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**ASSESSMENT OF CHANGES
IN
THE DECISION MAKING ENVIRONMENT
IN
A ROCHESTER, NY HOTEL: A 1996 CASE STUDY**

by

Salaya Chermsirivattana

**A project submitted to the
Faculty of the school of Food, Hotel, and Travel Management
at
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in partial fulfillment of the requirements
for the degree
of
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ROCHESTER INSTITUTE OF TECHNOLOGY
School of Food, Hotel and Travel Management
Department of Graduate Studies

M.S. Hospitality-Tourism Management
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ASSESSMENT OF CHANGES IN DECISION MAKING ENVIRONMENT IN A
ROCHESTER, NY HOTEL: A 1996 CASE STUDY

Salaya Chermisrivattana

ABSTRACT

This was a third year case study on the detection of changes in the structures and processes that support effective decision making within a hotel in Rochester, NY. The case study is considered to be a developmental research using a longitudinal approach in a present perspective.

The purpose for this case study was to look at changes that occurred in these two sets of years: (1) 1994 and 1996; and (2) 1995 and 1996. The results found in 1996's study were compared to those found by Koo in 1994 and Stubblebine in 1995 with the use of the "Organizational Team Survey"-- a psychometric, critical incident questionnaire developed by Boone and Kilmann in 1988 and was adapted later in 1992 by Janet Bernard in her research of "Decision Environments of Small Firms".

The survey was conducted in April 1996 at a local 210 room hotel. The questionnaire were administered to all

employees who were currently working at the hotel.

Participation was done on a volunteer basis and individual confidentiality was maintained. In 1996, there was 83 (39%) participants compared to 87 (41%) in 1994 and 111 (52%) in 1995.

The Organizational Team Survey is composed of four parts. Part I asked the respondent to briefly describe a work related decision in which he/she was recently involved in. These decisions were classified as operational short-term decisions or strategic long-term decisions.

Part II of the questionnaire displayed 32 questions randomly arranged. The 32 questions could be grouped into the following 6 factors that make up the structure and processes of effective decision making:

1. Multiple Inputs and Alternatives,
2. Problem Identification and Organization,
3. Rewards for Good Decisions,
4. Use of Group Efforts,
5. Bureaucratic Blocks,
6. Resource Adequacy.

The significant changes that occurred between the six factors between 1994 and 1996, and 1995 and 1996 were looked

at with the demographic information from Part V of the survey. The demographics that were used to analyzing the differences are:

1. type of position,
2. sex of employee,
3. type of employment,
4. age of employee,
5. number of years working in hotel industry,
6. number of years working at the surveyed hotel,
7. number of years working in current position,
8. and department in hotel.

t-Tests and P-values between 0.10 and 0.01 were used to detect any significant changes. As a result, twenty-six comparisons from 1994 and 1996 and eighteen comparisons from 1995 and 1996 were found to have statistically significant differences.

Part III of the questionnaire asked the respondent to rate the top five probable problem areas. Staff turnover was considered the most problem area in 1996.

It is recommended that the instrument be adapted and used in further research on the hotel industry's decision making environment. The future study and its outcome would help gain more knowledge in this topic.

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CHAPTER I

INTRODUCTION

To survive in the competitive 1990s, group decision making and human resource investment have become a significant trend for service firms today. Many top-edge service firms now realize that the "customer comes first" philosophy is gradually fading and what has become strong is the idea that employees are their first customer. The new management believe strongly in their employees' ability and judgment to do a good job; they believe that employees can perform a quality work if they are given opportunities and healthy working environment.

Empowerment, self-managing teams, and Total Quality Management (TQM) are three key steps leading to implement group decision making environment within the organization. However, implementing quality programs into the organization and keeping service improvement efforts on track are not easy. Only through gap analysis tools that service professionals pinpoint where there are discrepancies between the customers (internal and external) and the organization. The measurement of variables in the workplace is important because they can affect individuals both directly and indirectly through physical features, organizational

structure and policy, supra personal factors, and social climate (Moos,1986).

Making new changes in an organization's culture and processes require time, support, commitment, evaluation, and follow up. Continuous evaluation through gap analysis tools is critical because an organization needs gap analysis tools to navigate a firm into the right direction and to assure its grounded and steady steps.

Organizational Team Survey, a critical incident questionnaire, developed by Larry W. Boone and Ralph H. Kilman (1988), is a gap analysis tool designed to measure the structures and processes that support effective decision making in an organization.

In 1992, Janet Barnard adapted this questionnaire and used it in her research on "Decision Environments of Small Firms Experiencing Different Rates of Growth". She uses Boone and Kilmann's "Organization Team Survey" to show empirically how decision making variables work together to affect organizational success (Barnard, 1992). The findings of Barnard's research show that the "Organizational Team Survey" detected differences in the means of the two groups surveyed across the empirically derived six factors affecting decisions made in an organizational environment (Stubblebine, 1995).

In 1993, Joanna Liu used the "Organizational Team Survey" in her pilot study to measure the decision making environment in the meeting planning industry. The findings of Liu's research show that the general population of the meeting planning felt that factor 1-Inputs and Alternatives was the most important factor and factor 5-Bureaucratic Blocks and Politics was the least concerned. The survey also found three significant differences in factor 5 between 1) the CEOs and meeting planners, 2) employees of independent meeting planning companies and corporation, and 3) employees of independent meeting planning companies and the thirty general respondents. Another significant change was found at factor 6-Resource Adequacy- among meeting planners and administrators (Liu, 1993).

In 1994, the same psychometric instrument was utilized by Young-Yee Koo to measure decision making structures and processes in two local hotels in Rochester. The hotels in this case study had conducted corporate TQM training early in 1994. Koo's finding was that overall the untrained personnel had more positive view than the trained personnel, in the areas of TQM, team work, decision making, and guest complaint, including the significant differences in factor 1 (multiple input & alternatives) and in factor 3 (reward for good decisions). Only factor 6 (resource

adequacy) that the trained personnel had higher mean than the untrained personnel. This explained that the trained personnel had realized the possibility of being given better decision making environment and adequate resources more than the untrained personnel (Koo, 1994).

According to Koo's comparison between hotel A and B, the differences found in hotel B were that the means of the untrained personnel were significantly higher than the trained personnel in factors 1 (inputs), 2 (problem), and 3 (rewards). In hotel A, the only mean that the trained personnel were higher than the untrained personnel was on factor 6-Resource Adequacy (Koo, 1994).

In 1995, the same instrument was used by Donald Stubblebine to measure decision making structures and processes in the hotel industry. His study shows that the structures and processes that support organizational decision making in the local hotel was differed from 1994 to 1995. The findings for Stubblebine's reserch show that the six factors had declined resulting from the lack of quality training which was last done in 1994. Twenty-one comparisons were found to have statistically significant differencces by using two-sample t-tests with p-values between 0.10 and 0.01. Staff turnover was found to be the most probable problem area and the hotel showed lacking in the use of group efforts (Stubblebine, 1995).

Also in 1995, a pilot study, using the Organizational Team Survey, was conducted by Terry Ovenshire to measure the decision making environments in the health care industry. The findings show that rewards, teamwork, and politics were unsatisfactory to the group. The other factors were roughly viewed as neutral (Ovenshire, 1995).

PROBLEM STATEMENT

The research question answered in this case study will be:

Can changes in the perception of the structures and processes that support effective decision making be detected in a local hotel from 1995 to 1996, and between 1994 and 1996?

PURPOSE STATEMENT

The purpose of this case study was to continue a third-year developmental research by using a longitudinal approach to identify the change in perceptions among employees at a local hotel by using Boone and Kilmann's "Organizational Team Survey", which identifies six factors that affect the decision making structures and processes.

For this case study, the analysis of the change in the decision making structures and processes will be tested from March 1995 to March 1996. In addition, it was also tested

for the employees' perceived difference that occurred between 1994 and 1996.

SIGNIFICANCE

The measurement of the decision making structures and processes are important because the service nature of the hospitality firm relies strongly on these six factors; input, problem, reward, group, resource, politic. The contribution of this case study is valuable because it may show how an industrial survey instrument can be used to measure perceptions of employees at different hierarchical levels.

METHODOLOGY

This project was a case study on detecting changes over time in the structures and processes that support the team decision-making environment in one local hotel. The nature of this case study is considered as a developmental research using a longitudinal approach conducted in a present perspective.

The Organization Team Survey was used to survey on an impact of six factors (inputs, problem, rewards, teamwork, politics, and resources) affecting the employees' decision making process in the workplace. The data received from the questionnaire was correlated through the Statistical Package for the Social Sciences (SPSS) program.

Sample

The sample for this research were all the employees currently working at the local hotel.

Instrument

The psychometric, critical incident questionnaire ("The Organizational Team Survey") developed by Boone and Kilmann (1988) was used to evaluate the structure and the processes that support effective decision making in the hotel. The survey is composed of four parts.

In Part I, the participants were asked to write briefly about a work related decision that participant was involved with.

In Part II, a critical incident questionnaire consisting of 32 statements and randomly displayed, are divided into six factors which contribute to the effectiveness of the decision making in the work organization. The following are the six factors and the Cronbach's alpha value which measured the internal consistency of the items in each factors (Boone & Killmann, 1991)

" 1. Inputs - Multiple inputs and alternatives (.68)

- Availability and use of information from many sources

- Generation and consideration of many possible solutions to problems
- Willingness of decision makers to try new ideas and take some risks
- Freedom to disagree with management
- Management support to carry out decisions

2. Problem - Problem identification and Organization (.69)

- Accuracy of problem identification
- Establishment of clear objectives as a basis for decisions
- Efficient problem solving skills of decision makers
- Accuracy of information from all parts of the organization
- The ease of getting things done by decision makers

3. Rewards - Rewards for good decision (.63)

- Relationship between rewards and new ideas
- Effectiveness of performance measures
- Motivational outcomes of the reward and recognition system

4. Teamwork - Use of group efforts (.62)

- Use of individuals vs. group in decision making
- Regulation of decisions by a few powerful people or upper management
- Opportunity for input from others

5. Politics - Bureaucratic blocks and politics (.72)

- Degree that "red tape" and the policies and procedures will control decisions
- Resistance to change because of costs
- Political activity associated with decisions in the organization

6. Resources - Resource Adequacy (.67)

- Access to and reliability of equipment used by decision makers
- Adequacy of physical resources to support the decision making process"

In Part III, twelve problem areas within the hotel is listed in this section, the participants were asked to select the top five problem areas, and then ranked them in the order of 1 being the most probable area and 5 being the least probable area.

In Part IV, the participants were asked to give their demographic information for data such as sex, age, numbers of year in work experience in the hotel industry, position, current department, and employment status. In 1996 surveys, the question concerning the training programs, used in the 1994 and 1995 surveys, was eliminated due to the fact that the hotel discontinued the quality training in 1995.

Administration

The instrument that was used for surveying the hotel for this case study in 1996 will be similar to the survey used in the previous two studies by Koo in 1994 and Stubblebine in 1995. The only difference in 1996 survey is the missing part on an indication of the training programs.

The instrument was administered to all employees when they came to pick up their pay checks. Participation was on a volunteer basis and confidentiality was maintained.

Data Analysis

The data found were statistically analyzed through group t-tests to find the difference between means in the original survey in 1994 and 1995 and the new survey in 1996. A SPSS program was used to cross tabulation analysis. Tables will be created to report the results from the survey.

HYPOTHESIS

A reasonable expectation of this study was that the structures and processes that support organizational decision making differ from 1994 to 1996 and 1995 to 1996. The hypothesis that was tested are as follow.

Hypothesis :

H_0 : Factor Means 1996 = Factor Means 1995

H_0 : Factor Means 1996 = Factor Means 1994

H_a : Factor Means 1996 \neq Factor Means 1995

H_a : Factor Means 1996 \neq Factor Means 1994

ASSUMPTIONS

Although the samples have changed due to associate turnover, the assumption was that the decision making environment has remained the same. It was also assumed that the quality training that the employees have had in 1994, when first survey was conducted, was not continued.

Another assumption was that the participants represent from all employee level of the hotel, ranging from general manager to part-time employees, and that they can read and understand English.

