They also manage the set of associations that form with exchange partners to ensure that they benefit from the network transmission of organizational reputation or status (Podolny, 1994). However, external constituencies do not directly observe the full range of activities that lead them to form impressions that comprise an overall reputation. They may, therefore, rely on previous financial performance outcomes as signals of a firm's overall esteem.

A variety of potential benefits of good reputations provide the rationale for cross-sectional relationships between

reputation and financial performance (Fombrun, 1996; Podolny, 1993). Because reputation is valued in its own right, customers value associations and transactions with high reputation firms, at least in markets characterized by high level of uncertainty (Shapiro, 1983). A firm with a good reputation may also possess a cost advantage because employees prefer to work for high-reputation firms and should, therefore, work harder or for lower remuneration. At the same time because suppliers are less concerned about contractual hazards when transacting with high reputation firms, good reputations should also lead to lower contracting and monitoring costs. These direct benefits are complemented by a number of ancillary benefits. Goldberg and Hartwick (1990) suggest that potential customers receive advertising claims more favorably if the reputation of the firm making those claims is more positive. Along similar lines, the marketing literature suggests that a good reputation supports and enhances sales force effectiveness, new product introductions and recovery strategies in the event of crisis (Dowling, 2001).

Reputation assumes an important role when there is uncertainty about the underlying quality of a firm's offerings. This same uncertainty makes it difficult for competing firms to quickly make quality demonstrations that would offset the signaling benefits associated with a good reputation. Podolny (1993) suggest that the positive interactions are required between reputation and their salient firm's features or actions that further enhance their reputations. These dynamic properties of firm's reputation suggest that reputation differences should demonstrate a relatively high degree of persistence over time.

Corporate Reputation and Value Creation

Today people find themselves in a market environment, where the conditions are continuously changing. The competition is heating up, information is being disseminated faster than ever—thanks to developing technology—and emotional factors are given priority over material values, as products and services look more and more alike. Given the changing conditions of the market, it is now a must that not only production, finance, and business processes, but also communication process are managed strategically. There is now an awareness of the possibility that, with increasing competition, stakeholders—such as shareholders, investors, customers, suppliers, employees, and the general public who can influence the company or are being influenced by their operation—can change their decisions anytime. On the other hand, the assumption

that a company's interaction with its stakeholders is what makes its corporate reputation and that this interaction has an impact on the company's business results has been discussed and confirmed as compelling.

It is possible to compare reputation with monetary value, but it is not easy. Corporate reputation is rather solid: reputation affects how a company gains the support of people and in return is influential on the degree of their willingness to contribute to the company. For listed companies, the only simple measure is to analyze the "book value" and market value and the difference between them. The result is the "intangible assets" gained by the company from the market and that makes up an average of 55% of the company value. Intangible values consist of two different assets: intellectual capital and reputation capital. The latter is gaining importance as a source of financial value.

At the heart of the company law is a simple bargain—companies enjoy limited liability in return for public certain information, mostly financial in nature, about their affairs. Reporting requirements (such as submission to annual accounts) exist to protect both current and potential shareholders from being defrauded or misled by people in charge of the company. But this bargain was struck in the 20th century and needs to be updated. It has long been recognized that a company's reputation and employees are critical to its worth, yet there is no legal obligation to reveal anything about them.

Why does reputation influence financial health? First, it has the power to create value for a company. The benefits of the strong reputation include the ability to attract customers, employees, and investment, to motivate employees and suppliers, and to differentiate the company from its competitors. A strong reputation also helps protect value, as it can lessen the impact of scrutiny, crises, and competitive attack. All of these advantages should translate into higher margins, more stable revenues, and lower capital costs.

The flipside to this is that reputation can also destroy value. For instance, Texaco is calculated to have lost 6 billion dollars after allegations of discrimination, while Motorola is estimated to have lost 6 billion dollars because handsets were found to lead to cancer. The collapse of Anderson in the wake of the Enron scandal illustrates that in the most extreme cases, loss of reputation can lead to the downfall of business. Corporate reputation, which has become a major concern for companies, is now a value

Creating Value	Protecting Value
• Attract customers	• More likely to be allowed the benefit of the doubt
• Motivates employees	• Less security
• Attract top employees	• Reduce risk of crises
• Attract investment	• Reduce impact of crises
• Differentiate company competitive advantage	• Less vulnerable to competitive attack
• Platform for innovation	

Higher margins, more stable revenue, lower capital costs

Source: Bollen (2004).

Fig. 1: Corporate Reputation and Value Creation

that is hard to achieve and yet easy to lose. In order to accurately manage reputation, it is necessary to identify and analyze the stakeholders' expectations and the role they play in a corporate reputation (see Figure 1).

Measuring Corporate Reputation

Confusion over definition adds to confusion over measurement methods in the reputation literature. A number of measurement approaches are available reflecting the number of possible strategies towards measuring corporate reputation. Some of them are as follows:

Single Stakeholder Reputation Measure

Ranking measures: One of the most established measures of reputation is that of ranking by media. Fortune's AMAC annually surveys CEOs and analysts on their views about Fortune 500 companies (from 1984) and Fortune 1000 companies (from 1995). Respondents are asked to rate a competitor's reputation in terms of eight key attributes of reputation: financial soundness; long-term investment value; use of corporate assets; innovativeness;

quality of the company's management; quality of its products and services; ability to attract, develop, and keep talented people; and acknowledge social responsibility (Fortune, 2000). The *Financial Times*' "World's Most Respected Companies" rankings also represent the perception of peer CEOs on eight criteria. Other similar media rankings include "Britain's Most Admired Companies" from *Management Today*, or "Asia's Most Admired Companies" by *Asian Business*. But it has the same criticisms as those directed at the fortune study, of using a single stakeholder's views and financially-focused criteria are made even though reputation should not be judged on financial performance alone.

Brand equity scales: Criticizing the fact that many previous studies have been financially focused (media), some academics have attempted to measure reputation using the brand equity concept. The brand equity scales from Kevin Keller or David Aaker are popularly applied. For example, Keller and Aaker (1998) have used Keller's three dimensions of corporate credibility, corporate expertise, trust-worthiness and likeability in order to establish a link

with successful brand extensions. Fortune/Yanckelovich Partners (Gains-Ross, 1997) produce a corporate equity score for the purpose of complementing the Fortune study. It measures the five components of reputation: awareness; familiarity; overall impression (favorable and unfavorable); perceptions (quality of products or service, etc.); and supportive behavior investing in the company. The limitations in using a brand equity scale as a reputation measure is the unclear conceptual link between and within the two constructs and the focus on the views of a single stakeholder type, customers, in terms of the items used.

Image measures: The service quality literature has often operationalized reputation as a unidimensional favorable–unfavorable construct or often as an image scale. Reputation should be measured as a multidimensional construct, and researchers have measured corporate image or store image in this way. LeBranc and Nguyen (1996) defined five factors of corporate image: corporate identity; reputation; service offering; physically environment; and contact personnel. Bernstein has used eight personality dimensions to measure the construct. These are integrity, quality, and imagination in addition to the factors enumerated by LeBranc and Nguyen.

Identity measures: The empirical measurement of identity has received less attention than has its conceptual underpinnings (Hatch and Shultz, 2000). Some measure identity as it is, whereas others measure identity as it should be; some use quantitative methods, while some used qualitative methods; some use predetermined dimensions, some use an inductive approach. Balmer and Soenen (1999) developed a tool called "Acid" (Actual, Communicated, Ideal, Desired Identity) Test of Corporate Identity Management. This identifies 15 identity/corporate image "interfaces." Gioia and Thomas (1996) explored the relationship between identity and image, but from a senior management perspective. Initially, a case study and in-depth interviews were conducted and nine factors were identified by theme analysis: region; type; ownership; size; information processing structure; strategy; image; type of identity; and strength of identity. The relationships between the nine factors were examined by quantitative survey and tested by regression analysis.

Multi Stakeholder Reputation Measure

All companies operate in a context where they have to satisfy the requirements of many stakeholders.

Reputation quotient: Fombrun et al. (2000) developed the RQ (Reputatioal Quotient) model. There are six dimensions, these are: Emotional Appeal; Products and Services; Vision and Leadership; Work Environment; Financial Status; and Social Responsibility. RQ has been widely used in the study of the relative reputation of companies.

The corporate character scale: A recent development that has aided the quantitative approach has been that of validated scales that evoke the personification metaphor for assessing corporate reputation. People and companies both have reputations and personality; personality descriptors are used to describe both individual and corporate reputation. Using the personification approach Davies et al. (2003) developed the Corporate Character Scale, which can measure a firm's reputation from both internal and external points of view simultaneously, and,

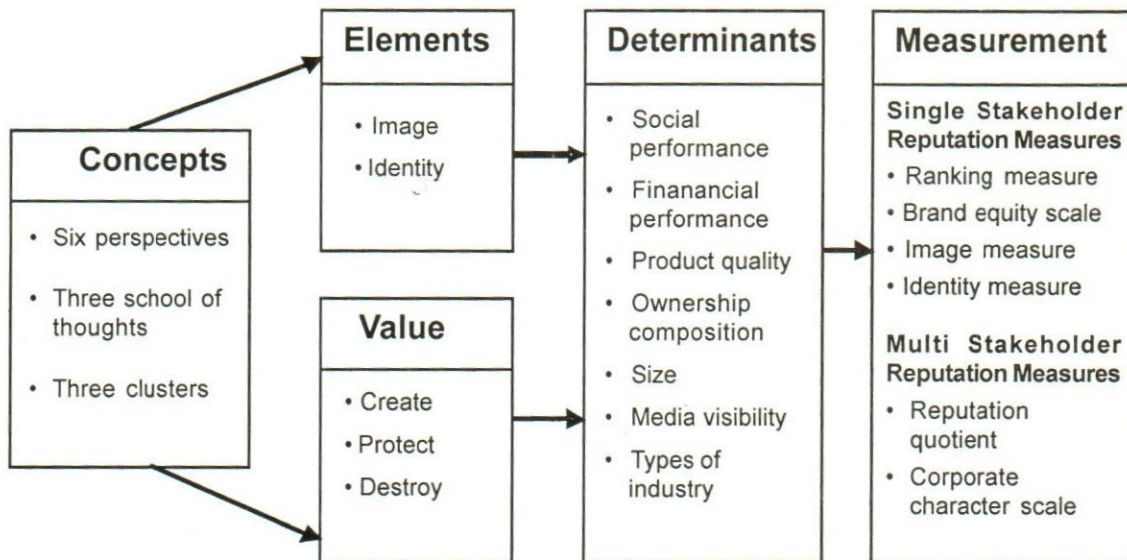| Concepts	Elements	Determinants	Measurement
• Six perspectives • Three school of thoughts • Three clusters	**Elements** • Image • Identity **Value** • Create • Protect • Destroy	• Social performance • Finanancial performance • Product quality • Ownership composition • Size • Media visibility • Types of industry	**Single Stakeholder Reputation Measures** • Ranking measure • Brand equity scale • Image measure • Identity measure **Multi Stakeholder Reputation Measures** • Reputation quotient • Corporate character scale

Fig. 2: Corporate Reputation Management Model

therefore, measure any gaps between various stakeholders' views of a firm (for example, Chun and Davies, 2006). Here, personality is used as a measurement tool that can assess a firm's reputation. One advantage of this scale is that it is validated for the measurement of both image and identity, thus allowing for a measurement of the interrelationship or gaps between the two.

Conclusion and Managerial Implication

In recent years, the concept of reputation has proven to be one of the major innovative trends in corporate management. Business leaders over the world no longer look upon the traditional financial indices as the only indicator of a company's progress. As a measure of success, corporate reputation has equaled, if not surpassed, the importance of stock market performance, earnings, or recovery of investments.

Corporate reputation is an important strategic asset that contributes to financial firm-level persistent profitability. One of the major challenges facing companies today is the need to optimize their intangible assets and quantify their value over time. Although all enterprises dream of achieving a perfect reputation, not all can approach this goal in the same way. Furthermore, since the components of corporate reputation vary substantially from one industry to another, or even from one country to another, the way in which this reputation is measured also differs across the corporate spectrum.

References

Albert, S. and Whetten, D. (1985), "Organizational Identity," in B.M. Staw (ed.), *Research in Organizational Behaviour*, pp. 263–95. Greenwich, CT: JAI Press.

Balmer, J.M.T. (1997), "Corporate Identity: What of it, Why the Confusion, and What's Next?" *Corporate Reputation Review*, 1:(1/2): 183–88.

Balmer, J.M.T. and Soenen, G.B. (1999), "The Acid Test of Corporate Identity Management," *Journal of Marketing Management*, 15: 69–92.

Barney, J.B. (1991), "Firm Resources and Sustained Competitive Advantage," *Journal of Management*, 17: 99–120.

Bernstein, D. (1984), *Company Image and Reality: A Critique of Corporate Communication*. London: Holt, Rinchart & Winston.

Bollen, A. (2004), "What Value your Reputation," *Pharma Times*, April, pp. 34–36.

Bowen, F.E. (2000), "Environmental Visibility: A Trigger of Green Organizational Responsiveness?" *Business Strategy and the Environment*, 9: 92–107.

Bromley, D.B. (1993), *Reputation, Image and Impression Management*. Chichester: John Weley.

Brown, T.J, Dacin, P.A., Pratt, M.G. and Whetten, D.A. (2005), "Identity, Image and Reputation: An Interdisciplinary Framework and Suggested Terminology," Conference presentation.

Chun, R. (2005), "Corporate Reputation: Meaning and Measurement," *International Journal of Management Review*, 7(2): 91–109.

Chun, R. and Davies, G. (2006), "The Influence of Corporate Character on Customers and Employees: Exploring Similarities and Differences," *Journal of Academy of Marketing Science*, 34(2).

Clark, B.H. and Montgomery, D.B. (1998), "Competitive Reputations, Multimarket Competition and Entry Deterrence," *Journal of Strategic Marketing*, June, 6(2).

Clemens, B. (2001), "Changing Environmental Strategies over Time: An Empirical Study of the Steel Industry in the United States," *Journal of Environmental Management*, 61: 1–11.

Davies, G. and Chun, R. (2002), "Gaps between the Internal and External Perceptions of Corporate Brand," *Corporate Reputation Review*, 5(2/3): 144–58.

Davies, G. and Chun, R. (2003), "The Use of Metaphor in the Exploration of Brand Concept," *Journal of Marketing Management*, 19(1/2): 45–71.

Davies, G. and Miles, L. (1998), "Reputation Management: Theory verses Practice," *Corporate Reputation Review*, 2(1): 16–27.

Dowling, G.R. (1994), *Corporate Reputation: Strategies for Developing the Corporate Brand*. London: Kogan Page.

Dowling, G.R. (2001), *Creating Corporate Reputations*. Oxford: Oxford University Press.

Fombrun, C.J. (1996), *Reputation: Realizing Value from the Corporate Image*. Boston: Boston Business School Press.

Fombrun, C.J.M. and Shanley (1990), "What's in a Name? Reputation Building and Corporate Strategy," *Academy of Management Journal*, 33(2): 233–58.

Fombrun, C. (1996), *Reputation: Realizing Value from the Corporate Image*. Boston, MA: Harvard School Press.

Fombrun, C.J. and Riel, van C.B.M. (1997), "The Reputation Landscape," *Corporate Reputation Review*, 1(1/2): 6–13.

Fombrun, C.J., Gadberg, N.A. and Sever, J.M. (2000), "The Reputation Quotient: A Multiple Stakeholder Measure of Corporate Reputation," *Journal of Brand Management*, 7(4): 241–55.

Gains-Ross, L. (1997), "Leveraging Corporate Equity," *Corporate Reputation Review*, 1(1/2): 51–56.

Gioia, D.A. and Thomas, J.B. (1996), "Identity, Image and Issue Interpretation: Sensemaking during Strategic Change in Academia," *Administrative Science Quarterly*, 40: 370–403.

Goldberg, M.E. and Harwick, J. (1990), "The Effects of Advertiser Reputation and Extremity of Advertisement Claim on Advertising Effectiveness," *Journal of Consumer Research*, 17: 172–79.

Hatch, M.J. (1993), "The Dynamics of Organizational Culture," *Academy of Management Review*, 18(4): 657–93.

Hatch, M.J. and Schultz, M. (1997), "Relation between Organizational Culture, Identity and Image," *European Journal of Marketing*, 31(5/6): 356–65.

Keller, K.L. and Aakar, D.A. (1998), "Corporate Level Marketing: The Impact of Credibility Marketing on Brand Extensions," *Corporate Reputation Review*, 19(4): 356–78.

Landon S. and Smith, C.E. (1997), "The Use of Quality and Reputation Indicators by Consumers: The Case of Bordeaux Wine," *Journal of Consumer Policy*, 20: 289–323.

LeBranc, G. and Nguyen, N. (1996), "Cues used by Customers Evaluating Corporate Image in Service Firms: An Empirical Study in Financial Institution," *International Journal of Service Industry Management*, 7(2): 44–56.

Markham, V. (1972), *Planning the Corporate Reputation*. London: George Allen & Unwin.

Melewar, T.C. and Jenkins, E. (2002), "Defining the Corporate Identity Construct," *Corporate Reputation Review*, 5(1): 76–90.

Podolny, J.M. (1994), "A Status-based Model of Market Competition," *American Journal of Sociology*, 98: 829–72.

Post, J.E. and Griffin, J.J. (1997), "Corporate Reputation and External Affairs Management," *Corporate Reputation Review*, 1(1/2): 165–71.

Roberts, P.W. and Dowling, G.R. (1997), "The Value of a Firm's Corporate Reputation: How Reputation Helps and Sustains Superior Profitability," *Corporate Reputation Review*, 1(1/2): 72–76.

Roberts, P.W. and Dowling, G.R. (2002), "Corporate Reputation and Sustained Superior Financial Performance," *Strategic Management Journal*, 23: 1077–93.

Ryan, L.V. and Schneider, M. (2002), "The Antecedents of Institutional Investor Activism," *Academy of Management Review*, 27: 554–73.

Shapiro, C. (1983), "Premium for High Quality Products as Returns to Reputations," *Quarterly Journal of Economics*, 98: 659–79.

Sharma, S. (1997), "A Longitudinal Analysis of Environmental Responsiveness Strategies: Antecedents and Outcomes," in J.B. Keys and L.N. Dozier (eds), *Best Paper Proceedings of the Academy of Management*. Boston, MA: Academy of Management.

Stuart, H. (2002), "Employee Identification with the Corporate Identity," *International Studies of Management and Organization*, 32(3): 28–44.

Swales, J.M. and Roger, P.S. (1995), "Discourse and the Projection of Corporate Culture: The Mission Statement," *Discourse and Society*, 6(2): 223–42.

Van Riel, C.B.M., Stroeker, N.E. and Maathuis, O.J.M. (1998), "Measuring Corporate Image," *Corporate Reputation Review*, 1(4): 313–26.

Whetten, D. (1997), "Theory Development and the Study of Corporate Reputation," *Corporate Reputation Review*, 1(1/2): 26–34.

Whetten, D. and Mackey, A. (2002), "A Social Actor Conception of Organizational Identity and its Implications for the Study of Organizational Reputation," *Business and Society*, 41(4): 393–414.

Worcester, R. (1972), "Corporate Image Research," in R. Worcester (ed.), *Consumer Market Research Handbook*, pp. 505–18. London: McGraw Hill.

> *The person who gets the farthest is generally the one who is willing to do and dare.*
>
> — **Dale Carnegie**

Provider Satisfaction in Public Hospitals in Maharashtra

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Studies on provider satisfaction in the delivery of health care are limited compared to the vast amount of literature available on client satisfaction. The present study tries to understand the perspective of the providers in delivering health care services from the data collected from 407 providers in the public hospitals in Maharashtra. The study assesses the satisfaction of the providers under four major dimensions (work environment, work relationship, professional satisfaction, and personal gains and losses), which fairly cover the different aspects related to their job satisfaction. The findings of the study reveal the important aspects of the provider satisfaction that need to be taken into account to improve the delivery of public health care.

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Increasing the quality of health care in public health programs is emerging as an important objective in recent years. Given the apparent low utilization of public health care facilities in many less developed countries (World Bank, 1993), the information on quality of health care and relative satisfaction of clients/patients and providers would be more useful to monitor the efficiency of the program. In recent years, quality of health care, a client-centered approach to provide good quality health care, has emerged as a critical element of public health programs in developing countries. However, the focus on clients (patients) not only involves those who come to a health facility to receive services, but also addresses work-related needs of personnel (providers) involved in the delivery of health care. Providers are health workers who work at various levels of the health care hierarchy such as managers, doctors, nurses, technicians, clerks, and the lower level employees of the system. Providers derive greater personal and professional satisfaction from their jobs when they can offer good-quality care and feel that their work is valuable (WHO, 1998). Similarly, a higher client satisfaction also leads to a "job satisfaction" of the provider. Clearly, the health outcome in a community depends on satisfaction of both clients and providers. Although providers are an important component of health care service provision, their perspectives have received little attention compared to the clients' perspectives. In order to have a successful program that serves clients well, we need a better understanding of the perspectives of the providers. Providers' workload, infrastructure available to them, patient flow, their working environment, their needs, motivations, and personal gains and losses are the important dimensions in the provision of the services.

Various factors can affect the providers' ability to deliver quality health services. Common factors are: changes in the health care system, strengths or deficiencies within systems or individual facilities, availability of supplies and equipment, regulatory constraints, and providers' level of competence, medical school they attended, and their

personal values (Paine et al., 1998). In a study in Uttar Pradesh, the medical officers (doctors) pointed out that the inadequacies in clinic infrastructure such as clinic equipment, supplies, and medicines affect their performance (Khan et al., 1995). Providers also often complain about poorly equipped facilities, long working hours, low salary, and little recognition (Mavalankar, 1999). As mentioned earlier, salaries and incentives, equipment, medicines and supplies, management and supervision, and staff training and development are important issues for the provision of better quality of care. Even the most conscious employees cannot do a good job if the systems they depend on are deficient, for example, if employees lack training, equipment, supervision, or a clear idea of their responsibilities (Kols and Sherman, 1998).

Providers generally focus on technical competence, effectiveness, and safety in the provision of health care. Quality Assurance Project (2003) lists the following key questions for providers: How many patients are providers expected to see per hour? What laboratory services are available to them, and how accurate, efficient, and reliable are they? What referral systems are in place when specialty services or higher technologies are needed? Are the physical working conditions adequate and sanitary, ensuring the privacy of patients, and a professional environment? Does the pharmacy have a reliable supply of all the needed medicines? Are there opportunities for continuing medical education?

Public health facilities are generally criticized for their underutilization, low quality of service, irregular attendance of medical staff, inadequate equipment, higher inefficiency, and poor maintenance and upkeep. In its recent publication, World Bank observes that "... (in India) regardless of the type of provider, quality assurance is a problem, with most care reflecting poor clinical practices and standards and inadequate staffing" (Peters et al., 2002). In 1990s, two national level household surveys on health related issues, NSSO 52nd Round (NSSO, 1998) and NFHS-2 (IIPS and ORC Macro, 2000) have collected some information on utilization of public and private health facilities and client satisfaction. Both studies reveal that patient satisfaction is better in private health sector than in public health sector. This difference explains the reason for higher utilization of private health facilities than public facilities for curative services.

Studies on provider perspectives in the delivery of health care are limited compared to the vast amount of literature available on client perspective/satisfaction. In this context the present study tries to understand the perspective of providers in delivering health care services from the data collected from 407 providers in the public hospitals in Maharashtra. The study also forms part of a larger study undertaken by the authors covering both patient and provider satisfaction under the World Bank-funded Maharashtra Health Systems Development Project (Mulay and Nagarajan, 2004).

Table 1: Hospitals Selected for the Study by Health Circle, Type of Hospital, and Number of Beds

Health Circle	Type of Hospital			
	District Hospital (beds)	Sub-divisional Hospital (100 bedded)	Sub-divisional Hospital (100 bedded)	Rural Hospital (30 bedded)
Thane	Ratnagiri (186)	–	Dapoli	Wada
Nasik	Jalgaon (306)	Chopada	Chandwad	Sakri
Pune	–	–	Indapur Karmala	Sangola
Kolhapur	–	Sawantwadi Kankavali	–	Atpadi
Latur	Beed (320)	Parli Vaijnath	–	Majalgoan
Aurangabad	Jalna (115)	–	Ambad	Mantha
Akola	Buldhana (306)	Murtizapur	Dharni	Akot
Nagpur	Bhandara (384)	Tumsar BGW Gondia	Mul	Rajura
Total	6	7	7	8

Note: All the hospitals under SDH-100, SDH-50, and 30 bedded rural hospitals are considered as Other Hospitals (OH) for the analysis. Figures in parentheses are bed strengths of the District Hospitals (DH).

Study Design

The state government has implemented the Maharashtra Health Systems Development Project (MHSDP) with the financial grant from the World Bank to strengthen the government hospitals by providing hardware and software facilities in selected hospitals during 1999–2005. Government of Maharashtra has divided the state into eight health circles for administrative purposes. Twenty-eight hospitals, under MHSDP, were selected for the study from these eight circles (Table 1). The selected hospitals also represent four layers of government hospitals: (a) district hospitals; (b) 100 bedded sub divisional hospitals; (c) 50 bedded sub divisional hospitals; and (d) 30 bedded rural hospitals. Thus, six non-teaching district hospitals (bed strength more than 115), 14 sub-divisional hospitals, and eight rural hospitals were selected for the study. Only non-teaching district hospitals under MHSDP were selected for the study. The fieldwork for the study was carried out in 2003.

Note: All the hospitals under SDH-100, SDH-50, and 30 bedded rural hospitals are considered as Other Hospitals (OH) for the analysis. Figures in parentheses are bed strengths of the District Hospitals (DH).

Providers

In order to ascertain the perception of the providers and their satisfaction, we interviewed 131 doctors, 115 nurses, 78 technicians, 26 pharmacists, and 57 Class-IV employees of the hospitals. In all, 407 providers were interviewed for the study. Table 2 gives the break-up of providers interviewed for the study in District Hospitals (DH) and Other Hospitals (OH: 100 bedded and 50 bedded SDHs and 30 bedded rural hospitals). The interviewees were mainly senior doctors and nurses thinking that being in government service for a long time, senior providers can assess the system in a better way and express their views without any reservation than the junior providers. The survey results are discussed separately for each category of providers by type of hospital.

Table 2: Number of Providers Interviewed for the Study

Type of Provider	Type of Hospital		
	District Hospital	Other Hospital	All Hospitals
Doctors	71	60	131
Nurses	51	64	115
Technicians	21	57	78
Pharmacists	6	20	26
Class-IV	19	38	57
Total	168	238	407

Provider Satisfaction: Doctors

We assess the satisfaction of providers under four major dimensions which fairly cover the different aspects related to their job satisfaction. These are: (a) work environment; (b) work relationship; (c) professional satisfaction; and (d) personal gains and losses. Before assessing the satisfaction level of the providers we give ahead a brief profile of the doctors, their reasons for choosing government service, and their opinion about public hospitals.

Profile of Doctors

Generally more experienced doctors are posted in DHs. Doctors in DHs are older than their counterparts in OHs (Table 3). The mean age of the doctors in DHs and OHs is 43 years and 38.7 years, respectively. Similarly, half of the doctors in DHs are Class-I officers whereas only one-third of the doctors in OHs are Class-I medical officers. In India, generally, public service is less preferred by the female doctors due to transferable nature of job and long working hours (like emergency call, on call duty, round the clock need, etc.). Only 17% of the doctors in our sample are females. More or less a similar pattern is observed for both OHs and DHs. Twenty-nine percent of the doctors belong to the socio-economically weaker sections (SC and ST).

Table 3: Brief Profile of the Doctors Interviewed for the Study

Profile of Doctors	DH	OH	Total
Mean age	43.0	38.7	–
% male	85.9	80.0	83.2
% female	14.1	20.0	16.8
% married	95.8	81.7	89.3
% SC and ST	28.2	30.0	29.0
Medical Officer—Class-I (%)	52.1	33.3	43.5
Medical Officer—Class-II (%)	47.9	66.7	56.5
Number of doctors	71	60	131

Reasons for Coming to the Government Services

We asked the doctors the reasons for joining government services. Many doctors gave more than one reason (Table 4). Among the reasons given, job security (47%), regular income (24%), and retirement benefits (19%) are related to monetary/personal benefits and security in the job. It is clear that monetary benefits coupled with job security were the major reasons for choosing government services by the doctors. Opportunity to serve people was an answer given by majority of the doctors (71%). Difficulty in establishing private practice and risk associated with it

made 19% of the doctors choose government services. Leave benefits and fixed timings together made 10% of the doctors choose government service. The personal benefits outweigh the other reasons as for as reasons for joining government service is concerned.

Table 4: Reasons for Coming to the Government Services (Doctors)

Reason (%)	DH	OH	Total
Job security	35.2	60.0	46.6
Regular income	19.7	28.3	23.7
Retirement benefits	8.5	31.7	19.1
Leave benefits	2.8	10.0	6.1
Opportunity to serve people	62.0	83.3	71.2
Establishing private practice is difficult	5.6	18.3	11.5
Private practice risky	5.6	8.3	6.9
Fixed timings	5.6	5.0	5.3
Other reasons	19.1	8.3	11.5
Number of doctors	71	60	131

Opinion of Doctors about the Public Hospitals

Quality of care is associated with the infrastructure available to the doctors, adequacy of medical personnel, better management of the public health program, regular/adequate supply of medicines, better provider satisfaction, etc. To understand the functioning of the government hospitals we have asked the doctors to give their opinion about the government hospitals (Table 5). Since they are the "internal clients" of the system, their opinion will reflect the functioning of the system in a better way.

Table 5: Opinion of Doctors about Public Hospitals

Opinion (%)	DH	OH	Total
No lacunae	1.4	8.3	4.6
Staff shortage	25.4	50.0	36.6
Medicine shortage	40.8	40.0	40.5
Shortage of funds	35.2	45.0	39.7
Shortage of equipment	36.6	55.0	45.0
Lack of facilities (lab, x-ray, BB, etc.)	16.9	31.7	23.7
Political interference	35.2	68.3	50.4
Improper location	15.5	31.7	22.9
Payment inadequate	16.9	20.0	18.3
Heavy workload	11.3	25.0	17.6
Pressure of superiors	11.3	20.0	15.3
Too many restrictions	8.5	18.3	13.0
Lack of cooperation from staff	2.8	18.3	9.9
Others	7.0	10.0	8.4
Number of doctors	71	60	131

Only 5% of the doctors said that there is no lacuna in the government hospitals and the remaining 95% listed many problems directly related to patient and provider satisfaction. Shortage of equipment, medicines, funds, and staffs are reported by 37–45% of the doctors and lack of diagnostic facilities is reported by one-fourth of the doctors. It means that the doctors are working under the system with lot of inadequacies to fully satisfy the patients. The problems which are directly related to the doctors like inadequate salary, heavy workload, pressure of seniors, too many restrictions are given by 13–18% of the doctors. Improper location of the government hospitals is mentioned by 23% doctors. The biggest problem of government hospitals stated by the doctors is political interference; half of the doctors cited this reason.

Doctors in OHs reported the presence of all these reasons occurring more often than doctors in DHs. It means that, relatively, the constraints for providing quality of care are more for OHs than for DHs. If we see the political interference separately for DHs and OHs, the problem is more acute in the later (68%) than the former (35%).