SCOPE AND LIMITATION

This case study looked at the change in the decision making structures and processes at one full service hotel located in Rochester, New York.

The limitation of this case study was the fact that it covers only all employees currently working in one particular hotel.

LONG-RANGE CONSEQUENCES

Should the statistical analyses used in this case study can successfully detect changes in the structures and

processes of the decision making environment of a local hotel, another valid instrument used to obtain valuable information in the hospitality field would be introduced. Also, other hotels looking to assess the structures and processes of the decision making environment are highly recommended to use this tool.

DEFINITION OF TERMS

1. Longitudinal study: A research conducted over a period of time to identify the change that occurs.
2. Self-directed Team : A group of workers who work together and is empowered to plan, execute, and control its work to achieve a defined output.
3. T-test : Most common statistical procedures used to compare two means.
4. Critical Incident (psychometric) Survey : A technique of mental measurement that can be compared to a snapshot of how the participant feels about a situation at a giving time (Stubblebine, 1995).

CHAPTER II

Literature Reviews

Since this is the third-year research in decision making environment, the literature review covered in this project is an additional part to Koo (1994) and Stubblebine (1995)'s literature reviews. The following topics are customer comes second, empowerment, and self-directed teams.

Customer comes second

Albrecht (1993), Barett (1993) point out that a customer is the critical piece of TQM. The whole TQM movement may not be effective if an organization don't recognize "who are the customers?" and "what are their needs?" (Overshire, 1995).

Today, in 1990s competitive environment, employees are being looked at as an organization's first customer. Their satisfaction and well being in the work place have gained great concern in the eyes of management (Doyle,1993). Organization have learnt to understand expectation that employees have and measure those expectations to see if they are being met, same as measuring customer satisfaction. In

addition, they analyze data to understand the company's strengths and weakness in matching the expectations of its employees (Wood, 1993).

If an organization can satisfy the physical, psychological, and educational needs of its employees with the right office equipment and motivational tools, it is then that employees will be better equipped to satisfy the needs of the customers. As a result, a superior customer service will be assured (Doyle, 1993). To support Doyle's statement, the case study conducted by Kotter and Heskett (1992) shows that "higher--performing companies consistently value their customers, stockholders and employees to a great extent than do lower--performancing companies" (Wood, 1993).

For TQM to be successful, commitment must widely develop throughout an organization. The best way to sustain a commitment to TQM is to implement empowerment and teamwork in the process of decision making (Denton, 1995).

Empowerment

According to the Merriam Webster's Dictionary, the word 'empower' means " to authorize or delegate or give legal power to someone."

Psychological researchers state that control over a decision-making is often measure in terms of perceptions. And empowerment is referring to the belief that one has control or can influence decisions. Moreover, psychological experts point out that people both feel and perform better when perceived control is high. And that people seem cope far better when they believe that they have an ability to control adverse events.

"Perceive control appears to enhance confidence, make tasks less stressful, and instrincally rewarding. In addition, perceived control has been associated with physical and mental health, longevity, concentration, task

persistence, and athletic academic, and job performance" (Parker and Price, 1994).

Agree with the above theory, Koo (1995) point out that "Empowerment deals with participative management techniques such as management by objectives, quality circles, and goal setting by subordinates as the means of sharing power or delegating authority. Empowerment is as a motivational construct which emphasis on personal efficiency. Power and control are used as motivational and/or expectancy belief-states that are internal to individuals. Power in this motivational sense refers to an intrinsic to self-determination or a belief in personal self-efficiency. Under this conceptualization, power has its base within an actor's motivation disposition."

In practicing employee empowerment in hotel industry, three conditions should be met: (Caudron, 1995)

(1) There should be a strong commitment from the general manager and the hotel executive committee, along with support from the corporate offices and middle management. Empowerment requires that managers to place a great deal of trust in their subordinates and respect their judgment. It also requires many managers to redefine their

own role from a controller to a facilitator who encourages and guides employees to make effective decision by themselves.

(2) Employee empowerment programs can only be successful if an organization creates a healthy environment that nurtures and encourages employee initiative. The following changes in an environment will be needed to support employee empowerment programs.

- a. Information sharing--An organization must share information about the business with its employees and demonstrate of how their work fits in. One of the most important measures of job satisfaction is whether or not employees find meaning in their work.

As employees began to understand the business, the individual and team goals that they were working toward and how their contribution fit into company's larger business goals, they began to find greater meaning in their work and, therefore, productivity improved. In addition, companies should take time to explain of how company goals play an important role for customers, to a company and to an individual employee.

b. Providing training and resource needed to do a good job--Once employees understand what needs to be done to improve the company, they must have the skills and resources that are necessary to accomplish those improvements. Employee development is the key to an empowered work force. By showing employees on how to do things differently through continuous education and skills upgrading is a significant step to approaching changes.

The second half of empowerment training is aimed at helping management in learning to empower others. For employees to be truly empowered, management have to learn to give up control. The new roles of manager will transform from a decision maker to a resource provider and inspector such as coach, facilitator, coordinator, and sponsor (Holpp, 1993). In addition, managers have to learn how to nurture and reward good ideas and know what kind of challenges to give employees.

c. Provide measurements and feedback--Employees need to know on a regular basis if their implemented solutions have successfully solved problems or gaps. The secret of empowerment is to create measurements that people

can control. That is, employees should be allowed to develop their own goals and ways of measuring achievement of those goals. Management, on the other hand, must find ways to gather and disseminate measurements and provide feedback to their employees (Caudron,1995).

d. Give positive reinforcement--Employees empowerment requires ongoing positive reinforcement. Motivational experts suggest that managers give positive reinforcement often and immediately after a job well done. Employees want to be recognized individually for good work from their supervisors. They also want to be publicly recognized because it tells them their achievements are worth everyone's attention.

Incentive is important in reinforcing employees' performances. In addition, companies must bare in mind that change will require many reinforcers for the new behaviors to transform into new habits (Sheridan, 1996).

"Performance management" is an expression that's often used to refer to the positive reinforcement process. When employees own their job and when they

are able to measure and influence their individual success as well as the success of their departments and their companies, empowerment employees are energetic and passionate. They want to do a better job because they feel personally rewarded for doing it (Cuadron, 1995).

3) Job enrichment should go with employee empowerment.

"Enrichment means building challenge and achievement into worker's jobs by changing job content, letting them order and inspect their own goods, schedule their own day and so forth. Empowerment means authorizing and enabling workers to do their job. Enriching jobs should thus give employees more challenging jobs to do, while empowering employees should give them skills, authority and discretion needed to actually perform the enriched jobs. Enriching and empowering jobs means doing three things:

- Changing the content of jobs
- Giving employees the training, tool, and support they need to do their new jobs.
- Insisting that all managers follow through by actually letting the workers use their new, broader authority to work." (Caudron, 1995)

The industrial-age management style is based on overseeing while the information-age management style is based on achievement. If an organization does not manage employees effectively, it won't be able to manage flexible in the work place. Managers need to learn to control the outcome of work instead of strictly controlling on how, where, and when work gets done. This approach is called "managing by results." Managers are becoming proactive rather than reactive.

It is evident that when employees have more control over their lives and when they have a say in how, where, and when they get their work done, they are more satisfied, more committed, more responsible, and more productive (Genevieve, 1996).

By providing trust and support, information, resources and training, follow-up measurements, and reinforcement to employees, then, companies can successfully create an empowerment environment. Empowerment is a very fragile process and it will take a continuous effort and time for workers to truly understand and exercise it.

Self directed team

Self directed team is defined as a "highly group fully responsible for turning out a well-defined segment of finished work" (McHenry, 1994). For the 21st century workplace, Total Quality Management stress the use of teams, especially self-directed teams (Taylor, 1996).

A self-directed team approach is known to combine both leadership and management style. Companies in which employees considers themselves empowered are those that rely strongly on teams and teamwork. That's because by working in teams, employees not only find good meaning in their work, but also have more ability to influence its out come (Meter, 1995). "Self directed teams are becoming commonplace as a natural extension of this march toward re-empowerment" (Hitchcock, 1993).

Teams are the key to enhanceing performance in which a higher level of responsiveness, speed, customization and quality that an individual worker was unable to reach can be accomblished. As a result, increase productivity, flexibility, streamlining, improved quality and customer satisfaction, and increase commitment are achieved (Capozzoli, 1995).

Before implementing a self directed team management, an analysis of the cooperate environment must be done in order to determine if the conditions and circumstances are right. To ensure success when implementing a self directed work team, three elements must be ready:

1. Full support and commitment from the top-level management.
2. Management-employee trust--all employees must fully participant and cooperated in the change.
3. Steering committee--group of people is in charged with readiness of the organization to pursue the team concept

The following phrases show a clear picture of how self-directed team develops into different stages (Capozzoli, 1995).

"Phase 1: Start-up--A group of individuals work together, but members see themselves as working under traditional supervision.

Phase 2: The group feels like it is a permanent team that meets regularly, comes to join decisions, plans work and solves problems.

Phase 3: Team members feel a sense of togetherness. They

make most of their own day-to-day work related decisions.

Phase 4: The team initiates its own interactions with customers and changes the way it plans and organizes work according to shifting customer needs and expectations.

Phase 5: The team is ready to hire new members or rotate members out and provide a complete orientation to new members. Many traditional managers have become team leaders or have move on to another position.”

Training must be given along this progression by providing the right development at the right time.

Guidline for increasing the success of self directed teams are as follow.

- “1. Create visions of how these teams will fit into the scheme of the entire organization.
2. With this vision, the entire organization must be prepared to change the culture to support the teams
3. The organization must have the resources necessary to commit to this type of change in time, money, technology, and people.
4. Training is a significant part of developing the teams.

5. After the training take place, it will take time for the teams to get used to one another and develop their new-found skills.
6. Performance expectations of the teams must be developed so they will know what is expected of them.
7. A feedback method to teams must be developed so they can see what they are doing and make correction where necessary.
8. Boundaries must be set in which the teams will be allow to operate.
9. Make sure that the idea that self directed teams is not a leaderless or never need a management intervention. The manager will change the role into a coach or advisor to the teams.”(Capozzoli, 1995)

According to a survey done by the Industrial Research Institute, companies who have had experienced with teams, especially self directed teams, point out that the important factors that make team successful are: (Taylor, 1995)

1. Goals (most important)
2. Communication
3. Customer involvement
4. Team structure and selection
5. Resource

6. Management support and behavior
7. Facilitation
8. Leadership style
9. Training
10. Recognition (least importance)

The key to success is simple. Team works well when they understood what is important, and knew what are their responsibility. Training, recognition and facilitation are obviously have some impact, but they are not as important as clear goals and good communication.

CHAPTER III

TABULATION AND ANALYSIS

This case study was to detect the changes in the structure and processes that support the effective decision making environment that occurred between 1994 and 1996, and 1995 and 1996. The results found were the comparisons of the means compiled from Organizational Team Survey conducted by Koo in 1994 and Stubblebine in 1995 to those found in 1996. The significant changes that have occurred among the six factors were looked at with regards to the demographic information from part IV (Table 1).

The answers of the questionnaires were analyzed through t-Tests with P-values between 0.10 and 0.01. This significance was taken into consideration due to the low sample size. As a result, forty-four comparisons were found to have statistically significant differences. The means for Part II of the questionnaire used a Likert scale of 1 to 5, 1 being strongly disagree and 5 being strongly agree. The six factors also used the same scale. The results found from section II are presented in Table 2-8.

Part III of the questionnaire displays the ranking of the problem areas. The scale 1 to 5 was used, 1 being the most severe and 5 being the fifth severe. Therefore, the mean closest to 5 was considered the most concerned problem while the mean that displays the fifth largest were considered as the least concerned problem. The results found from section III are presented in Table 9-10.

Lastly, a list of the decision made by the associates which can be classified into either a long-term strategic or a day-to-day operational decision. These two types of decision show the different degree to which the decisions are made.