Assessment of Facilities Available in their Own Hospitals

Besides the general question about government hospitals, we specifically asked the doctors about the adequacy of the facilities (personnel, equipment, medicines, diagnostic facilities, transport, and space) available in hospitals they are currently posted in (Table 6). Only about one-third of the doctors said that personnel, equipment, and medicine norms are "totally fulfilled" by their hospital, the remaining doctors said that these are either "somewhat fulfilled" or "not fulfilled." The fulfilment of diagnostic facilities (lab and X-ray in case of OHs, lab, X-ray, blood bank, and Sonography

Table 6: Assessment of Facilities Available in their Own Hospitals (Doctors)

Facilities "Totally Fulfilled" in the Hospital according to the Assessment of Doctors (%)	DH	OH	Total
Personnel	31.0	35.0	32.8
Equipment	28.3	33.3	30.5
Medicines	39.4	25.0	32.8
Diagnostic facilities (lab, x-ray, BB, sonography)	67.6	58.3	63.4
Support services (transport, communication, cleaning, food)	66.2	41.7	55.0
Space	69.0	48.3	59.5
Number of doctors	71	60	131

in case of DHs) and support services like transport and food (in case of DHs), cleaning, communication, and space are relatively better than the personnel, equipment, and medicines. These support services are relatively better fulfilled in DHs than in OHs.

Dimensions of Work Environment

Under this dimension satisfaction regarding timetable, nature of work, time spent with the patients, interference from politicians, promotion/transfers on merit are assessed (Table 7). Two-thirds of the doctors are satisfied with the timetable of their work and the remaining one-third are not satisfied with it. There is no difference in the doctors' satisfaction of timetable between OHs and DHs. Regarding the nature of work, 71% of the doctors are satisfied with it and the satisfaction is slightly higher among the doctors in OHs (75%) compared to the DHs (68%). Dissatisfaction regarding the nature of work is slightly higher among doctors in DHs (31%) compared to those in OHs (22%).

Table 7: Dimensions of Work Environment (Doctors)

Dimensions in Work Environment (%)	DH	OH	Total
Satisfied with the timetable	67.8	65.0	66.4
Satisfied with the nature of work	67.6	75.0	71.0
Average time spent per patient in IPD (in minutes)	10.1	9.8	10.1
Average time spent per patient in OPD (in minutes)	5.9	6.4	6.2
Satisfied with the time spent per patient in IPD	54.2	58.3	56.3
Satisfied with the time spent per patient in OPD	38.9	41.7	40.3
Often experienced interference from politicians	36.6	31.7	34.4
Merit not taken into account for promotions/transfers	40.8	43.3	42.0
Number of doctors	71	60	131

On an average doctors spend about 10 minutes per patient in IPD and 6.2 minutes per patient in OPD. While time spent by doctors with IPD patients is same in OHs and DHs, the time spent by doctors with OPD patients is slightly higher in OHs (6.4 minutes) than in the DHs (5.9 minutes). This may due to the higher OPD patient turnover in DHs. Satisfaction of the time spent on each patient by doctors shows that only 56% are satisfied with it in IPD and 40% in OPD. Hence the dissatisfaction among doctors for time spent is higher for OPD than for IPD.

To understand the extent of political interference we asked the doctors whether they have faced any such interference from politicians. One-third of the doctors said that they themselves have "often experienced" political interferences. Only one-fifth of the doctors said that they have never experienced political interference. To understand how merit is valued in the public health department, we asked the doctors a question whether promotions and transfers are carried out according to merit or not. In response to this question, 42% of the doctors said that merit is not at all taken into account for promotion or transfer. Only 18% of the doctors said that the promotions and transfers are done only on basis of merit. The doctors' response reflects the level of mismanagement of promotions and transfers in the public health department. This will have implications for the quality of health care as the provider satisfaction is an important component of the client satisfaction.

Dimensions of Work Relationship

Under this dimension issues like working relationship with colleagues (juniors, colleagues, and seniors), appreciation from superiors, independence from interference by superiors, and respect and trust from clients are covered (Table 8). Many a time, the same patient is looked after by more than one doctor in hospitals. Hence, a teamwork for doctors is always necessary in their daily duty, particularly for operations. Nearly 70% of the doctors said that such

Table 8: Dimensions of Work Relationship (Doctors)

Dimensions of Work Relationship (%)	DH	OH	Total
Presence of team work always	69.0	68.3	68.7
Fully comfortable in contacting other doctors	85.9	78.3	82.4
Junior staff work according to the norm	46.3	58.3	51.9
Satisfaction with the assistance of junior staff	74.6	75.0	74.8
Attitude of colleagues encouraging	74.6	68.3	71.8
CS/RMO responds positively for issues	87.5	87.0	87.3
Patients have respect and trust in doctor	91.5	83.3	87.8
Often experienced fighting reaction from patients	16.9	15.0	16.0
Fighting attitude of patients frequent these days	19.7	26.3	23.7
Always superiors appreciate good work	40.8	48.3	44.3
Total number of doctors	71	60	131

teamwork always exists among them. If we go by their other responses for this question, it appears that teamwork in general is better in both DHs and OHs. Doctors do not have any hesitation in contacting their other colleagues as 83% of them are fully comfortable in contacting other doctors. Similarly 80% of the doctors exchange ideas and information among themselves. It appears that teamwork and work relationships are better among doctors in both DHs and OHs.

To understand the work culture among the junior staff we asked them a question whether their junior staff work according to the norm. Only half of the doctors said that the junior staffs work according to the norm and another 37% felt that they work only partially according to it. Though half of the doctors said that junior staff work according to the norm, three-fourths are satisfied with the assistance offered by the junior staff. Twenty-one percent of the doctors were not satisfied with the assistance offered by their junior doctors.

To understand the doctors' relationship with their senior colleagues (Civil Surgeon and RMO) we asked the doctors whether they have talked to the CS and RMO regarding hospital matters. Eighty-four percent of the doctors said that they have talked to their seniors regarding hospital matters. The percentage of doctors who talked to their seniors is higher in DHs than in OHs. Most of these doctors feel that the seniors respond positively when they talk to them.

Another dimension with the work relationship is the doctor–patient relationship. To understand this relationship we first asked the doctors whether patients have respect and trust in them. Eighty-eight percent of the doctors said yes, and this percentage is more in DHs (92%) compared to OHs (83%). We further asked the doctors if they ever experienced strong/fighting reaction from the patients. Sixteen percent of the doctors said that they had very often experienced it and another 38% said that they had occasionally experienced the same reaction. They were further asked whether this fighting attitude is frequent these days. One-fourth of the doctors said that it is increasing these days while two-thirds answered negatively.

Appreciation from superiors is always necessary to recognize such good performance. To understand this we asked the doctors whether the superiors appreciated their good work. In response, 44% of the doctors said that the superiors always appreciated the good work and another 31% said that they were appreciated only sometimes.

Dimensions of Professional Satisfaction

To understand professional satisfaction among the doctors, its dimensions like training opportunities, utilization of expertise in the job, opportunities for career advancement in job, and satisfaction with the accomplishment are covered in Table 9. Nearly 80% of the doctors were deputed for on-job training programs of various durations and the remaining 20% were not deputed for any programs. Among the doctors, 55% are satisfied with their present work, 36% are somewhat satisfied, and 10% are totally not satisfied with the present work. Though the level of total dissatisfaction with the job is only 10%, even this level of dissatisfaction should be a matter of concern for the management. The level of satisfaction with the present work is higher in DHs (62%) compared to that in OHs (47%). Regarding the utilization of their expertise, nearly half (47%) of the doctors said that they are able to utilize their expertise in the job to the fullest extent, 45% said that they are able to utilize to some extent, and 6%, very rarely. More doctors in DHs (55%) than in OHs (38%) said that they are able to utilize their expertise to the full extent. This reveals the non-availability of infrastructure to utilize the expertise of the doctors to the fullest extent, particularly in OHs.

Table 9: Dimensions of Professional Satisfaction (Doctors)

Dimensions of Professional Satisfaction (%)	DH	OH	Total
Deputed for on-job training programs	77.5	76.7	77.1
Satisfied with the present work	62.0	46.7	55.0
Fully able to utilize the expertise in the job	54.9	38.3	47.3
Fully satisfied with the accomplishments so far	47.9	35.0	42.0
Would have progressed better in a private practice	50.7	40.0	45.8
Government service has a good scope for career advancement	16.9	25.0	20.6
Total number of doctors	71	60	131

In general, timely promotion is an important matter for job satisfaction among the employees. The percentage of doctors who said that they are satisfied to a large extent in their accomplishment so far is 42%. Satisfaction with accomplishment is higher among the doctors in DHs (48%) compared to those in OHs (35%). One-fourth of the doctors said that government service does not have good scope for career advancement whereas one-fifth said that government service does have a good scope for career advancement for all.

There is a general impression that the doctors in private practice earn more and progress better. To know how the government doctors react to this issue we added the following question: Do you think you would have progressed better in private practice? Forty-six percent of the doctors said that they would have progressed better in such a situation and 36% said that they "can't say." Those who said that they would have progressed better in a private practice is more in DHs (51%) than in OHs (40%).

Dimensions of Personal Loses and Gains

Housing, family problems (for example, education of children, working spouse, time for family), and pay package are the issues addressed under personal gains and losses (Table 10). More than half of the doctors (53%) live in staff quarters provided by the administration within the hospital premises. The percentage of doctors staying in staff quarters is more in OHs (60%) than in DHs (47%). Among those living in staff quarters 35% are not satisfied with the condition of the quarters. Dissatisfaction with the condition of the quarters is more in DHs (39%) than in OHs (31%).

Table 10: Personal Loses and Gains (Doctors)

Dimensions of Personal Gains and Loses (%)	DH	OH	Total
Live in staff quarters	46.5	60.0	52.7
Satisfied with the condition of the staff quarters	30.3	16.7	23.2
Easy access to health services for the family	66.2	56.7	61.8
Face family problems (education, job of spouse)	78.9	70.0	74.8
Not getting sufficient time for family	56.3	30.0	44.0
Pay package is adequate	29.6	28.3	29.0
Total number of doctors	71	60	131

Those who do not reside in staff quarters were asked about their housing arrangement. Among those who do not stay in staff quarters, half of them stay in their own houses and the remaining half in rented accommodations. On the whole, 75% of the doctors either live in staff quarters or live in their own houses. This percentage is higher for the doctors in OHs (82%) compared to the doctors in DHs (69%). It appears that residential accommodation is not a major problem for the doctors as only 15% in OHs and 28% in DHs stay in rented houses. Even this may be due to their convenience for private practice.

Doctors who do not stay in the quarters were asked about the distance of the residence from the hospital. The distance from the hospital reveals that most of these doctors reside very close to hospital (70% within 2 kms). Among those who do not reside in staff quarters 82% use their own private vehicles to commute to the hospital. Since the accommodation does not appear to be a major problem for the doctors, the issues like better maintenance of the quarters should be given importance by the management as many of them are not happy with the maintenance of the quarters.

Since the doctors' job is transferable, they face problems like education of their children and the job of the spouse. We asked them if they faced any such problems. Three-fourth of the doctors said yes. Doctors facing such problems are more in DHs (79%) compared to OHs (70%). For many doctors jobs are assigned round the clock in the hospitals. Due to this nature of the job 40% doctors said they do not get sufficient time for family/personal work. This problem is more severe for doctors in DHs (56%) than in OHs (30%). It seems that the doctors working in DHs face relatively more family problems (children's education, job of spouse, and lack of time for personal work) than their counterparts in OHs.

By being in government services, the doctors can easily avail the health services for their family members. This is one of the important personal benefits for the doctors. Sixty-two percent of the doctors said that their government service leads to an easy access to health services for the family. Slightly more doctors in DHs (66%) compared to OHs (57%) agreed to this personal benefit. Salary is an important component of personal gains for the doctors. Only 29% of the doctors said that their pay package is adequate and the remaining 71% said that it is inadequate.

Satisfaction Scores for Doctors

For each dimension of satisfaction (work environment, work relationship, professional satisfaction, and personal gains and losses) we have calculated the satisfaction scores for doctors. For each dimension, the satisfaction score ranges from a minimum of 0 to a maximum of 100. In addition to the aforementioned dimensions, we have also calculated a score for political interference and the importance given to merit for promotions/transfers. We present the satisfaction levels of doctors by each dimension in Table 11.

The satisfaction scores regarding various dimensions of the work are low among the doctors. Among the dimensions, maximum satisfaction is with the work relationship and lowest satisfaction is with political interference and merit not taken into account for promotions/transfers. The satisfaction regarding the work

Table 11: Satisfaction Scores of Doctors by Different Dimensions (Maximum Score = 100)

Dimensions of Satisfaction	Satisfaction Scores			
	DHs		OHs	
	Number	Score	Number	Score
Work environment	71	44.2	60	45.3
Work relationship	71	70.4	60	72.3
Professional satisfaction	71	50.6	60	42.1
Personal gains and loses	71	29.9	60	31.0
Political interference and merit not considered	71	18.7	60	23.8

Table 12: Dimensions of Work Environment (Nurses)

Dimensions of Work Environment (%)	DH	OH	Total
Adequacy of staff nurses	35.3	50.0	43.5
Adequacy of ayas	17.6	23.4	20.9
Adequacy of ward boys	21.6	43.8	33.9
Adequacy of supply of medicines	31.4	26.6	28.7
Adequacy of supply of equipments	54.9	50.0	52.2
Promotions/transfers are done only on merit	43.1	21.9	31.3
Number of Nurses	51	64	115

relationship is similar in DHs and OHs at 70.4 and 72.3, respectively. In both DHs and OHs satisfaction regarding the work environment is low at 44.2 and 45.3, respectively. Doctors in DHs are relatively better-satisfied (50.6) in professional satisfaction than the doctors in OHs (42.1). The satisfaction in terms of personal gains is very low and almost similar across district and other hospitals (31.0 and 29.9, respectively). The dissatisfaction regarding the political interference is highest in the hospitals as the scores are very low in DHs and OHs (18.7 and 23.8, respectively).

Provider Satisfaction: Nurses

Besides the doctors, nurses are one of the important components of the health care delivery system. They take care of the patients round the clock, particularly in IPDs. Since the nurses interact with the patients more often than the doctors their care and courtesy are even more crucial in patient care. For the interview, we purposively selected senior nurses in the hospitals, that is, all in-charge nurses and senior ones among the staff nurses. In the following section we provide the job satisfaction levels of nurses.

Dimensions of Work Environment

Work environment of the nurses reveals severe shortages of personnel and other physical inputs available to them in the hospitals (Table 12). For example, only 44% of the nurses said that they have adequate staff nurses. Shortage of staff nurses appear to be more acute in DHs compared to the OHs as only 35% of the nurses from DHs said that they have adequate staff nurses compared to half of the nurses from OHs. Similarly adequacy of supporting staff for nurses (ayas and ward boys) is also in severe shortage,

particularly in DHs according to the nurses.

The problems of medicines are faced by nurses more directly than doctors, because nurses have to distribute the medicines to the patients. Only 29% of the nurses said that the hospital has no shortage of medicines. Adequacy of equipments is somewhat better than the adequacy of medicines in the hospitals as half of the nurses said that they have adequate supply of equipments. Only 31% of the nurses said that promotions/transfers are done on the basis of merit. Forty-three percent of the nurses from DHs agreed that promotions/transfers are done on the basis of merit in DHs (43%) whereas only 22% agreed so in OHs. This is possible as most of the nurses working in DHs have been promoted from OHs.

Dimensions of Work Relationship

For nurses, work relationship with the seniors, colleagues, juniors, and patients is important in hospitals to coordinate the patient–care activities. Appreciation from the seniors for the good work done by the nurses is also an important part of the work relationship as it increases their morale and encourages them to perform better. Ninety-three percent of the nurses said that the staff nurses work according to the norm (Table 13). Four-fifths of the nurses are also satisfied with the assistance offered by the staff nurses. It appears that the work relationship among the nurses is by and large good. The better work culture among them is helpful for the nursing care which ultimately benefits the patients. Regarding the work of ayas and ward boys, 74–83% of the nurses said that ayas and ward boys work according to the norm.

Table 13: Dimensions of Work Relationship (Nurses)

Dimensions of Work Relationship (%)	DH	OH	Total
Staff nurses work according to the norm	94.1	91.8	92.9
Fully satisfied with the assistance of staff nurses	80.0	75.5	77.8
Ayas work according to the norm	60.0	84.3	73.6
Ward boys work according to the norm	68.2	93.4	82.9
Have frequent discussion with colleagues	66.7	59.4	62.6
Attitude of colleagues encouraging	76.5	81.3	79.1
CS/RMO responds positively for issues	92.2	88.7	90.3
Patients have trust in nurses	94.1	96.9	95.7
Often experienced fighting reaction from pts.	9.8	4.7	7.0
Patients' fighting reaction is increasing	64.7	56.3	60.0
Superiors always appreciate the good work	43.1	32.8	37.4
Number of nurses	*51*	*64*	*115*

Almost all the nurses discuss with their colleagues the issues of the hospitals; 63% of them discuss the issues very often. Nearly 80% of the nurses reported that the attitude of their colleagues is encouraging during these discussions. Similarly, almost all the nurses talk to their senior colleagues (Matron, RMO, and Civil Surgeon) about the improvement needed in their hospital and 90% of the nurses reported that the seniors always respond positively. The work relationship of the nurses by and large indicates the better work culture between seniors and juniors. But the appreciation of the seniors for the good work done by the nurses is not universal as only 37% of the nurses said that their seniors always appreciate them when they do good work.

Client–Provider Relationship

Regarding the nurse–patient relationship, 96% of the nurses feel that the patients have respect and trust for nurses. However, 7% of the nurses (and 16% of the doctors) said that they had experienced strong reaction from patients very often. The responses to the question on experience of strong reaction (often, occasionally, and rarely) from patients reveal that three-fourths of the nurses (also the same percentage of doctors) have experienced strong reaction from patients at varying degrees at some point of time in their career. Sixty percent of the nurses reported that the fighting attitude of the patients is increasing these days. This is much higher than the percentage reported by the doctors (24%). From the responses of the doctors and nurses it is clear that the "strong reaction" of the patients is increasing these days (Table 14). On the one side, though this attitude of the patients may indicate the demand for

Table 14: Client–Provider Relationship

Client–Provider Relationship (%)	Doctors			Nurses		
	DH	OH	Total	DH	OH	Total
Patients have respect and trust in you	91.5	83.3	87.8	94.1	96.9	95.7
Often experienced strong reaction from patients	16.9	15.0	16.0	9.8	4.7	7.0
Ever experienced strong reaction from patients	76.0	76.7	76.3	80.4	73.5	76.6
Patients' strong reaction is frequent these days	19.7	26.3	23.7	64.7	56.3	60.0
Number of doctors/nurses	71	60	131	51	64	115

better health services, the other side it indicates the deteriorating patient–provider relationship.

Dimensions of Professional Satisfaction

Eighty-one percent of the nurses were deputed for the on job training program sometime during their career and 89% are satisfied with the present timetable that they are working (Table 15). But their assessment regarding the workload assigned to them gives a mixed picture. More than half of the nurses (55%) feel that they are overburdened with the workload. The proportion of nurses who said that they are overburdened is much higher in DHs (67%) compared to nurses in OHs (45%). Further, we asked of their opinion regarding the nature of work. Forty percent of the nurses

Table 15: Dimensions of Professional Satisfaction (Nurses)

Dimensions of Professional Satisfaction (%)	DH	OH	Total
Deputed for training programs	84.3	78.1	80.9
Satisfied with current time schedule	92.2	85.9	88.7
Workload overburdened	66.7	45.3	54.8
Nature of work needs improvement	74.5	46.9	59.1
Doctors get credit for curing patients than nurses	62.7	42.2	51.3
Number of nurses	**51**	**64**	**115**

feel that their nature of work is properly designed and the remaining 60% said that the nature of work needs improvement. Those who said that the nature of work needs improvement are much higher in DHs (75%) than in OHs (47%). The responses to the questions on "workload" and "nature of work" reveal that the nurses are generally overburdened with the work, particularly in DHs.

Nurses take care of the patients round the clock, particularly in IPDs. It means that their care and interaction

with the condition of the staff quarters. This is considerably lower than the doctors' dissatisfaction with the condition of the quarters (35%). Among those who reside outside the quarters nearly 80% of them reside within the distance of three kilometres from the hospital.

More nurses (80%) than the doctors (62%) said that working in the government hospital leads to an easy access to health services for the family members (Table 17). But 79% of the nurses said that they face family problems (education of children and husbands job) on account of

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patient care is

their work in the government hospital. The percentage of

who said so was 75%. It appears that the majority

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feel that their nature of work is properly designed and the remaining 60% said that the nature of work needs improvement. Those who said that the nature of work needs improvement are much higher in DHs (75%) than in OHs (47%). The responses to the questions on "workload" and "nature of work" reveal that the nurses are generally overburdened with the work, particularly in DHs.

Nurses take care of the patients round the clock, particularly in IPDs. It means that their care and interaction with the patients is more than the doctors'. To know from the nurses that their contribution to the patient care is recognized by the patients or not, we gave the nurses a statement that doctors get credit for curing/treating the patients than nurses. The response shows that half of the nurses agreed to the statement while the remaining half did not agree. The percentage agreed to the statement is more in DHs (63%) than in OHs (42%). Since the doctors in DHs are generally seniors and specialists, it is natural that patients attach more credit to the doctors than to the nurses.

Dimensions of Personal Gains and Loses

Among the nurses, 40% are living in staff quarters and the remaining live outside (Table 16). As expected, the percentage of nurses living in staff quarters is much higher in OHs (58%) compared to DHs (18%). It appears that for the nurses working in DHs, housing is not a major problem as 59% of them staying in their own residences, 18% in quarters, and 22% in rented accommodations. Among the nurses who are living in staff quarters 15% are not satisfied

Table 16: Dimensions of Personal Gains and Loses (Nurses)

Dimensions of Personal Gains and Loses (%)	DH	OH	Total
Staying in staff quarters	17.6	57.8	40.0
Not satisfied with the condition of staff quarters	33.3*	10.8	15.2
Residence within three kms (if not staying in quarters)	71.4	88.9	78.2
Easy access to health services for family	80.4	79.7	80.0
Face family problems due to transfer	78.4	79.7	79.1
Get sufficient time for family/personal work	47.1	42.2	44.3
Do not getting sufficient time for family/personal work	21.6	21.9	21.7
Pay package adequate	54.9	89.1	73.9
Number of nurses	51	64	115

Note: * based on three cases as only nine nurses from DHs among those interviewed live in quarters

with the condition of the staff quarters. This is considerably lower than the doctors' dissatisfaction with the condition of the quarters (35%). Among those who reside outside the quarters nearly 80% of them reside within the distance of three kilometres from the hospital.

More nurses (80%) than the doctors (62%) said that working in the government hospital leads to an easy access to health services for the family members (Table 17). But 79% of the nurses said that they face family problems (education of children and husbands job) on account of their work in the government hospital. The percentage of doctors who said so was 75%. It appears that the majority

Table 17: Comparison of Personal Gains and Loses for Doctors and Nurses

Personal Gains and Losses (%)	Doctors			Nurses		
	DH	OH	Total	DH	OH	Total
Staying in staff quarters	53.5	40.0	47.3	17.6	57.8	40.0
Not satisfied with the condition of staff quarters	39.4	30.6	34.8	33.3	10.8	15.2
Residence within a km (if not staying in quarters)	23.7	66.7	40.3	33.3	55.6	42.0
Easy access to health services for family	66.2	56.7	61.8	80.4	79.7	80.0
Face family problems due to transfer	78.9	70.0	74.8	78.4	79.7	79.1
Don't get sufficient time for personal work	56.3	30.0	44.3	21.6	21.9	21.7
Pay package adequate	29.6	28.3	29.0	54.9	89.1	73.9
Number of doctors/nurses	71	60	131	51	64	115

of the doctors and nurses (75–79%) face the family problems.

One-fifth of the nurses (22%) said that they don't get sufficient time for their personal and family work. More doctors (44%) than nurses said that they do not get sufficient time for family and personal work. In all, three-fourths of the nurses said that their pay package is adequate and the remaining one-fourth feels otherwise. But there is a vast variation between the nurses in OHs and DHs regarding the opinion on their pay package: 89% of the nurses from OHs feel that their salary is adequate whereas only 54% of the nurses from DHs feel so. When we compare the satisfaction of doctors and nurses with their salary we find that the doctors are more dissatisfied with their salary than the nurses: only 29% of the doctors felt that their salary is adequate, whereas 74% of the nurses

felt the same. Doctors normally compare their salary with the higher earnings of the doctors who practice privately and feel that the salary given by the government is lower. But nurses cannot compare their salary with the salary of the nurses working in private hospitals as the salary paid to the government nurses is much higher than the salary paid in the private hospitals.

Satisfaction Scores for Nurses

The satisfaction scores for nurses were computed as done for the doctors earlier. Satisfaction scores in general are lower for nurses and satisfaction levels are more or less similar in both DHs and OHs (Table 18). In personal gains and losses, nurses in OHs are relatively better satisfied than their counterparts in DHs. In both OHs and DHs, satisfaction score for work relationship is higher than for the other dimensions. Nurses are more dissatisfied with their work environment compared to the other dimensions

Table 18: Satisfaction Scores of Nurses by Different Dimensions (Maximum Score = 100)

Dimensions of Satisfaction	Satisfaction Scores			
	DHs		OHs	
	Number	Score	Number	Score
Work environment	51	38.9	64	37.4
Work relationship	51	64.0	64	65.4
Professional satisfaction	51	55.5	64	54.6
Personal gains and losses	51	39.1	64	47.3

as the scores are less than 40.

Provider Satisfaction: Technicians

Out of the 78 technicians interviewed for the study, 57 are from OHs and the remaining 21 from DHs (Table 19). One-third is x-ray technicians, another one-third is lab technicians, two-fifths are ophthalmic technicians, and the remaining (14%) are pathology, ECG, and BB technicians. For the better diagnosis of diseases by doctors, the hospitals should have adequate number of technicians. Any shortage in the technicians will hamper the process of diagnosis and ultimately patients are put in a disadvantaged position. In all, 37% of the technicians said that their hospital does not have adequate number of technicians. The shortage of technicians is acute in DHs as 14 out of 21 technicians said that their hospital does not have adequate number of technicians.

Table 19: Dimensions of Satisfaction of Technicians

Dimensions of Satisfaction of Technicians (%)	DH	OH	Total
Hospital has adequate number of technicians	33.3	73.7	62.8
Have adequate supply of materials	57.1	38.6	43.6
Have adequate equipments	66.7	63.2	64.1
Have adequate space	57.1	50.9	52.6
Face difficulties in doing the work	61.9	57.1	59.0
Talked to seniors about difficulties in the work	100.0	81.8	87.0
Superiors always appreciate good work	57.1	59.6	59.0
Satisfied with the work	90.5	93.0	92.3
Face pressure at work	38.1	33.3	34.6
Workload overburdened	66.7	24.6	35.9
Number of technicians	**21**	**57**	**78**

Forty-four percent of the technicians do not face any shortage of supply of materials required for their work. But more technicians face the shortage of supply in materials in OHs than in DHs. It appears that DHs face more shortage of technicians whereas OHs face inadequate supply of materials. Nearly two-thirds of the technicians said that they do not face any shortage of equipments. Only half of the technicians feel that space given to their work is adequate. Three-fifths of the technicians said that they face difficulties in doing their work. When we asked the technicians to specify the nature of difficulties faced by them they mainly listed the shortage of staff, materials, equipment, and heavy workload. Among those with difficulties in their work, 87% talked to the superiors about the same with 60% feeling their seniors responded positively.

Appreciation by the superiors for the good work done by the technicians is not universal as only 59% said that their superiors always appreciate the good work. The percentage of technicians who said that their superiors never appreciate the good work are 15%. Almost every technician (72 out of 78) is satisfied with his/her work. One-third of the technicians feel that they face pressure at work. Technicians who feel that they are overburdened with the workload are much higher in DHs (67%) compared to OHs (25%). Interview with the technicians mainly reveals that there is shortage of staff, supply of equipment and materials, space, and heavy workload. Due to the

shortages of the technicians they feel that they are overburdened, particularly in DHs.

Assessment of Pharmacists regarding Supply of Medicines

Interviews of the doctors, nurses, and patients have revealed that there is a shortage of supply of medicines in the hospitals. Pharmacist of the hospitals who distribute medicines to the different wards can assess the situation much better. We interviewed one pharmacist from each hospital selected for the study mainly to know the availability of medicines. In all 26 pharmacists were interviewed. Out of 26 pharmacists interviewed, only 10 of them (38.5%) said that they get adequate supply of medicines and the remaining 16 (61.5%) said that the medicine supply is not adequate (Table 20). It means that nearly six out of 10 hospitals face shortage of medicines according to the

Table 20: Shortage of Medicines as Reported by Clients and Providers

Shortage of Medicines as Reported by Clients and Providers	%
Patients	
DHs-IPD patients: Totally satisfied with the availability of medicines	61.2
OHs-IPD patients: Totally satisfied with the availability of medicines	60.5
Doctors	
DHs-Doctors: Medicines supply totally fulfilled in the hospital	39.4
OHs-Doctors: Medicines supply totally fulfilled in the hospital	25.0
Nurses	
DHs-Nurses: Medicines supply totally fulfilled	31.4
OHs-Nurses: Medicines supply totally fulfilled	26.6
Pharmacist	
All hospitals: No shortage of supply of medicines	38.5

assessment of pharmacists. The interviews of patients as well as different types of providers confirm the shortage of supply of medicines in the hospitals. The assessment of providers about the adequacy of medicines falls in the range of 25–40%. However, 61% of the patients are totally satisfied with the availability of medicines. In this respect, providers are the best judges than the patients.

Provider Satisfaction: Class-IV Employees

We interviewed 57 Class-IV employees of the hospitals (38 from OHs and 19 from DHs) to understand their perception. These employees are lowest in the hierarchy of the hospital administration. Most of these Class-IV employees work as ward boys (60%), sweepers (21%), and attendants in various departments of the hospital (office, lab, X-ray, etc). Most of these employees are males (75%), educated above eight years of schooling (70%), aged above 31 years (84%), and with more than 10 years of service (56%). Forty-two percent of these employees belong to Scheduled Caste and Scheduled Tribe categories. Majority of these employees (84%) feel that they do the routine work. Similar to other providers, Class-IV employees also face problems like shortage of supply of materials, heavy workload, and work not related to their job. The opinions of the Class-IV employees reveal that the job satisfaction among them is better as most of them are happy with the salary and its timeliness, they see the opportunity for upward mobility, more than half of them do not see any problems in their work, and most of them are happy with the attitude of seniors. Even though they do the menial job in the hospitals their contribution is more crucial for patient care. Hence their contribution should be recognized and appreciated properly by the authorities.

Summary and Conclusions

Although providers are important component of the health care service provision, their perspectives have received little attention compared to the clients' perspectives. In order to have a successful program that serves clients well, we need a better understanding of the provider perspectives. In this study, we tried to understand their perspectives from the public hospitals in Maharashtra. Monetary benefits coupled with job security were the major reasons for choosing government services by the doctors. Majority of the doctors also see their profession as an opportunity to serve poor people. However, personal benefits outweigh other reasons as far as reasons for joining government service is concerned. According to the providers, government hospitals suffer from shortage of equipment, medicines, staff, diagnostic facilities, and political interference. It means that the providers are working under the system with a lot of inadequacies to fully satisfy the patients.

We have assessed the satisfaction of the providers under four major dimensions, namely, work environment, work relationship, professional satisfaction, and personal gains and losses. The current work environment of the providers reveals the severe shortage of staff, equipment, medicines, and corruption and mismanagement of promotions and transfers. Unless providers are given a good physical infrastructure and freedom from political interference they cannot deliver the expected standards of health care. This

will have very serious implications for the quality of health care as the provider satisfaction is an important component of the client satisfaction.

Dimensions of work relationship reveal that teamwork and work relationships are better among providers. However, many of them feel the lack of appreciation and motivation for good work from the senior authorities. Both the doctors and nurses feel that though patient–provider relationships are good, the fighting reactions of patients are increasing in recent times. On the one hand, this attitude of the patients may indicate the demand for better health services, but on the other hand it also indicates the deteriorating patient–provider relationship. Hence, measures to improve the client–provider relationship should be addressed.

According to the providers, on-job training opportunities are available to them in the system. However, half of the doctors felt that they are not able to utilize their expertise in the job, particularly in OHs. This reveals the non-availability of infrastructure to utilize the expertise of the doctors to the maximum extent. Satisfaction with the present work is not universal and dissatisfaction is particularly higher among doctors than nurses. Job satisfaction and satisfaction with the accomplishment so far in the career appear to be better among nurses compared to the doctors. Majority of the doctors said that government service does not have good scope for career advancement and nearly half of the doctors are of the opinion that they would have progressed better in private practice.

Staying arrangement, family problems, and pay package are the issues addressed under personal gains and losses. Since residential accommodation does not appear to be a major problem for the providers, issues like better maintenance of the quarters should be given importance. More doctors than nurses said that they face family problems (children's education, job of spouse, and lack of time for personal work) due to their job. Doctors are more dissatisfied with their salary than the nurses. Doctors normally compare their salary with the higher earnings of those who practice privately and feel that the salary given by the government is lower. But nurses cannot compare their salary with the salary of the nurses working in private hospitals as the salary paid to the government nurses is much higher than that paid in the private hospitals.

Among the various dimensions of professional satisfaction, the highest dissatisfaction is found with respect to lack of scope for career advancement followed by the lack of satisfaction with their accomplishments. Lack of recognition of merit is a serious issue which has to be prioritized. As it is, the comparison with the private sector, family problems, the supposedly inadequate salary are making doctors unhappy. Added to these, if the merit is not recognized, frustration will increase and the doctors may not be attracted to government service just for "job security." Efforts have to be made to be judicious in making decisions about promotions/transfers. Doctors are highly dissatisfied with the "personal gains." The most disturbing factor is the inadequate salary. Genuinely, the starting salary of a doctor is very low (basic salary of Rs 6,500).

The suggestions of what would increase the quality of health care in public hospitals reflect both the needs of the hospital as well as motivation of the providers. Good physical infrastructure, adequate salary for doctors, timely promotion, recognition for merit, and less political interference would motivate them to provide better quality of care to the patients. More importantly, regular and adequate supply of medicines and good support facilities would further help the providers to deliver a good quality of care.

Limitations of the Provider Satisfaction Study

It should be mentioned that the provider satisfaction studies reveal the quality of care from the perspectives of the providers. It does not mean that if providers are given all the facilities, it would automatically improve the quality of care. Client satisfaction has to be incorporated in the drive to increase the quality of care in public health programs. It is true that providers play a major role in identifying and meeting clients' health care needs. However, their service to the clients depends on providers' technical skills, interpersonal communication skills, infrastructure, and client perception about quality. When the providers' services and behavior fail to meet the clients' expected standards, clients will simply go to the other provider. But poor and underprivileged patients may not have an alternative, and hence are forced to accept low quality care in public hospitals, because of their poverty. Some providers may not volunteer to take steps that would increase the quality fearing that would increase their workload.

Some providers lack necessary technical and interpersonal communication skills to provide good quality of care. In a study in Uttar Pradesh ANMs could not define quality services or suggest how family planning services could be improved (Khan et al., 1995). Status difference between clients and providers can influence quality of care.

A study in public hospitals in Maharashtra found that providers were more likely to behave nicely if clients belonged to rich classes (Taleem, 2002). Lack of supervision can also affect quality. An evaluation of the eight national family planning programs found weaknesses in supervisory mechanism (United Nations Population Fund, 1994) as one of the reasons for low quality of services. Poor supervisions often involve superficial inspections and window dressed performance in India's public health programs (Mavalankar, 1999).

Government health functionaries usually blame the lack of equipment, medicines, manpower, and supplies for the poor quality of services. However, some observers point out that even when all facilities are made available, clients receive poor quality of care. This is so because some health workers show little respect for clients especially if they are from poor/illiterate and lower social strata and even believe that as the government provides free services, clients have no right to demand good quality service (Ramasundaram, 1994). It is also reported by the surveys that the friendliness of the providers in India is lower in public health facilities compared to private health facilities (IIPS and ORC Macro, 2000). All these issues suggests that providers need appropriate knowledge, behavior, communication, skills, supplies, clinical environment, and motivation to provide good quality care.

References

Khan, M.E., Patel, B.C. and Gupta, R.C. (1995), *Quality of Family Planning Services from Provider's Perspective: Observations from a Qualitative Study in Sitapur District, Uttar Pradesh*. New Delhi: Population Council.

Kols, A.J. and Sherman, J.E. (1998), "Family Planning Programmes: Improving Quality," Population Reports Series, J. No. 47, Johns Hopkins University School of Public Health, Population Information Programme, Baltimore.

International Institute for Population Sciences and ORC-Macro (2000), *National Family Health Survey (NFHS-2) 1998–99: India*. Mumbai: International Institute for Population Sciences.

Mavalankar, D. (1999), "Quality of Family Planning Programme in India: A Review of Public and Private Sector," Mimeograph, Indian Institute of Management, Ahmedabad.

Mulay, S. and Nagarajan, R. (2004), *Patient and Staff Satisfaction in Public Hospitals in Maharashtra*. Pune: Population Research Centre, Gokhale Institute of Politics and Economics.

National Sample Survey Organisation (1998), "Morbidity and Treatment of Ailments", NSS Fifty-Second Round, NSSO, New Delhi.

Paine, K., Thorogood, Margaret and Wellings, Kaye (1998), *The Impact of Family Planning Services on the Safety and Efficacy of Contraceptive Use: A Literature Review for WHO*. London: Health Promotion Research Unit, London School of Hygiene and Tropical Medicine.

Peters, D.H., Yazbeck, A.S. Sharma, R.R. Ramana, G.N.V. Pritchett, L.H. and Wagstaff, A. (2002), "Better Health Systems for India's Poor: Findings, Analysis and Options," Human Development Network, Health Nutrition and Population Series, The World Bank, Washington D.C.

Quality Assurance Project (2003), "Quality Performance Learning Series: Quality Assurance Theory and Tools," (Quality Assurance Kit CD-ROM), Quality Assurance Project, Bethesda, MD (http://www.qaproject.org/).

Ramasundaram, S. (1994), "Quality of Care in Health and Family Welfare Programme: A Service Provider's Perspective," Paper presented at the 'Seminar on Quality of Care', Gujarat Institute of Development Research, Ahmedabad, April 28–29.

Taleem Research Foundation (2002), *Satisfaction Assessment of Patient and Health Providers in the State of Maharashtra*. Ahmedabad: TALEEM.

United Nations Population Fund (1994), "Quality of Family Planning Services," Evaluation Reports, Number 8, UNFPA, New York.

World Bank (1993), *World Development Report 1993: Investing in Health*. Washington DC: International Bank for Reconstruction and Development.

World Health Organisation (1998), "Quality Assessment and Assurance in Primary Health Care," WHO Offset Publication Number 105, World Health Organisation, Geneva.

" *Information's pretty thin stuff unless mixed with experience.*"

— Clarence Day

Understanding Motivational Complexities in the Use of Plastic Bags

Seema Sanghi

The study assumes that people are rational and providing them with information will increase their knowledge and change attitudes and behaviour. Students have been found to be more aware of the harmful effects of using plastic bags in comparison to other groups. It has been found that no amount of information awareness and knowledge on the negative aspects of plastic bags would help alter the behaviour until and unless some penal measures are taken.

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Global environmental problems of shrinking natural resources, pollution, and population growth challenge the ways people live. As with many other disciplines, psychology attempts to develop human societies that are less exploitive in their use of the earth's natural resources (Kruse, 1995; Sterm, 1992a). Because psychologists refer to individual behavior rather than to behavior of whole societies they ask questions such as what determines an individual's ecological behavior, that is, "actions which contribute towards environmental preservation and or conservation or how can behavior be changed in a more ecological direction" (Axelrod and Lehman, 1993). People tend to develop certain motivational drives as a product of the external environment in which they live and these drives affect the way people view their surrounding environment, adopt certain strategies to behave, and respond to the environment. People's motivational drives reflect elements of the culture in which they grow up, for example, their family, school, church, and books. External consequences as well as internal needs tend to determine behavior.

Motivation has two important components – intensity or strength of the motivation and direction, that determines which behavior is chosen from all the possible ones and why. This assumption is based on the concept that consumer behavior is thus of use. The associative motives can be both overt and hidden, that is, consumers may or may not be aware of their motives for a given behavior.

There is an important distinction between primary motives, the purpose behind consumers' decisions to engage or not to engage in entire classes of behavior (to engage in ecologically responsible consumer behavior), and selective motives, which refer to the purposes behind consumers' decisions as to exactly which particular behaviors they want to engage in (recycling, saving energy, buying eco-products, etc).

Behavior: A Complex Interplay of Different Motives

Consumers' behavior is usually assumed to be determined by their ability to perform a behavior (Bagozzi and Warshaw, 1990). Ability refers to personal resources within the consumer needed to perform the behavior, as well as to opportunity which is determined by aspects of the immediate environment and refers to various external factors that impede or facilitate behavior.

It is generally recognized that individuals are motivated to behave in a certain way towards environmental issues. There are considerable psychological barriers to the diffusion of the ecologically extended consumption style. These barriers are usually attributed to the motivational complexity of ecologically responsible consumer behavior and to the perplexity of ecological information; different consumers may have different conceptions of ecologically oriented consumer behavior, thus, myriad ways of acting of their primary motivations for being ecologically responsible consumers (Hutton and Ahtola, 1991).

People are not always motivated to do something for which they lack the necessary resources and opportunities. Moreover, strong motivation is generally presumed to enhance people's abilities and also their perceptions of the behavioral control (Moisander, 1996). Information and motivation produce great impact on the behavior of human beings. Everyone can take some actions easily, for instance, people might install energy efficient lights, recycle bottles and newspapers, and carpool or use mass transit. In getting people to do so, there is a need to do much more than just to inform them about desirable actions. There is a need to motivate people to make behavioral changes (Gardner and Sterm, 1996).

Several methods could be used to categorize the "characteristics" of an environmentally concerned person, to measure public concern for the environment, and to understand the factors that motivate people to engage in pro-environment behavior. What are the intrinsic and extrinsic psychological factors that influence the behavior of people?

Intrinsic Factors

Intrinsic factors are related to autonomous motivations, that is, the decision to act is freely decided upon by individual attitudes and responsibility towards the environment. Attitudes represent a tendency to evaluate an entity such as an object or an idea in a positive or negative way. Attitude formation is "an ongoing process": they are formed before a behavior is performed (that is, based on knowledge and values which the individual holds) and after the behavior is carried out (that is, based on direct experience). People feel either morally or conventionally responsible for the environment. Moral responsibility feelings are related to moral concepts such as welfare and the rights of others and fairness considerations. Conventional responsibility feelings, on the one hand, are grounded in social customs or traditions and appeals to authorities. To feel conventionally responsible people require knowledge of expectations of what they should do as well as a readiness to accept these social expectations. This readiness is grounded in social emotions such as a person's desire for social approval and his fear of atonement, punishment, and loss of approval. Moral responsibility, on the other hand, depends on at least two things: the self-ascription of personal responsibility (that is, people feel obligated to care about the welfare of others beyond their own interests) and a person's awareness of the consequences of a given behavior.

Extrinsic Factors

Extrinsic factors are external motivational techniques. These techniques use behavioral strategies such as information, reinforcement, etc., to induce behavioral change.

Information, Knowledge, and Conviction

Providing information about an ecological issue and the practices that can be done in order to alleviate this problem is a commonly used strategy in environmental projects. This is important because knowledge of how to dispose plastic bags is obviously a necessary condition for an individual and a lack of it is perceived as a behavioral barrier (Tanner, 1999). These information strategies take the form of information letters, pamphlets, television and radio programs, etc. A more effective method to change reported attitudes and intentions regarding particular behaviors are educational workshops. However, it is often the case that these intentions are then not changed into actions (Bell et al., 1996).

Economic Incentives/ Weight-based Fees

Weight-based fees refers to a charge to households for garbage collection depending on the number of containers people set out. The aim of this charge is to provide incentives to redirect waste disposal from disposal sites to recycling centers, by increasing a household cost of discarding additional waste relative to its cost of recycling that is, not recycling leads to higher fees for waste collection services (Jenkins et al., 2000).

Unit pricing is a market-based collection scheme. This scheme gives only an indirect incentive to recycle while its direct incentive is to reduce waste quantities. Another desirable outcome of unit pricing besides recycling is that households adjust their purchase habits to generate less solid waste (Jenkins et al., 2000).

Reinforcement

Reinforcement techniques are usually developed after the problem arises and seeks to provide an incentive for change. Positive reinforcement uses rewards, that is, the person gains something valuable for performing environmentally constructive acts. Negative reinforcement offers relief from a noxious situation in exchange for desirable behavior. Punishment, on the other hand, means when an unpleasant consequence occurs (for example, a fine) as a result of undesirable behavior (Bell et al., 1996).

Nevertheless, the behavior change induced by rewards is only a short term one and makes program participants view financial motives as more important in relation to other motives. In addition to this, the positive effects on behavior are soon weakened once these incentives are removed. This undermines the effect mostly when the rewards were expected and contingent on task performance. Given these aspects, the use of financial rewards, unless necessary, does not really make sense. Furthermore, the size of the monetary incentives needed to produce change is often too big to be efficient. However, economic incentives still have a role to play but as a lever of information about the social cause of recycling, but not as an appeal to personal greed. Thus, although incentives are generally perceived as reliable at changing behavior to some extent, the money distributed will often exceed the value of the overall cost saved (Bell et al., 1996).

Feedback

Environmental feedback provides information about whether one is attaining or failing to attain a goal. Feedback provides information about the relative effectiveness of different behaviors and may also act as a reinforcer because it provides competency information, that is, it tells people when they are doing a good job ((Bell et al., 1996).

Convenience and Situational Factors

Convenience refers to the possibility of doing an activity with little effort or difficulty. Situational factors are often related to convenience like, for example, distance to recycling center. Situational factors also refer to the types of dwellings where participants live and the space available at home to carry out this practice. Situational factors often impose limitations that people have little control on. When implementing a policy, the design of the system used communicates intentions and priorities (Aberg, 2000). Providing a system that considers the user's needs and priorities and aims of being as convenient as possible is frequently mentioned when a high participation is required.

Socio-demographic Factors

Demographic trends like population, age structure, single households, labor force, more/less hours of work, etc. and other aspects like education, cultural values have all been examined with the aim of determining their correlation with pro-environmental behavior (OECD, 2002). Although a correlation exists, it is found to be limited.

Participation in Decision-making

In many cases policy-making pursues a top-down involvement. This means that the public is involved at the implementation stages of a policy thus dividing the responsibility for action from that of decision making. This is typical for different policies, for example health policies that advocate lifestyle changes are predicated upon the individual adoption of policy advice. Environmental policy also follows this approach and, in certain cases, participation in debate and policy-making is encouraged (Eden, 1996).

Diversity of Motives

Ecologically responsible consumer behavior takes into account the environmental consequences of different consumption acts by the consumer. Henion (1976) describes environmentally concerned consumer's behavior as one that "exhibits and reflects a relatively constant and conscious concern" (Figure 1).

For the environmental consequences related to the purchase, ownership, use a disposal of particular products or services" (plastic carry bags). Elkington et al. (1990) propose the following criteria for environmentally sound products and services. They:

- Are not dangerous to the health of people or animals.
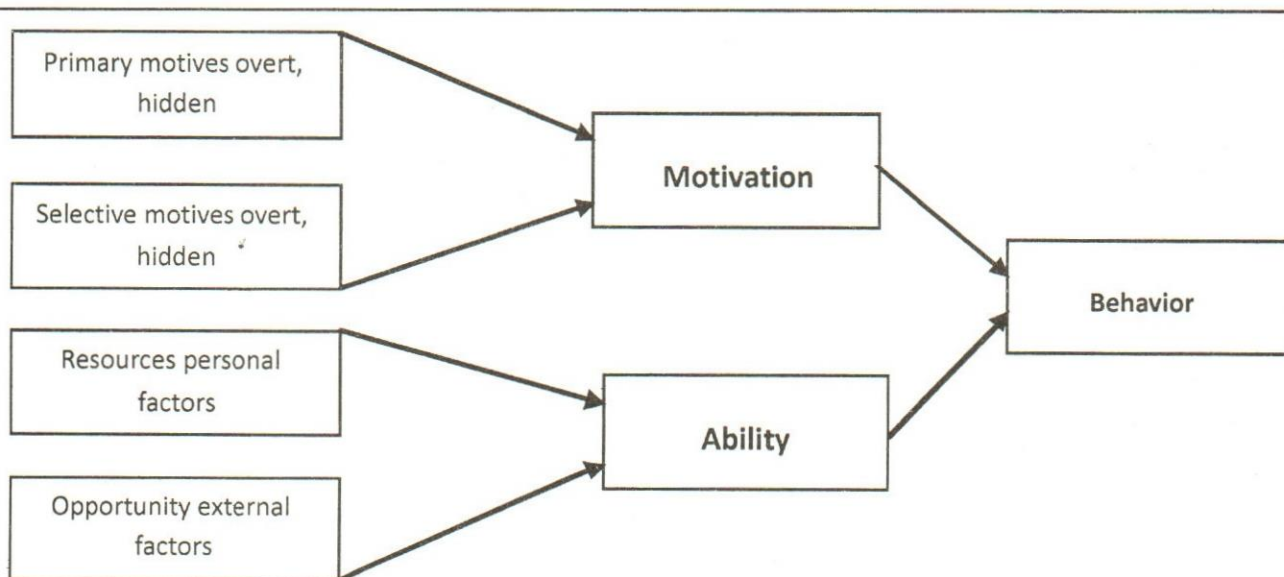- Do not cause damage to the environment during manufacture, use or disposal.

Fig. 1: Motivation for Ecologically Oriented Consumer Behaviour

- Do not consume a disproportionate amount of energy and other resources during manufacture, use or disposal.

- Do not cause unnecessary waste due to either excessive packaging or a short life span.

- Do not involve the unnecessary use of or cruelty to animals.

- Do not use material derived from threatened species or environments.

Motivational complexity

To be environmentally responsible usually involves difficult motivational conflicts, arising from the fundamental incompatibility of environmental protection-related collective goals and individual consumers' personal or self-interested benefits and the resulting free rider problem (Uusitalo,1991; Wiener and Doescher, 1991). In other words factors partly determine what ecologically positive behavioral alternatives they are willing to choose, and how much personal responsibility they are willing to assume for environmental protection. Also there are some moral and intellectual difficulties or barriers of ecologically responsible consumer behavior, which encourage consumers to exclude certain ecologically beneficial, but individual interrelations of what constitutes an ecologically sustainable way of life.

Waste is a growing problem for many countries. Together with being an inefficient use of resources, waste causes an array of environmental problems. Today more countries are moving towards the preferable options dictated by the waste management hierarchy in order to make their waste management system more sustainable. This research is to identify various motives whether intrinsic (actions decided upon by individuals) or extrinsic (external factors), socio-demographic, convenience and situational, or participation in decision-making which motivate and drive people to behave in a certain manner.

Use of Plastic Bags: Convenience or Compulsion

The Municipal Corporation of Delhi has finally realized that there is no place left to dump the city's trash. In an affidavit submitted to the Delhi High Court, the Corporation has detailed that there were three specified trash dumping sites in the metropolis, out of which two are already full and the third one will not last beyond six months. Though six new such sites have been identified, with the present rate of trash production, the situation will soon be out of control and we will not be surprised to see the Corporation lorries carrying the city's waste wandering in search of a place to dump it.

No Space to Dump

All waste disposal methods need space. With the growing volumes of our domestic waste following the increase in population, the urban planners and environmentalists are grappling with managing solid wastes, and are saying it is impossible to continue with the present rate of consumption and waste. Cities are running out of space and the municipal machinery cannot find new places for safe dumping. In metros like Delhi and Mumbai, this problem is becoming critical day-by-day.

By and large, the root of the trash problem is cultural change which seems superimposed on our traditional society. With the spread of consumerist approach, consumption, and in the same proportion, waste production has become the way of life. Status and success are measured in terms of consumption of goods and services. We want greater comfort and convenience with the least effort and bother. The development of a throwaway, convenient approach to life largely creates the problem. A real, long-lasting solution will require another cultural change.

The Research Problem

Being the capital city of India, Delhi is surrounded by bureaucrats, ministers, high-class businessmen, and highly educated people. In spite of this, plastic bags are littered on the roads, spit and dump everywhere, there are open dump yards from where garbage will freely float. These make one to think where he is living and why so, and if this is the condition of the capital, then what about the rest of the cities of the country? Although Delhi government lay a ban on colored plastic bags along with those whose thickness is less than 20 microns there is rampant use of such plastic bags.

In spite of awareness regarding the environmental hazard due to plastic bags because of their excessive use and improper disposal, people continue to do the same and no governance is able to stop this. The purpose of this research is to analyze and discuss the factors responsible for ecologically oriented consumption of plastic carry bags and to suggest some reasons why consumers are sometimes willing and at other times not willing to engage in environmentally responsible behavior.

Objectives of the Study

1. To analyze the motivational complexities in the use of plastic bags.

2. To analyze empirically the role of different motives in relation to resources and external factors underlying the use of plastic bags.

Methods of Study

Questionnaire

The questionnaire was designed according to the conceptual framework based upon the behavior model and drafted based on the information collected from primary and secondary sources such as books, periodicals, newspapers, websites and individuals. Questions were classified as Primary and Selective motives, which constitute motivations for the behavior. Questions related to ability were classified as Resources and External factors. There were 22 questions in the questionnaire. The initial questionnaire was tested during the pilot survey with sample size of 100 including all the mentioned categories. This questionnaire was critically reviewed and finalized for consumers and shopkeepers separately as they all have different motives and perceptions about consumption of plastic bags.

Sample

A sample of 200 housewives was drawn from various parts of the NCR. Hundred students were chosen from MCD schools, universities, colleges, and institutes. For lower income group category, a sample of 100 people was drawn from rickshaw puller, rag pickers, *kabadiwala*s, auto drivers, peons and slum dwellers. Two hundred professionals in NCR were interviewed. A sample of 100 people working in various institutes was drawn from the last category. To understand the use of plastic bag for packing, a sample of 92 shopkeepers who frequently used plastic bags in their shops was drawn. Finally eight manufactures of plastic bags and wholesale dealers from Sadar Bazaar were interviewed to understand their perspective.

Procedure

Primary data were collected through a questionnaire for 700 consumers of different segments of society comprising housewives, professionals, students, institutes, and lower income groups residing in Delhi and NCR. Data were also collected from 92 shopkeepers and eight producers through the same method and structural interview.

Results

It is necessary to know the pattern of reaction for each segment of the respondents under study in order to analyze the motivational complexities in the use of plastic bags and to empirically find out the role of different motives in relation to resources and external factors underlying the use of plastic bags.

Table 1 depicts the results: the highest and lowest percentage sof responses for the motives, resources, and external factors across all the groups. Plastic bags are a major problem for the environment, and that they are not biodegradable is almost unanimously agreed upon by all the groups with an average of 76.4% and 80.7% of respondents, respectively. As other alternatives of plastic

Table 1: Results of Categories of Consumers with Highest and Lowest Percentage of Responses

		Motives	Categories of Consumers with Highest and Lowest Percentage of Responses											
		Primary Motives	All users		Professionals		Housewives		Students		Low Income Group		Organisations	
S. No.	Item No.		Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
1	1	Threat to environment	76.4 (Major problem)	6.0 (Not a problem)	81.5 (Major problem)	18.5 (Minor problem)	74.5 (Major problem)	3.5 (Not a problem)	93.0 (Major problem)	3.0 (Not a problem)	52.0 (Major problem)	19.0 (Minor problem)	78.0 (Major problem)	4.0 (Not a problem)
2	2	Not biodegradable	80.7 (Agree)	8.7 (Disagree)	86.5 (Agree)	2 (Don't know)	78 (Agree)	9.0 (Disagree)	93.0 (Agree)	1.0 (Disagree)	53.0 (Agree)	21.0 (Disagree)	90.0 (Agree)	4.0 (Don't know)
3	4	Other alternative	93.7 (Paper bag)		57.5 (Cloth/ jute bag)	42 (Paper bags)	50.5 (Cloth/ jute bag)	2.5 (Net bags)	64.0 (Cloth/ jute bag)	1.0 (Net bags)	61.0 (Cloth/ jute bag)	3.0 (Net bags)	62.0 (Cloth/ jute bag)	3.0 (Net bags)
4	8	Sources of litter	76.4 (Agree)	5.7 (Disagree)	84.5 (Agree)	13 (Disagree)	73.5 (Agree)	5.0 (Don't know)	95.0 (Agree)	1.0 (Don't know)	43.0 (Agree)	23.0 (Don't know)	81.0 (Agree)	1.0 (Don't know)
5	11	Not easily breakdown	69.3 (Agree)	8.2 (Disagree)	74.5 (Agree)	12 (Disagree)	73.5 (Agree)	4.5 (Disagree)	80.0 (Agree)	8.0 (Disagree)	43.0 (Agree)	10.0 (Disagree)	66.0 (Agree)	6.0 (Disagree)
6	16	Harm plants and animals	83.3 (Agree)	7.9 (Don't know)	89.5 (Agree)	2.5 (Don't know)	80.0 (Agree)	10.0 (Disagree/don't know)	97.0 (Agree)	2.0 (Disagree)	66.0 (Agree)	16.0 (Disagree)	81.0 (Agree)	5.0 (Disagree)
		Selective Motives												
7	3	Participation	38.9 (Never attended)	2.0 (No interest)	35.0 of (Thinking attending)	12.0 (Want to organize)	48.5 (Never attended)	8.5 (Want to organize such program)	33.0 (Thinking of attending)	6.0 (No interest)	50.0 (Never attended)	9.0 (Want to organise such program)	44.0 (Think of attending)	3.0 (Want to organize such program)
8	5	Visual pollution	45.7 (Agree)	10.3 (Don't know)	68.5 (Agree)	10.5 (Disagree)	68.5 (Agree)	12.0 (Disagree)	48.0 (Agree)	8.0 (Disagree)	47.0 (Agree)	24.0 (Don't know)	86.0 (Agree)	6.0 (Disagree/ don't know)
9	7	Motives behind usage	31.7 (Part of shopping)	20.7 (Best option)	32.0 (Convenience)	15.0 (Best option)	42.5 (Part of shopping)	16.5 (Convenience)	37.0 (Convenience)	17.0 (Depends on shopkeeper)	35.0 (Part of Shopping)	2.0 (Convenience)	37.0 (Depends on shopkeeper)	16.0 (Convenience)
10	9	Reaction to plastic bags	52.0 (Will not bother)	6.7 (Choose other options)	51.5 (Choose other options)	12.0 (Will not bother)	43.0 (Choose other options)	14.0 (No bad effects and easy to use)	57.0 (Choose other options)	3.0 (Will not bother)	27.0 (Choose other options)	24.0 (No bad effect and easy to use/try to use as less as I can)	47.0 (Choose other options)	11.0 (No bad effects and easy to use)
11	10	Disposal Pattern	43.3 (Throw on the road side)	4 (Keep it, until we find a littered place)	61.5 (Garbage yard)	5.5 (Keep it, until we find a littered place)	53.0 (Garbage yard)	4.5 (Road side)	44.0 (Garbage yard/ Kaba diwallah)	4.0 (Road side)	50.0 (Garbage yard)	4.0 (Road side)	41.0 (Garbage yard)	11.0 (Road side/ Keep it, until we find a littered place)

S. No.	Item No.	Primary Motives	All users		Professionals		Housewives		Students		Low Income Group		Organisations	
			Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
12	12	Reaction to paper bags	55.7 (Ask for a plastic bag)	1.3 (Go to next shop)	46.5 (Happily accept)	3.5 (Don't care)	47.5 (Happily accept)	3.0 (Don't care)	50.0 (Happily accept)	6.0 (Don't care)	48.0 (Ask for a plastic bag)	6.0 (Don't care)	44.0 (Happily accept)	2.0 (Go to next shop)
13	17	Initial step to prevent use	35.9 (A charge on plastic bags)	25.0 (Not sure)	66.0 (Ban)	5.5 (Not sure)	59.0 (Ban)	14.0 (Not sure)	62.0 (Ban)	5.0 (Not sure)	38.0 (A charge at the point of sale)	25.0 (Not sure)	42.0 (A charge at the point of sale)	17.0 (Not sure)
14	22	Motivating children to use paper/cloth bags	65 (Always)	12.6 (Sometimes)	50.5 (Always)	13.5 (Never)	35.5 (Always)	28.5 (Never)	33.0 (Always)	5.0 (Never)	48.0 (Never)	15.0 (Always)	38.0 (Never)	31.0 (Always)
		Resource Available												
15	6	Reuse of plastic bags	95.8 (Reused for shopping)	4.2 (Re-used for lunch box)	97.5 (Reused for shopping)	2.5 (Not reused)	96.9 (Reused for shopping)	3.0 (Re-used for lunch box)	83.0 (Reuse for shopping)	8.5 (Not reused)	100.0 (Reused for shopping)	0	99 (Reused for shopping)	
16	13	Easy to throw at an untidy place	37.7 (Agree)	23.4 (Disagree)	50.5 (Disagree)	17.0 (Agree)	37.5 (Agree)	22.0 (Disagree)	61.0 (Disagree)	11.0 (Agree/don't know)	35.0 (don't know)	23.0 (Disagree)	66.0 (Agree)	16.0 (Disagree)
17	14	Hazardous for environment	54.4 (Protest against the cause)	8 (Let it run)	68.0 (Protest against the cause)	1.5 (Let it run)	45.0 (Protest against the cause)	6.5 (Shift from there)	71.0 (Protest against the cause)	4.0 (Don't bother)	42.0 (Protest against the cause)	2.0 (Shift from there)	42.0 (Protest against the cause)	4.0 (Shift from there)
		External Factor												
18	15	Change in shopping pattern if plastic bags are banned	56.9 (No change)	39 (Will change)	59.0 (Will change)	41.0 (No change)	76.0 (No change)	19.5 (Will change)	63.0 (No change)	37.0 (Yes)	53.0 (No change)	34.0 (Yes)	48.0 (No change)	45.0 (Yes)
19	18	Campaign against plastic bags	47.0 (Actively participate)	19.6 (No interest)	55.5 (Actively participate)	12.5 (No interest)	45.5 (Motivate others to join)	18.5 (No interest)	57.0 (Actively participate)	13.0 (No interest)	44.0 (No interest)	21.0 (Motivate others to join)	58.0 (Actively participate)	18.0 (No interest)
20	19	Carrying plastic bag is prestigious	48.9 (No)	28.9 (Creates favorable impression)	49.0 (No)	23.5 (Yes)	51.0 (No)	12.0 (Yes)	40.0 (No)	26.0 (Creates favorable impression)	58.0 (No)	11.0 (Yes)	44.0 (No)	18.0 (Creates favorable impression)
21	20	Family influence not to use plastic bags	46 (Never)	14.3 (Always)	53 (Sometimes)	21.5 (Always)	51.5 (Never)	10 (Always)	48.0 (Sometimes)	17.0 (Always)	78.0 (Never)	8.0 (Always)	55.0 (Never)	12.0 (Always)
22	21	Friends, colleagues, relatives carry plastic bags	56.3 (All)	5.4 (No one)	55 (Some)	2.0 (never noticed)	77.0 (All)	2.5 (None)	49.0 (Some)	7.0 (None/never noticed)	83.0 (All)	3.0 (None)	49.0 (Some)	3.0 (Never noticed)

(Header above All users / Professionals / Housewives / Students / Low Income Group / Organisations: "Categories of Consumers with Highest and Lowest Percentage of Responses"; "Motives" above Primary Motives)

Understanding Motivational Complexities in the Use of Plastic Bags

bag, use of paper bag ranks at the top among all users with 93.7% of respondents, followed by cloth/jute bags which varies from 50.5% to 62.0% of respondents. Plastic bags as a source of litter was agreed upon by 76.4% of respondents which varies from 43.0% (lower income group) to 95% (students). It takes hundreds of years for plastic bags to break down: this was reported by an average of 69.3% of respondents varying from 43.0% (lower income group) to 80% (students). Plastic bags harming plants and animals was agreed upon by an average of 83.3% of respondents varying from 66% (lower income group) to 97% (students). This result suggests a lack of awareness and education in case of lower income groups in comparison with other groups, and the students are more aware in comparison to other groups.