Table 1-Demographic Data of Respondents

	1994		1995		1996	
	Frequency (%)	Sample N	Frequency (%)	Sample N	Frequency (%)	Sample N
<u>Sex</u>						
Female	51.7	45	46.8	52	44.6	37
Male	48.3	42	53.2	59	55.4	46
<u>Age</u>						
25 & Under	44.8	39	40.5	45	25.9	21
26-35	29.9	26	31.5	35	39.5	32
36-45	13.8	12	15.3	17	18.5	15
46-55	6.9	6	9.0	10	9.9	8
56 & Over	4.6	4	3.6	4	6.2	5
<u>Yrs Working in Indus.</u>						
Under 1	11.9	10	21.7	23	43.8	39
1 to 3	31.0	26	29.2	31	22.5	18
4 to 7	33.3	28	25.5	27	10.5	8
8 to 11	9.5	8	10.4	11	8.8	7
12 & Over	14.3	12	13.2	14	15.0	12
<u>Yr. in Surveyed Hotel</u>						
Under 1	17.9	15	33.9	37	50.0	40
1 to 3	46.4	39	31.2	34	28.8	23
4 to 7	26.2	22	23.9	26	5.0	4
8 to 11	4.8	4	5.5	6	6.3	5
12 & Over	4.8	4	5.5	6	10.0	8
<u>Yrs in Current Position</u>						
Under 1	31.3	26	44.8	47	63.3	50
1 to 3	47.0	39	38.1	40	22.8	18
4 to 7	15.7	13	14.3	15	3.8	3
8 to 11	4.8	4	0.0	0	6.3	5
12 & Over	1.2	1	2.9	3	3.8	3
<u>Title</u>						
GM/Dir/Man/Sup	25.0	21	20.9	23	30.6	22
Associates	75.0	63	79.1	87	69.4	50
<u>Department</u>						
Executive Office	17.6	15	16.0	17	19.7	14
Rms Division	24.7	21	31.1	33	28.2	20
F & B	48.2	41	48.1	51	43.7	31
Engineer/Security	9.4	8	4.7	5	8.5	6
<u>Employment</u>						
Full Time	75.6	65	81.8	90	86.7	72
Part Time	24.4	21	18.2	20	13.3	11

Category 1--Type of Position (table 2)

a) Between 1994 and 1996 comparisons, two significant differences were detected. In factor 2-Problem Identification and Organization, there was a significant difference among the GM/Director/Manager/Supervisor. The P-value was 0.89 (t-value of -1.72) which is significant at 0.10 level. The mean had increased from 3.2151 in 1994 to 3.4267 in 1996, displaying a degree of freedom at 109.99.

In factor 5-Bureaucratic blocks and Politics, the significant difference was among the associates. The P-value was 0.29 (t-valued of 2.21) which is significant at the 0.05 level. The mean had dropped from 3.4524 in 1994 to 3.0816 in 1996, showing 107.82 degrees of freedom.

Among the rest of the factors and their categories, there was no significance. The range of the P-values found for this demographic topic between these years ranged from 0.004 to 0.880.

b) Between 1995 and 1996 comparisons, there were two significant differences in the mean among both management group and associates regarding factor 2-Problem identification and Organization. The management's P-value was 0.93 (t-value of 1.72) which shows significant at 0.10

level. The mean of the management had fallen from 3.2653 in 1995 to 2.9286 in 1996, displaying 38.41 degrees of freedom. The associates' P-value was 0.04 (t-value of -2.95) which shows significant at 0.01 level. The mean of the associates had gone up from 3.1029 in 1995 to 3.4267 in 1996, displaying 111.75 degrees of freedom.

Among the rest of the factors and their categories, there was no significance. The P-value ranged from 0.029 to 0.972.

(A detailed listing of all values for this category is in Appendix B)

Table 2
Comparison of Factors Means by Type of Position

		sample size	mean	t-value	df	p-value
<u>Problem Id</u>						
Gm/Dir/Man/Sup	1995	N=22	3.2652			
	vs.1996	N=22	2.9286	1.72	38.41	0.93*
<u>Problem Id</u>						
Associates	1994	N=62	3.2151			
	vs.1996	N=50	3.4267	-1.72	109.99	0.089*
	1995	N=81	3.1029			
	vs.1996	N=50	3.4267	-2.95	111.75	0.004***
<u>Politics</u>						
Associates	1994	N=63	3.4524			
	vs.1996	N=49	3.0816	2.21	107.82	0.29**

* Significance at the 0.10 level

** Significance at the 0.05 level

***Significance at the 0.01 level

Category 2--Sex of Employee (Table 3)

a) Between 1994 and 1996 comparisons, there was a significant difference in the means among the male employees regarding factors 5-bureaucratic blocks and Politics. The P-value was 0.051 (t-value of 1.98) which shows significance at the 0.10 level. The mean for factor 5 had dropped from 3.5893 in 1995 to 3.1944 in 1996, showing 84.81 degrees of freedom. There was no significant in other factors and their categories. The P-values ranged from 0.051 to 0.865.

b) Between 1995 and 1996 comparisons, there was a significant difference in the means among the male employees concerning factor 2-Problem Id and Organization with an increase in the mean from 3.1454 in 1995 to 3.4000 in 1996, displaying 94.07 degrees of freedom. The P-value was 0.40 (t-value of 1.98) which shows significant at 94.07. The rest of the factors and their categories shows no significance. P-value ranged from 0.040 to 0.985.

(A detailed listing of all values for this category is located in Appendix B)

Table 3**Comparison of Factors Means by Sex of Employee**

		sample size	mean	t-value	df	p-value
<u>Problem Id</u>						
Male	1995	N=54	3.1454			
	vs. 1996	N=45	3.4000	-2.09	94.07	0.040**
<u>Politics</u>						
Male	1994	N=42	3.5893			
	vs. 1996	N=45	3.1944	1.98	84.81	0.051*

* Significance at the 0.10 level

** Significance at the 0.05 level

***Significance at the 0.01 level

Category 3--Type of Employment (Table 4)

a) Between 1994 and 1996 comparisons, four significant differences of the means were detected among the part-time employees. The first significant difference shows in factor 1-Multiple inputs and Alternatives with an increase in the mean from 3.2434 in 1994 to 3.6705 in 1996, displaying 20.12 degrees of freedom. The p-value was 0.069 (t-value of -1.92) which shows significance at the 0.10 level.

The second significance was at factor 2-Problem Id and Organization with an increase in the mean from 3.3571 in 1994 to 3.8788 in 1996, showing 24.87 degrees of freedom. The p-value was 0.017 (t-value of 24.87) which shows significance at the 0.05 level.

The third significance was at factor 5-Bureaucratic blocks and Politics with a decrease in the mean from 3.3929 in 1994 to 2.8864 in 1996, displaying 29.49 degrees of freedom. The p-value was 0.027 (t-value of 2.34) which shows significance at the 0.05 level.

The last significance from these two years was at factor 6-Resource Adequacy. The mean shows an increase from 3.2857 in 1994 to 3.8485 in 1996 with 25.97 degrees of freedom. The p-value was 0.048 (t-value of -2.08) which displays significance at 0.05 level.

Among the rest of the factors and categories, the values did not show significance. The range of the p-values found in this demographic between the two years went from 0.017 to 0.839.

b) Between the 1995 and 1996 comparisons, three significant differences were also found among part-time employees. The first significance was at factor 1 with an increase in the mean from 3.0500 in 1995 to 3.6705 in 1996, showing 20.70 degrees of freedom. The p-value was 0.012 (t-value of -2.77) which shows significance at 0.05 level.

The second significance was at factor 2 with an increase in the means from 3.1667 in 1995 to 3.8788 in 1996, displaying degree of freedom at 24.65. The p-value was 0.002 (t-value of -3.40) which shows significance at 0.01 level.

The last significance was detected at factor 5. There was an increase in the mean from 3.3000 in 1995 to 3.8485 in 1996, with the t-value of -2.94 and the p-value of 0.010, significance at 0.01 level. The degree of freedom was at 28.31. Among the rest of the factors and their categories, there was no other significance. The range of the p-values found in this demographic went from 0.002 to 0.838.

(A detailed listing of all the values for this category is presented in Appendix B)

Table 4

Comparison of Factors Means by Type of Employment

		sample size	mean	t-value	df	p-value
<u>Input</u>						
Part-time	1994	N=19	3.2434			
	vs. 1996	N=11	3.6705	-1.92	20.12	0.069*
	1995	N=20	3.0500			
	vs. 1996	N=11	3.6705	-2.77	20.70	0.012*
<u>Problem Id</u>						
Part-time	1994	N=21	3.3571			
	vs. 1996	N=11	3.8788	-2.56	24.87	0.017**
	1995	N=18	3.1667			
	vs. 1996	N=11	3.8788	-3.40	24.65	0.002***
<u>Politics</u>						
Part-time	1994	N=21	3.3929			
	vs. 1996	N=11	2.8864	2.34	29.49	0.27**
<u>Resource</u>						
Part-time	1994	N=21	3.2857			
	vs. 1996	N=11	3.8485	-2.08	25.97	0.048**
	1995	N=20	3.3000			
	vs. 1996	N=11	3.8485	-2.94	28.31	0.10***

* Significance at the 0.10 level

** Significance at the 0.05 level

*** Significance at the 0.01 level

Category 4--Age of Employee (Table 5)

a) Between 1994 and 1996 comparisons, only significant difference was among the 25 & Under group regarding factor 3 -Rewards for good decision. The mean had dropped from 2.9105 in 1994 to 2.4700 in 1996 displaying 36.35 degrees of freedom. The P-value of was 0.66 (t-value of 1.90) which shows significance at 0.10 level. No significance was found in other factors and their categories. P-value ranged from 0.066 to 0.983.

b) Between 1995 to 1996 comparisons, there were three significant differences among three different age groups. For ages 25 & Under, the significant difference was at factor 3 with a decrease in the mean from 2.9273 in 1995 to 2.4700 in 1996. The degree of freedom was at 34.08. The p-value was 0.051 (t-value of 2.02) which shows significance at 0.10 level.

For ages 36 to 45, the significant difference was at factor 2-Problem Id and Organization with a jump up in the mean from 2.9902 in 1995 to 3.3929 in 1996. The degree of freedom was at 27.98. The p-value was 0.082 (t-value of -1.81) which shows significance at 0.10 level.

For the ages 56 & Over, the significance was found in factor 6-Resource Adequacy. The mean had dropped from 3.0000 in 1995 to 2.8000 in 1996, displaying 6.23 degrees of freedom. P-value was 0.22 (t-value of -3.03) which show significance at 0.05 level.

Among the rest of the factors and their categories, the values did not show significance. The range of the P-value found for this demographic topic went from 0.022 to 0.903. (A detailed listing of the values for this category is presented in Appendix B)

Table 5

Comparison of Factors Means by Age of Employee

		sample size	mean	t-value	df	p-value
<u>Problem Id</u>						
36 to 45	1995	N=17	2.9902			
	vs. 1996	N=14	3.3929	-1.81	27.98	0.082*
<u>Rewards</u>						
25 & Under	1994	N=38	2.9105			
	vs. 1996	N=20	2.4700	1.90	36.35	0.066*
	1995	N=44	2.9273			
	vs. 1996	N=20	2.4700	2.02	34.08	0.051*
<u>Resource</u>						
56 & Over	1995	N=4	3.0000			
	vs. 1996	N=5	2.8000	-3.03	6.32	0.22**

* Significance at the 0.10 level

** Significance at the 0.05 level

*** Significance at the 0.01 level

Category 5--Years Working in Hotel Industry (Table 6)

a) Between 1994 and 1996 comparisons, there were a total of six significant differences among three groups of employees under this category. The first significance was found among the group of employees who has worked in the hotel industry under 1 year regarding factor 5-Bureaucratic blocks and Politics. The mean for factor 5 decreased from 3.570 in 1994 to 3.0071 in 1996 with 17.61 degrees of freedom. The p-value of 0.049 (t-value of 2.12) which shows a significance at 0.05 level.

The second, third, and fourth significance were among the employees who has worked under 1 to 3 years in the hotel industry. The second significance was at factor 3-Rewards for Good Decision- showing a decrease in the means from 2.8923 in 1994 to 2.5176 in 1996 with 40.80 degrees of freedom and t-value of 1.82 and p-value of 0.076, significant at 0.10 level.