In the selective motives, the participants were asked about visual pollution or pollution visible to them, and motive behind usage, reaction to plastic bags, disposal pattern, and reaction to paper bags, initial steps to prevent use of plastic bags and motivating children to use paper/cloth bags. The government and activists have been campaigning against use and disposal of plastic carry bags as pollution causing materials due to their improper disposal. When asked about their participation in such kind of activities, it was found that an average of 38.9% of respondents never attended such programs, followed by those thought of attending such programs. Plastic bags causing visual pollution was agreed by an average of 45.7% of respondents. In spite of its adverse effects, we use still plastic bags for reasons not unanimously agreed by all users. However, the most frequent motive which is the highest among all users (31.7%) is that it is a part of shopping. Among the other motives, there were responses like: it is the best option available, convenient, and it depends on the shopkeeper who gives it. When it comes to the disposal pattern in case of non-availability of recycling facility, 43.3% of all users said they will throw it on the road side. The other option most commonly answered was to throw it in the nearby garbage yard. 55.7% consumers responded that they would ask the shopkeeper for a plastic bag. Others said, they would accept paper bags. As an initial step to prevent the use of plastic bags, 35.9% of all respondents want a charge or levy on plastic carry bags at the point of sale. The other most frequent response is to put a ban on non-biodegradable plastic carry bags. It was also seen that 65% of all the respondents motivated their children to use paper/cloth bags.

Often our behavior is also guided by the availability of resources and their utilization for our convenience. The third major issue dealt within the questionnaire was how plastic bags are used as a resource. An overwhelmingly 95.8% reused plastic bags for shopping. This suggests an effective use of the plastic bags. Again, 37.7% said if a place is already dirty, they do not mind putting more dirt on it. This suggests our lack of initiative to clean the environment. When asked what you would do, if a factory near your locality is creating hazardous environment, 54.4% of all the users said they will protest against the cause.

The fourth factor under study was the external factors affecting the use of plastic bags. When asked about the change in shopping pattern as a result of a ban on plastic bags, 56.9% of the respondents reported there would be no change in their shopping pattern. Active participation in a campaign for not using plastic carry bags was supported by 47% of users. Carrying plastic bags is a not a matter of prestige was answered by 48.9% of respondents where as 28.9% opined that it creates a favorable impression. Family members never stop us from using plastic bags was revealed by 46% of respondents and this percentage is more in case of lower income groups followed by organizations. We are more like others and follow others what they are doing. Also, 56.3% of all users opined that, all their friends, colleagues and relatives carry plastic bags.

Discussion and Recommendations

The discussion is based on the assumption that people are rational and that providing them with information will increase their knowledge, change attitudes, and subsequently, cause a change in behavior. However, an increase in knowledge does not necessarily lead to behavioral change. These are factors that motivate people to behave rationally in response to their environment. The absence of these factors acts as psychological barriers which drive people to behave in an ecologically unfriendly way; also in spite of awareness regarding the environmental hazard due to plastic bags, people continue to do the same, and no governance is able to stop this collective behavior.

From the result of the study, it is well evident that students are more aware of the harmful effects of using plastic bags in comparison to other groups, and lower income groups members are less aware in comparison to other groups. As lower income group members live below the poverty line, they usually reuse plastic bags as a fuel while preparing food. Though most of them know of its harmful effects on plants and animals, they cannot help alter their behavior. Non-participation in campaigns by the users against the use of plastic bags is also supplemented

by earlier studies by Bagozzi and Warshaw (1990). Usage of plastic bags as a part of shopping is highest among low income group members. This is because it is available in the market at almost free, thus making it difficult to break the habit. Even the deeply committed ecologically oriented consumers may be tempted to choose certain ecologically harmful but personally convenient behavior alternatives and thus attribute this behavior to a lack of behavioral control, that is, lack of requisite resources and opportunities (Ajzen, 1991). This is evident in the present study, where people from various organizations and professions show unwillingness to carry their bags and accept whatever the shopkeeper gives to them.

As a reaction towards plastic bags the main factor emerging out of the research is consensual validation of mass behavior, where most of the people use it because others do (as shown in Table 1). It is seen that people validate their own behavior by looking at others, whether it is right or wrong.

The motive of disposal pattern reflects that people throw all kinds of the garbage on the roadside. Though hard to believe, this is the fact. This shows the gross indifference of people towards their country, their environment as well as to their own self. In India clean their houses and throw their garbage outside their homes. This is also been supported by the study of Kaiser and Shimoda (1999) as ecological behavior is commonly perceived as morally related and determined by moral rather than other types of thinking.

The study also revealed that the users are aware of the harmful consequences of the use of plastic bags, except users in the lower income group. When it comes to what kind of actions we do take to reduce the use of plastic bags, we take only 30–40% of the initiatives. What guides our behavior is convenience, and not the greater cause for the environment which is again reinforced by external factors. Now, the question is what needs to be done so that we can make the environment better and healthy. The answer is with us, we need to take action in terms of creating awareness among the masses, find out other alternatives and change our attitude as well as behavior.

We all know in Delhi, the MCD provides two different bins to throw the garbage. But, hardly can we find people who are aware of the purpose of these bins. They need to be trained by the MCD or by the society to make the best use of that. In this era of information technology, it is a lot easier to reach to the people easily. Hence, broadcasting of the harmful effects of plastic bags as well as how to behave in an eco-friendly manner would help a lot in educating the common man. Those teaching should also act as an example for others to follow. Corporate houses, government offices, educational institutions must ensure an eco-friendly climate in their premises. One should not stop here. Bags are an essential part of life. Continuous research and development in the direction of producing more eco-friendly alternative products should be encouraged and research institutes should be given enough grants for this. Another initiative can be taken up by the educational institutions in promoting eco-friendly behavior in the community. As students remain most up-to-date, they can hold some community awareness programs near their schools and colleges.

We can thus conclude that, no amount of information, awareness, and knowledge would help alter the situation, until and unless we take some action.

References

Aberg, H. (2000),"Sustainable Waste Management in Households— From International Policy to Everyday Practice," Experiences from Two Swedish Field Studies, Goteborg Studies in Educational Science 150, Acta Universitatis Gothoburgensis.

Ajzen, (1991), "Theory of Planned Behaviour," *Organisational Behaviour and Decision Processes*, 50, 179–211.

Axelrod and Lehman, (1993), "Environmental Attitude and Ecological Behaviour," *Journal of Environmental Psychology*, 19(1): 1–19.

Bagozzi, R.P. and Warshaw, Paul R. (1990), "Trying to Consume," *Journal of Consumer Research*, 17: 127–40.

Bell, P.A. Greene, T.C. Fisher, J.D. and Baum, A. (1996), *Environmental Psychology*, 4th Edition, USA: Harcourt Brace College Publishers.

Eden, S. (1996), "Public Participation in Environmental Policy: Considering Scientific, Counter-scientific and Non-scientific Contributions," *Public Understanding*, 5: 182–204.

Elkington, J., Hailes, J. and Makower, J. (1990), *The Green Consumer*. New York: Penguin Books.

Gardner, G.T. and Stern (1996) *Environmental Problems and Human Behaviour*. Boston: Allyn & Bacon.

Henion, K.E. (1976), *Marketing Ecological*. Columbus, Ohio: Grid Inc.

Hutton, R.B. and Ahtola, O.T. (1990), "Consumer Response to a Five Year Campaign to Combat Air Pollution," *Journal of Public Policy & Marketing*, 10: 242–56.

Jenkins, R.R., Martinez, S.A., Palmer, K. and Podolsky, M.J. (2000), "The Determinants of Household Recycling: A Material Specific Analysis of Recycling Program Features and Unit Pricing, Resourcing for the Future," Discussion paper 99-41-REV, available at http://www.rff.org/CFDOCS/disc_paper/PDFJ1les/9941rev.pdf

Kaiser, F.G. and Shimoda, T.A. (1999), "Responsibility as a Predictor of Ecological Behaviour," *Journal of Environmental Psychology,* 19: 243–53.

Moisander, J. (1996), "Attitude and Ecologically Responsible Consumption, Moral Responsibility and Concern as Attitudinal Incentives for Ecologically Oriented Consumer Behaviour," Research Reports 218/1996, Helsinki: Statistics Finland.

OECD (2002), "Sector case Study Series, Household Energy & Water Consumption and Waste Generation: Trends, Environmental Impacts and Policy Responses," available at http:/www.olis.cecd.org/olis/2001doc.nsf/linkto/env-epoc-wpnep(2001)15-final

Stern (1992) "Environmental Attitude and Ecological Behaviour;" *Journal of Environmental Psychology,* 19(1): 1–19.

Tanner, C. (1999), "Constraints on Environmental Behaviour," *Journal of Environmental Psychology,* 19: 145–57, 161.

Uusitalo, L. (1991), "Dilemma between Individual Utility Seeking and Collective Welfare Seeking Behaviour," Archive fur Rechts und Sozialphilosophie, Beiheft 40, Eugene E. Dais, Stig Jrgensen, ALICE Erh-Soon Tay (Hrsg), Stuttgart: Franz Steiner Verlag,Stuttgart, pp. 181–91.

Wiener, J.L. and Tabitha A. Doesher (1991), "A Framework for Promoting Cooperation," *Journal of Marketing,* 55: 38–47.

> " The spirit, the will to win, and the will to excel are the things that endure. These qualities are so much more important than the events that occur."
>
> – Vince Lombardi

Trade Unionism in Himachal Pradesh State Electricity Board

Jai Singh Parmar and Dhyan Singh

The global economic changes have resulted in inducing more foreign investment in India, thereby bringing more technological changes in recent times. This has a direct impact on the trade union compositions. Mergers, takeovers, and amalgamations are taking place and the workforces are facing lay offs, exits, and many other structural adjustments. Trade unions usually oppose these actions. The government too is in dilemma, whether to favor the workforce for accomplishment of political goals or to encourage the economic reforms in order to achieve goals for which these reforms were initiated. Intra-union rivalries, politicization, multiplicity of unions, declining power of membership, etc., have weakened trade union movement in recent times. Taking an advantage of this declining position of trade unionism, the management is adopting aggressive decisions which may be against the interest of the workers. It is, therefore, necessary for the Indian workforce and its leadership to understand the dynamics of structural changes and adjustments. Hence, in order to understand the dynamics of trade unionism in India, regional studies on the theme of trade unionism are required. The present study of Himachal Pradesh State Electricity Board (HPSEB) is a step forward in this direction.

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With the implementation of the new economic polices in the country, the importance of public sector has been marginalized which affects the employment opportunities in the public sector. As a result the employment opportunities are being created in the private sector, which are creating a sense of insecurity among the workers in the public sector. The workers of the private as well as the public sectors are jointly resisting this phenomenon. The sick units of the public sector are being closed or their performance is being reviewed. This is resulting into widening the gap between the workers and management. With the rising prices and growing prosperity, workers have gained higher wages, education, and mobility. They are changing their career patterns with the advancement in the technology, experience, and training. Workers are forcing the management to more advancement in career opportunities for them in the industries. Unless the management provides sufficient avenues for career advancement and development of the workers, the workforce cannot remain peaceful. Hence, the management is searching and developing new methods of dealing with employees. These changes are compelling to bring new work culture in the industries and organizations.

Himachal Pradesh State Electricity Board (henceforth HPSEB) is the biggest public sector undertaking in Himachal Pradesh which is providing development, generation, and distribution of electricity in the state in the most efficient and economical manner. HPSEB is the biggest power sector providing employment to more than 31,000 employees. In every organization the effective trade unionism always boost the morale of the workers and result to establish cordial industrial relations which ultimately reduce the influence of the strikes, lockouts, gharos, and slow down, etc. Like other organizations, HPSEB is not an exception in case of trade unionism. In HPSEB, there is labor welfare cum industrial relation unit and the main function of this unit is to render advice on various labor problems and to maintain industrial harmony and cordial

relations between the employees and management of the Board.

In the present study the major focus is on the pattern of unionism and trade union activities in HPSEB. With the formation of HPSEB, different employees associations and unions in the Board were also formed to protect the interests of their members.

The Study

For economic betterment and progress of the state and nation, the power sector requires more attention for establishing better industrial relations between workers, trade union leaders, and management. Success of any organization depends upon the propensity for mutual understanding of workers and management. It is generally influenced by the employee's educational level, capacity to bargain, and attitude towards trade unions and management. To make healthy employee–employer relations, it requires a conducive industrial climate based on mutual trust and confidence. In HPSEB, the biggest power sector, which employs large number of employees, it is a challenge to establish cordial employee–employer relationships. HPSEB enjoys strategic importance in the progress and development of the state. Much, therefore, depends upon the efficient management of workers and maintenance of harmony between workers and management in the electricity board under study. It is in this backdrop that the present study was undertaken in order to understand the role, emerging pattern, and dimension of trade unionism in HPSEB.

Objectives

The study was undertaken keeping in view the following objectives:

- To study the pattern of unionism and trade union activities in HPSEB.

- To analyze views of workers, trade union leaders, and managerial personnel towards the reasons of multiplicity of trade unions in HPSEB.

- To study viewpoints of workers, trade union leaders, and managerial personnel regarding procedure and methods of recognition of trade unions in HPSEB.

- To analyze response of managerial personnel, trade union leaders, and workers on the involvement of political parties and the role of politicians in trade union activities in HPSEB.

- To study the attitude and faith of workers towards trade unions in HPSEB.

Methodology

The present study was undertaken with the objectives of analyzing the viewpoints of workers, trade union leaders, and managerial personnel about the composition and usefulness of the trade unionism in HPSEB. For the purpose of conducting the present study, both primary and secondary data were used. Primary data was collected through a well-designed questionnaire from the sample of respondents and secondary data was collected through a published material of the organization by personally visiting different offices.

The present study being a case study deals in depth all aspects of trade unionism in HPSEB. It employs more than 31,000 employees and it was not possible to make use of census method of investigation. Hence, we made use of the sampling method of investigation. There are 12 circles which help in smooth functioning of HPSEB throughout the state. In order to understand the pattern of trade unionism in HPSEB, we selected five circles randomly including the Head Office Vidyut Bhawan, Shimla for the study. All these circles fall under Shimla, Solan, and Sirmour districts of the state of Himachal Pradesh. For the purpose of this study the sample of the respondents constitute workers (N = 240), trade union leaders (N = 105), and managerial personnel (N = 105). The method of analysis used is the random sampling technique due to the high homogeneity and comparability. Although there are different methods of selecting the sampling units, we have used the Lottery method. All categories of workers, trade union leaders, and managerial personnel were assured with the representation in the sample in order to construe it as representative sample. In order to get required information the three different sets of questionnaire were administrated among the respondents. The information thus collected has been analyzed with the help of various statistical tools and techniques. Through the Likert Type Scale the score was calculated with the help of Weighted Average Score (WAS). Five marks were allotted to those selecting "Strongly Agree" (SA), four to "Agree" (A), three to "Neither Agree Nor Disagree" (NAND), two to "Disagree" (D), and one to "Strongly Disagree" (SD).

Results and Discussion

Trade Unions in HPSEB

The workers have been subjected to repressive attitude by HPSEB and in order to fight this they have organized

themselves into various unions/associations. Trade unionism is playing a significant part in protecting the interest of working class. The Union maintains a record of all members at its head offices.

The trade union and associations functioning in HPSEB, their affiliation to central organization, affiliation with the political parties, and years of registration have been presented in Table 1. There are four unions and eight

Table 1: Trade Unions in HPSEB

S. No.	Name of the Unions/ Associations	Affiliated to Central Organization	Affiliated to Political Parties	Years of Registration
1	HPSEB Employees Union	AITUC	CPI	1973
2	HPSEB JE's Association	INTUC	Congress	1980
3	Himachal Power Engineers Association	–	–	1985
4	HPSEB Project Engineers Association	–	–	1989
5	HPSEB Diploma Engineers Association.	–	–	1988
6	HPSEB Engineers Associations	–	–	1983
7	HPSEB Drivers and Auto Workers Unions	AITUC	CPI(M)	1984
8	HPSEB Stenographers Association	–	–	1988
9	HPSEB Draftsman Association	–	–	1987
10	HPSEB Technical Employees Union	CITU	CPI	1980
11	HPSEB Ministerial Service Association	BMS	BJP	1984
12	HPSEB Supervisory Accounts Services Union	–	–	1989

Source: Head Office, HPSEB Vidyut Bhawan, Shimla.

Table 2: Membership of Different Trade Unions in HPSEB

S. No.	Trade Union Association	Membership Claimed	Representation in the Sample
1	HPSEB Employees Union	6,907 (29.89)	84 (18.67)
2	HPSEB JE's Association	1,591 (6.89)	69 (15.33)
3	Himachal Power Engineers Association	983 (4.25)	31 (6.89)
4	HPSEB Project Engineers Association	902 (3.90)	25 (5.55)
5	HPSEB Diploma Engineers Association.	1,184 (5.12)	20 (4.44)
6	HPSEB Engineers Associations	877 (3.79)	8 (1.78)
7	HPSEB Drivers and Auto Workers Unions	2,113 (9.14)	10 (2.23)
8	HPSEB Stenographer Association	857 (3.72)	9 (2.00)
9	HPSEB Draftsman Association	928 (4.02)	12 (2.67)
10	HPSEB Technical Employees Union	3,865 (16.73)	40 (8.89)
11	HPSEB Ministerial Service Association	1,917 (8.29)	95 (21.11)
12	HPSEB Supervisory Accounts Services Union	984 (4.26)	47 (6.75)
	Total	23,108 (100)	450 (100)

Note: Figures in brackets indicate the percentage to the column totals.
Source: Head office, HPSEB, Vidyeet Bhawan, Shimla.

associations functioning in the organization. The trade unions are: HPSEB Employees Unions; HPSEB Drivers and Auto Workers Union; HPSEB Technical Employees Union; and HPSEB Supervisory Accounts Services Union. Whereas HPSEB JE's Association, Himachal Power Engineers Association, HPSEB Project Engineers Association, HPSEB Diploma Engineers Association, HPSEB Engineers Association, HPSEB Stenographers Association, HPSEB Draftsman Association, and HPSEB Ministerial Service Association are major association effectively working in the Board. The HPSEB Employees Union, registered in 1973 and affiliated to AITUC has a political affiliation to Communist Party of India (CPI). HPSEB Drivers and Auto Workers Union is affiliated to AITUC and CPI was registered in 1984. Similarly, HPSEB Technical Employees Union is affiliated to CITU and CPI and registered in 1980. The HPSEB Ministerial Service Association which was registered in 1984 is affiliated to Bhartya Medora Sang (BMS) and the political party Bhartia Janata Party (BJP).

Membership of Different Trade Unions in HPSEB

The membership of different trade unions claimed by different union representatives as on August 2007 has been shown in Table 2. The table shows that HPSEB Employees Union has claimed highest membership of 6,907, whereas HPSEB Stenographers Association has

claimed membership of only 857 members. Total membership claimed by the different trade unions was 23,108 in HPSEB.

Reasons of Joining Unions

The reasons of workers for joining a union are very important in order to determine the scene of industrial relations. Generally the workers join them because of social and political reasons as well as to protect themselves from victimization.

In order to know the reasons of joining trade unions by the workers in HPSEB, five alternatives were presented to the workers, and they were asked to rank alternatives in order of preference. The information regarding this is presented in Table 3. The table shows that the respondents assigned the first rank to "To safeguard against victimization." The fifth rank was given to "To get the increase in wages." The second, third and fourth ranks were given to "To fight the legitimate demand," "To safeguard against the outside interference while on duty," and "To resolve individual grievances," respectively. On the basis of this analysis, it can be concluded that workers join trade unions mainly in order to protect themselves from victimization and to fight for their legitimate demands. Here, economic reasons like increase in wages, etc., are not the predominant reasons for workers to join the unions. This may be due to the changing nature of employment in new

Table 3: Reasons of Workers Joining the Trade Union in HPSEB

S. No.	Reasons	Workers Giving		Workers Giving		Workers Giving		Workers Giving		Workers Giving		TWS	Rank
		First Rank	WS	Second Rank	WS	Third Rank	WS	Fourth Rank	WS	Fifth Rank	WS		
1	To get the increase in wages	28	140	32	128	40	120	70	140	70	70	598	5
2	To safeguard against victimization	170	850	35	140	35	105	–	–	–	–	1095	1
3	To resolve individual grievances	60	300	35	140	42	126	84	168	19	19	753	4
4	To fight the legitimate demand of workers	98	490	107	428	21	63	5	10	9	9	1000	2
5	To safeguard against the outside interference while on duty	75	375	127	508	18	54	20	40	–	–	977	3

Notes:
1. The first rank was given weight of 5, second, 4, third, 3, fourth, 2, and fifth, 1.
2. The ranking was done on the basis of TWS.
3. WS denotes Weighted Scores.

economic scenario.

The Multiplicity of Trade Unions in HPSEB

The existence of multiplicity of unions and inter-union rivalries are causing serious problems to trade unionism in India; Indian trade unions are too many in number and are fragmented. In public sector several trade unions compete for the loyalty of the same body of workers which result in

Table 4: Worker's Views regarding the Reasons of Multiplicity of Trade Unions in HPSEB

S. No.	Particulars	Trade Union Act, 1926	Involvement of Political Parties	Conflicting Ideologies of Leaders	Personal Interests of Leaders	Encouragement by Management	Different Interests of Employees
1	Workers giving first rank WS	5 30	20 120	102 612	98 588	6 36	9 54
2	Workers giving second rank WS	4 20	56 280	80 400	69 345	12 60	19 95
3	Workers giving third rank WS	7 28	47 188	55 220	71 284	19 76	41 164
4	Workers giving fourth rank WS	21 63	40 120	60 180	58 174	17 51	44 132
5	Workers giving fifth rank WS	12 24	42 84	37 74	34 68	30 60	85 170
6	Workers giving sixth rank WS	40 40	88 88	10 10	14 14	66 66	22 22
	TWS	205	880	1496	1473	349	637
	Ranks	6	3	1	2	5	4

Notes:
1. The first rank was given the weight of 6, second, 5, third, 4, fourth, 3, fifth, 2, and sixth, 1.
2. The ranks were given on the basis of TWS.
3. WS denotes Weighted Scores.
4. TWS denotes Total Weighted Scores.

Table 5: Union Leader's Views Regarding the Multiplicity of Trade Unions in HPSEB

S. No.	Particulars	Trade Union Act, 1926	Involvement of Political Parties	Conflicting Ideologies of Leaders	Personal Interests of Leaders	Encouragement by Management	Different Interests of Employees
1	Union leader giving first rank	–	21	69	–	–	15
	WS	–	126	414	–	–	90
2	Union leader giving second rank	3	17	62	5	–	18
	WS	15	85	310	25	–	90
3	Union leader giving third rank	2	6	44	–	3	50
	WS	8	24	176	–	12	200
4	Union leader giving fourth rank	10	31	14	–	24	26
	WS	30	93	42	–	72	78
5	Union leader giving fifth rank	20	36	19	17	11	2
	WS	40	72	38	34	22	4
6	Union leader giving sixth rank	18	5	–	30	26	26
	WS	18	5	–	30	26	26
	TWS	111	405	980	89	132	488
	Ranks	5	3	1	6	4	2

Notes:
1. The first rank was given the weight of 6, second, 5, third, 4, fourth, 3, fifth, 2, and sixth, 1.
2. The ranks were given on the basis of Total Weighted Scores (TWS).
3. WS denotes Weighted Scores.
4. TWS denotes Total Weighted Scores.

severe rivalry among them. The existence of different conflicting and rival unions with different political affiliation was responsible for unhealthy growth of unionism in public sector. In order to know the reasons of multiplicity of trade unions in HPSEB, a list of six reasons were given to the workers, trade union leaders, and managerial personnel. They were asked to rank all the reasons in order of their priority. All the responses of the workers, trade union leaders, and managerial personnel are given in Tables 4, 5, and 6, respectively. It is clear from Table 4 that "Conflicting ideology of the trade union leaders" has been given the first rank by the workers and the second, third, and fouth ranks were given to "Personal interests of leaders," "Involvement of political parties," and "Different interests of various categories," respectively. "Trade Union Act, 1926" was ranked sixth rank among the reasons of multiplicity of trade unions in HPSEB.

Table 5 shows that the trade unions leaders have also given the first rank to "conflicting ideologies of leaders" for the main reasons of multiplicity of trade unions in the Board. Whereas the different interests of employees, involvement of political party, encouragement by management, Trade Unions Act, 1926, and personal interests of leaders was given second, third, fouth, five, and sixth ranks by the trade unions leader as the reasons of multiplicity of trade unionism in the Electricity Board.

Managerial personnel's responses regarding the causes of multiplicity of trade union in HPSEB are presented in Table 6. It reveals that the first rank has been assigned to "personal interest of leaders" and the sixth rank to "encouragement by management" as the reason for multiplicity of trade unionism in HPSEB. Hence, it can be stated that conflicting ideologies of leaders has been pointed as the main reason by trade union leaders and

Table 6: Managerial Personnel's Views regarding the Multiplicity of Trade Unions in HPSEB

S. No.	Particulars	Trade Union Act, 1926	Involvement of Political Parties	Conflicting Ideologies of Leaders	Personal Interests of Leaders	Encouragement by Management	Different Interests of Employees
1	Managerial personnel giving first rank	4	10	6	7	–	15
	WS	24	60	36	420	–	90
2	Managerial personnel giving second rank	2	7	25	60	3	8
	WS	10	35	125	300	15	40
3	Managerial personnel giving third rank	7	9	13	58	11	7
	WS	28	36	52	232	44	28
4	Managerial personnel giving fourth rank	10	41	3	40	10	1
	WS	30	123	9	120	30	3
5	Managerial personnel giving fifth rank	2	–	21	10	1	71
	WS	4	–	42	20	2	142
6	Managerial personnel giving sixth rank	49	20	11	–	17	8
	WS	49	20	11	–	17	8
	TWS	145	274	275	1,092	108	311
	Ranks	5	4	3	1	6	2

Notes:
1. The first rank was given the weight of 6, second, 5, third, 4, fourth, 3, fifth, 2, and sixth, 1.
2. The ranks were given on the basis of TWS.
3. WS denotes Weighted Scores.
4. TWS denotes Total Weighted Scores.

workers of the multiplicity of trade unions in the Electricity Board of Himachal Pradesh.

In order to know the effects of multiplicity of trade unions, the workers, trade union leaders, and managerial personnel were asked "whether the multiplicity of unions is detrimental to worker's interests." The information regarding this is given in Table 7. The table shows that 75.24% of managerial personnel, 62.86% of trades union leaders, and 78.33% of

Table 7: Is Multiplicity of Trade Unions Detrimental to the Worker's Interests?

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	Yes	79 (75.24)	66 (62.86)	188 (78.33)
2	No	26 (24.76)	37 (35.24)	40 (16.67)
3	Do not know	–	2 (1.90)	12 (5.00)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in brackets show percentage to the column total.

the workers replied that the multiplicity of trade unions is detrimental to the worker's interests in HPSEB.

To get the viewpoints of the managerial personnel, trade union leaders, and workers regarding the number of trade unions needed in the Board, they were asked how many unions are needed in the Board (Table 8). The table reveals that majority of managerial personnel (63.18%) and trade union leaders (69.52%) replied that two unions are needed

Table 8: Number of Trade Unions Needed in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Workers	No. of Trade Union Leaders
1	One	35 (33.33)	125 (52.08)	24 (22.86)
2	Two	67 (63.81)	107 (44.58)	73 (69.52)
3	More than two	3 (2.86)	8 (3.34)	8 (7.62)
	Total	105 (100)	240 (100)	105 (100)

Note: Figures in brackets show percentages to the columns totals.

in the Board, whereas the majority of the workers (52.08%) pointed out that only one union will be more effective.

Recognition of Trade Unions

In the absence of statutory provision for the recognition of trade unions as a bargaining agent, it will hardly have any impact while working as a negotiating agent with management. In order to know the procedure of the recognition of trade union in HPSEB, the workers were asked how the unions are recognized in the Board (Table 9). The table makes it clear that the majority of workers (73.75%) expressed that only those unions are recognized which are representative unions of the workers

Table 9: Causes of the Recognition of Different Trade Unions in HPSEB

S. No.	Particulars	No. of Respondents	Percentages
1	Being near to administration	40	16.67
2	Being the representative one	177	73.75
3	Having affiliation with political parties in power	23	9.58
4	Any other reason	–	–
	Total	240	100.00

and only 16.67% of respondents stated that the management recognizes those unions which are near to the administration.

Further (as seen in Table 10), managerial personnel, trade union leaders, and workers were questioned regarding the number of trade union to be recognized for negotiation with management in HPSEB. The table makes it clear that

Table 10: Number of Trade Unions which should be Recognized for Negotiation with Management in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	One	34 (32.38)	36 (34.29)	42 (17.50)
2	Two	71 (67.62)	69 (65.71)	184 (76.67)
3	More than two	–	–	14 (5.83)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in brackets show percentages to the columns totals.

the majority of managerial personnel (67.62%), trade union leaders (65.71%), and workers (76.67%) pointed out that two unions should be recognized by the management for negotiation.

The views expressed by managerial personnel and trade union leaders regarding the compulsory recognition of trade

Table 11: Compulsory Recognition of Trade Unions in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders
1	Compulsory	75 (71.43)	103 (98.09)
2	Not compulsory	30 (28.57)	2 (1.91)
3	Do not Know	–	–
	Total	105 (100)	105 (100)

Note: Figures in brackets indicate the percentages to the columns totals.

union in the Board are presented in Table 11. The table shows that the large majority of managerial personnel (71.43%) and trade union leaders (98.09%) support the idea of compulsory recognition of the trade union in HPSEB.

Methods of Recognition

The method of recognition of trade unions in India was always a point of serious debate. The debate is always on three methods: secret ballot; verification of membership; and check off method. Various studies in the past have been conducted on this issue and have shown that there

Table 12: The Choice of the Method of Recognition of Trade Unions in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	Secret ballot	79 (75.24)	91 (86.67)	189 (78.75)
2	Verification of membership	20 (19.05)	5 (4.76)	38 (15.83)
3	Check off method	6 (5.71)	9 (8.57)	13 (5.42)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in the brackets indicate percentages to the column totals.

is no uniformity on the method of recognition of unions.

The respondents were then asked to choose the most preferred method which can be used for the recognition of unions HPSEB (Table12). The majority of managerial personnel (75.24%), trade union leaders (86.67%), and workers (78.25%) preferred secret ballot method of recognizing the trade unions.

Politicization of Trade Unions

The history of trade union movement in India bears the testimony of the fact that there was a close link between trade unions and political parties because the trade union movement was nurtured and developed by political leaders of the country as a party of the national movement for independence. It is due to this fact that trade unions as working class organizations are deeply involved in political programs. Every political party in India has sought to have under its control and domination as many trade unions as possible. Keeping in view this fact, an attempt has been made to analyze the managerial personnel, trade union leaders, and workers response on the issue of the involvement of political parties and the role of politicians in trade union activities in the Electricity Board.

Table 13 makes spells out that majority of the

Table 13: Affiliation of Trade Unions with the Political Parties in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	Yes	17 (16.19)	46 (43.81)	58 (24.17)
2	No	88 (83.81)	59 (56.19)	171 (71.25)
3	Do not know	–	–	11 (4.58)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in the brackets show the percentage to the column totals.

respondents, 83.81% of managerial personnel, 56.19% of trade union leaders, and 71.25% of workers were against the affiliation of trade unions with political parties. Only 16.19% of managerial personnel, 43.81% of trade union leaders, and 24.17% of workers felt otherwise.

Further, Table 14 shows the opinions of managerial personnel, trade union leaders, and workers regarding the

Table 14: Effects of the Affiliation of Trade Unions with Political Parties in HPSEB

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	Harmful	66 (62.86)	54 (51.43)	181 (75.42)
2	Useful	39 (37.14)	40 (38.10)	30 (12.50)
3	Neither useful nor harmful	–	11 (10.47)	29 (12.08)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in brackets show the percentage to the column totals.

Table 15: Involvement of Role of Political Parties in Trade Union Activities

S. No.	Particulars	No. of Managerial Personnel	No. of Trade Union Leaders	No. of Workers
1	Increased	–	2 (1.90)	12 (5.00)
2	Decreased	81 (77.14)	57 (54.29)	177 (73.75)
3	Remain the same	24 (22.86)	46 (43.81)	51 (21.25)
	Total	105 (100)	105 (100)	240 (100)

Note: Figures in the brackets indicate the percentage to the column totals.

effects of the affiliation of trade unions with political parties in HPSEB. The table shows that majority of managerial personnel (62.86%), trade unions leaders (51.43%), and workers (75.42%) answered that the affiliation of trade union with political parties in HPSEB is harmful.

On the other hand, 37.14% of managerial personnel 38.10% of trade union leaders, and 12.50% of workers replied it as useful. As we know the major trade union working in the Board are affiliated to some central organization, namely, AITUC, INTUC, BMS, CITU, etc. To

find out the role of political parties in the trade union activities in the Board we asked the managerial personnel, trade union leaders, and workers whether the involvement of political parties in trade union activities should be increased, decreased, or remain the same. The information regarding this is given in Table 15. The table shows that majority of managerial personnel (77.14%), trade union leaders (54.29%), and workers (73.75%) replied that the role of political parties in trade union activities should be decreased. Whereas 22.86% of managerial personnel,

Table 16: Worker's Attitude towards Unions in HPSEB (N = 240)

S. No.	Statement	SA	A	NAND	D	SD	WAS
1	It makes little difference to me whether I continue as a member of a trade union or leave it	12 (5)	36 (15)	7 (2.92)	15 (6.25)	170 (70.83)	1.77
2	The unions serves the interests of leaders not that of employees	– (–)	3 (1.25)	21 (8.75)	22 (9.17)	194 (80.83)	1.30
3	My union works sincerely in the interests of its members	188 (78.33)	21 (8.75)	– (–)	23 (9.58)	8 (3.34)	4.49
4	The trade unions should work for the change of political and economic system of the country	100 (41.67)	64 (26.67)	57 (23.75)	19 (7.91)	– (–)	4.02
5·	The trade unions affiliated with political parties serve the interests of workers more effectively	11 (4.58)	17 (7.08)	32 (13.33)	93 (38.75)	87 (36.26)	2.05
6	I am prepared to make sacrifices for my union	35 (14.58)	37 (15.41)	– (–)	67 (27.92)	101 (42.09)	2.33
7	My union is democratic in its functioning	20 (8.33)	31 (12.92)	4 (1.67)	98 (40.83)	87 (36.25)	2.16
8	My union does not believe in unnecessary confrontation with the management in the HPSEB	27 (11.25)	69 (28.750)	– (–)	73 (30.42)	71 (29.58)	2.62
9	My union is effective in safe guarding the interests of its members	191 (79.58)	30 (12.5)	– (–)	11 (4.58)	8 (3.34)	4.60
10	My union maintains good and regular contact with its members.	186 (77.5)	27 (11.25)	2 (0.83)	15 (6.25)	10 (4.47)	4.52

Notes: 1. Figures in the brackets show percentages to the total number of workers (240) who were members of different trade unions.

2. WAS was calculated by giving scores as 5 for Strongly Agree (SA), 4 for Agree (A), 3 for Neither Agree Nor Disagree (NAND), 2 for Disagree (D), and 1 for Strongly Disagree (SD).

43.81% of trade union leaders, and 21.25% of workers replied that it should remain the same. Only 1.90% of trade union leader and percentage of workers replied it should be increased.

Worker's Attitude towards Trade Unions

In order to analyze the worker attitude and faith towards the trade union we have developed a Likert Type Scale. A Likert Type Scale, in all 10 statements, was addressed to the respondents so as to elicit information regarding their attitude and faith towards the trade unions in HPSEB in order to fulfill the objectives of our study. The information regarding this is given in Table 16. "My union is effective in safe guarding the interest of its members" was expressed with the highest degree of faith for which WAS was worked out 4.60% and 79.58% of workers strongly agreed with this statement, whereas 12.50% of workers expressed disagreement. On the basis of this, it can be concluded that the workers have very high degree of faith in their trade unions. WAS for the statements like "My union maintains good and regular contact with its members," "My union works sincerely in the interest of its members," and "My union is democratic in its functioning" was worked out as 4.52, 4.49, and 2.16, respectively. The lowest WAS (1.30) was accorded to the statement "The unions serves the interests of leaders not that of employees." The large majority of workers (80.83%) expressed their disagreement with this statement. This shows their deep faith on their union and union leaders.

Conclusions

In this rapidly changing environment it is very difficult for all organizations to survive unless they continuously prepare their employees to meet the changes ahead. Hence the employees in these organizations are required to be pro-active and dynamic. Keeping in view the changing economic scenario of the country it can be emphasized that the survival, growth, development, and profitability of the organization depends upon its human resources.

Trade union in India has been struggling for protecting the rights of the workers and improvement of their wages and working conditions since the First World War. Industrial relations in India are closely linked with trade unionism. Recent trends in the trade union movement in our country have caused grave concern as far as the maintenance of industrial harmony is concerned. Therefore, it is necessary to understand the entire scene of industrial relations. Hence an attempt has been made to cover different aspects of

trade unionism and their impact on the industrial relation scene in HPSEB, the major employer of the state. The study reveals that trade unions in HPSEB protect and safeguard the interests of its members. The unionism in HPSEB is as old as the Board itself. With the increase in the numbers of employees the numbers of unions have also increased. At present there are four trade unions and eight associations functioning simultaneously in HPSEB. This multiple union structure existing in HPSEB makes us believe that the workers have been divided on the basis of their political affiliation to different political parties. The reasons of workers for joining a trade union are very important in order to determine industrial relation. Generally the workers join the union because of social and political reasons. The study of HPSEB also reveals that workers join trade unions in order to protect themselves from being victimized and to fight for legitimate demands of workers. These two important reasons have been assigned first and second ranks, respectively, by the workers as the major reason for joining the trade union in HPSEB. The multiple union structure and inter-union rivalries are the weaknesses of Indian trade unions. In the present study it was found that the multiplicity of trade union has led to inter-union rivalries which are detrimental to the worker's interests. The conflicting ideology of leaders, their personal interests, and involvement of political parties were found to be the main reasons of multiplicity of trade union in HPSEB.

Trade unions in India are deeply involved in political program since long. This has been pointed out by the various researches undertaken in this field; the present study also proves this point. In HPSEB trade unions are affiliated to central organizations, which have political affiliation with major political parties. This is a necessary ideal held by majority of the trade union members because without ideology the existence of union is not possible. Trade union leaders believe that political parties play a dynamic role to organize the Indian workers. Hence, we suggest that the steps need to be initiated for the unification of union movements and the principle of one-industry-one-union be made applicable in HPSEB in order to protect the interests of the workers. The trade unions should be assigned a definite role in the management of the undertakings and should be accepted and recognized as part of the industrial and commercial undertakings.

In order to analyze the role of trade union we attempted to examine the attitude of workers towards trade union in HPSEB. In order to examine the attitudes of the respondents 10 statement were presented to them. On

the statements like "My union is effective in safeguarding the interests of its members," "My union maintains good and regular contact with its members," "My union works sincerely in the interests of its members," and "The trade unions should work for the change of political and economic system of the country," the degree of faith of the workers were found higher. WAS for these statements were found to be more than 4. From this analysis it can be concluded that unions are effectively safeguarding the interest of their members and are working according to the change of social, political, and economic system of HPSEB under study.

The multiplicity of trade unions has become a reality because it serves the interests of the management; the management encourages it because of its usefulness, whereas it is detrimental in the interests of the employees because it creates a divide among the workers. Hence, this problem needs to be resolved and there should be the provisions for the compulsory recognition of only one trade union as a bargaining agent of workers at various levels. Intra union rivalries, politicization, multiplicity, etc., usually weakens trade union activities in the organization. Therefore, steps need to be taken to improve the standard of unions by depoliticization, creating democratic leadership, improving union membership, opting bipartism, and replacing multiplicity by solidarity.

References

Annual Administration Report *(2005–06)*, HPSEB, Vidyut Bhawan, Shimla.

Bhagoliwal, T.N. (1984), *Economics of Labor and Industrial Relations*. Agra: Sahitya Bhawan.

Cheema, C.S. (1990), "Industrial Relations in Public Sector: A Case Study of Punjab Roadways," Unpublished PhD Thesis, GNDU, Amritsar.

Mamoria, C.B. (1991), *Dynamics of Industrial Relations in India*. New Delhi: Himalaya Publishing House.

Parmar, J.S. (1996), "Trade Unions Response to Structural Changes," *Economic Affairs*, January–March, Calcutta.

Parmar, J.S. (1997), "Some Emerging Dimensions of Trade Unionism in HRTC : An Empirical Approach," *IJIR*, 32(3).

Ramaswamy, E.A. (1977), *The Workers and His Union, Allied Publishers*. Delhi.

> *The secret of all great undertakings is hard work and self-reliance.*
>
> – **Gustavus F. Swift**

Environmental Impacts: A Study on the Effects of Working Environment on the Performance of Executives

R. Ganapathi and M. Balaji Prasad

Work is an integral part in everyone's life. Working environment plays a crucial role in enhancing the performance of an individual and the organization as a whole. When one undertakes work in a poor working environment, it becomes challenging to maintain a productive and satisfying work life, thereby threatening work success. Keeping this in mind, an attempt has been made to study the level of satisfaction of the executives on the various environmental factors that contribute to effective performance. An emphasis has been made on the need to follow the right mix of management and environmental techniques and behavior principles, both formal and informal, to create a no-boredom-working environment. The paper ends with a number of counter measures to be followed by the organization to create a conductive working environment backed by genuine efforts to motivate human resources.

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The economic growth of a country depends on the rate of industrialization in the country. But, excellence of industrialization may not be achieved in the absence of any one of the factors, namely, land, labor, capital, and organization. Though all the four factors of production seem to be equally important, the progress of an industry mainly depends on the productive efficiency of the labor force, that is, human resources. Hence, the human resources should be considered as the most important resource for the growth of an industry.

Organizations, both big and small, are facing a challenging task in managing human resources and creation of a conducive working environment in order to achieve excellence in the quality and quantity of output. The science of understanding the expectation of human resources of the organization is ultimately an art. Management of human resources is important for any organization because this means getting the job done by not managing but administering a socio-friendly working environment.

Traditionally, an organization is considered to be mechanistic and more task-oriented. Moreover, people at work are considered a machine shifted and altered like a template in a room layout.

It is known that work and working are fundamentally different phenomena. The worker does work; work is always done by a worker who is working. But what is needed to ensure that this work is productive is different from what is needed to make the workers work. The worker must, therefore, be managed and provided accordingly both on the logic of the work and dynamics of working.

Environment and Performance

Though the productivity of an organization is determined by various factors, it is highly dependent on the

performance of the individuals who contribute their physical and mental efforts and energies for the enhanced performance of the organization. Among the various factors that contribute to the better and effective performance of the human resource lies the crucial role of the working environment. Motivation and frustration can be considered as the two poles of individual performance. Motivation makes an individual move towards the positive direction, whereas frustrations in his mind will leave a negative impact on his productive ability and efficiency. Kartz and Lehner (1935) and Selve (1956) have pointed out four types of frustrations in connection with work.

Frustration of Function

1. A person may be frustrated because of lack of job satisfaction and motivation.

2. *Frustration of function of conviction*: A person who works in an organization where the standard of work is very low or poor, frustration of conviction occurs.

3. *Frustration of ambition*: A person may find himself in a lower position than what he would like to be in, that is, his achievement lags behind his ability. He hence experiences frustration.

4. *Frustration of response*: The frustration which arises in conflict over the use of tools or materials or in the feeling that one is superior is unjust and unfair to the worker behavior-wise and in evaluation

The behavior performance of the human resource of the organization is greatly attributed to the working environment, as they function indoors, enclosed by a man-made environment. Provision of better working environment will result in increased job satisfaction, which directly contributes significantly towards improved performance and efficiency of the human resources. According to Hoppock (1933), job satisfaction is any combination of physiological, psychological, and environmental circumstances that causes a person truthfully to say, "I am satisfied with my job."

The working environment, performance of human resources, and their relationship have an adverse effect on productivity efficiency of an organization. Hence, it is necessary for the adoption and application of behavioral science principles and practices to enhance the effectiveness of the individuals as well as the organizations.

Impact of Bad Working Environment

The physical and mental health of the human being is affected by the existence of bad and unfair working conditions in the organization. Various earlier studies have revealed that when the human being is exposed to bad working environment and conditions, he gets frustrated, leading to illness, work stress, absentism, poor industrial and interpersonal relations, etc. The prevalence of bad working environment suppresses his creative ability, fosters dissatisfaction, and demotivates him. Though the provision of various basic and essential working conditions at the early level are made compulsory by means of enacting various acts by the sovereign authorities of their country, there still exists a gap in provision of a conducive working environment. In general, the physical environment such as rough floor, excessive glare, humidity, dust and fumes, laden atmosphere, inadequate workspace, long hours of work, and careless, unsatisfactory, bossy behavior of the superiors create a bad and unsatisfactory working climate.

The ever-changing business processes and technological advancements widely affect the social as well as the economic environment and the same results in improper adoption of organization structure by the business firms. As per the Rogers (1995) model of Innovation Decision Process, innovations that are perceived by the firm as holding greater advantages, compatibility, absorbability, and less complexity will be adopted more rapidly rather than other innovations. Although there is a little control over the building where the organization functions, it is possible to take simple innovative counter measures to create a stimulating and nurturing working environment.

Objective of the Present Study

The present study has been carried out to find the level of satisfaction of the executives at various levels on the prevailing working environment in their organization and to offer constructive suggestion for the betterment of the same.

Sampling and Methodology

In total, the study covered 200 executives working in various organizations. Among them, 25 were from top-level management, 75 from middle level management and the remaining from the low level management. The executives were selected on the basis of convenient sampling method. In order to collect the required data from the selected executives, an inventory containing the selected executives was formulated. It contained questions relating to measuring the level of satisfaction on various components of existing working environment: size of workspace, personalized space, comfortable temperature, adequacy of light, disturbance and noise in the workplace, comfort of furniture, and storage security.

A rating was used to categorize the respondents on the basis of their level of satisfaction towards the working environment in their organization. The variation in the level of satisfaction of the respondents on the various components of working environment has also been presented by using c-plot or radar diagram (Exhibits I, II and III).

Analysis and Discussion

The percentage of satisfaction and in equivalent assigned rating is presented in Table 1.

Table 1: Percentage of Satisfaction and Equivalent Ratings

Percentage of Satisfaction	Equivalent Ratings	Assigned Levels
Upto 20	1	Very Low
21–40	2	Low
41–60	3	Moderate
61–80	4	High
81–100	5	Very High

The distribution of the sample respondents on the basis of their level of satisfaction towards various components considered as the factors that contribute towards the creation of better work environment are presented in Table 2.

Table 2: Level of Satisfaction of Various Executives

Factor Code	Factors	Satisfactory Rating/ Level of Management		
		Bottoms Level	Middle Level	Top Level
A	Size of the workspace	2	3	4
B	Personalized space	1	3	5
C	Comfortable temperature	2	2	4
D	Adequate light	3	3	4
E	Disturbance and noise free	2	2	4
F	Comfort of furniture	1	2	4
G	Storage security	2	1	4
H	Breaks	3	3	2

Source: Survey data.

Observations

With regard to top level executives, the level of satisfaction is very high on personalized space. They also respondent in favor of size of the workspace, comfortable temperature, adequacy of light, disturbance and noise free, comfort of

furniture, and storage security. Their level of satisfaction is however lower on breaks.

The responses gathered from middle level executives regarding their satisfaction are moderate on factors such as size of workspace, personalized space, adequacy of light, and breaks. Their level of satisfaction is lower on factors such as temperature comfortability, disturbance and noise free, comfort of furniture.

The level of satisfaction of the lower level executives is moderate with regard to factors such as adequacy of light and breaks. They derive lower level of satisfaction on factors such as size of the workspace, comfortable temperature, disturbance and noise free, and storage security, while their level of satisfaction is very low with regard to the factors like personalized space and comfort of furniture.

To sum up, the top-level executives are satisfied with all the parameters except breaks. A diagrammatic representation of the level of satisfaction of executives of various levels in the form of c-plot or radar diagram is presented in Exhibits I, II, and III respectively.

Exhibit I: Satisfactory Ratings of Bottom Level Executives
Bottom Level Executives
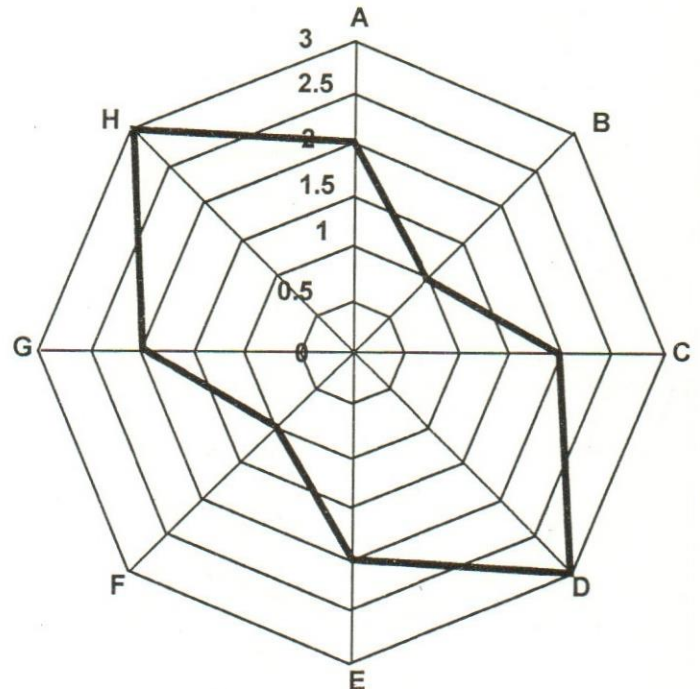
Note: #A, B, C, D, E, F, G, and H — Various environmental factors as stated in Table 2.
1, 2, 3, 4 and 5 — Satisfactory level ratings as referred in Table 1.

Exhibit II: Satisfactory Ratings of Middle Level Executives
Middle Level Executives
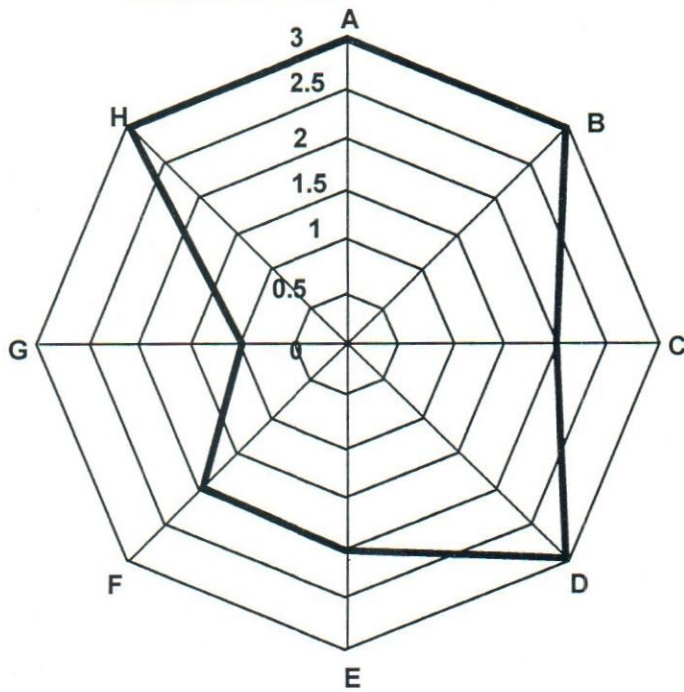
Note: #A, B, C, D, E, F, G, and H — Various environmental factors as stated in Table 2.
1, 2, 3, 4 and 5 — Satisfactory level ratings as referred in Table 1.

Exhibit III: Satisfactory Ratings of Top Level Executives
Top Level Executives
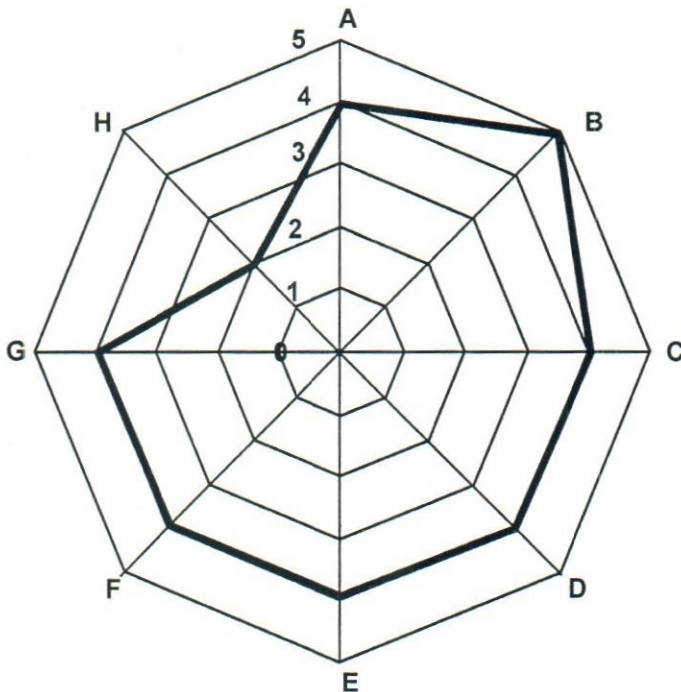
Note: #A, B, C, D, E, F, G, and H — Various environmental factors as stated in Table 2.
1, 2, 3, 4 and 5 — Satisfactory level ratings as referred in Table 1.

Measures to be Adopted for Creating and Sustaining a Better Working Environment

The existence of better working environment in an organization encourages creativity, reduces anxiety and builds a positive attitude among human resources in the workplace. Following are some of the common aspects that can be implemented to create a "no-sign" of boredom in the working environment:

Lighting

On an average 85% of our impression of the world is visually perceived which in turn affects us both psychologically and physiologically. Poor lighting leads to ocular problems such as eyestrain, eye irritation, blurred vision, headaches, etc., and others such as stiff neck and body aches. These problems occur when people adopt wrong or awkward postures while trying to read or do things under poor lighting conditions. The continuous physical strain caused by poor lighting contributes towards psychological stress in the minds of the executives. In order to avoid all these enlisted problems and to enhance the overall working condition, antiquated fluorescent tubes can be replaced with full spectrum tubes.

Inside Climate

The physical comfort that exists at the place of work will improve satisfaction of the executives on the work which in turn improves their productive and creative abilities. It is preferred to have an air conditioning system to maintain optimal thermal comfort. In addition to cooling, it balances heat, humidity, ventilation, and circulated air in a controlled and healthier manner. Although temperature is a personal preference, most of the people are comfortable in temperature ranging between 68 and 75 degree Fahrenheit (20–25 degree C) with humidity of 40–50%.

Color

Selection of colors has to be seriously viewed in creation of a pleasant working environment. Painting the workplace in an appropriate color will also contribute to reduced stress. As people are sensitive to a wide spectrum of colors, using the right hue can provide a good appetite, soothe the spirit, and simulate the mindset. A wrong selection of color in the workplace leads to aggressiveness in human behavior or leads to drowsiness and sickness. Overall, wrong combinations of colors have a negative impact on the working environment. Thus, applying the right colors will result in the creation of a conducive working environment.

Indoor Gardening

Gardening, inside the workplace, enhances not only the beauty of the office surroundings, but also helps in clearing the pollutants from the air as they add oxygen and balance the humidity of the indoor environment. A number of studies have revealed that plants have the capability of removing several pollutants such as formaldehydes, ozone, xylem, benzene, etc. Office furniture, carpets, equipments, etc., normally emit these types of pollutions. The presence of interior planting plays a role in human psychological well-being because:

1. The perception of an interior is more positive due to indoor planting.

2. As the indoor plant results in a cool and relaxed atmosphere in the place of work, the quantum of stress may be lowered.

3. It may enrich the building structure and can contribute towards the enhancement of the feeling of well-being among employees.

Furniture

The provision of necessary furniture to the executives will create a sense of comfort in their minds along with physical comfort. It will, at the same time, dramatically improve their creativity and performance, and help in avoiding unnecessary physical movements during work. Unsuitable or inadequate furniture affects posture, circulation, pressure on the spine, etc.

Dress code

The way in which an individual adorns reveals to others who he or she is. It identifies the uniqueness of the individual as if he or she were wearing a personality. In general executives prefer to wear formal clothing at the place of work. As they are expected to spend long hours, the selection of dresses should be given due weightage. Hence, the type of cloth worn by the executives should be appropriate for the work which they perform as this has to make him feel comfortable while performing the work.

Breaks

The term "work overload" can be expressed in two ways: required to perform too many things or not having enough time to do the work. The work overload contributes positively towards stress as well as conflicts. The work accuracy and performance of an executive are highly influenced by the presence of an optimum schedule for the work and rest periods. Studies on the effects of frequent "micro breaks" have been found to be beneficial in many ways including improvement in performance, creativity, and efficiency (Janaro and Beehtold 1985).

Aromatherapy

The power and pleasure of scent has an effect on action of the executive in the work place. It is observed that the release of scent in the workplace could help increase alertness and performance of the executives and result in development of positive attitude towards the attainment of the task.

Humor

The success of an organization depends on its ability to build terms in carrying out its activities. Apart from employing a variety of formal tools employed for team building, tools like humor can also be employed. Humor facilitates better communication because it effectively helps in breaking the ice and creates a sense of camaraderie, not only among the members of the particular team, but also between executives. The same will result in smooth functioning of the organization. Humor acts as a morale booster and creates a sense of well-being among the executives at various levels.

Conclusion

All business operations revolve around the three words: People, Products, and Profit, in which due attention must be given to the people in provision of comfortable and motivating work environment to bring out the imbibed creativity, skills, and talents in achieving organizational excellence. The onus of the responsibility for imposing the working environment falls on the leadership and organization. It is now time for the leadership to rethink, reframe, and refocus their efforts to ensure creation of a positive environment. In today's game, failing to follow the needs and wants of the people and further, not delighting them will not help the organization grow.

References

Barke, W.W. (1997), "The New Agenda for Organiational Development," *Organizational Dynamic*.

Clalofsky, N. (2003), "Meaningful Work," *Training and Development*, December, 57(12).

Grande, A. (2001), "Familky Policies: Organisation Justice Perception of Need Based Allocation," in R. Cropanzano (ed.), *Justice in the Workplace: From Theory to Practices*.

Hoppock, R. (1935), *Job Satisfaction*. New York: Harper and Brothers.

Janaro, R.E and Beehtold (1997), "A Study of the Reduction of Fatigue Impact on Productivity through Optiml Rest Break Schedule," *Human Factor.*

Judge, T.A. and Colquitt, J.A. (2003), "Organizational Justice and Stress: The Mediation Role of Work Family Conflict," *Journal of Applied Psychology,* 89.

Mayo, E. (1993), *The Human Problems of an Industrial Civílization.* New York: MacMillan.

Percel, J. (2004), "Foreword," *Human Resource Management Journal,* 14(4).

Pfeffier, J. (1994), "Competitive Advantage through People: Unleashing the Power of Work Force," Boston: HBS Press.

Pillai, J.N. (1976),. "Organisational Climate," *Indian Journal of Applied Psychology.*

Sangamithra, Budhapriya (2005), "Balancing Work and Life, Implication for Business," *Journal of Industrial Relations,* 41(2).

Verma, Shalini (2006), "Body Language—Your Success Mantra," 1st edition.

Sommer and Sommer (2002), *A Practical Guide to Behavioral Research.* London: Oxford University Press.

Sreevastava (2005), "A Model of Motivational System in Human Behavior Organizational Management," March.

> *Shallow men believe in luck, strong men belive in cause and effect.*
>
> — **Ralph Waldo Emerson**

Focus

Call of Business Process Outsourcing Motivators and Deterrents

Shyam L. Kaushal

Business process outsourcing (BPO) is emerging as a major source of employment to a large number of young and educated people. But these are reported to have poor work environment. Through the present study an attempt has been made to know the factors contributing to attract talent and identifying the major difficulties of a career in a BPO by conducting a survey on 150 call center employees in Delhi and NCR. The collected data has been analyzed with the help of percentage weightage, mean, and standard deviation. It is then concluded that a call center employee perceives it as a good career option but also feels some irritants. Stress has been noted as very high among call center employees caused mainly by sales target, work pressure, and job monotony. However, employees were found to be cooperative and using their skills adequately. But there are indications of need for job variety, work load rationalization, and role conflicts resolution to improve efficiency and controlling labor turnover.

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Business process outsourcing (BPO) is emerging as a major source of employment to a large number of young and educated people. BPO is the act of transferring some recurring internal activities and decision rights of an organization to outside service providers, as set forth in a contract. Such outside service providers are the specialized firms termed as BPOs or call centers that perform and execute some business activities outsourced by organizations. Gartner Dataquest defines the BPO as delegation of one or more information technology (IT) intensive business processes to an external provider that, in turn, owns, administers, and manages the selected process or processes based on defined and measurable performance metrics. BPOs, today, exist in all sectors and offer a variety of services ranging from market research, catalogue sales, order desk, customer service, technical queries, help desk, emergency dispatch, credit collections, reservations of airlines, and hotels, among others. The role and activities spectrum of these centers have expanded with the introduction of knowledge process outsourcing (KPO) that specializes in using special intellects and knowledge to complete the projects. Thus, the wide area of services provided by the BPOs and practicing flexi-time and flexi-work makes it a wanted career for many job seekers.