The third significance was at factor 4-Teamwork-Use of Group Efforts. The mean for this factor had fallen from 2.7800 in 1994 to 2.3796 in 1996, displaying 36.05 degrees of freedom. The p-value was 0.071 (t-value of 1.86) which is significant at 0.10 level.

The fourth significance was at factor 5 showing an increase in the mean from 3.2019 in 1994 to 3.7083 in 1996 with 40.28 degrees of freedom. The p-value was -2.12 (t-value of -2.12), significant at 0.05 level.

The fifth and six significant differences presented among the workers who has worked in the industry between 4 to 7 years regarding factor 2-Problem Id and Organization- and factor 3-Teams. The mean for factor 2 decreased from 3.3272 in 1994 to 2.9792 in 1996, showing the degree of freedom at 16.29. The p-value was 0.089 (t-value of 1.81), significant at 0.10 level. The mean for factor 3 also dropped from 2.6090 in 1994 to 2.2708 in 1996 while having 16.29 degrees of freedom. The t-value was 2.51 and p-value of 0.021, significant at 0.05 level. There was no other significance in the factors and their categories. The range of the p-value found between these two years under this demographic topic went from 0.021 to 1.000.

b) Between 1995 and 1996 comparisons, a total of two significant differences were detected in factor 3 and factor 5 among the employees who has worked between 1 to 3 years in the industry. For factor 3, the mean had dropped from 2.9355 in 1995 to 2.5176 in 1996 with 43.29 degrees of freedom. The p-value was 0.076 (t-value of 2.13),

significant at 0.05 level. Factor 5, there was an increase in the mean from 3.0250 in 1995 to 3.7083 in 1996. The t-value was at -3.25 and the p-value was at 0.002, significant at 0.01. The degree of freedom was displayed at 45.92.

No significance was found in other factors and their categories. The p-value varied from 0.002 to 0.989.

(A completed listing of all values is in Appendix B)

Table 6

Comparison of Factor Means by Years Working at Hotel Industry

		sample size	mean	t-value	df	p-value
<u>Politics</u>						
Under 1	1994	N=10	3.5750			
	vs.1996	N=35	3.0071	2.12	17.61	0.049**
<u>Rewards</u>						
1 to 3	1994	N=26	2.8923			
	vs.1996	N=17	2.5176	1.82	40.80	0.076*
	1995	N=30	2.9355			
	vs.1996	N=17	2.5176	2.13	43.29	0.039**
<u>Teams</u>						
1 to 3	1995	N=25	2.7800			
	vs.1996	N=11	2.3796	1.86	36.05	0.71*
<u>Politics</u>						
1 to 3	1994	N=26	3.2019			
	vs.1996	N=18	3.7083	-2.12	40.28	0.040**
	1995	N=30	3.0250			
	vs.1996	N=18	3.7083	-3.25	45.92	0.002***
<u>Problem Id</u>						
4 to 7	1994	N=27	3.3272			
	vs.1996	N=8	2.9792	1.81	16.29	0.089*
<u>Teams</u>						
4 to 7	1994	N=20	2.6090			
	vs.1996	N=8	2.2708	2.51	19.80	0.021**

* Significance at the 0.10 level

** Significance at the 0.05 level

***Significance at the 0.01 level

Category 6--Years Working at Surveyed Hotel (Table 7)

a) Between 1994 and 1996 comparisons, there were a total of five significant differences among three groups of employees who has been working at the hotel: 1) Under 1 years with regard to factor 4 and 5, 2) between 1 to 3 years regarding factor 3 and 4, and 3) 8 to 11 years regarding factor 6.

For the Under 1 year, one significant difference was detected in factor 4-Use of Group Efforts. The mean for this factor increased from 2.4778 in 1994 to 2.9292 in 1996, displaying 30.16 degrees of freedom. The t-value was 2.40 and the p-value was 0.023, significant at 0.05 level. Another significance was at factor 5-Bureaucratic Blocks and Politics. The mean for this factor had decreased from 3.5667 in 1995 to 3.0625 in 1996, showing 34.43 degrees of freedom. The p-value was 0.025 (t-value of 2.35), significant at 0.05 level.

For the 1 to 3 years, one of the two significant differences under this group was at factor 3-Reward for Good Decision. The mean for this factor dropped from 2.8923 in 1994 to 2.4273 in 1995, exhibiting the degree of freedom at 57.83. The p-value was 0.006 (t-value of 2.83), significant at 0.01 level. The other significance was at fact 4. The p-

value was at 0.040 (t-value of 2.12) which shows significance at 0.05 level. The mean for factor 4 had fallen from 2.7719 into 2.3913 in 1996, showing 42 degrees of freedom.

For the 8 to 11 years, the only significance found under this group was at factor 6-Resource Adequacy. The t-value was at 2.82 and the p-value was at 0.028, significant at 0.05 level. The mean for factor 6 dropped from 2.7778 in 1994 to 3.6667 in 1996 while having 6.52 degrees of freedom.

No significance was found among other factors and their categories. The P-values for this demographic topic between 1994 and 1996 varied from 0.006 to 0.912.

b) Between 1995 and 1996 comparisons, there were five significant differences among two groups of the employees. The first group occurred among the employees who have been working at the hotel between 1 to 3 years. A significant difference was found at factor 3 and factor 5. Factor 3 showed a p-value of 0.030 (t-value of 2.23), which is significant at 0.05 level. The mean for factor 3 went down from 2.8353 in 1995 to 2.4273 in 1996 while showing 53.52 degrees of freedom. Factor 5 displayed a t-value of -3.23 and a p-value of 0.002, significant at 0.01 level. The mean for factor 5 went up from 3.1397 in 1995 to 3.7500 in 1996. The degree of freedom showed at 53.90.

The significant differences in the second group occurred among the employees who have been working in the hotel for 8 to 11 years with regard to factor 1, 2, and 6. Factor 1-Multiple Inputs and Alternative-showed a significance with a t-value of -3.38 and a p-value of 0.013, significant at 0.05 level. There was an increase in the mean from 2.6500 in 1995 to 3.5750 in 1996, displaying 6.74 degrees of freedom. In factor 2-Problem Id and Organization, there was an increase in the mean from 2.8889 in 1994 to 3.7083 in 1996. The p-value was 0.022 (t-value of -2.88), significant at 0.05 level. The degree of freedom was displayed at 7.51. For factor 6-Resource Adequacy, the mean increased from 2.7778 in 1995 to 3.6667 in 1996 while having 9 degrees of freedom. The p-value was 0.077 (t-value of -2), significant at 0.10 level.

Among the rest of the factors and their categories, the values did not display significance. The p-values found between 1995 and 1996 under this topic varied from 0.002 to 0.921.

(A completed listing of all values for this category is presented in Appendix B)

Table 7**Comparison of Factors Means by Years Working at Surveyed Hotel**

		sample size	mean	t-value	df	p-value
<u>Team</u>						
Under 1	1994	N=15	2.4778			
	vs. 1996	N=40	2.9292	-2.40	30.16	0.023**
<u>Politics</u>						
Under 1	1994	N=15	3.5667			
	vs. 1996	N=40	3.0625	2.35	34.43	0.025**
<u>Rewards</u>						
1 to 3	1994	N=39	2.8923			
	vs. 1996	N=22	2.4273	2.83	57.83	0.006***
	1995	N=34	2.8353			
	vs. 1996	N=22	2.4273	2.23	53.52	0.030**
<u>Teams</u>						
1 to 3	1994	N=38	2.7719			
	vs. 1996	N=23	2.3913	2.12	42	0.040**
<u>Politics</u>						
1 to 3	1995	N=34	3.1397			
	vs. 1996	N=22	3.7500	-3.23	53.90	0.002***
<u>Inputs</u>						
8 to 11	1995	N=5	2.6500			
	vs. 1996	N=5	3.5750	-3.38	6.74	0.013**
<u>Problem Id</u>						
8 to 11	1995	N=6	2.8889			
	vs. 1996	N=4	3.7083	-2.88	7.51	0.022**
<u>Resource</u>						
8 to 11	1994	N=4	4.6667			
	vs. 1996	N=5	3.6667	2.82	6.52	0.028**
	1995	N=6	2.7778			
	vs. 1996	N=5	3.6667	-2.00	9	0.077*

* Significance at the 0.10 level

** Significance at the 0.05 level

***Significance at the 0.01 level

Category 7--Years in Current Position (Table 8)

a) Between 1994 and 1996 comparisons, there were seven significant differences among four groups. The first one was among the employees who has worked in their current position under 1 year, the significance was found in factor 3-Teamwork and factor 5-Politics. The mean for factor 3 increased from 2.5641 in 1994 to 2.8167 in 1996 while exhibiting 64.93 degrees of freedom. The p-value was 0.099 (t-value of -1.67), significant at 0.10 level. The mean for factor 5 decreased from 3.6800 in 1994 to 3.2500 in 1996 showing a degree of freedom at 62.29. T-value was at 2.34 and p-value was at 0.022, significant at 0.05 level.

The significance in the second group occurred among the employees who worked in their position for 1 to 3 years. Factor 3 showed a p-value of 0.048 (t-value of 2.03) which is significant at 0.05 level. The mean for factor 3-Rewards- went down from 2.8359 in 1994 to 2.4706 in 1996. The degree of freedom was displayed at 42.99. Factor 4-Teamwork-displayed a t-value of 0.071 and p-value of 0.071, significant at 0.10 level. There was a drop in the mean for factor 4 from 2.7412 in 1995 to 2.3704 in 1996. The degree of freedom was displayed at 31.07.

The significant differences in the third group were among the 4 to 7 years. Factor 5-Politics-exhibited a p-

value of 0.023 (t-value of 2.98) which is significant at 0.05 level. The mean for factor 5 went down from 3.7692 in 1994 to 3.0833 in 1996 while having 6.40 degrees of freedom. The other significance was displayed at factor 6-Resource Adequacy which had a t-value of 2.39 and p-value of 0.032, significant at 0.05 level. The mean for factor 6 decreased from 3.5641 in 1994 to 2.8889 in 1996, showing 13.98 degrees of freedom.

The last group that the final significance showed was among the 8 to 11 years with regards to factor 6. The mean for factor 6 decreased from 4.0833 in 1994 to 3.2000 in 1996, displaying 5.13 degrees of freedom. The p-value was at 0.096 (t-value of 2.04) which is significant at 0.10 level. No significance was found in other factors and their categories. The p-values varied from 0.154 to 0.965.

b) Between 1995 and 1996 comparisons, all values under this demographic topic did not show significant difference. The p-values ranged from 0.154 to 0.965. (A detailed listing of all values for this category is presented in Appendix B)

Table 8**Comparison of Factors Means by Years in Current Position**

		sample size	mean	t-value	df	p-value
<u>Teams</u>						
Under 1	1994	N=26	2.5641			
	vs. 1996	N=50	2.8167	-1.67	64.93	0.099*
<u>Politics</u>						
Under 1	1994	N=25	3.6800			
	vs. 1996	N=50	3.2500	2.34	62.29	0.022**
<u>Rewards</u>						
1 to 3	1994	N=39	2.8359			
	vs. 1996	N=17	2.4706	2.03	42.99	0.048**
<u>Teams</u>						
1 to 3	1994	N=38	2.7412			
	vs. 1996	N=18	2.3704	1.87	31.07	0.71*
<u>Politics</u>						
4 to 7	1994	N=13	3.7692			
	vs. 1996	N=3	3.0833	2.98	6.40	0.023**
<u>Resource</u>						
4 to 7	1994	N=13	3.5641			
	vs. 1996	N=3	2.8889	2.39	13.98	0.032**
8 to 11	1994	N=4	4.0833			
	vs. 1996	N=5	3.2000	2.04	5.13	0.096*

* Significance at the 0.10 level

** Significance at the 0.05 level

*** Significance at the 0.01 level

Category 8--Department (Table 9)

a) Between 1994 and 1995 comparisons, factor 2-Multiple inputs and Alternatives-showed significant difference among the Food and Beverage Department. The p-value was at 0.011 (t-value of -2.62), significant at 0.05 level. The mean for factor 2 increased from 3.0583 in 1994 to 3.4677 in 1996. No significance found in other factors and their categories. The p-value varied from 0.011 to 0.938.

b) Between 1995 and 1996 comparisons, factor 5-Bureaucratic Blocks and Politics- displayed a p-value of 0.013 (t-value of 3.38) which shows significance at 0.05 level. The mean for factor 5 dropped from 3.9500 in 1995 to 2.6250 in 1996 while having 6.52 degrees of freedom.