In India, BPO industry is comparatively of recent origin to the world of career options. To trace its history, GE, American Express, and HSBC were the pioneers to establish their call centers in New Delhi in 1992; today hundreds of BPOs are in operation. There is a great scope for call centers in the country with a large population of English-speaking people with IT literacy. Singh (2007) reports that as per Nasscom, 2 lakh employees are working in BPOs and their revenue has almost doubled in 2006–07 compared to that in 2005. According to Sachitanand (2008, p. 42) the BPO industry has grown to $ 11 billion in size, with 1,200 service providers and employing 700,000 people

directly. Srivastava (2008) relates the story of a family with all its members working in a BPO and the change in their socio-economic conditions. Thus, it can be said that BPOs are becoming more and more popular among industries as well job seekers.

The major factors contributed for fast growth of BPOs have been advancement of computer and telephone technologies on one side, and downsizing or rightsizing decisions of organizations on the other, for competing with stronger players by keeping best quality at cheaper costs. In fact, the number of the call centers is increasing day-by-day but these are reported to have poor work environment. To quote a few, Venkataratnam (2005) identifies critical issues in BPOs like occupational health hazards, office romance and sexual harassment, and binge parties. Kapoor (2005) opines that BPOs have more women-suited job profiles but their transportation and safety are big problems. The other issues pointed out are insecurity, exploitation, over workload, dead lines, long working hours, highly technological operations, job stress, round-the-clock functioning, alcohol use, drug addiction, sexual abuse, and others giving rise to many health problems resulting in absenteeism and reduced performance levels. Philip and Monga (2007) report that introduction of HIV/AIDS test to new entrants and random alcohol test on BPO employees can be considered a pointer to the prevalence of such problems. It is vital to have health policy for the tech sector. In brief, this industry is facing a serious problem of employee retention. Narayanan (2007) reports that 4 lakh workers are directly employed in BPO industry, but this sector has become the hotspot of work-related problems such as drugs, crime, and promiscuity. Sachitanand (2008, p. 43) notes that BPOs are employing 700,000 people, but also add to social ills like fast-paced lifestyle, near impossible deadlines, and working night life contributing to an upsurge in crime. All these indicate problems of employees in BPOs in general. Despite these the number of working people in this sector is moving up. Thus, through the present study an attempt has been made to know the attractions and deterrents of a career in a BPO.

Objectives and Methodology

The survey has been conducted to study the motivators and deterrents of career in BPO industry.

Sample

The sample consists of 150 employees selected on random basis from three leading call centers in Delhi and NCR.

Instrument

The opinions of BPO employees have been gathered on motivators and irritants through a questionnaire; one part of the questionnaire had dichotomous questions while the other is based on a Likert's five-point scale. The major issues covered in the survey were attractions (salary, night shifts, and open atmosphere), social factor, work design, training, communication, work environment, stress, health and safety, and job satisfaction.

Statistical Techniques Used

The collected data has been analyzed with the help of percentage weightage, mean, and standard deviation.

Results and Findings

The opinion of BPO employees have been gathered on employment issues like factors contributing to join, social irritants, stress prevalence, work design, and job satisfaction. The data is presented in Table 1.

Table 1: Employee Response Analysis on Factors Contributing to Join a BPO

Reasons	% Share	No. of Respondents
Challenging work	4	6
Attractive perks/transport	7	11
Security in transportation	4	6
Handsome penny	30	7
Salary increase	5	45
Refreshments and excursions	13	19
Night shifts	20	31
Fun and vibrant atmosphere	14	21
Others	3	4
Total	100	150

Table 1 reveals that the most important factor to join a call center is for handsome penny (30%); and night shifts (20%) are preferred to meet their other routines during day time that could include completing their education or taking care of their kith and kin. The working atmosphere is vibrant (14%) and refreshments and excursions attracts 13% of the respondents.

Table 2 presents the social issues being a cause to join or work in a call center especially for women. The dominant factors are a broken relationship in the family (35%), convincing parents (24%) either to work in a BPO or about

the colleague and working atmosphere in the call center, and marriage proposals (23%) rejected for jobs in call centers.

Table 2: Employee Response Analysis on Social Issues in BPO

Social Factors	% Share	No. of Respondents
Convincing parents	24	38
Marriage trouble	23	36
Broken relationship	35	45
Future advancement and growth	9	15
Office romance	2	4
Family outings and functions	6	10
Others	1	2
Total	100	150

Table 3 exhibits that majority call center employees (82%) feel stressed all the time. Thus, stress emerges as the major irritant at work.

Table 3: Employee Response Analysis on Stress Level in BPO

Stress Level	% Share
Never/occasionally	8
Sometime	10
Most/all the time	82

Table 3a points out the factors contributing to stress employees face while working in a BPO. The major causes of stress experienced by the employees are sales target (22%), work pressure (17%), and job monotony (16%).

Table 3a: Employee Response Analysis on Factors Contributing to Stress in BPO

Stress Factors	% Share
Sales target	22
Monotonous job	16
Management problem	7
Work pressure	17
Night shifts	11
Career prospects	7
Monitoring and surveillance problem	6
Difficult customers	10
Pay	4

Table 3b clearly mentions that 62% of the respondents opined the absence of any effective stress redressal mechanism in call centers.

Table 3b: Employee Response Analysis on Stress Management in BPO

Stress Management	Yes (%)	No (%)
Stress redressal mechanism	38	62

Table 4 indicates employee opinion on select variables of work design in a BPO. It has been found that call center employees cooperate (M = 3.44) with each other and utilize their skills fully (M = 3.39) but felt lack of autonomy (M = 2.35), no role clarity (M = 2.35) and more role conflict (M = 2.41), and more over work load problem (M = 2.54).

Table 4: Employee Response Analysis on Work Design in BPO

Work Design Variables	Mean	S.D.
Degree of autonomy	2.35	.750
Job variety	2.82	.591
Skill utilization	3.39	1.02
Work load	2.54	1.13
Role conflict	2.41	.913
Role clarity	2.35	.760
Cooperation	3.44	.870

Table 5 presents employee opinion on select variables of job satisfaction in a BPO. It reveals that employees are satisfied with their pay (M = 3.39) but opined lesser chances of promotion (M = 2.69), inadequate time for personal life (M = 2.72), and insufficient provision of performance incentives (M = 2.72). They also listed ventilated problems regarding optical health (M = 2.72), rest intervals (M = 2.72), and musculoskeletal disorder (M = 2.72).

Table 5: Employee Response Analysis on Job Satisfaction in BPO

Job Satisfaction Variables	Mean	S.D.
Pay	3.39	1.02
Promotion avenues	2.69	1.36
Time for personal life	2.72	1.23
Incentives	2.72	1.23
Optical health problem	2.72	1.23
Musculoskeletal disorder	2.72	1.26

Table 6 indicates the future plans of employees. It has been noticed that 85% respondents show the intention of staying in call centers while 15% prefer a job change.

Table 6: Employee Response Analysis on Future Plans in BPO

Future Plans	Yes (%)	No (%)
Staying intentions	85	15

Observations and Conclusions

From the results and findings of the survey it can be concluded that an employee in a call center perceives it as a good career option but also feels some irritants.

Call centers are preferred mainly for handsome, easy money, night shifts, and a vibrant atmosphere. But employees, especially women, are haunted by fear of broken relationships, rejection of marriage proposals, and mounting worry of parents about the odd working hours and open atmosphere at work. It is inferred that the area to be most affected is personal relationships, which leads to restlessness in the minds of employees caused by negative perception about BPO's work culture in public. Stress as a result of sales target, work pressure, and job monotony has been noted through the conducted study. Thus, there is a dire need to develop a stress buster mechanism at the firm as well as at an individual level.

On work design in call centers it has been found that employees are cooperative and use their skills adequately. But one also observes a strong need for job variety, work load rationalization, and role conflicts resolution at work that will help improve efficiency and control labor turnover. It has been noted that optical health problem and musculoskeletal disorders are more frequent with the high

work pressure in call centers. Therefore, health and stress management need special attention. However, the employee is found to be satisfied with salaries but indicated problems in promotion channels and time available for personal life. It is thus concluded that stress, promotion, and health maintenance have been the major irritants in call centers. These issues need the attention of the management in order to attract better talent and retaining the organization's star performers. It is heartening to mention that an employee found to be continuing his/her work in call centers despite the mentioned deterrents confirms further that the BPO industry is offering a good career option.

References

Singh, S. (2007), "BPOs Attain Global Shine on Rising Call," *Economic Times*, July 6.

Sachitanand, R. (2008), "Crossroads: Will Multiple Roadblocks Slow the Growth of Booming BPO Market?" *Business Today*, February 24.

Srivastava, P. (2008), "The Great Indian BPO Family," *Business Today*, March 9, pp. 194–98.

Venktaratnam, C.S. (2005), "Employing Best HR Practices in BPO Sector to Retain Talent," *Financial Express*, December 24 (online edition).

Kapoor, A. (2005), "Employing Best HR Practices in BPO Sector to Retain Talent," *Financial Express*, December 24 (online edition).

Philip, T. and Monga, D. (2007), "BPO Recruits Likely to Face HIV Test," *Economic Times*, July 23.

Narayan, S. (2007), "BPOs: Young and Troubled," *Business Today*, Delhi, pp. 4, 14, July 15.

> If we do not plant knowledge when young, it will give us no shade when we are old.
>
> – **Lord Chesterfield**

Binomial Option Valuation of Spares

Mohita G. Sharma and Kashi N. Singh

The motivation of this work comes from the analogy between financial investments and the phenomenon of spares breakdown and spares usage, which is apparent because of the commonality of uncertainty. Through the use of binomial option pricing model, which is the most widely used real option model, the issue of spare parts management in capital intensive industries has been addressed to determine the value created by exploiting uncertainty. It aims to contribute as a decision support system for the practitioner to provide guidelines by exploiting uncertainty and formulating strategies for spare parts management.

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Spare part management is of growing importance across companies because of the emphasis on after sales service which is heavily dependent on spare parts availability. Spares inventory ensures smooth and continuous operations, but they are not products sold to a customer like WIP or final product inventory. The cost of being out of a part generally includes lost production service, but it is the loss in goodwill that is difficult to quantify. There are some unique aspects of spare parts inventory. The demand for spares is generated by degradation or failure of equipment which are mostly stochastic. The cost of failure includes quality as well as lost production which is difficult to quantify. We address the problem of spare parts management in Capital Intensive Industries. The investment in spare parts over the life of the equipment exceeds the investment made for the procurement of capital goods and so the problem of spare inventory is not a trivial one. British Airways' expenditure on spares is approximately $ 6.5 billion globally (www.britishairways.com). The traditional problem is to determine the optimal stocking level of spare parts. One should be able to supply the airline with the right part in a short time for a reasonable price.

The continuum of spares literature range from approaches based on echelon to those on attributes (Nahmias, 1981). However, solutions based on them assume static and deterministic demand pattern and are essentially stocking solutions. In contrast, this study considers the deployment of asset (spare) only when demand uncertainty becomes certain (Cohen, 2006). The study attempts to explore the viability of application of real options theory to spares inventory management. An investment in real assets is called real options. A real option is a right, not an obligation, to take an asset at a predetermined cost called the exercise price for a predetermined period of time, that is, the life of the option.
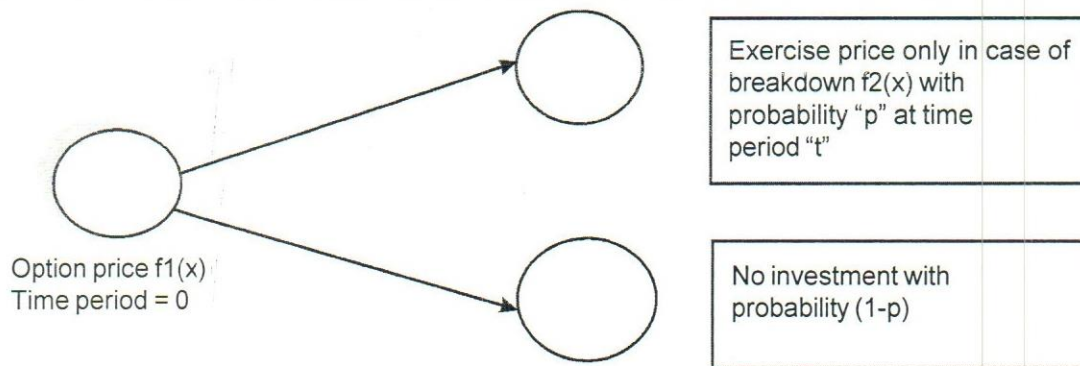
Fig. 1: Conceptual Option Model of a Spare Part

Real option theory is applicable only when the payoff scheme is asymmetric. This argues that the downside risk can be avoided by responding in time to the uncertainty and, thus, exercising the option. In academia, this is a widely accepted innovative tool for asset valuation and determining the value creation (Nembhard, 2000). The results show that managers can use this as an appropriate tool to frame strategies for spare parts management.

Real Options in Spare Investments

The traditional method adopted till now was a stocking model wherein depending upon the forecasted demand, spares were procured and the decision was made at the beginning of the first period. No modification could be done subsequently. The practice is to stock the spares at time "0" based on the demand forecast, and whenever a breakdown occurs the demand is met with by issuance from the stock. Instead of initial investment, we propose the option to wait through the end of the period and choose whether to invest based on the knowledge of the state of nature, that is, invest only in case of a breakdown, otherwise not. This forms the basis of real options formulation which is a proactive way of managing uncertainty (Copeland, 2001).

We can represent this basic formulation diagrammatically as shown in Figure 1 and interpret as follows. In the given Real Option (RO) model we propose to stagger our investment based on the scenario. We consider "p" as the probability of breakdown of a spare part occurring in a given period. Equivalently, we can also consider that the probability of the demand for a spare part is also "p." Let "x" be the price of the asset, f1(x) be the amount paid as option price and f2(x) is the amount to be paid later, that is, the exercise price in the event of a failure. Then assuming that instead of the now-or-never option we

have the option to wait until the end of the period and choose whether to invest or not based on the breakdown.

In the traditional system, the whole investment of the cost of the spare as per the stocking policy would have been at time "0" (zero). No implication on the decision of investment takes place because of breakdown.

Thus, in the traditional case, let:

$$\text{investment} = (x) \qquad \qquad ...(1.1)$$

In the proposed RO model which is also the basic binomial model, the total investment for the Binomial Tree is:

$$[A] = f\,1(x) + \{p * f2\,(x) + (1-p) * 0\} \qquad ....(1.2)$$

Further, we can consider a situation where the option price is a token price which is nominal and ensure the right to exercise the option later. In this situation the outflow is the exercise price and the investment takes place only if there is usage.

The total investment for the Binomial Tree:

$$[A] = \{p * f2\,(x)\} \qquad \qquad ...(1.3)$$

An introduction to the financial option definitions (Hull, 2002) is given as follows:

Call option: A call options pays off at expiration when the stock price, "S," exceeds the exercise price "X," otherwise it is worthless and is represented as:

MAX [S-X, 0].

Put option: The right to sell the underlying asset to receive the exercise price.

European option: The option can be exercised only on a particular date.

American option: The option can be exercised any time during the life of the option.

Given these definitions, the decision that the option holder faces is to defer the investment and then decide based on scenario whether and when to invest. Accordingly, we can infer that the spare parts can be modeled as "call option to invest." Further, this would be an American call option because breakdown can occur anytime during the life of the option period.

A New Proposed Classification

From the various studies of spares we have identified two striking characteristics of spare parts, and propose a new classification of spares which shall be utilized in our study. These characteristics are:

1. Volatility of demand for spares (demand can be very low, erratic, and intermittent).

2. Consequentiality (consequence of their stock-out can be severe). (See Figure 2).
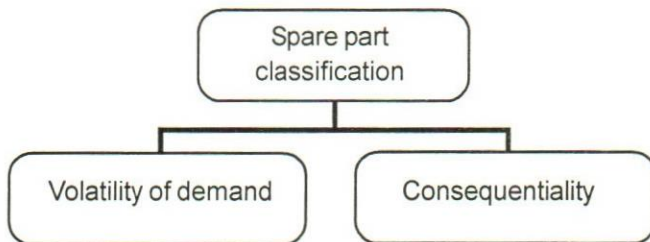
Fig. 2: Proposed Spare Part Classification

Volatility: The dictionary meaning of volatility is "unpredictability" or "transient." The salient feature of a spare part is the unpredictability associated with the breakdown, hence, volatility is a measure of uncertainty. In options evaluation as well, volatility is a key input and contributes to the uncertainty and variability component. In the classification, the elements predictability, specificity (standard or rare), demand pattern (volume and predictability), and annual usage contribute to the "volatility" class of our classification.

Consequentiality: The dictionary meaning of the word is "following as an effect, result." Thus, it includes elements which contribute to the effect or impact of non-availability of spares. These elements, namely, impact of shortage, lead time, and availability will also be included in this class.

Characteristics in earlier studies (Huiskonen, 2001) can be reclassified under the two broad features of the proposed classification, that is, volatility and consequentiality. The

modified representation is presented in Table 1. These are found to be especially important in the determination of their option value.

Table 1: Spare Parts Classification

Spare Part Classification	
Consequentiality	**Volatility**
Impact of shortage/cost	Predictability/volume
Lead time/availability	Standard/user specific

Modeling Spare Investments in Financial Options

An option is a right to buy an underlying asset at a predetermined price at a later date. It is found that the spare part is required only in the event of breakdown, which is uncertain and exogenous. Hence, the spare has value only in an event of a breakdown, otherwise it is worthless. This implies that the usefulness of spares is the volatile element in our study, and this is governed by breakdown which is uncertain (Figure 3).
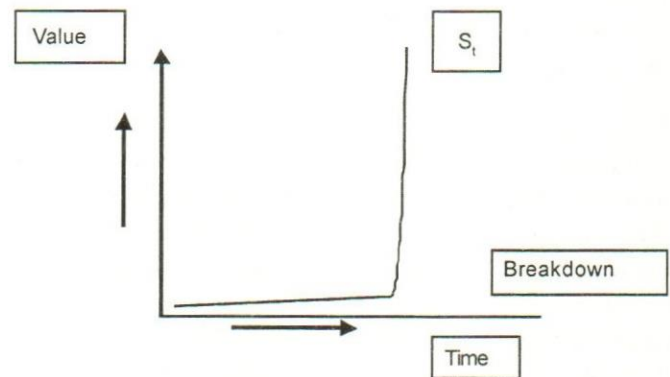
Fig. 3: Spare Part–Real Option Formulation

The major consideration for a spare part is not the price, but asset value, which increases as a breakdown occurs. As soon as the breakdown occurs, the *value of the asset* increases to a large value "S_t." The first exercise undertaken is to determine the intrinsic value of the spare part in the event of breakdown, that is, the value to which the spare rises in the event of a breakdown. In this model, the payoff that we receive is in terms of the cost averted in prevention of a stock-out situation and is the intrinsic value of the spare part. Thus, this value is equivalent to the penalty cost in case of non-availability of the particular spare part and is called the spare asset value.

The spare asset value which is proposed in this work addresses the "consequentiality" aspect of a spare and is significant in our work. This consideration has been addressed in the following way.

Criticality: Let "J" be a constant and the criticality (Cr) measured on the scale 1–10. The spare part can be graded on this 1–10 scale based on the magnitude of the penalty loss per unit time period that can be incurred due to the absence of the particular spare part, and "Cr * J" indicates the per period loss in monetary terms.

Lead time: This indicates the shortest time required to make the part available, which can be indicated in terms of "L" time periods. Therefore, "Cr * L * J" indicates the total loss in monetary terms that the company has to incur and also the spare asset value of the part in the event of breakdown. In case one has to pay a premium to shorten the lead time the same can be incorporated by changing the lead time and adding the premium; thus, the spare asset value "S_t" to which the item shall rise in the event of a breakdown is given by:

$$Spare\ Asset\ Value\ S_t = Cr * L * J$$

Framework of Binomial Tree Analysis

This formulation attempts to convert the real option application of the real world problem of spare parts management into a mathematical function. Real option theory is a formal way of defining flexibility. In this framework, flexibility is embedded by allowing the existence of decision point through the time frame. The proposed situation calls for exploiting the uncertainty in breakdown which in turn reflects the uncertainty in demand and thus the opportunity to defer investment based on uncertainty. In the Binomial method (Cox, 1979) the value of the uncertain parameters at the decision points across time is ascertained. This gives the option cost which is the right to exercise the option of getting the spare at a later date.

The option can be exercised by paying the exercise cost at a later date till the time horizon "t." It is assumed that we can consider a situation where the option price is a token price which is very nominal and ensures the right to exercise the option later. In this process, the best decision at the last stage is determined and then one regresses to the previous stages stepwise and obtaining the best decision for the first stage.

Model:	Minimize Spares Inventory Cost
Subject to:	Technical and Economic Constraints Real Options Constraints
Objective function:	To maximize the expected value of the options across all scenarios.

Formulating the base condition in algebraic form for one time period:

Let "q" be the scenario. Here, there are only two scenarios—Breakdown and No Breakdown.

Probability of scenario breakdown = p;

Probability of scenario of no breakdown = (1-p);

Value of the option for one time

period is = $p \times E$ ... (1.4)

where:

$$E = S - K \text{ (American call)} \qquad ...(1.5)$$

"S" is the present value of the asset and "K" is the exercise price. This is also shown diagrammatically in Figure 4.
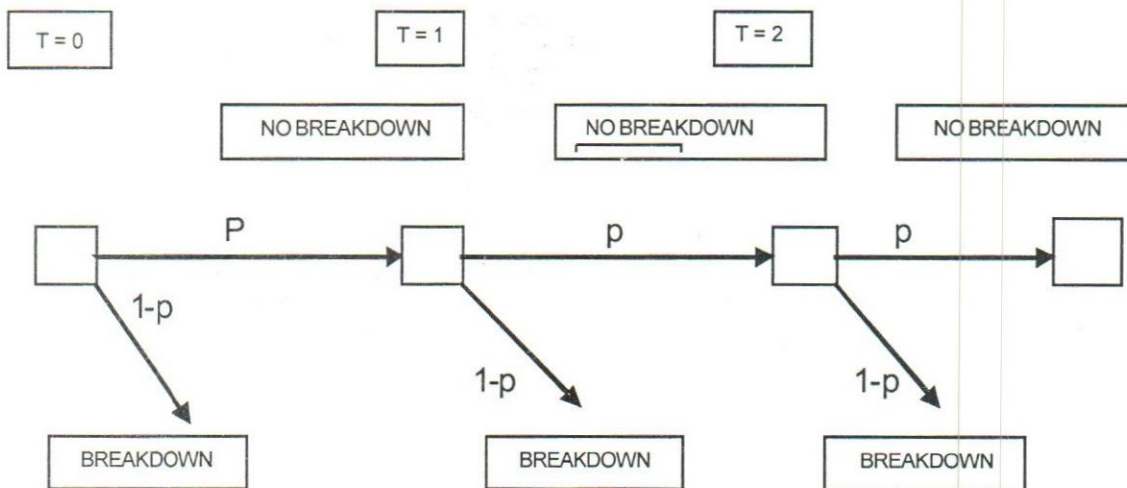
Fig. 4: Multi Time Period Binomial Analysis

Modifying the equation to account for multiple time period:

Let Time periods: t = { 1,2......T};

Scenarios: q = { 1,2,........S}.

Through Figure 4 we are trying to understand the phenomenon as it occurs. There are only two scenarios: breakdown or no breakdown. If we consider multiple time period the binomial tree in our case can be extended for multiple time periods. As stated above only one option is executed in the binomial tree. This option maximizes the value of the binomial tree. Accordingly, for a multiple time period situation the option can only be exercised once. Therefore, we need to impose a constraint on the exercise of the option such that it is exercised only once. This constraint which can be called a real option decision variable can be denoted by a binary constraint. Thus, we avoid the instance of partial and repeated exercise which is not practical.

Let the time period = "i;" "q" indicates the scenarios; Probability of each scenario = "p"

"r" is the interest rate
"E" is the pay off
"S_i" is the value of the asset
"K" is the exercise price
"T" is the time horizon

Expected value is the product of the probability of occurrence and payoff.

$$Ri = [R_1.......R_t]$$

where R_1 is a Real option decision variable and is considered as a binary variable. The decision of option in time period "i" = 0, that is, no exercise and 1 = exercise;

$$\Sigma R_i \leq 1; R_i \varepsilon \{0, 1\}$$

Objective function:

$$\text{Option value} = \text{Max} \sum_q p \sum_{i=1}^{n} E_{q^i}^{q} . e^{-r\Delta T.(i-1)} \quad ... (1.6)$$

This equation gives the expected value of the option along all scenarios as it is the product of the probability and the option values for all scenarios. Further, the time value of money has also been incorporated in the above equation.

$$\text{s.t } E_i^q = S_i^q - k \quad \forall \quad q \qquad ...(1.7)$$

$$\sum_i R_i^q \leq 1 \qquad ...(1.8)$$

$$R_i^q \in \{0,1\} \quad \forall i,q \qquad ...(1.9)$$

Through this equation we can ensure that any option can be exercised at most once in any scenarios. The vector indicates the uncertainty in the spare for a specific time "i" in the scenario "q." "P^q" denotes the probability for a scenario "q." The real options decision variables corresponding to scenario "q" is denoted by:

Numerical Example

For illustration purpose let us consider these values:

Stock Price S = 1000 which is the spare asset value or the value of the spare at the time of the breakdown; Exercise Price K= 300 which is the expenditure required to acquire this asset; p = 0.5624;

Cost of capital = r =15%

As mentioned earlier, "S" is the present value of the asset and "K" is the exercise price. The value of the option is the value to which the spare part rises in the event of a breakdown which we have earlier stated taking into consideration the factor of penalty cost and lead time.

After determining the probabilities for different scenario for a four-period example based on the time period in which the option is executed, expected value is determined by multiplying the probabilities with the pay off of the scenario. The option value is then calculated by loading this expected value with the time value for money (Table 2).

Table 2: Probability Calculation for Various Scenarios

Scenario	TREE ANALYSIS					DECISION			
	i=0	i=1	i=2	i=3	Probability	i=0	i=1	i=2	i=3
q = 1	S	Su	0	0	0.5624	0	1	0	0
q = 2	S	Sd	Sdu	0	0.246	0	0	1	0
q = 3	S	Su	Sdd	Sddu	0.1076	0	0	0	1
q = 4	S	Sd	Sdd	Sddd	0.0837	0	0	0	0

Considering the scenario tree:

For one time period

The Total value of the option = p×(S-K) ..... (1.10)

For two time period

The Total value of the option =

$$\{p+ (1-p)\times p\times e^{-rt}\}\times(S-K) \qquad ..... (1.11)$$

For three time period

The Total value of the option =
$$\{p+ (1-p)\times p\times e^{-rt} +(1-p)^2 \times p\times e^{-2rt} \}\times(S-K) \qquad .....(1.12)$$

For four time period

The total value of the option = $\{p + (1-p) \times p \times e^{-rt} + (1-p)^2 \times$

$$p \times e^{-2rt} + (1-p)^3 \times p \times e^{-3rt}\} \times (S-K) \qquad \ldots\ldots (1.13)$$

Thus, the total value of the spare is:

$$(S-K) \times \textstyle\sum_1^n p \times (1-p)^{t-1} e^{-r(t-1)} \qquad \ldots (1.14)$$

If we analyze the uncertainty variable, we realize that it has two components, namely, volatility and time. Assuming the volatility to be constant for a spare based on the breakdown pattern, the option value increases as time increases. Table 3 gives the results of this illustrated case.

Sensitivity Analysis

Table 3 also shows the change in option value with the change of time. The next sensitivity analysis (Table 4) includes change of option value with consequentiality.

If we divide the option value with the exercise price "K" in the previous equations, we can use the S/K ratio which we have earlier called the consequentiality ratio. The option value increases as the S/K value increases. Thus, it is observed that the option value is a function of this consequentiality S/K.

The next sensitivity analysis considers variation of Option value for different uncertainties (Table 5). Different probability values are considered and it is observed that the option value is directly proportional to volatility.

Results and Implication for Operations Manager

Operations managers can adopt the mentioned decision model where the consequentiality and demand volatility are the inputs and option valuation as the output. Consequentiality considers penalty, criticality, lead time vis-à-vis cost, while volatility considers demand variability

Table 3: Variation of Option Value with Time

Time Period	Contribution of Each Time Period	Cum. Cont.	Option Value	Option Value Factor
1	p*(S-K)	0.56	393.68	1.31
2	{p(1-p)exp(-rt)}*(S-K)	0.77	541.96	1.81
3	{p(1-p)(1-p)exp(-2rt)}*(S-K)	0.85	597.81	1.99
4	{p(1-p)(1-p)(1-p)exp(-3rt)}*(S-K)	0.88	618.84	2.06

Table 4: Variation of Option Value with S/K

Time Period	Contribution	Option Value S=1000	Option Ratio S/K	Option Value S=750	Option Ratio S/K	Option Value S=450	Option Ratio S/K	Option Value S=300
1	0.56	393.68	1.31	253.08	0.84	84.4	0.28	0
2	0.77	541.96	1.81	348.40	1.16	116.1	0.39	0
3	0.85	597.81	1.99	384.30	1.28	128.1	0.43	0
4	0.88	618.84	2.06	397.83	1.33	132.6	0.44	0

Table 5: Variation of Option Value with Time

Time Period	Contribution of Each Time Period	Contribution for Different Probabilities				
1	p*(S-K)	0.24	0.36	0.56	0.66	0.76
2	{p(1-p)exp(-rt)}*(S-K)	0.405	0.57	0.77	0.86	0.925
3	{p(1-p)(1-p)exp(-2rt)}*(S-K)	0.519	0.69	0.85	0.92	0.96
4	{p(1-p)(1-p)(1-p)exp(-3rt)}*(S-K)	0.596	0.76	0.88	0.94	0.97

and total demand in the demand pattern. Option valuation is only viable when the option value is greater than one. This output can be used to determine the suitable option spares management strategy. For items with high consequentiality and high demand stocking is the best strategy. But for intermittent demand spares which have high consequentiality, options create value and postponing investment decision at a later date is beneficial. We propose that for high variable, low demand items can be operationalized through an option model. High consequentiality can be a result of either high criticality or longer lead time or low cost. Further, for a given consequentiality and demand pattern, the option value can be increased by increasing the time frame.

This is the first step in applying real options to spares management where we have tried to model the spares breakdown phenomenon. This paper deals with the application of option theory to spares management by using the conventional Binomial option pricing model. The asset value of the spare is considered as the volatile variable which rises sharply as the breakdown takes place. There are only two states—either there is a breakdown or there is no breakdown—and hence it is modeled as a binary constraint. First, the option value is determined for one time period and then it has been extended to cover multiple time periods. As only one scenario can happen in a particular time period we have considered the optionality constraint of exercising the option only once. The uncertainty component has been addressed by using probability and time variables. The significance of this modeling exercise and our intent in this work is to determine the value created in this real option formulation and there is no optimization involved in this exercise in terms of timing of exercising the option which has to be exercised whenever a breakdown takes place. This phenomenon of breakdown is exogenous and not under the control of the option holder. An attempt has been made to devise a tool for the decision maker so that he can judiciously opt for option model for spares and determine the value created through this alternative model. The computational results are in accordance with the expectations of the option model. The range of possible outcomes is an important dimension in option value. In the context of spare parts management, we can infer from our study that spares with high consequentiality and high volatility have the highest option value. Application of real option may not be suitable for low consequentiality and low volatility spares. This will give a tool in the hands managers to frame their appropriate strategies for spare parts management. Although the complexity of option pricing model can be increased as more true, world variables can be introduced, by this study.

References

Cohen, M.A., Agraval, N. and Agraval, V. (2006a), "Achieving Breakthrough Service Delivery through Dynamic Asset Deployment Strategies," *Interfaces*, 36(3): 259–71.

Copeland, T. and Antikarov, V. (2001), *Real Options: A Practitioner's Guide*. New York: McGraw Hill.

Cox, J.C., Ross, S. and Rubinstein, M. (1979), "Option Pricing: A Simplified Approach," *Journal of Financial Economics*, 7: 229–63.

Huiskonen, J. (2001), "Maintenance Spare Parts Logistics: Special Characteristics and Strategic Choices," *International Journal of Production Economics*, 71: 125–33.

Hull, J.C. (2002), *Options, Futures and Derivatives*. Prentice Hall of India Pvt. Ltd.

Nahmias, S. (1981), "Managing Repairable Item Inventory System: A Review," in Schwarz (ed.), *Multi-Level Production/Inventory Control Systems: Theory and Practice*, vol. 16, *Studies in the Management Science*. North Holland, Amsterdam.

Nembhard, H., Legan, Shi and Mehmet, Akhtar (2000), "A Real Options Design for Quality Control Charts," Proceedings of 32nd Winter Sim. Conference, pp. 597–603, ISBN: 0-7803-6582-8.

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–Doug Firebaugh

An Inquiry into Determinants of Participation in Self-Help Group (SHGs) Institutions

D. Suresh Kumar

Institution building is now recognized as vital for poverty reduction across the world. This paper focuses on the factors influencing women's participation in Self-Help Group (SHG) institutions in Southern India. It is evident that women participation in SHGs is influenced by household level factors, group characteristics, and contextual factors. Our policy focus should be tilted towards development of infrastructure in the rural areas, women empowerment through ensuring literacy, and ensuring sustainability of watershed institutions which could complement resources. Our results support that the public policies geared towards increasing women's participation in SHGs ensure collective action in rural areas.

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In recent years, increasing emphasis has been placed on the importance of institution building in triggering economic growth and poverty reduction. The Millennium Development Goal (MDG) emphasizes three strategic objectives of strengthening the capacity of the rural poor and their organizations, improving equitable access to productive natural resources and technology, and increasing access to financial services and markets in order to achieve poverty reduction (IFAD, 2003; Maluccio and Flores, 2005).

Institution building takes place across the globe in different forms and purposes. These institutions are formed for natural resource management like water, forest, and land, development of rainfed agriculture, environmental management, etc. Local people's organizations in the form of Self-Help Groups (SHGs), User Groups (UG), Watershed Committees (WC), Watershed Associations (WA), Join Forest Management Committees (JFMC), Micro Finance Institutions (MFIs), and other social groups are now widespread with support from the state for mobilizing community and harnessing their resources in productive pursuits. These institutions by and large aim at the creation of sustainable livelihood opportunities for its members; the process of group formation itself has been encouraged by the government as a tool for rural development (Planning Commission, 2002). In particular, SHGs are formed across countries as an effective strategy for poverty alleviation, human development, and social empowerment.

Over the years many researchers (Coady et al. 2001; Dutta and Magableh, 2004; Gregorio et al, 2004; Ismawan, 2000; Levy, 2006; Maluccio and Flores, 2005; Morduch, 1998; Zeller et al. 2001) have attempted to study the functioning of SHGs and their performance and impacts on poverty reduction with different programs and varying objectives. These programs vary from conditional cash, asset, and income transfer to unconditional transfers. Experiences show that though there is strong theoretical

and empirical evidence about the conditions for the success and failure of institutions in poverty reduction, natural resources management, and environmental sustainability; designing policies to create local institutions still remains a challenge (Heltberg, 2001; Suresh Kumar, 2007). In this context, the present paper attempts to examine the determinants of women participation in SHGs activities.

Study Area

The study area is Coimbatore district of Tamilnadu state, India. The Coimbatore district is one of the largest districts and situated in the Western part of the state. The district has an aerial extent of 7,470 sq km accounting for 5.74% of the total geographical area of the state. The district lies between North latitude 10°13'00" to 11°23'30" and East longitudes 76°39'00" to 77°30'00". The district receives rain both during southwest and northeast monsoons. The northeast monsoon contributes the maximum of 328.2 mm during October to December. The average annual rainfall of this district is 647.2 mm from winter, hot weather, southwest monsoons, and northeast monsoons. Agriculture has to depend largely upon minor irrigation projects and other sources such as wells, rainfed tanks, etc., due to poor rainfall.

Watershed Development and SHGs

The watershed development programs involving the entire community and natural resources influence: (a) productivity and production of crops, changes in land use and cropping pattern, adoption of modern technologies, increase in milk production, etc.; (b) attitude of the community towards project activities and their participation in different stages of the project; (c) socio-economic conditions of the people such as income, employment, assets, health, education, and energy use; (d) impact on environment; (e) use of land, water, human, and livestock resources; (f) development of institutions for implementation of watershed development activities; and (g) ensuring sustainability of improvements.

To promote participation of local villagers in implementation of various watershed development activities, the Community Based Organisations (CBOs) are formed. They include UGs and SHGs. The UGs are homogeneous groups, which are responsible for the management and maintenance of structures created in the common lands of watershed. SHGs are homogeneous groups whose members share a common identity such as agricultural laborers, landless households, women, shepherds, and scheduled castes/tribes. These groups are formed for various income generation activities like goat rearing, cattle rearing, micro-finance thrift groups, small shops, etc. The SHGs are the focus of this paper.

The formation of SHGs has been made a mandatory in all watershed development programs in the country. The Project Implementing Agency (PIAs) constitutes SHGs in the watershed areas. Around 50% of villagers who are directly or indirectly dependent on watersheds should generally be enrolled as members in the SHGs. The PIA/village panchayats set up a revolving fund not exceeding Rs 100,000 to be given as seed money for vocational development by the SHGs at a rate not exceeding Rs 10,000 per SHG for undertaking income generating activities. This seed money must be recovered from the SHG members in a maximum of six installments on a monthly basis. This could be reinvested in the same or other SHGs (Government of India, 2003).

Unlike most of the SHGs formed under different programs which mainly act as microfinance thrift groups, the SHGs formed under watershed development programs involved in diversified activities. They include income generation activities like goat and cattle rearing, small shops, tailoring, etc. In addition, the groups are also involved in savings and lending to their own members. The participation in watershed development activities is rather limited.

Methodology

Data and Sampling

For the purpose of research, a multistage random sampling procedure was followed. In the study area around 216 SHGs spread across 98 micro watersheds in seven blocks were formed. These SHGs were formed for number of activities such as goat rearing, milch animals rearing, sweet stalls, textiles, rice shop, basket making, groceries, vegetables shop, and petty shops. In order to fulfill the objectives, 75 SHGs spread across 27 micro watersheds were randomly selected so as to cover SHGs of different activities covering entire geographical locations. While selecting the groups, the groups which are failed and ever existed, have also been included in order to understand the reasons for failure. Mostly a group comprises of 12 members. For the purpose of the study, five women members in each SHG were randomly selected. Thus, a total of 375 members who involved in SHG activities were selected and studied. To facilitate comparative analysis, an equal number of 375 women household members who do not participate in SHG activities were selected and studied as control. Enough care was taken in selecting the control households. The control households are homogeneous to SHG members in

caste, occupational class, and socio-economic conditions except participation in SHG activities. Thus, a sample of 750 rural women households was studied for the purpose.

The data were collected at three levels, namely, watershed level, SHG level, and household level. Watershed level data were collected from the respective PIAs. The data pertaining to conditions of watershed like number of ponds, check dams, number of wells, cropping pattern, area under crops, afforestation, water resources potentials created, details on grazing land, and other infrastructure facilities were collected from the records maintained by the PIAs and village administrative offices. Also discussions were held with the local villagers regarding conditions of watersheds particularly the water level in ponds, etc. The group level data was collected from the registers maintained by the SHGs. They include income and expenditure of the production activities of groups, savings and lending details, meetings organized, meetings attended by the members and characteristics of the SHGs, amount of revolving fund mobilized, and details of the activities involved. The household level data was collected from two types of respondents by personally administering interview schedule. The information such as (a) household socio-economic data including income, asset position, and consumption details, and (b) women's participation in SHG activities were collected. The data was collected during the period November 2006–April 2007.

Factors Influencing Women Participation in SHG

A key concern for policy makers is the fact that making the SHGs functioning successfully. The functioning of the SHGs depends upon women participation. Thus, an important research question is what factors influence women participation in the SHG activities. For the purpose, the number of meetings attended by women members in the last three months was identified as key indicator to represent women participation in group activities.

An empirical issue that needs to be considered, however, is that few women members did not attend the meetings organized by the SHGs. Thus, the dependent variable takes the value of zero for these women members. Given that our dependent variable is censored at zero, a Tobit estimation rather than OLS is appropriate (Madalla, 1989; Tobin, 1958). Thus, the estimated reduced form model with the latent variable is specified as:

$$WP^* = X_j b + U_j$$
$$WP = WP^* \dots\dots\dots\dots\dots \text{ if } X_j b + U_j > 0$$
$$= 0 \dots\dots\dots\dots\dots \text{ if } X_j b + U_j \leq 0 \ \dots.(1)$$
$$j = 1 \dots\dots\dots\dots n$$

where:

WP = Number of meetings attended by women member in last three months

X_j = Vector of independent variables such as SHGAGE, SHGSIZE, CASTE, GOAT, RICESHOP, GROCERY, CATTLE, WEDN, HEDN, DEPENDENT, RESOURCE, INFRA, FOWI and WATCONDN,

b = Vector of unknown coefficients

The error term U_j is independently normally distributed with zero mean and constant covariance σ^2.

The women participation in SHG activities is expected to be influenced by group characteristics such as age of the SHG (SHGAGE), size of the SHG (SHGSIZE), caste homogeneity (CASTE), type of activities (GOAT, RICESHOP, GROCERY, CATTLE) used as dummy variables, household specific characteristics like educational level of the women member (WEDN), educational level of the husband (HEDN), number of dependents in the family (DEPENDENT) and income from sources other than SHG activities (RESOURCE). Women participation is also influenced by contextual factors like infrastructure development in the watershed village (INFRA), presence of other formal watershed organizations (FOWI)[1] and condition of the watershed (WATCONDN). The definition and descriptive statistics of these variables is presented in Table 1.

The explanatory variable INFRA[2] is included in the model to predict the effect of infrastructure development in the village on functioning of the SHGs. This can explain the impact of development on members' participation (Heltberg, 2001). The extent of infrastructure development implies the level of development of the village. *A priori*, it is expected that high level of infrastructure development promote employment avenues and occupation structure and more likely will be the members' participation and hence better functioning of the SHGs. Thus, there exists a positive relationship between infrastructure development and participation by members.

The condition of watershed, measured by an index of different indicators such as irrigation intensity of the watershed village,[3] cropping intensity of the watershed village,[4] and watershed eco-index[5] (reflecting additional green cover created), not only provide employment and increase the income level of cultivators and landless watershed, but also reduce the risk of agricultural income. As the members of SHGs are mainly agricultural laborers

Table 1: Descriptive Statistics of the Variables used in Determining Women's Participation in SHG Activities

Variables	Definition of the variables	Number of Observation	Mean	Standard Deviation
MEETING	Number of meetings attended by the SHG members in the past three months	375	10.60	2.71
SHGAGE	Age of the SHG in years	375	3.46	1.47
SHGSIZE	Size of the SHG	375	10.84	3.75
CASTE	Social homogeneity; Dummy, (1 = if more than 75% of SHG members belong to the same caste, 0, otherwise)	375	0.96	0.58
GOAT	Dummy variable (1 if SHG is involved in goat rearing; 0, otherwise)	375	0.67	0.47
RICESHOP	Dummy variable (1 if SHG is involved in rice shop; 0, otherwise)	375	0.05	0.22
GROCERY	Dummy variable (1 if SHG is involved in grocery; 0, otherwise)	375	0.05	0.22
CATTLE	Dummy variable (1 if SHG is involved in cattle rearing; 0, otherwise)	375	0.06	0.25
WEDN	Educational level of the women SHG member in years	375	8.33	4.44
HEDN	Educational level of the husband of SHG member in years	375	9.78	4.42
DEPENDENT	Number of dependents in the family (adults aged above 60 years and children below five years)	375	0.28	0.57
RESOURCE	Income from activities other than SHG activities	375	32,324.71	15,677.98
WATCONDN	Condition of the watersheds in index	375	81.19	13.83
INFRA	Infrastructure development index	375	45.24	17.00
FOWI	Presence of formal other watershed institutions (1, if present; 0, otherwise)	375	0.69	0.46

and other rural landless labor households, better condition of watershed village will enhance their income level. Hence, unwilling default or non-participation will be lower (Zeller et al. 2001). Thus, better managed watersheds implies favorable production environments, this will help in smooth functioning of the groups, less social tension, and hence more cohesion.

Results

Functioning of SHGs in the Study Area

In our study area, the SHGs are formed for various activities. Of the total groups selected, groups involved in goat rearing account for 66.67%, cattle rearing (5.33%), grocery shops (6.67%), rice shop (5.33%) and other activities like sweet stall, bakery, tailoring, petty shop, textiles shop, vegetable

shop, and renting vessels (16%). These interventions are made in the watersheds with the objective of improving the rural underpowered poor households. Generally, a sum of Rs 10,000 is given to the group mainly for the purchase of productive assets like goats, cattle and or to start productive economic activities with a condition that the loan amount be repaid within six installments. This is expected to help increase the income level of the rural households those who are in the bottom of the rural income scale.

General Characteristics of Sample Households

The average size of the family in consumption units is worked out to 3.29 and 3.10, respectively, for the members and control households (Table 2). The average number of workers is 2.3 and 1.9 out of 3.8 and 3.6 for members and control households. The labor force participation rate thus

Table 2: General Characteristics of the Sample Households

Particulars	SHG Members		Control
	Functioning	Failed	
Number of respondents	325	50	375
Number of persons in the household	3.8	3.4	3.6
Household size in consumption units[a]	3.29*	2.96	3.10
Number of workers	2.3**	2.0	1.9
Labor force participation (%)	61.51**	63.77	57.88
Total value of assets (Rs)	89,471.49**	66,847.00	59,470.43
Educational level of the SHG member	8.7**	9.1	7.1
Educational level of the husband	9.8**	9.8	7.4
Age of the SHG member	38.8	36.9	39.1
Number of dependents	0.29	0.20	0.33
Number of children	0.21	0.16	0.31
Own dwelling (% of households)	100	100	100
Renovation of dwelling (Rs)	863.08**	900.00	81.33

Notes: Estimated "t" statistics.
* Significance at 5% level from the corresponding values of control households
** Significance at 1% level

[a] **Consumption group**   **Lusk Coefficient**
Male above 14 years   1.00 consumption unit
Female above 14 years   0.83 consumption unit
Children 11–14 years   0.83 consumption unit
Children 6–10 years   0.73 consumption unit
Children below 5 years   0.50 consumption unit
Source: Rao (1983)
Source: Field survey during November 2006–April 2007.

comes out at 61.51% and 57.88%, respectively for these households. It is obvious that the labor force participation rate among SHG member households is higher than the control households implying that the access to other employment opportunities help women members to participate in SHG activities. The educational level of both the women members and their husband seems to be higher among member households than the control households. Educational level of women members and the husband open up employment opportunities and help them in active participation.

The number of dependents in a household may limit the women participation in the labor market. The average number of dependents is 0.33 in control households and 0.29 in SHG member households. It is evidenced that almost all households have own dwelling, but with little variation in maintenance expenses incurred. The additional income earned and easy access to borrow capital help the SHG member

households to make at least some renovation works. The SHG members spent Rs 863 to Rs 900 towards renovation of house while control households spent only Rs 81.33.

The total household income from all activities is higher in the case of member households than control households. The household income is worked out to Rs 33,836.68 per year and Rs 28,353.13 per year, respectively, for member households and control households, which is 19.34% higher than the income earned by the control households (Table 3). Being bottom of the rural income scale, the households participate in farm and non-farm income activities as wage laborers to get additional income for their subsistence needs. The per capita income is worked out to Rs 8,999.12 and Rs 7,854.05 for member and control households registering a difference of 14.58%. Thus, one can speculate that the SHG activities bring not only increased income to the households, but also help them in asset building.

Table 3: Different Sources of Income of Rural Labor Households (Rupees per household per year)

Particulars	SHG Members		Control
	Functioning	Failed	
Crop production including own livestock	1,588.22 (4.69)	0.00 (0.00)	1,399.00 (4.93)
SHG income	662.56 ** (1.96)	354.32 (1.30)	0.0 (0.0)
Agricultural labor earnings	16,965.48 * (50.14)	21,453.50 (79.00)	15,994.29 (56.41)
Non-agricultural wage earnings[a]	14,620.43 * (43.21)	5,350.00 (19.70)	10,959.84 (38.65)
Total household income	33,836.68 ** (100.00)	27,157.82 (100.00)	28,353.13 (100.00)
Household size (number of persons)	3.76	3.42	3.61
Per capita income (Rs/year)	8,999.12 **	7,940.88	7,854.05
Value of assets (Rs)	89,471.49 **	66,847.00	59,470.43

Notes: Estimated "t" statistics.

* Significance at 5% level from the corresponding values of control households

** Significance at 1% level.

[a] including the income from non-farm income generation activities like business, service sectors, etc.

Source: Field survey during November 2006–April 2007.

Household Participation in Watershed Management

The households participate in various watershed development activities such as meetings, PRA exercises, training, and exposure visits organized by the PIA. It is observed that the participation by SHG members in various watershed development activities found to be very low. Of the total SHG members studied, only 14.13% and 11.47% of households become the members of other watershed organizations like WA and UGs. Similarly, their participation in various activities is rather limited. Participation in planning stage implies that 15.60% of the households participated in PRA exercises, 11.73% in watershed development plan meetings, 5.33% suggested village common problems of interest, and 12% of the households involved in selecting/electing the office bearers of various watershed organizations like WA, WC, UGs, and SHGs (Table 4).

Table 4: Household Participation in Watershed Management

Particulars	% of Households
Membership in	
SHGs	100.00
Watershed association (WA)	14.13
User groups	11.47
Participation in Planning Stage	
PRA exercise	15.60
Watershed development plan meetings	11.73
Suggesting village common problems	5.33
Involved in selecting office bearers of CBOs	12.00
Project Implementation	
Participation in WA meetings	45.01
Labor contribution	6.67

Source: Field survey during November 2006–April 2007.

Table 5: Members Participation in SHG Activities

Particulars	Goat Rearing	Cattle Rearing	Rice Shop	Grocery Shop	Others*	All
Number of respondents	250	20	20	25	60	375
Number of meetings attended in last three months (number)	10.3	11.3	11.3	11.2	11.1	10.6
Average time spent in meetings (hours per meeting)	1.1	1.3	1.3	1.6	1.3	1.2
Average number of trainings attended by the members in the last year	0.5	0.2	0.5	0.4	0.8	0.6
Participation in group activities						
Number of issues raised by the members	0.6	0.6	0.9	0.6	0.8	0.6
Number of issues accepted by the groups	0.5	0.6	0.8	0.5	0.7	0.5
Monitoring income and expenditure details (per cent of members)	85.2	100.0	100.0	100.0	100.0	90.1
Administration (per cent of members)	64.0	100.0	100.0	100.0	100.0	76.0

Note: * Other SHGs include vegetable shop, basket making, textile shop, petty shop, sweet stall, rent vessels, bakery and tailoring.
Source: Field survey during November 2006–April 2007.

When compared to project planning stage, the SHG members' participation during implementation is found to be very low. Around 45% of the households attended in various meetings organized by the WA. However, their contribution to various development activities is questionable. Only 6.67% of households contribute their labor for some activities like cleaning supply channel, monitoring, and supervising, transportation of materials for construction and so on. Thus, it is clear that the SHG members participation in watershed management activities is found to be nil in most of the cases and very low in few watersheds.

Household Participation in SHG Activities

The women members of the SHGs participate in various activities like meetings, group saving, monitoring of group activities, training, and exposure visits organized by the PIA/village panchayats. On an average the members attended 10.6 meetings in three months and the average time spent per meeting per member was 1.2 hours. Though attending meetings by the members is mandatory, some of the members fail to attend due to personal reasons. The average meetings attended by the members varied from 10.3 in goat rearing to 11.3 in rice shop activities. The trainings attended by the members exhibit variation across type of activities (Table 5).

The discussion with the members revealed that on an average 0.6 numbers of issues were raised by members, out of which 0.5 issues were accepted by the group. The

members participate in SHG activities such as monitoring of income and expenditure, purchase of inputs, sale of outputs, and maintenance of registers. It is seen that 90% of the members participate in monitoring activities and 76% of the members participate in administration related activities.

Factors Influence Women Members' Participation

The results of estimation of the various group levels, household specific, and contextual factors that determine women participation are presented in Table 6. The age of the SHG (SHGAGE) significantly and negatively influences the women members' participation in meetings. Though longer the survival of the groups facilitate better understanding among the members, interactions, and mutual relationships, participation by individual member declines as the age of the group increases. Discussion with the members revealed that there are several reasons for this. The important reasons are health problems, personal family mishaps, mobility of labor, and employment in nearby towns.

The number of members in the SHG (SHGSIZE) significantly and negatively influences women participation. This shows that as group size increases the collective action in terms of participation in meetings by the women members decreases. These results are in accordance with the reviewed literature (Baland and Platteau, 1996; Gebremedhin et al., 2003; Rasmussen and Meinzen-Dick, 1995). The social homogeneity represented by caste is expected to influence women participation in collective

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Table 6: Factors Influencing Women Member Participation in SHG Activities

Variables	Coefficients
Constant	8.4871 (6.385)
SHGAGE	-0.5214*** (-4.439)
SHGSIZE	-0.2586*** (-6.086)
CASTE	1.2084*** (5.809)
GOAT	-0.0514 (-0.153)
RICESHOP	2.3272*** (3.103)
GROCERY	-0.3681 (-0.658)
CATTLE	-0.3612 (-0.589)
WEDN	0.1987*** (7.115)
HEDN	0.0581** (2.058)
DEPENDENT	0.0280 (0.135)
RESOURCE	0.0001* (1.885)
WATCONDN	0.0265** (2.362)
INFRA	0.0171** (2.026)
FOWI	1.4276*** (4.310)
Log likelihood function	-815.77
MODEL	TOBIT

Notes: Figures in parentheses indicate estimated "t" ratios.
* Significance at 10% level.
** Significance at 5% level.
*** Significance at 1% level.

Source: Field Survey 2006–2007.

tasks positively (Bardhan, 1993; Lise, 2000). It is a common phenomenon in rural India that persons belonging to the same caste come together for any collective tasks when compared to a socially heterogeneous group. Our results show that the extent of social homogeneity as represented by caste (CASTE) significantly influences women participation in meeting. It appears that caste homogeneity plays a role at least in bringing people together for meetings and other activities.

We are also interested in studying whether the type of activities in which the group members involved has influence on women participation. Among the activities studied, only the rice shop activity (RICESHOP) is found to be significantly influencing the women participation when compared to other activities. Though the income and fund generated in goat rearing and cattle rearing are higher than the rice shop activity, only rice shop significantly influences the women participation and the reasons are not immediately apparent.

Among the household specific characteristics studied, the variables educational level of the women member (WEDN), educational level of the husband (HEDN), and the income from activities other than SHG (RESOURCE) are found to be significantly influencing the women participation on the positive line. As income from other sources like wages increases, the women members are likely to participate more in SHG activities in order to achieve increased saving and income generation. Education can have two different types of effects on participation in SHG activities. Education offers exit options and this is likely to reduce participation (Lise, 2000). However, educated women members can be influential in the household and can participate in group activities. If this happens, then participation is positively influenced by education. Similarly, the educational level of the husband encourages women participation in group activities.

The condition of watershed significantly and positively influences women participation in SHG activities. The better-managed watersheds with good cropping, water resources, and environment enable rural labor households not only to get adequate employment, but also to participate in other income generation activities and group saving through SHGs. The infrastructure development of the watershed village (INFRA) influences women participation significantly on the expected positive line. This confirms our theoretical assertion that high level of infrastructure development promotes employment avenues and occupation structure and more women members' participation in SHG activities. This is on line with the earlier literature on collective action (Heltberg, 2001).

The presence of other watershed organizations (FOWI) like WA, WC, and UGs may increase social interactions and the possibility of enforcing agreement (Baland and Platteau, 1996; Pender and Scherr, 1999; White and Runge, 1995). The presence of such organizations is likely to influence participation in watershed management when those organizations provide complimentary inputs (Pender and Scherr, 1999). It is found that the variable FOWI is

found to significantly and positively influence the women participation in SHG activities.

In summary, in successful SHGs we see a confluence of conditions that help them to continue and function at a higher level. These include small sized groups, better infrastructure facilities, better managed watersheds, and functioning of other institutions in the villages.

Conclusion and Policy Recommendations

The study finds mixed evidence of women participation in SHGs activities. It is evidenced that the women members participate in various activities such as meetings, group saving, production activities, and monitoring of various group activities.

The econometric analysis revealed that the age of the group, group size, social homogeneity, educational level of the women member, educational level of the husband, and income from sources other than SHG activities found to significantly influence women participation in SHGs institutions. The contextual factors like condition of the watershed, infrastructure development, and presence of other formal watershed institution significantly also influence women participation in group activities. Thus, our policy focus should be tilted towards development of infrastructure in rural areas, women empowerment through ensuring literacy, and ensuring sustainability of watershed institutions or village panchayats which could complement resources. This will help in a big way to ensure more women participation in SHGs and collective action in the rural areas. Our results support that the public policies geared towards increasing women's participation in SHGs ensure collective action in rural areas. Therefore, continuing public support for the expansion of these SHGs appears crucial to ensure collective action in rural areas and achieve poverty reduction.

Notes

[1] Prior experience in the village has a positive influence on participation in collective action (Baland and Platteau, 1996). Similarly, the presence of other formal or informal watershed organizations (FOWI) such as watershed association, watershed committee, user groups may increase social interactions and the possibility of enforcing agreement (Baland and Platteau, 1996; Pender and Scherr, 1999; White and Runge, 1995). The presence of such organizations is likely to influence participation in SHG activities when those organizations provide complimentary inputs (Pender and Scherr, 1999). Thus, the variable, FOWI, is expected to influence positively the members' participation in SHG institutions. FOWI is defined as dummy variable (= 1 if presence of these organization; 0, otherwise).

[2] INFRA is defined as an index including length of roads, number of post offices, number of schools, and number of hospitals and veterinary hospitals.

[3] Irrigation intensity is measured as a ratio of gross irrigated area to the net irrigated area and expressed in percentage.

[4] Cropping intensity is defined as a ratio of gross cropped area to net cropped area and expressed in percentage.

[5] Watershed eco-index is used to represent the fraction of green cover area in the watershed. The present study used induced WEI to represent additional area made green through watershed treatment as proportion of whole watershed area and expressed as percentage.

References

Baland, J.M. and Platteau, J.P. (1996), Halting Degradation of Natural Resources. Is there a Role for Rural Communities? Oxford: Clarendon Press.

Bambang, Ismawan (2000), "Microfinance, Poverty and Social Capital: A Study on the Impact of Economic Intervention," Paper presented in the Asian Regional Conference on The Potential and Limitations of Economic Initiatives in Grassroots Development: Current Issues and Asian Experiences, Bangladesh, November 27–30.

Bardhan, P. (1993), "Analytics of the Institutions of Informal Co-operation in Rural Development," World Development, 21(4): 633–39.

Coady, David, Dai, Xinyi and Wang, Limin (2001). "Community Programs and Women's Participation: The Chinese Experience," http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN024835.pdf

Gebremedhin, Berhanu, Pender, J. and Tesfay, G. (2003), "Community Natural Resource Management: The Case of Woodlots in Northern Ethiopia," Environment and Development Economics, 8(1): 129–48.

Government of India (2003), Department of Land Resources, Guidelines for Haryali.

Government of India (2007), Press Information Bureau, Poverty Estimates for 2004–05, New Delhi, March.

Gregorio, Monica Di, Hagedorn, Konrad, Kirk, Michael, Korf, Benedikt, Mc Carthy, Nancy, Meinzen Dick, Ruth and Swallow, Brent (2004), "Property Rights, Collective Action and Poverty: The Role of Institutions for Poverty Reduction," Paper prepared for the Tenth Biennial Conference of the International Association for the Study of Common Property (IASCP), Oaxaca Mexico, August 9–13.

Heltberg, R. (2001), "Determinants and Impact of Local Institutions for Common Resource Management," Environment and Development Economics, 6: 183–208.

International Fund for Agricultural Development (IFAD) (2003), Transforming Rural Institutions in Order to Reach the Millennium Development Goals (2003), February.

Levy, Santiogo (2006), Progress against Poverty: Sustaining Mexico's Progresa-Oportunidades Program. Washington, D.C.: Brookings Institution Press.

Lise, Wietze (2000), "Factors Influencing Peoples' Participation in Forest Management in India," Ecological Economics, 34: 379–92.

Maddala, G.S. (1989), "Limited Dependent and Qualitative Variables in Econometrics," Econometric Society Monographs, Cambridge University Press, Cambridge.

Maluccio A. John and Rafael, Flores (2005), "Impact Evaluation of a Conditional Cash Transfer Program: The Nicaraguan Red de Proteccion Social," Research Report No. 141, International Food Policy Research Institute, Washington DC.

Morduch, Jonathan (1998), "Does Microfinance Really Help the Poor? New Evidence from Flagship Program in Bangladesh," Harvard University Institute for International Development, June.

Pender, J. and Scherr, S.J. (1999), "Organisational Development and Natural Resource Management: Evidence from Central Honduras," EPTD Discussion Paper No. 49, International Food Policy Research Institute, Washington DC.

Planning Commission (2002), Tenth Five Year Plan 2002–2007. New Delhi: Government of India.

Rasmussen, L.N. and Meinzen-Dick, Ruth (1995), "Local Organisations for Natural Resource Management: Lessons from Theoretical and Empirical Literature," EPTD Discussion Paper, No. 11, International Food Policy Research Institute, Washington DC.

Roa, V.K.R.V. (1983), Food, Nutrition and Poverty in India. New Delhi: Vikas Publishing House (Pvt.) Ltd.

Suresh Kumar, D. (2007). "Can Participatory Watershed Management be Sustained? Evidence from Southern India, (2007)," SANDEE Working Paper No. 22-07, South Asian Network for Development and Environmental Economics, Nepal.

Tobin, J. (1958), "Estimation of Relationship for Limited Dependent Variables," Econometrica, 26(10): 24–36.

White, T. Anderson and Runge, C. Ford (1995), "The Emergence and Evolution of Collective Action: Lessons from Watershed Management in Haiti," World Development, 23(10): 1683–98.

Zeller, Manfred, Sharma, Manohar, Ahmed, Akhther U. and Rashid, Shahidur (2001), "Group Based Financial Institutions for the Rural Poor in Bangladesh: An Institutional and Household Level Analysis," IFPRI Research Report 120, Washington DC.

Courage is the power to let go of the familiar.