Among the rest of the factors and their categories, the values did not show significant difference. The p-values for this demographic topic between 1995 and 1996 ranged from 0.013 to 0.977.

(A detailed listing of all value for this category is presented in Appendix B)

Table 9**Comparison of Factors Means by Department**

		sample size	mean	t-value	df	p-value
<u>Problem Id</u>						
F & B	1994	N=40	3.0583			
	vs.1996	N=31	3.4677	-2.62	68.66	0.011**
<u>Politics</u>						
Engineer & Security	1995	N=5	3.9500			
	vs.1996	N=6	2.6250	3.38	6.52	0.013**

* Significance at the 0.10 level

** Significance at the 0.05 level

***Significance at the 0.01 level

Table 10—Ranking of Problem Areas in 1994, 1995, and 1996

Variable	1994 (N=87)		1995 (N=111)		1996 (N=83)	
	Mean	Rank#	Mean	Rank#	Mean	Rank#
Staff turnover	1.391	(4)	1.793	(1)	1.662	(1)
Finance	2.402	(1)	1.315	(3)	1.623	(2)
Motivation	1.747	(3)	1.559	(2)	1.444	(3)
Supplies and materials	1.276	(5)	1.126		1.222	(4)
Adequate training to do job	1.264		1.189	(4)	1.215	(5)
Company policies	1.195	(2)	1.000		1.094	
Guest complaint	0.667		1.144	(5)	1.072	
Employment	1.092		1.000		0.918	
Good knowledge	0.506		0.541		0.577	
Safety in working place	0.747		0.523		0.502	
Paper work	0.402		0.468		0.500	
Computer	0.264		0.532		0.449	
Human resources	0.149		0.216		0.205	

The wage freeze in 1994 explained why employees felt that the biggest problem area was in finance. It was also understandable that this pause in hiring, wage increasing, and declining in rewards had caused dissatisfaction among the employees as company policies was ranking second. Motivation was the third problem. The fourth was staff turnover, and supplies and materials was considered last biggest area among the five.

In 1995, when the freeze was over, finance and company policies were no longer the biggest problems. Instead, the top issue that most employees felt that it had become intense was the high rate of staff turnover. From

Stubblebine's research, roughly 65% of employees resigned before they had completed a year of work; as a result, this had created adverse effects on training of new staff. The second biggest problem was motivation. Declining in motivation could be associated with a decrease in factor 3- Rewards for Good Decisions. Adequate training to do job was considered the forth problem area. The logical explanation for this would be the discontinue of Quality Topics Training Programs in 1995. Guest complaint was the fifth problem area.

In 1996, staff turnover had still remained in the top of all five problem areas. Finance had moved up from third in 1995 to the second biggest problem with the mean of 1.623. Motivation, on the other hand, went down to the third biggest problem. Supplies and materials was perceived to be the fourth of most concern area, and adequate training to do job ranked fifth. Again, a continuing of staff turnover was not only cost the hotel's financial to increase, but also brought down the employees' motivation to do quality work. Continuing to decline in factor 1 (Input), factor 2 (Problem Id), factor 3 (Rewards), factor 4 (Teamwork), factor 5 (Politics), and factor 6 (Resource) would only result in a higher mean in all problem areas.

Strategic and Operational Decision

The strategic decisions given in the survey are long term options in which an employee made in order to fulfill the need for a hotel as a whole. The operational decisions, on the other hand, tend to be short term, quickly response to problems that occurred at a particular moment in time. The numbers of people who answered on this part of the questionnaire were 27 out of the possible 40. From 27 appropriately answer questions, nineteen answers were operational and eight answers were strategic.

The data from part I listed in Table 12 which separates the strategic and operational decisions made by the participants within each department. The four different department categories are Executive Office, Room division, Food & Beverage, and Engineer & Security.

Table 11

Summary of Decision Provided

Executive Office (N = 7)

Operational

- Changed a group meeting space to a larger one due to increase guests.
- Discounted an overnight sleeping room to a potential long-term guest.
- Comped a guest with a meal to make up for television's problems.
- Comped a guest with gift certificate for an unsatisfied service.
- Decided to have Managers worked 6 day-week in order to take care a busy business.

Strategic

- Updated the Emergency Plans and stored it in a disk for easy editing in the future and sharing with other properties.
- Changed the processes in the way check are processed through the Front Desk.

Table 11 - Continued

***Room Division* (N = 5)**

Operational

- Comped a room due to mix up in booking and, as a result, had to use a parlor because all rooms were full.
- Gave discount rate to a frequent guest when Reservation refused in order to maintain good relationship and continue the business.
Gave a full turn down for a guest after requested even though the guest was not supposed to received one.
- Comped a guest with gift certificate due to broken heater.
- Upgraded a guest to a better room and comped food to make up for many problems in the old room.

***Engineer & Security* (N = 3)**

Operational

- Refused to change a guest's television when the old one was still good.
- Decided to replace the entrance door with new one.

Strategic

- Buildded storage cabinet in order to properly stored tools. It save time and many steps in searching and working.

Table 11 - Continued

***Food and Beverage* (N = 12)**

Operational

- Comped a meal to a guest for an unhappy meal.
- Reduced the penalty fee to 1/2 in order to keep the client with the hotel.
- Increasing production due to increase in customers for party.
- Replaced a food item that was not fresh with a different kind of fresh one.
- Confirmed a menu prices for a wedding
- Plated a particular dinner in a new way to make it more attracting and interesting.
- Stayed longer to help out a co-worker who had some difficulties with a job.

Strategic

- Changing Coffee Brand and equipment through out the hotel.
- Changing Menu items due to similarity.
- Implementing a standard sliding scale in all contracts and providing a minimum for W/R's.
- Changed the food product for a better one.
- Adjusting room set up to suite with the clients' needs

CHAPTER IV

CONCLUSION AND RECOMMENDATION

Boone and Kilmann's 6 factors that constitute the structures and processes that support organizational decision making differed in many cases between 1994 and 1996, and 1995 and 1996.

THE SIX FACTORS

1994 and 1996

Twenty-six comparisons were found to have a statistically significant difference with P-values between 0.10 and 0.01.

a) Factor 5-Bureaucratic Blocks and Politics shows eight significant changes in the categories.

1. Associates
2. Males
3. Part-time employees
4. Number of years working in the hotel industry
(Under 1 year)
5. Number of years working in the hotel industry
(1 to 3 year)
6. Number of years working at Marriott Thruway
(Under 1 year)

8. Number of years at current position (4 to 7 years)

There was a significant decrease in the means from seven out of these eight cases. It showed an improvement in the employees perception that the processes which determine how a decision is going to be made are easier. Therefore, this shows a decreased resistance to change from 1994.

On the contrary, the only category that showed an increase in the Bureaucratic Blocks and Politics was among the employees who have worked 1 to 3 years in the hotel industry. This group of employees perceived the processes for making effective decision to be more difficult than before. It is possible that these young workers were first taught with the Quality training in 1994. Therefore, it is logical that the proper standard has decreased over the past two years due to the discontinue of those training.

b) Factor 4-Teams and Use of Group Works-displays five significant changes in the categories.

1. Number of years working in the hotel industry
(4 to 7 years)
2. Number of years working in the surveyed hotel
(Under 1 year)
4. Number of years working at the Marriott Thruway
hotel (1 to 3 years)
5. Number of years working at the current position
(Under 1 year)

6. Number of years working at the current position
(1 to 3 years)

Among the six categories, three of them represent the older workers who have worked in the hotel industry for 4 to 7 years and 1 to 3 years at their current position at the Marriott Thruway hotel. The older employees view the teams and group efforts to have dropped from 1994. This shows a negative sign because a decreased use of teams and group efforts meant the employees are slowly moving away from the TQM. The lack of team efforts can relate back to the absence of quality training from 1995.

The other two categories represent the younger employees who have worked under 1 year at their current position at the Marriott Thruway hotel. These younger employees, on the other hand, perceive the use of teams and group efforts to have increase in the environment. It is logical that the younger employees had not experienced in any form of training prior to being employ at the Marriott Thruway hotel. Therefore, the teams and use of group efforts that exist in the hotel have set a positive environment for them.

c) Factor 2,3, and 4 showed four significant changes in the categories.

Factor 2-Problem Identifications & Organization changes significantly in the following areas.

1. Associates
2. Part-time employees
3. Number of years working in the hotel industry
(4 to 7 years)
4. Department (Food and Beverage)

There is an increase in three instances (associates, part-time, and F&B) in factor 2. This shows a positive sign that an improvement was made in the structures such as the appropriate use of skills and the reliability of information when making a decision. Another instance shows a decline in the means from 1994 among the group of 4 to 7 years in the industry. Perhaps, the employees may need more training to identify problem better.

Factor 3-Rewards for Good Decision-changes significantly in the following categories.

1. Age (25 and Under)
2. Number of years working in the hotel industry
(1 to 3 years)
3. Number of years working at the Marriott Thruway hotel (1 to 3 years)
4. Number of years at the current position

(1 to 3 years)

There is a decrease in factor 3 in each instances showing a decrease in a positive reinforcement to do a good job in the younger workers. A declined in the means for this factor shows a decrease in the motivation to perform work. It is important for the hotel to take notice in their employees' good work and use rewards as a form of appreciation and reinforcement.

Factor 6-Resource Adequacy-shows a significant difference in the following areas.

1. Part-time employees
2. Number of years working at the Marriott Thruway hotel (8 to 11 years)
3. Number of years at the current position (4 to 7 years)
4. Number of Years at the current position (8 to 11 years)

In 8 to 11 years at the hotel and 4 to 11 years at the current position categories, the employees among these groups feel that the resources that are need to do their job are less available to them than in 1994. This may result from the lack of replacing and repairing equipment when needed. A lack of resource adequacy can create a bad effect

on the guest if the resources to serve the guest is not available. The part-time employees, on the contrary, view the resources to have been more available to them than 1994.

d) Factor 1-Multiple Inputs and Alternatives-shows a significant changes on the part-time employees.

Factor 1 is perceived better in 1996 by showing an increase in the mean. This shows that the part-time employees feel that their says in how a decision is made are being improve.

1995 and 1996

Eighteen comparisons were found to have statistically significant differences with p-values between 0.10 and 0.01.

a) Factor 2-Problem Identification and Organization-shows six significant changes in the categories.

1. General Manager/Directors/Managers/Supervisors
2. Associates
3. Male employees
4. Part-time employees
5. Age (36 to 45 years)
6. Number of years working at the Marriott Thruway hotel (8 to 11 years)

There is an increase in factor 2 in five categories: associates, male and part-time employees, 36 to 45 years of age, and 8 to 11 years working at the hotel. An increase in the mean shows that the employees feel that the processes for identifying problem have been better.

At the same time, there is a decrease in the mean among the management. The reason for this may be the turnovers of the upper management from 1994 and the discontinue of the Quality training in 1995.

b) Factor 3,5, and 6 displays three significant differences in the areas.

Factor 3-Rewards for Good Decision-changes significantly in these following areas.

1. Age (25 and Under)
2. Number of years working in the hotel industry
(1 to 3 years)
3. Number of years working at the Marriott Thruway hotel

The above categories show that the younger employees feel that the rewards for their good performance on the job have declined from 1995. This is a warning sign because employees who have less and less motivation or appreciation are likely to perform poorly on the job.

Factor 5-Bureaucratic Blocks and Politics exhibits a difference in these following categories.

1. Number of years working at the industry
(1 to 3 years)
2. Number of years working at the Marriott Thruway
hotel (1 to 3 years)
3. Department (Engineer and Security)

There is an increase in factor 5 in two instances showing an increase resistance to change from 1995. The two categories are the employees who have worked 1 to 3 years in the industry and at the Marriott Thruway hotel. The reason for this may be link with the decrease in team and group efforts among the younger employees from 1995. Another important reason is the lack of Quality training due to the discontinue in 1995.