— **Raymond Lindquist**

Variables Influencing Role Performance of Women in Panchayats

Monica Banerjee

The 73rd Amendment Act marked a new beginning of local governance that ensured one-third of the total elected seats for women in the three tiers of Panchayati Raj. This study attempts to analyze the emerging profile of women, measure their role performance and identify socio-economic and psychological characteristics that might influence their role performance as panchayat leaders. Statistical analysis indicates the significant effectiveness of as many as eight variables in influencing role performance. Knowledge (on functions), Attitude, Job Involvement, Achievement Motivation, Family Income, Education and Age could be termed as good predictors of role performance of women in panchayats.

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Half of India's 1,100 million people is women, yet gross gender disparities persist in education, health, livelihoods, and other social indicators. Years of neglect have excluded Indian women, particularly, rural women from gaining political, social, and economic power. Till recently, government too viewed women as passive beneficiaries of their targeted social services programs; the concept of providing power always took a back seat. Then came an era where various international and national fora started echoing the word "empowerment" and defining it as provision of political space along with other resources. Almost simultaneously, the 73rd (and 74th) Amendment Act ushered in 1993 and a watershed was constituted for deepening (social) democracy. It marked the beginning of a new era of local governance that ensured one-third of total elected seats and positions of chairpersons for women in rural (and urban) local elected bodies. According to estimates, out of 30 lakh members elected to panchayats and municipalities, 10 lakh would be women. Some 175 districts, more than 2,000 blocks/tehsils and 85,000 village panchayats would have women as presidents or chairpersons (Gopalan and Mathew, 1999).

The reasons for conducting the study emerged from a scenario that reflected more on *quantitative* presence of women post 73rd Amendment. If local governance powers coming to women could be used as a tool for impacting the much needed social change and development for rural women, then it becomes imperative to analyze the social–psychological environment of these women. It is presumed that the *qualitative* changes that could be brought about by these women to grassroots democracy would depend a lot on the prevailing social–psychological factors.

This study attempts to analyze the emerging profile of women, measure their role performance, and identify the characteristics that influence their role performance as panchayat leaders. As regards spatial focus, the study explores itself in Madhya Pradesh noting the positive attitude and effective action translation by the state vis-à-vis
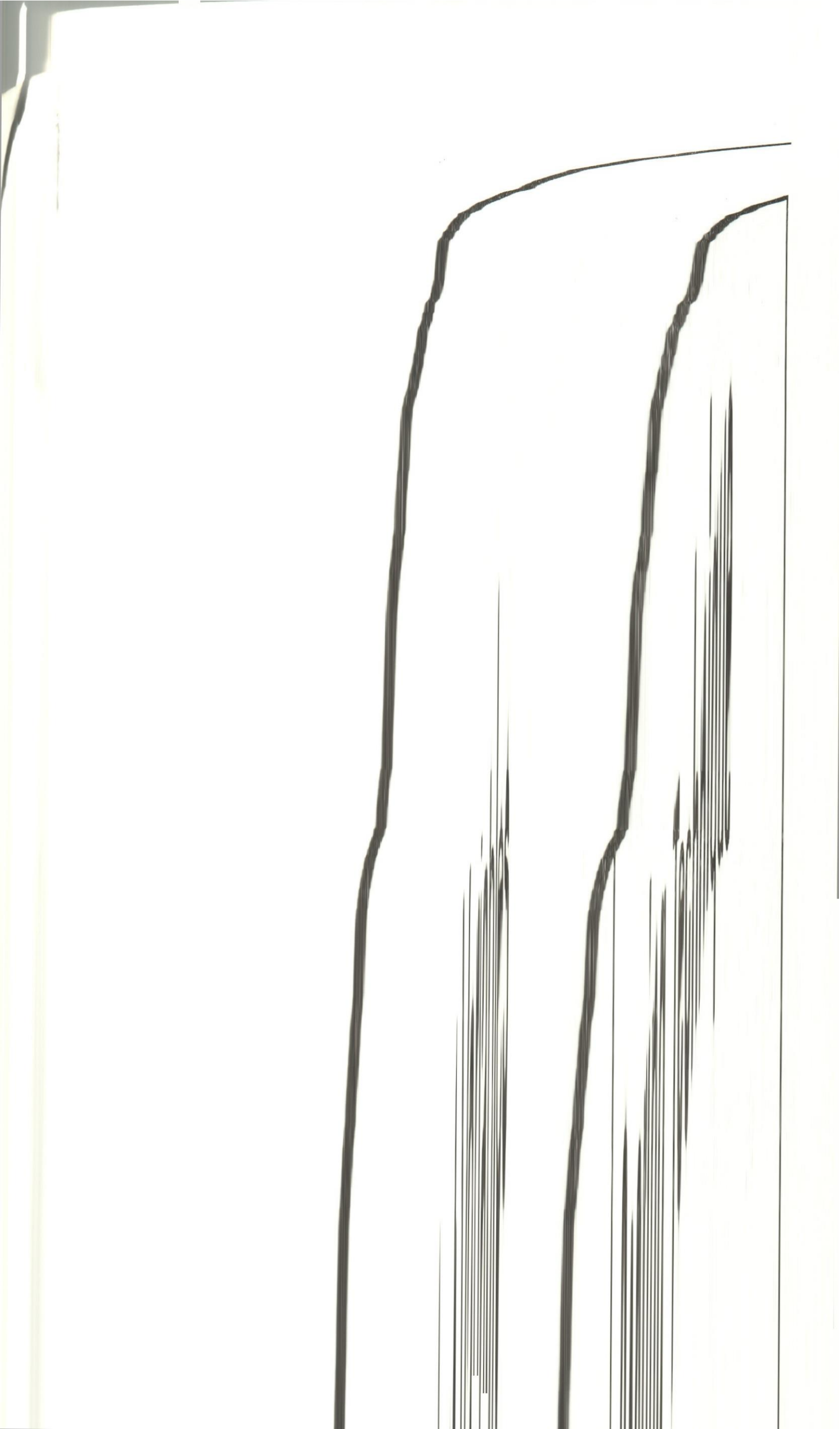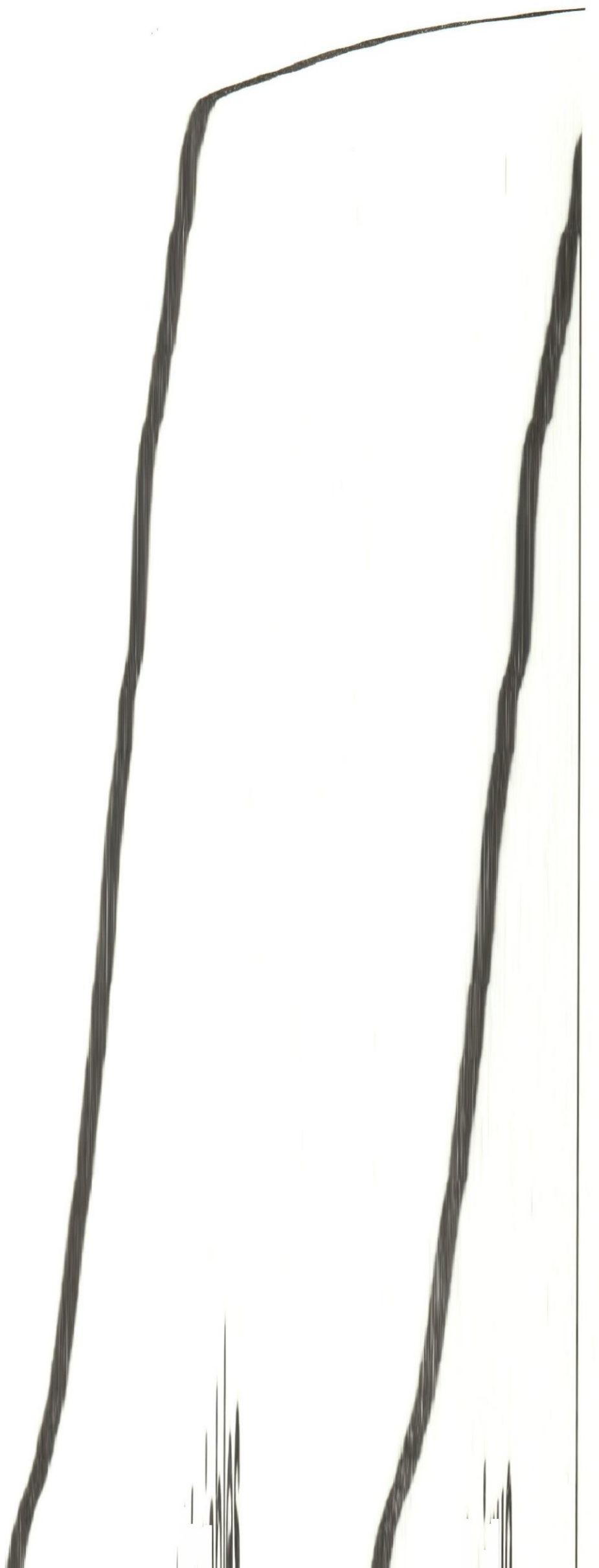
Table 1: Operational Definitions and Measurement Techniques of Independent Variables

Variable	Indicator	Measurement Technique	Scoring Technique
Age	Chronological years	Questionnaire	1 score for each completed year
Education	Formal education received	Questionnaire	Trivedi and Pareek (1963) with slight modification
Marital status	Single/married/widowed/deserted	Questionnaire	–
Family type	Nuclear/joint	Questionnaire	–
Family size	Large (more than 5 members)/average (5 members)/small (less than 5 members)	Questionnaire	–
Caste	General/SC/ST/OBC	Questionnaire	–
Total annual income of the family	Total earnings of family members from all sources in a period of one year	Questionnaire	One score for each Rupees 1,000 rounded off
Numbers of terms elected	Once/twice	Questionnaire	–
Type of seat contested from	Reserved/general	Questionnaire	–
Previous experience in politics/governance	Yes/no	Questionnaire	–
Association with other social organizations	Yes/no	Questionnaire	–
Holding additional responsibilities in panchayats	Yes/no	Questionnaire	–
Motivating factor in contesting elections	Self motivation or willingness to do something for the village panchayat Support or encouragement from community/ husband or family/ women's or social organizations Advantage of reserved seat	Questionnaire	–
Job involvement	Psychological identification with the job	Job Involvement Scale (Lodahl and Kejner, 1965) modified for the purpose	Max. score = 44 Min. score = 0
Role conflict	Incongruity of expectations associated with a role (Sell et al., 1981)	Role Conflict Scale (Parikh [referred by Pestonjee, 1988] modified for the purpose	Max. score = 40 Min. score = 0
Achievement motivation	Concern to excel	Scale developed r = 0.91	Max. score = 30 Min. score = 0
Knowledge about panchayat activities	Knowledge as defined by Bloom et al. (1956)	11th Schedule (29 items)	1score for recognizing each activity as a function respondent needs to perform. Max. score = 29 Min. score = 0
Attitude towards role as panchayat leader	Attitude as defined by Krech et al. (1962)	Scale developed r = 0.81	Max. score = 24 Min. score = 0

panchayats (Sharma, 1999; also corroborated by Malviya, 2002). Assessment of the situation at a cursory level pointed out at the heartening realty that women have contested not only from the reserved seats, but from unreserved seats as well and for many, their commendable work has been profiled as stories of success. On the other hand, a deeper probing gave the feeling that all is not well within the panchayats or rural power structures of Madhya Pradesh. The aversion to participation of women was evident from many instances. Mathew and Nayak (1996) reported four case studies from panchayats in Madhya Pradesh that revealed the gruesome scenario in panchayats—"Dalit men were beaten, dalit women were stripped naked while criminals were shielded by political parties and the state maintained a studied silence." Thus, both these positive and not so positive reflections served as factors for selecting the state (See Table 1).

Methodology

Two contiguous districts of Raisen and Betul were randomly-purposively selected for the study. Two out of seven—Badi and Sanchi—blocks were selected randomly in Raisen. Out of the 10 blocks in Betul district, one-third or three blocks of Betul, Chicholi, and Ghodadungadi were selected. It was assumed that at least one-third of the total gram

panchayats (lowest tier of the three-tiered Panchayati Raj system) in a block would have women as chairpersons (*sarpanch*) owing to one-third reservations for women based on total number of seats. Thus, women "*sarpanch*" were targeted in 34, 26, 26, 11, and 18 gram panchayats of Badi, Sanchi, Betul, Chicholi, and Ghodadungadi blocks, respectively. Finally, data could be collected from 92 women panchayat leaders—22 from Badi, 23 from Sanchi, 18 from Betul, 11 from Chicholi, and 18 from Ghodadungadi. Data was collected through personal interviews and observations with the help of a questionnaire developed for the purpose.

Independent Variables and their Measurement

After a thorough review of literature on the profile of women panchayat leaders (Ekatra, 2003; Buch, 1999; Kaushik, 1998; Santha, 1999) and discussions with behavioral scientists, 18 factors were selected. Table 1 presents their operational definitions and measurement techniques in brief.

Measurement of Role Performance

In this study role performance refers to actual functions performed by women in relation to their position as panchayat leaders. As a dimension it reflects on "actually does" part of the role concept. In order to know the "role performance," work functions were identified and a work chart with nine items (Table 2) was developed so that

Table 2: Work Chart (Items) Measuring Role Performance of Women Panchayat Leaders

	Role Functions Performed by Women	Continuum	Scoring (max. = 36 min. = 0)
1	Signing papers circulated in the panchayat		
2	Giving concurrence or dissent to content of paper		
3	Participating in training programs for better understanding of panchayat laws and procedures and knowledge of schemes/ programs to be implemented by panchayats	Most often perform	4
4	Bringing in new ideas	Often perform	3
5	Networking with other collectives(alliance building with Mahila Mandals, Youth clubs, SHGs, Mahila Samakhyas)	Sometimes perform	2
6	Calling Gram Sabha meetings	Rarely perform	1
7	Ascertaining the need of ward members and prioritizing on those needs according to availability of resources.	Never perform	0
8	Determining priorities (may be even against the popular perceptions of electricity, roads and culverts or "felt" needs) for actions like tackling alcohol abuse, lack of health and education among women and children, restrictions on child marriage/child domestic labour, domestic violence, transparency, accountability, gender equity and reproductive health, challenging discriminating norms and traditions, environment, changing men's perception through participation		
9	Implementing programs according to priorities/11th Schedule		

Variables Influencing Role Performance of Women in Panchayats

respondents (here, women panchayat leaders) could be measured on these functions. The primary sources for collection of these work functions were extensive discussions with experts and field observations while review of various publications and reports constituted the secondary source. Item selection and analysis was done by summated rating method (Edwards, 1957). On the basis of item analysis, all nine items with t > 1.75 were selected for the work chart. Test–Retest method was used to test the reliability of the work chart by using Pearson's Product moment coefficient of correlation and was found to be higher (r = 0.86) for nine items. Content validity was established as experts judged the statements. Administration and scoring was done on a five-point continuum.

Summary of Results

1. Profile of Women in Panchayats

Majority of respondents are between 35 and 45 years (43.47%) followed closely by those less than 35 years (39.12%), have no formal education (52.17%), are married (72.82%), belong to schedule tribes (48.91%) followed by OBC (32.60%), belong to an income group less than Rs 30,000 of annual income (44.55%), are elected for the first time in the two consecutive elections held till 2004 in the state after implementation of 73rd Amendment Act (78.26%), have contested from the seats reserved for women (82.60%), have no previous experience in governance and politics (71.73%), have no association with social organizations (73.91%), do not hold any additional responsibilities in their panchayat area (80.43%), cited "support from community/family/social organizations" as the motivating factor for contesting elections (51.08%), have low level of job involvement (55.43%), face high role conflict (67.39%), have medium level of achievement motivation (76.08%), have low (47.82%) and medium levels (41.30%) of knowledge about panchayat activities, and have a less favorable attitude towards their role as panchayat leaders (56.52%).

When it came to performing the functions of a panchayat leader, majority of women are found to measure either poor (45.65%) or average (32.60%) on role performance. The mean value was found to be 18.39. A high coefficient of variation value (51.76) suggests heterogeneity of respondents with regards to role performance.

2. Profile of "HIGH" and "LOW" Group of Women in Panchayats

On the basis of scores obtained under role performance by the respondents (women panchayat leaders) the top

25% and bottom 25% were identified and put separately under HIGH (high role performance) and LOW (low role performance) groups, respectively. The scores of these respondents with respect to their socio-economic and psychological characteristics taken as independent variables were also calculated accordingly. Fisher's "t" was calculated to test the significance in mean difference of role performance between HIGH and LOW group respondents. It was highly significant (t = 25.38) both at 0.01 and 0.05 level of probability (Table 3).

Table 3: Fisher's "t" Test to Test the Significance of Mean Difference in Role Performance between High and Low Groups of Women Panchayat Leaders (Groups Categorized on the Basis of their Role Performance Scores)

S. No.	Group	Mean Value	"t"
1	High (n = 23)	28.52	25.38*
2	Low (n = 23)	5.04	

Note: * Significant at 0.01 and 0.05 levels of probability

To test the significance of difference in mean if any for the various socio-economic and psychological characteristics (age, education, total annual income of the family, job involvement, role conflict, achievement motivation, knowledge about panchayat activities, and attitude towards role as panchayat leaders) among the HIGH and LOW groups of women panchayat leaders, Fisher's "t" was used. All "t" values were tested at 0.01 and 0.05 levels of probability level where "t" test was not possible; simple frequency distribution was carried out according to the characteristics under consideration (family type, family size, caste, number of terms elected, type of seat contested, previous experience in politics/governance, association with social organizations, holding additional responsibilities in panchayats, and motivating factor for contesting elections).

On the basis of calculated "t" values, it was found that the variables age, education, job involvement, achievement motivation, knowledge, and attitude has significant difference in mean values (t = 2.767, t = 2.215, t = 11.71, t = 21.09, t = 9.19, t = 15.08, respectively). On the basis of mean values, (M = 37.34, M = 0.65, M = 12.86, M = 15.43, M = 21.69, M = 12.34, respectively for HIGH group and M = 44.73, M = 0.26, M = 0.91, M = 2.86, M = 4.78, M = 2.08, respectively for LOW group), it can be interpreted that women with higher education, high job involvement, high annual income, higher achievement motivation, higher knowledge level, and more favorable attitude measured high on role performance. Mean values further suggest that women belonging to comparatively higher age

measured low on role performance (M = 37.34 for HIGH group and M = 44.73 for LOW group) (Table 4).

Role conflict was found to have no effect on role performance as the mean values do not differ significantly (t = 1.307 not significant at 0.01 and 0.05 levels of probability). Though majority of women panchayat leaders (67.39%) are found to face high role conflict, across the sample (n = 23), there is hardly any difference in the mean values between HIGH and LOW groups for this variable. It may be interpreted that some women panchayat leaders who are performing their roles well are doing so in spite of the high role conflict they are facing.

Table 4: Testing for Significance of Mean Differences of Selected Characteristics between High and Low Groups of Women Panchayat Leaders (Groups Categorized on the Basis of their Role Performance Scores)

Variables	Mean Value		"t" value
	High Group n = 23	Low Group n = 23	
Age	37.34	44.73	2.767*
Education	0.65	0.26	2.215*
Total annual income			
Job involvement	12.86	0.91	11.71*
Role conflict	7.78	9.65	1.307(ns)
Achievement motivation	15.43	2.86	21.09*
Knowledge	21.69	4.78	9.19*
Attitude	12.34	2.08	15.08*
Role perception	32.17	12.21	15.12*

Note: * Significant at 0.01 and 0.05 levels of probability.

It was found that HIGH group is more or less equally divided into nuclear and joint families (52.17% and 47.82%, respectively) where as majority of the LOW group respondents belong to joint families (69.56%). However, it is difficult to say whether belonging to joint families reduces role performance or staying in nuclear families provides more space for better role performance (Table 5).

The percentage of HIGH group respondents belonging to Scheduled Tribes (ST) was 78.26%. As the interview was based on structured schedule and personal observation, it was observed by the researcher too that ST women, concentrated mostly in gram panchayats of Betul district, were extremely articulate and vocal about their rights and duties and other dimensions of governance. The researcher also got the feeling by talking to their husbands that most of these women received immense social and emotional support from their respective families. This, if at all, indicates a slightly better social status, more freedom for decision-making, better confidence level, more co-operation from social surroundings when compared to their counterparts from other castes. Probably, this explains why most of the ST women respondents have featured on the "HIGH" role performance group. On the other hand, a typically feudal and heavily caste fragmented and class-ridden society as evident in Badi and Sanchi blocks of Raisen district prevented the OBC women from even going to Panchayat Bhawan or lifting their veils. The frequency distribution shows around 65.21% of these women belonging to the "LOW" group respondents. It seems then, belonging to particular castes influence women's performance as panchayat leaders (Table 5).

That 21.73% of HIGH group respondents have been elected to their position for the second time and that too contesting from open seats in case of many respondents reflects on their high popularity. Compared to this, none have contested twice in case of LOW group. It can be interpreted that the decision and determination to lead and contest elections is more with women who are high on role performance (Table 5).

While 100% of LOW group respondents have contested from seats reserved for them, 69.56% women who belong to HIGH group have actually contested and won from open seats. Incidentally, in the total sample size (n = 23) all the 16 women who have contested from open seats are also among the top 25% for which they are slotted in the HIGH group. Contesting from open seats probably indicates desire to excel, achieve, and prove their capability to the world and themselves about their leadership qualities; all these must be determinants in influencing role performance positively and explains for the respondents featuring in the HIGH group (Table 5).

Previous experience in politics (in earlier term as a *panch, sarpanch,* or even member of panchayat samiti at block level) and association with social organizations like Mahila Mandals, NGOs, Self-Help Groups (SHGs) might have proved helpful in performing their roles better for a majority (69.56% and 65.21%, respectively) of HIGH group respondents. Not a single respondent in LOW group seemed to have any association with other organizations and majority (82.60%) had no prior political experience (Table 5).

HIGH group respondents constituting of 43.47% again have been holding additional responsibilities within their panchayats compared to just 4.3% of LOW group

Table 5: Distribution of Respondents of High and Low Groups (n = 23)

Variables	Category Sources	Frequency		Percentage	
		High Group (n = 23)	Low Group (n = 23)	High Group	Low Group
Family type	Nuclear	12	7	52.17	30.43
	Joint	11	16	47.82	69.56
Caste	General				
	SC	2	8	8.69	34.79
	ST	18		78.26	
	OBC	3	15	13.04	65.21
Number of terms elected	Once	18	23	78.26	100
	Twice	5		21.73	
Type of seat contested	General	16		69.56	
	Reserved	7	23	30.43	100
Previous experience in politics/governance	Yes	16	4	69.56	17.39
	No	7	19	30.43	82.60
Participating in social organization	Yes	15		65.21	
	No	8	23	34.78	100
Holding additional responsibilities in panchayats	Yes	10	1	43.47	4.3
	No	13	22	56.52	95.65
Motivating factor in contesting elections	Self motivation or willingness to do something for the village panchayat	16	–	69.56	
	Support or encouragement from community/spouse or family/women's or social organizations	7	5	30.43	21.73
	Advantage of reserved seat	–	18		78.26
Family size	Less than 5 members	4	5	17.39	21.73
	5 members	5		21.7	
	More than 5 members	14	18	60.86	78.26

respondents indicating that women who venture out and assume additional responsibilities are high role performers too (Table 5).

For majority of HIGH group women (43.47%), it was the willingness to succeed or panchayat situation which made them contest the elections irrespective of whether it was a reserved seat or not. The case was just opposite for LOW group women where majority (52.17%) took advantage of the fact that their area had a reserved seat for woman candidate in this elections. Thus it can be interpreted that factors for motivation varied for HIGH and LOW group respondents and has an effect on role performance of women in Panchayats (Table 5).

With majority of respondents in both HIGH and LOW group (60.86% and 78.26%, respectively) living in families which have more than five members , family size does not seem to have a significant effect on Role Performance of women (Table 5).

3. Effect of Independent Variables on Role Performance

Further, role performance of women panchayat leaders is found to have positive and significant correlation with education ($r = 0.3094$), total annual income ($r = 0.831$), job involvement ($r = 0.804$), knowledge about panchayat activities ($r = 0.721$), achievement motivation ($r = 0.841$), and attitude towards role as panchayat leader ($r = 0.8361$). Age as variable is found to have negative and significant correlation with role performance ($r = -0.3165$). The variable role conflict does not have a significant correlation with role performance ($r = -0.057$) meaning that women panchayat leaders could perform well even in the face of high role conflicts.

To know the contribution of independent variables to the variation in dependent variable, multiple regression analysis was carried out. Out of the eight independent variables taken, the variables age ($b = -0.262$), education ($b = 3.552$),

Table 6: Determining Effect of Socio-economic and Psychological Characteristics on Role Performance of Women Panchayat Leaders (n = 92)

Variables	Correlation Coefficient (r)	"t" Value	Regression Coefficient (b)	"t" Value	R2	"F" Value
Age	- 0.3165	3.615*	-0.262	2.57*	0.834	12.48*
Education	0.3049	3.035*	3.553	9.90*		
Total Annual Income	0.831	14.19*	0.915	21.70*		
Job Involvement	0.804	12.83*	0.907	20.47*		
Role Conflict	-0.057	0.541(ns)	-0.0922	0.871(ns)		
Achievement motivation	0.841	14.76*	0.922	22.64*		
Knowledge	0.721	9.87*	0.721	9.88*		
Attitude	0.8361	14.46*	0.916	21.70*		

Note: * Significant at 0.01 and 0.05 levels of probability.

total annual income of family (b = 0.915), job involvement (b = 0.907), achievement motivation (b = 0.922), knowledge about panchayat activities (b = 0.721), and attitude towards role as panchayat leader (b = 0.916) could be termed as good predictors of role performance as their regression coefficient (b) values are found to be significant (Table 6).

The R2 value is found to be 0.834, which, suggests that the eight variables jointly contribute 83.4% towards variation in role performance. The "F" value is also found to be significant (F = 12.48) which indicates the significant effectiveness of the eight variables in predicting the role performance when all the independent variables (including role conflict) are functioning jointly (Table 6).

Discussions and Policy Implications

The manifold results reveal far-reaching implications and scope for doing much more for better effectiveness of women run panchayats and ensuring a "qualitative" presence.

Since high job involvement, high achievement motivation, favorable attitude towards role as panchayat leaders and better knowledge about Panchayati Raj, *inter alia*, influences role performance positively, more efforts are needed to enhance these attributes in women panchayat representatives. Both state and civil society could be a catalyst for designing mechanisms that would help strengthen these attributes. Some suggestions in this regard are as follows:

For those women, who actively associate themselves with day to day running of panchayat activities inspite of various hurdles, the foremost strategy for state and civil

society should be to look *beyond routine training programmes* that try to impart only the where-withals of Panchayati Raj concepts and trap them only in the laws, provisions and concepts of the local governance. The training programmes need to focus more on components that would help build, nurture and reinforce self confidence among these women to such an extent that it gets embedded or ingrained as a predominant personality trait in them. One has to consider the fact that this group of active women (and "early adopters") is the forerunner of local governance at the grassroots level. They often know well about state and civil society interventions and look up to them for solutions. These "ready to learn" women need to be reached early and empowered through well thought out confidence building exercises and strategies. They could then serve as examples worth emulating for other panchayat women who are yet to gain even basic understanding of the seriousness of the position they hold in public life.

Education is universally accepted as the key to development, but this is sadly in acute shortage among the women who hold key positions in rural local governance. It is only obvious that for majority of women who run panchayats, the discretion of the "panchayat secretaries" reign high who might not even think it important to read out or simplify the contents of a paper before taking the *sarpanch*'s signature. Understandably enough, the priority for the secretary is always to get passed or approved infrastructure development proposals like roads, culverts, wells, and drinking water sources (which have more financial implications and interests along with the local contractor and "friendly" state junior engineer at the block development

office). Though women *sarpanch*s seem to be hesitant in attending the night classes run for educating adults, the government needs to take firm steps in adult education for the present incumbents. Flexible timings suiting their convenience, innovative study material which could make learning a pleasure, and above all, introducing mass media for education like Community Radio are some suggestions in this direction. Also, concrete steps for smooth enactment of compulsory education law for girl children need to be ensured so that the future incumbents do not fall victims to lack of education. If women feel that social development like health, nutrition, sanitation, gender equity, education, etc., need to get priority over physical infrastructure, then probably, education and eventually functional knowledge would help them translate this perception into adequate performance.

More and more young women should be motivated to take a leadership role in the panchayat if younger age is seen to influence role performance positively.

If participation in social organizations and holding additional responsibilities in panchayats influences performance positively then women panchayat leaders should be encouraged to associate themselves sufficiently with local NGOs, Mahila Mandals, or SHGs and *samitis* that are often created by the locally embedded civil society organizations

Though, it was not possible to look at the significance of association among different independent variables in this study, it could be possible that some factors have significant correlations between them. This study revealed that majority of the women panchayat leaders across the sample have high role conflict and less favorable attitude towards role as panchayat leaders, low job involvement, medium level of achievement motivation, and low or medium level of knowledge about panchayat activities. Further studies could be done to see association among these variables for instance whether role conflict faced by a woman panchayat leader influences her other traits like job involvement, achievement motivation, attitude towards role as panchayat leader or desire to gain knowledge about panchayat activities.

References

Bloom, B.S., Engelhardt, M., Furst, E., Hill, W. and Krathwal, D.R. (1956) *Taxonomy of Educational Objectives—The Cognitive Domain.* New York: Orient Longmans.

Buch, Nirmala (1999) "From Oppression to Assertion: A Study of Panchayats and Women in M.P., Rajasthan and U.P.," Unpublished, Centre for Women's Development Studies, New Delhi.

Edwards, A.L. (1969), *Techniques of Attitude Scale Construction.* Bombay: Vakils, Feffer and Simons Pvt. Ltd.

EKATRA (2003), *Women and Governance; Reimagining the State.* New Delhi: Ekatra, Society for Development Alternatives for Women.

Gopalan, S. and Mathew, G. (1999), "Women in Panchayats," Concept paper for National Level Consultation on Women in Panchayats, Unpublished, November 4, National Foundation for India, New Delhi.

Kaushik, Susheela (1998), *Participation of Women in Panchayati Raj in India.* New Delhi: National Commission for Women.

Krech, D., Crutchfield, R.S. and Ballachey, E.L. (1962), *Individual in Society, A Textbook of Social Psychology.* London: McGraw Hill Inc.

Lodahl, T.M. and Kejner, M. (1965), "The Definition and Measurement of Job Involvement," *Journal of Applied Psychology,* 49: 24–33.

Malviya, S. (2002), "Women Sarpanchs—De Facto Leaders or Mere Puppets?" *HT Bhopal Live,* Tuesday, January 8, p. 6.

Mathew, G. and Nayak, C. (1996), "Panchayats at Work: What it Means for the Oppressed," *Economic and Political Weekly,* July 6, p. 1765.

Pestonjee, D.M. (1988), *Handbook of Psychological Social Instruments,* pp. 257–59. New Delhi: Concept Publishing Company.

Santha, E.K. (1999), "Political Participation of Women in Panchayati Raj; Haryana, Kerala and Tamil Nadu," ISS Occasional Paper Series 24, Institute of Social Sciences, New Delhi.

Sharma, K. (1999), "Women in Panchayats of Madhya Pradesh," *Kurukshetra,* 47 (6): 33–35.

Sell, V.M., Brief, P.A. and Schuler, R.S. (1981), "Role Conflict and Role Ambiguity. Integration of the Literature and Directions for Future Research," *Human Relations,* 34(1): 43–71.

> *To be mature means to face, and not evade, every fresh crisis that comes.*
>
> —**Fritz Kunkel**

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