Engineer and Security department's employees seem to feel differently as the means in factor 5 shows a decrease from 1995. The employees feel that the processes that determine how a decision is going to be made are perceived to be easier.

Factor 6-Resource Adequacy-changes significantly in this following areas.

1. Part-time employees
2. Age (56 & Over)
3. Number of years working at the Marriott Thruway hotel (8 to 11 years)

The part-time employees and employees who have worked 8 to 11 years at the hotel feel positive about the resources that are provided for them to do their job as the means increased from 1995. At the same time, the employees who are 56 and older feel that the resources are not readily available for them to do the job as the means declined from 1995 to 1996.

c) Factor 1-Multiple Inputs and Organization-displays two significant differences in the areas.

1. Part-time employees
2. Number of years working at the Marriott Thruway hotel (8 to 11 years)

Both cases showed an increase in the means from 1995 to 1996. It is an improvement and a positive sign that the employees feel that they have a say in how a decision is made.

d) Factor 4-Use of Group Efforts-shows a significant change among the employees who have worked 1 to 3 years in the hotel industry

Factor 4 is perceived to decline in 1996 as the mean decreased. This decrease shows similarity with factor 5 because the same group of employees also feel that making decision is a difficult process than before. It is possible that the new employees are not well familiar with the decision making processes at the Marriott Thruway and, thus, feel alienated from the older employees. And again, the important reason is due to a lack of Quality training that was discontinued in 1995.

TRAINING IN QUALITY TOPIC AREAS

The training in quality topic areas such as TQM, team work, decision making, and guest service were no longer give to the employees since 1995. The poor results in many categories had clearly indicated that lacking of the quality training was the cause. Therefore, continuous training is the important key to the achievement of quality.

CLOSING REMARKS

In conclusion, the perceived differences among the employees at the surveyed hotel were identified by using Boone and Kilmann's "Organizational Team Survey." The six factors that effect the decision making structures and processes detected a change between 1994 and 1996. Therefore, the hypothesis stated that the structures and processes that support organizational decision making will differ between 1994 and 1996 is found to be true in 26 out of 174 demographic areas. They differed in the hierarchical levels and the demographic information.

The overall trend in the means between these two years exhibits a decline in the means in 105 areas while showing an improve in 69 areas. Factor 3-Rewards for Good Decision is perceived by most employees to be the most negative factor means trend as it shows a decrease in 21 areas (70%) from 1994 to 1996. Following factor 3 are factor 6-Resource Adequacies-with a drop in 19 areas (63%), factor 1-Inputs and Alternatives-with a decline in 16 areas (53%), factor 4-Use of Group Efforts-with a decrease in 16 areas, and factor 2-Problem Identification-with a down in 14 areas (46%). The only positive factor means trend is seen in factor 5-

Bureaucratic Blocks and Politics with an improve in 19 areas (63%).

The second hypothesis stated that the structures and processes that support organizational decision making will differ from 1995 to 1996 is also found to be true with regards to 18 out of the possible 174 demographic areas.

The overall trend of the means for these two years exhibits a decrease in 91 areas while showing an improve progress in 83 areas. Factor 3-Rewards and Factor 6-Resources are being perceived as the most decreased factors with a drop in 17 areas (56%). Next, factor 4-Teams and factor 1-Inputs display a decrease in 15 areas (50%). Lastly, factor 2-Problem Id-shows a decline in 11 areas (36%). The only positive factor means trend is factor 5-Politics shows a decrease in 14 areas (46%).

The logical explanation to the declining of many factors is due to the lack of continual quality topic training. The results have show that between 1994 and 1996 results, the number of decreased categories is higher than those from 1995 to 1996. Evidently many employees feel that factor 1, 2, 3, 4, and 6 have gone down from 1994 to 1996.

However, factor 5-Bureaucratic Blocks and Politics seem to be keeping a good progress in the employees' perception as 8 significant differences shows a positive change between 1994 and 1996.

Since 1994 is the benchmark year for this case study, I strongly recommend the hotel to reinstate the quality topic training program. The absence of the training will cause further decline in not only the employees' motivation but also their quality knowledge to perform an exceptional job. It is importance to remember that a continuous improvement means a continuous changing in the systems. Therefore, aside from putting the training program back, I would like to suggest the hotel to review its reward system as well. Further study should be done by using the Organizational Team Survey at the sample hotel. This would allow for further research into the trends that could be use to persuade the management to reinstate quality training programs.

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APPENDIX A

Questionnaire: Organizational Team Survey

and

The Hotel Reader Board Announcement of Survey

R. THE MARRIOTT THRUWAY HOTEL

L. MEASUREMENT OF THE TEAM DECISION MAKING ENVIRONMENT T.

©1995 Edward Stockham Ph.D.

Note To Participant: Participation in this study is voluntary. All specific information collected in this survey will be seen only by the researcher, Ed Stockham Ph.D. A summary of findings will be reported to the management of Marriott Airport Hotel.

This survey is conducted by :

Edward Stockham, Ph.D.
Food, Hotel and Travel Management
Rochester Institute of Technology

Part I

Before answering the questions on this survey (Part II), please think about a recent work related decision you made either alone or with a group; then, provide a brief description (one sentence or phrase) of that decision below. Any decision made by you alone or in a group, (such as comping a room or meal, setting up a room or banquet differently, changing work schedules, buying supplies, etc.), regardless of its success, is okay to use.

Write the description in the space below –

Use this decision as a point-of-reference when you answer the questions on the pages that follow.

(Permission to use the 32 items in Part II was granted to E. Stockham by L. Boone, Business Research Institute.)

Part II

INSTRUCTIONS: Keeping the decision you described above in mind, please read the following statements. Then decide to what extent you agree or disagree with each statement. Circle the response that best describes what you think. Please answer all of the items.

Circle: NA = not applicable; SD = strongly disagree; D = disagree; U = uncertain; A = agree; SA = strongly agree.

1. Decision makers have adequate access to equipment like calculators, computers, telephone, kitchen equipment, carts, tools, etc. to allow them to do good work.	NA	SD	D	U	A	SA
2. People who offer good ideas are fairly rewarded.	NA	SD	D	U	A	SA
3. Decision makers want to hear different points of view.	NA	SD	D	U	A	SA
4. Management provides enough support to carry out decisions.	NA	SD	D	U	A	SA
5. People involved in decisions make sure they identify the real (right) problem.	NA	SD	D	U	A	SA
6. It is easy to get things done because decision makers know who is in charge and who to ask for help.	NA	SD	D	U	A	SA
7. People working on problems have the skills needed to solve them.	NA	SD	D	U	A	SA
8. There is a lot of "red tape" to go through before anything can be accomplished..	NA	SD	D	U	A	SA
9. People who make good decisions receive the rewards they deserve.	NA	SD	D	U	A	SA
10. Decision makers have access to relevant information from all parts of the hotel.	NA	SD	D	U	A	SA
11. The equipment (calculators, computers, tools, video and conferencing systems, etc.) used to aid decision making in this hotel works reliably.	NA	SD	D	U	A	SA
12. One or a few people dominate decisions in this hotel.	NA	SD	D	U	A	SA
13. This hotel has good ways to measure the performance of its members.	NA	SD	D	U	A	SA
14. Decision makers appreciate and take advantage of each others' differences, strengths, and unique capabilities.	NA	SD	D	U	A	SA
15. Decisions are usually made by individuals, not teams of people in this hotel.	NA	SD	D	U	A	SA
16. The reward system is designed to benefit members who solve the hotel's problems.	NA	SD	D	U	A	SA
17. There are not enough physical resources such as computing equipment, office space, communication systems, supplies, etc. to support good decision making.	NA	SD	D	U	A	SA
18. There are too many policies and procedures controlling decisions.	NA	SD	D	U	A	SA
19. Employees are encouraged to try new ideas in this hotel.	NA	SD	D	U	A	SA
20. Changes are usually opposed in this hotel because they cost too much.	NA	SD	D	U	A	SA
21. This hotel often uses special groups like project teams, task forces and work groups to address problems that sometimes come up.	NA	SD	D	U	A	SA
22. Adequate rewards are provided to encourage employees to offer new ideas.	NA	SD	D	U	A	SA

Circle: NA= not applicable; SD = strongly disagree; D = disagree; U = uncertain;
A = agree; SA = strongly agree.

23. Information about a problem is obtained from many different sources.	NA	SD	D	U	A	SA
24. Information about problems is accurate.	NA	SD	D	U	A	SA
25. There is a lot of political activity when decisions are made.	NA	SD	D	U	A	SA
26. Clear objectives are set for decisions.	NA	SD	D	U	A	SA
27. Decision makers are willing to take some risks.	NA	SD	D	U	A	SA
28. Associates feel free to disagree with management.	NA	SD	D	U	A	SA
29. People are encouraged to discuss problems with other hotel employees when making decisions.	NA	SD	D	U	A	SA
30. There are a few powerful people in this company who always influence decisions.	NA	SD	D	U	A	SA
31. Many possible solutions to problems are generated and considered.	NA	SD	D	U	A	SA
32. Important decisions are usually made by upper management only.	NA	SD	D	U	A	SA

Part III: Rating of Problem Areas

Based on your past experience, please pick the top 5 problem areas in your operation from the list below and rank those 5 areas from 1 (most probable area) to 5 (the fifth probable area).

- () Company Policies or Strategies
- () Human Resources (Personnel)
- () Finance and Budgeting
- () Guest Complaints
- () Adequate Training to do the Job
- () Enough Supplies and Materials to do Job
- () Motivation to do Job better
- () Staff Turnover
- () Computer System
- () Equipment like carpet sweepers, HVAC or kitchen equipment.
- () Good Knowledge in Job
- () Safety in Working Place
- () Paper Work

Part IV: Additional Information for Data Analysis

The information you provide below will be held in strictest confidence and used only for data analysis. We truly appreciate your voluntary participation in this assessment of the hotel's workplace environment.

Sex: Female ☐ Male ☐

Age: Under 25 ☐ 26-35 ☐ 36-45 ☐ 45-55 ☐ over 56 ☐

Number of Years Working in Hotel Industry: 0-3 ☐ 4-6 ☐ 7-9 ☐ 10-12 ☐ over 13 ☐

Number of Years Working in this Hotel: 0-3 ☐ 4-6 ☐ 7-9 ☐ 10-12 ☐ over 13 ☐

Number of Years Working in Current Position: 0-3 ☐ 4-6 ☐ 7-9 ☐ 10-12 ☐ over 13 ☐

Title of your Current Position is: _____.

Name of your Current Department: _____.

You work: Full Time ☐ or Part Time ☐.

We appreciate your voluntary participation in this study conducted by Rochester Institute of Technology, Food, Hotel and Travel Management Programs.

DAILY EVENT SCHEDULE
FRIDAY, APRIL 19, 1996

CON-AGRA BUFFALO DISTRICT MEETING

9:00am-5:00pm	Meeting	Council
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EJD - HUMAN RESOURCES
RIT SURVEY - AND PAY CHECK PICK UP

8:00am-Evening	Survey - Pay Check Pick Up	Salon A
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MERCHANTS INSURANCE ADVISORY COUNCIL

9:00am-5:00pm	Meeting	Boardroom
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NYS SCHOOL NURSES ASSOCIATION

12:00pm-9:00am	Registration	Front Lobby
9:00am-5:00pm	Board Meeting	Seneca
12:00pm	Lunch On Own	Petals
2:00pm-5:00pm	Meeting	Onondaga
7:45pm-8:45pm	Opening General Session	Salon C,D,E
9:00pm-10:00pm	Walk Down Memory Lane	Salon C,D,E

ST. MARY'S HOSPITAL RECOGNITION DINNER

6:00pm-7:00pm	Reception	Pre-Court
7:00pm-12:00am	Dinner/Dance	Iroquois Ballroom

UB DENTAL

8:00am-8:30am	Registration	Outside Cayuga
8:30am-5:00pm	Meeting	Cayuga
12:00pm-1:00pm	Lunch	Mohawk

APPENDIX B

Detailed Tables for t-tests

(Table 2 through 9)

from

1994, 1995, and 1996

Detailed Table 2 - Comparison of Factors Means by Type of Position

GM/Dir/Man/Sup		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	20	3.2063			
	vs. 1996	22	3.1307	0.39	36.92	0.698
	1995	20	3.3188			
	vs. 1996	22	3.1309	0.93	35.61	0.356
<u>Problem Id</u>	1994	21	3.0397			
	vs. 1996	21	2.9286	0.47	38.97	0.643
	1995	22	3.2652			
	vs. 1996	21	2.9286	1.72	38.41	0.093*
<u>Rewards</u>	1994	21	2.6762			
	vs. 1996	20	2.5200	0.72	38.77	0.478
	1995	22	2.8545			
	vs. 1996	20	2.5200	1.62	39.91	0.114
<u>Teams</u>	1994	21	2.5317			
	vs. 1996	22	2.3864	0.79	40.90	0.435
	1995	21	2.5476			
	vs. 1996	22	2.3864	0.83	40.73	0.412
<u>Politics</u>	1994	20	3.8000			
	vs. 1996	21	3.7619	0.15	38.39	0.880
	1995	22	3.8068			
	vs. 1996	21	3.7619	0.19	40.93	0.851
<u>Resource</u>	1994	21	3.3175			
	vs. 1996	22	3.0758	0.82	40.73	0.417
	1995	23	3.4348			
	vs. 1996	22	3.0758	1.25	41.53	0.218

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 2 - Continued

ASSOCIATES		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	60	3.1917			
	vs. 1996	49	3.3061	-0.84	104.02	0.404
	1995	81	3.1065			
	vs. 1996	49	3.3061	-1.57	102.47	0.119
<u>Problem Id</u>	1994	62	3.2151			
	vs. 1996	50	3.4267	-1.72	109.99	0.089*
	1995	81	3.1029			
	vs. 1996	50	3.4267	-2.95	111.75	0.004***
<u>Rewards</u>	1994	62	2.9129			
	vs. 1996	49	2.9429	-0.20	105.79	0.842
	1995	82	2.8854			
	vs. 1996	49	2.9429	-0.40	109.66	0.689
<u>Teams</u>	1994	60	2.6750			
	vs. 1996	50	2.8833	-1.48	99.89	0.142
	1995	79	2.7194			
	vs. 1996	50	2.8833	-1.17	105.98	0.244
<u>Politics</u>	1994	63	3.4524			
	vs. 1996	49	3.0816	2.21	107.82	0.029**
	1995	82	3.0762			
	vs. 1996	49	3.0816	-0.03	106.90	0.972
<u>Resource</u>	1994	62	3.3546			
	vs. 1996	50	3.2867	0.39	109.52	0.698
	1995	83	3.2289			
	vs. 1996	50	3.2867	-0.39	96.59	0.699

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 3 - Comparison of Factors Means by Sex of Employee

FEMALE		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	44	3.2216			
	vs. 1996	37	3.0777	0.87	73.86	0.387
	1995	47	3.0957			
	vs. 1996	37	3.0777	0.11	71.45	0.910
<u>Problem Id</u>	1994	44	3.1667			
	vs. 1996	36	3.0648	0.63	76.65	0.531
	1995	50	3.1200			
	vs. 1996	36	3.0648	0.37	72.96	0.712
<u>Rewards</u>	1994	45	2.9111			
	vs. 1996	35	2.7086	1.27	71.33	0.207
	1995	50	2.7800			
	vs. 1996	35	2.7086	0.45	73.92	0.656
<u>Teams</u>	1994	43	2.6628			
	vs. 1996	37	2.7117	-0.34	73.95	0.734
	1995	47	2.5851			
	vs. 1996	37	2.7117	-0.85	79.18	0.400
<u>Politics</u>	1994	44	3.4716			
	vs. 1996	36	3.4167	0.31	77.17	0.755
	1995	50	3.2700			
	vs. 1996	36	3.4167	-0.91	83.07	0.366
<u>Resource</u>	1994	44	3.4394			
	vs. 1996	37	3.1712	1.41	78.98	0.163
	1995	51	3.2026			
	vs. 1996	37	3.1712	0.18	82.28	0.859

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 3 - Continued

MALE		<i>sample size</i> (N=)	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	39	3.1891			
	vs. 1996	45	3.3361	-0.99	71.08	0.324
	1995	55	3.1864			
	vs. 1996	45	3.3361	-1.13	97.73	0.263
<u>Problem Id</u>	1994	42	3.1944			
	vs. 1996	45	3.4000	-1.39	78.14	0.169
	1995	54	3.1454			
	vs. 1996	45	3.4000	-2.09	94.07	0.040**
<u>Rewards</u>	1994	41	2.8146			
	vs. 1996	45	2.8933	-0.42	80.43	0.676
	1995	55	2.9600			
	vs. 1996	45	2.8933	0.40	96.25	0.694
<u>Teams</u>	1994	41	2.6423			
	vs. 1996	46	2.7029	-0.38	84.99	0.708
	1995	54	2.7407			
	vs. 1996	46	2.7029	0.23	96.53	0.816
<u>Politics</u>	1994	42	3.5893			
	vs. 1996	45	3.1944	1.98	84.81	0.051*
	1995	55	3.1909			
	vs. 1996	45	3.1944	-0.02	95.90	0.985
<u>Resource</u>	1994	42	3.2698			
	vs. 1996	46	3.3043	-0.17	84.29	0.865
	1995	56	3.3393			
	vs. 1996	46	3.3043	0.21	86.09	0.837

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 4 - Comparison of Factors Means by Type of Employment

FULL TIME		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	63	3.1885			
	vs. 1996	71	3.1496	0.31	123.76	0.757
	1995	81	3.1744			
	vs. 1996	71	3.1496	0.22	149.82	0.829
<u>Problem Id</u>	1994	64	3.1224			
	vs. 1996	70	3.1524	-0.24	121.01	0.810
	1995	85	3.1314			
	vs. 1996	70	3.1524	-0.20	147.71	0.838
<u>Rewards</u>	1994	64	2.8125			
	vs. 1996	69	2.7333	0.58	129.32	0.561
	1995	84	2.8548			
	vs. 1996	69	2.7333	0.96	147.39	0.341
<u>Teams</u>	1994	64	2.6406			
	vs. 1996	72	2.6644	-0.20	133.36	0.839
	1995	80	2.5729			
	vs. 1996	72	2.6644	-0.76	148.27	0.449
<u>Politics</u>	1994	64	3.5742			
	vs. 1996	70	3.3571	1.38	127.22	0.171
	1995	84	3.2708			
	vs. 1996	70	3.3571	-0.60	150.53	0.552
<u>Resource</u>	1994	64	3.3854			
	vs. 1996	72	3.1528	1.53	131.39	0.130
	1995	86	3.2713			
	vs. 1996	72	3.1528	0.87	147.53	0.386

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 4 - Continued

PART TIME		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	19	3.2434			
	vs. 1996	11	3.6705	-1.92	20.12	0.069*
	1995	20	3.0500			
	vs. 1996	11	3.6705	-2.77	20.70	0.012**
<u>Problem Id</u>	1994	21	3.3571			
	vs. 1996	11	3.8788	-2.56	24.87	0.017**
	1995	18	3.1667			
	vs. 1996	11	3.8788	-3.40	24.65	0.002***
<u>Rewards</u>	1994	21	3.0190			
	vs. 1996	11	3.3091	-1.08	24.83	0.290
	1995	20	3.0100			
	vs. 1996	11	3.3091	-1.10	25.18	0.284
<u>Teams</u>	1994	19	2.6842			
	vs. 1996	11	2.9848	-1.11	25.43	0.276
	1995	20	3.0500			
	vs. 1996	11	2.9848	0.25	24.98	0.807
<u>Politics</u>	1994	21	3.3929			
	vs. 1996	11	2.8864	2.34	29.49	0.027**
	1995	20	3.0000			
	vs. 1996	11	2.8864	0.50	28.94	0.618
<u>Resource</u>	1994	21	3.2857			
	vs. 1996	11	3.8485	-2.08	25.97	0.048**
	1995	20	3.3000			
	vs. 1996	11	3.8485	-2.94	28.31	0.010***

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 5 - Comparison of Factors Means by Age of Employee

25 & UNDER		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	37	3.2162			
	vs. 1996	21	3.0179	0.97	38.56	0.336
	1995	44	3.2159			
	vs. 1996	21	3.0179	1.06	30.15	0.299
<u>Problem Id</u>	1994	39	3.1838			
	vs. 1996	21	3.2619	-0.40	34.91	0.688
	1995	43	3.1744			
	vs. 1996	21	3.2619	-0.47	30.48	0.640
<u>Rewards</u>	1994	38	2.9105			
	vs. 1996	20	2.4700	1.90	36.35	0.066*
	1995	44	2.9273			
	vs. 1996	20	2.4700	2.02	34.08	0.051*
<u>Teams</u>	1994	37	2.6216			
	vs. 1996	21	2.7698	-0.70	31.72	0.489
	1995	43	2.6822			
	vs. 1996	21	2.7698	-0.39	37.07	0.695
<u>Politics</u>	1994	38	3.5263			
	vs. 1996	21	3.2857	1.00	40.57	0.323
	1995	43	3.2384			
	vs. 1996	21	3.2857	-0.21	35.27	0.837
<u>Resource</u>	1994	39	3.3333			
	vs. 1996	21	3.1746	0.67	47.64	0.504
	1995	45	3.3556			
	vs. 1996	21	3.1746	0.81	43.73	0.424

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 5 - Continued

26 TO 35		<i>sample size</i> (N=)	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	25	3.0650			
	vs. 1996	32	3.1797	-0.62	45.34	0.537
	1995	32	3.0352			
	vs. 1996	32	3.1797	-0.82	57.65	0.418
<u>Problem Id</u>	1994	25	3.0067			
	vs. 1996	31	3.1667	-0.85	50.50	0.398
	1995	32	3.0885			
	vs. 1996	31	3.1667	-0.47	60.41	0.640
<u>Rewards</u>	1994	26	2.6538			
	vs. 1996	32	2.8750	-1.17	51.05	0.247
	1995	34	2.8529			
	vs. 1996	32	2.8750	-0.12	63.57	0.903
<u>Teams</u>	1994	26	2.4615			
	vs. 1996	32	2.5573	-0.60	55.94	0.549
	1995	32	2.7071			
	vs. 1996	32	2.5573	0.88	62.78	0.385
<u>Politics</u>	1994	26	3.8558			
	vs. 1996	32	3.5859	1.37	49.11	0.178
	1995	34	3.2500			
	vs. 1996	32	3.5859	-1.64	59.04	0.107
<u>Resource</u>	1994	25	3.2400			
	vs. 1996	32	3.1979	0.18	48.83	0.862
	1995	33	3.3636			
	vs. 1996	32	3.1979	0.88	58.75	0.384

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 5 - Continued

36 TO 45		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	12	3.3333			
	vs. 1996	14	3.3929	-0.24	22.19	0.810
	1995	15	2.9750			
	vs. 1996	14	3.3929	-1.67	25.97	0.106
<u>Problem Id</u>	1994	12	3.1806			
	vs. 1996	14	3.3929	-0.71	16.28	0.489
	1995	17	2.9902			
	vs. 1996	14	3.3929	-1.81	27.98	0.082*
<u>Rewards</u>	1994	12	2.8500			
	vs. 1996	13	2.8308	0.06	19.80	0.951
	1995	14	2.5286			
	vs. 1996	13	2.8308	-1.23	24.90	0.229
<u>Teams</u>	1994	12	2.6944			
	vs. 1996	15	2.6000	0.34	22.09	0.740
	1995	14	2.4762			
	vs. 1996	15	2.6000	-0.44	25.08	0.664
<u>Politics</u>	1994	12	3.3333			
	vs. 1996	14	3.2500	0.23	19.69	0.819
	1995	15	3.7333			
	vs. 1996	14	3.2500	1.65	26.97	0.111
<u>Resource</u>	1994	12	3.5833			
	vs. 1996	15	3.2667	0.88	25.00	0.387
	1995	17	3.1961			
	vs. 1996	15	3.2667	-0.20	27.78	0.839

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 5 - Continued

46 TO 55		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	6	3.0208			
	vs. 1996	8	3.3906	-0.80	11.99	0.438
	1995	7	3.7679			
	vs. 1996	8	3.3906	0.78	13.00	0.450
<u>Problem Id</u>	1994	6	3.4722			
	vs. 1996	8	3.0833	0.69	8.84	0.507
	1995	9	3.3889			
	vs. 1996	8	3.0833	0.75	14.60	0.465
<u>Rewards</u>	1994	6	2.9333			
	vs. 1996	8	2.7250	0.46	11.17	0.655
	1995	9	3.2667			
	vs. 1996	8	2.7250	1.11	14.68	0.283
<u>Teams</u>	1994	6	3.0833			
	vs. 1996	8	2.9792	0.26	11.85	0.798
	1995	7	2.5952			
	vs. 1996	8	2.9792	-0.82	12.72	0.425
<u>Politics</u>	1994	6	2.8333			
	vs. 1996	7	2.9643	-0.26	10.99	0.797
	1995	9	2.3889			
	vs. 1996	7	2.9643	-1.14	13.57	0.275
<u>Resource</u>	1994	6	3.1111			
	vs. 1996	8	3.1250	-0.02	8.98	0.983
	1995	8	2.7500			
	vs. 1996	8	3.1250	-0.97	10.88	0.353

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 5 - Continued

56 & OVER		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	3	4.1250			
	vs. 1996	5	3.5000	1.51	3.28	0.220
	1995	4	2.7813			
	vs. 1996	5	3.5000	-1.95	5.38	0.104
<u>Problem Id</u>	1994	4	3.7917			
	vs. 1996	5	3.5333	0.64	3.74	0.559
	1995	3	3.0556			
	vs. 1996	5	3.5333	-1.42	2.76	0.258
<u>Rewards</u>	1994	4	3.7500			
	vs. 1996	5	3.6400	0.29	5.33	0.786
	1995	4	2.8000			
	vs. 1996	5	3.6400	-1.52	6.33	0.177
<u>Teams</u>	1994	3	3.6667			
	vs. 1996	5	3.3000	0.64	2.57	0.574
	1995	4	3.0000			
	vs. 1996	5	3.3000	-0.74	4.85	0.494
<u>Politics</u>	1994	4	3.0625			
	vs. 1996	5	2.3000	1.16	5.49	0.293
	1995	4	2.9375			
	vs. 1996	5	2.3000	1.24	6.89	0.254
<u>Resource</u>	1994	4	4.0000			
	vs. 1996	5	3.8000	0.47	5.22	0.657
	1995	4	3.0000			
	vs. 1996	5	2.8000	-3.03	6.32	0.22**

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 6 -Comparison of Factors Means by Years Working in Hotel Industry

UNDER 1		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	10	3.1500			
	vs. 1996	35	3.3500	-1.28	31.71	0.210
	1995	22	3.2302			
	vs. 1996	35	3.3500	-0.82	43.43	0.416
<u>Problem Id</u>	1994	10	3.1333			
	vs. 1996	35	3.3619	-1.30	25.16	0.207
	1995	21	3.2302			
	vs. 1996	35	3.3619	-0.72	45.10	0.476
<u>Rewards</u>	1994	10	2.9600			
	vs. 1996	34	3.0235	-0.23	17.80	0.818
	1995	21	3.0000			
	vs. 1996	34	3.0235	-0.09	38.59	0.930
<u>Teams</u>	1994	10	2.5833			
	vs. 1996	35	2.9571	-1.58	15.91	0.134
	1995	21	3.0000			
	vs. 1996	35	2.9571	0.20	37.89	0.843
<u>Politics</u>	1994	10	3.5750			
	vs. 1996	35	3.0071	2.12	17.61	0.049**
	1995	22	2.8295			
	vs. 1996	35	3.0071	-0.75	44.66	0.459
<u>Resource</u>	1994	10	3.5667			
	vs. 1996	35	3.2857	1.11	17.76	0.282
	1995	21	3.3810			
	vs. 1996	39	3.2857	0.49	51.00	0.629

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 6 - Continued

1 TO 3		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	25	3.1350			
	vs. 1996	18	3.1111	0.11	40.26	0.909
	1995	29	3.2414			
	vs. 1996	18	3.1111	0.74	42.82	0.463
<u>Problem Id</u>	1994	26	3.1346			
	vs. 1996	17	3.3039	-0.81	40.48	0.425
	1995	30	3.1667			
	vs. 1996	17	3.3039	-0.75	36.50	0.458
<u>Rewards</u>	1994	26	2.8923			
	vs. 1996	17	2.5176	1.82	40.80	0.076*
	1995	30	2.9355			
	vs. 1996	17	2.5176	2.13	43.29	0.039**
<u>Teams</u>	1994	25	2.7800			
	vs. 1996	18	2.3796	1.86	36.05	0.071*
	1995	29	2.6149			
	vs. 1996	18	2.3796	1.08	38.11	0.286
<u>Politics</u>	1994	26	3.2019			
	vs. 1996	18	3.7083	-2.12	40.28	0.040**
	1995	30	3.0250			
	vs. 1996	18	3.7083	-3.25	45.92	0.002***
<u>Resource</u>	1994	26	3.3846			
	vs. 1996	18	3.6481	-1.06	41.97	0.297
	1995	30	3.3444			
	vs. 1996	18	3.6481	-1.34	44.02	0.188

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 6 - Continued

4 TO 7		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	26	3.3606			
	vs. 1996	8	3.781	1.01	11.15	0.336
	1995	25	3.1000			
	vs. 1996	8	3.0781	0.07	14.03	0.943
<u>Problem Id</u>	1994	27	3.3272			
	vs. 1996	8	2.9792	1.81	16.29	0.089*
	1995	26	3.1346			
	vs. 1996	8	2.9792	0.75	19.61	0.460
<u>Rewards</u>	1994	27	3.0519			
	vs. 1996	8	2.9750	0.41	27.65	0.682
	1995	26	2.8615			
	vs. 1996	8	2.9750	-0.56	29.89	0.580
<u>Teams</u>	1994	26	2.6090			
	vs. 1996	8	2.2708	2.51	19.80	0.021**
	1995	24	2.5486			
	vs. 1996	8	2.2708	1.46	29.76	0.156
<u>Politics</u>	1994	27	3.7870			
	vs. 1996	8	3.6563	0.45	11.17	0.663
	1995	25	3.5800			
	vs. 1996	8	3.6563	-0.25	13.13	0.807
<u>Resource</u>	1994	27	3.2593			
	vs. 1996	8	2.7500	1.62	16.01	0.125
	1995	26	3.1154			
	vs. 1996	8	2.7500	1.19	15.02	0.254

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 6 - Continued

8 TO 11		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	8	3.1406			
	vs. 1996	6	3.0208	0.25	9.01	0.804
	1995	10	2.8750			
	vs. 1996	6	3.0208	-0.32	8.36	0.756
<u>Problem Id</u>	1994	8	3.1667			
	vs. 1996	7	3.4048	-0.72	11.78	0.485
	1995	9	2.9815			
	vs. 1996	7	3.4048	-1.16	13.89	0.131
<u>Rewards</u>	1994	8	2.6250			
	vs. 1996	7	2.4286	0.62	11.47	0.550
	1995	11	2.7091			
	vs. 1996	7	2.4286	0.82	14.00	0.427
<u>Teams</u>	1994	8	2.4167			
	vs. 1996	7	3.0714	-1.62	11.77	0.132
	1995	10	2.5000			
	vs. 1996	7	3.0714	-1.48	11.22	0.166
<u>Politics</u>	1994	8	3.8125			
	vs. 1996	6	3.3333	0.95	11.33	0.361
	1995	11	3.3864			
	vs. 1996	6	3.3333	0.11	12.35	0.917
<u>Resource</u>	1994	8	3.2083			
	vs. 1996	7	2.7143	0.81	12.92	0.431
	1995	11	3.3636			
	vs. 1996	7	2.7143	1.37	11.09	0.197

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 6 - Continued

12 & OVER		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	11	3.1932			
	vs. 1996	12	3.2708	-0.24	20.12	0.816
	1995	12	3.1979			
	vs. 1996	12	3.2708	-0.27	20.89	0.792
<u>Problem Id</u>	1994	12	3.0556			
	vs. 1996	11	2.9242	0.32	20.87	0.750
	1995	14	3.0476			
	vs. 1996	11	2.9242	0.40	16.04	0.694
<u>Rewards</u>	1994	12	2.5500			
	vs. 1996	11	2.6545	-0.27	21.00	0.794
	1995	12	2.6500			
	vs. 1996	11	2.6545	-0.01	17.34	0.989
<u>Teams</u>	1994	12	2.8472			
	vs. 1996	12	2.6111	0.71	21.65	0.484
	1995	13	2.5128			
	vs. 1996	12	2.6111	-0.32	22.85	0.750
<u>Politics</u>	1994	12	3.2500			
	vs. 1996	11	3.2500	0.00	20.78	1.000
	1995	13	3.5759			
	vs. 1996	11	3.2500	0.96	21.58	0.346
<u>Resource</u>	1994	12	3.5556			
	vs. 1996	12	3.2222	0.92	21.77	0.370
	1995	14	3.3095			
	vs. 1996	12	3.2222	0.27	18.87	0.787

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 7 - Comparison of Factors Means by Years Working at Surveyed Hotel

UNDER 1		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	15	3.1250			
	vs. 1996	40	3.3500	-1.31	32.65	0.199
	1995	34	3.2721			
	vs. 1996	40	3.3500	-0.50	70.26	0.621
<u>Problem Id</u>	1994	15	3.1444			
	vs. 1996	40	3.3500	-1.18	31.35	0.245
	1995	34	3.3235			
	vs. 1996	40	3.3500	-0.18	71.74	0.858
<u>Rewards</u>	1994	15	2.8000			
	vs. 1996	39	3.0205	-0.85	25.10	0.402
	1995	34	3.0647			
	vs. 1996	39	3.0205	0.22	69.20	0.826
<u>Teams</u>	1994	15	2.4778			
	vs. 1996	40	2.9292	-2.40	30.16	0.023**
	1995	31	2.8602			
	vs. 1996	40	2.9292	-0.37	59.31	0.711
<u>Politics</u>	1994	15	3.5667			
	vs. 1996	40	3.0625	2.35	34.43	0.025**
	1995	34	2.9118			
	vs. 1996	40	3.0625	-0.71	68.23	0.478
<u>Resource</u>	1994	15	3.3778			
	vs. 1996	40	3.2917	0.31	21.46	0.763
	1995	34	3.3137			
	vs. 1996	40	3.2917	0.12	71.06	0.904

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 7 - Continued

1 TO 3		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	36	3.2604			
	vs. 1996	22	3.0625	1.02	50.84	0.313
	1995	32	3.2031			
	vs. 1996	22	3.0625	0.72	48.81	0.473
<u>Problem Id</u>	1994	39	3.1838			
	vs. 1996	22	3.2348	-0.29	54.11	0.772
	1995	33	3.0758			
	vs. 1996	22	3.2348	-0.92	50.15	0.362
<u>Rewards</u>	1994	39	2.8923			
	vs. 1996	22	2.4273	2.83	57.83	0.006***
	1995	34	2.8353			
	vs. 1996	22	2.4273	2.23	53.52	0.030**
<u>Teams</u>	1994	38	2.7719			
	vs. 1996	23	2.3913	2.12	42.00	0.040**
	1995	33	2.6414			
	vs. 1996	23	2.3913	1.30	47.16	0.199
<u>Politics</u>	1994	38	3.4671			
	vs. 1996	22	3.7500	-1.41	58.00	0.163
	1995	34	3.1397			
	vs. 1996	22	3.7500	-3.23	53.90	0.002***
<u>Resource</u>	1994	39	3.3761			
	vs. 1996	23	3.3478	0.11	49.41	0.912
	1995	33	3.4242			
	vs. 1996	23	3.3478	0.31	45.29	0.758

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 7 - Continued

4 TO 7		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	21	3.1667			
	vs. 1996	4	3.0000	0.45	4.48	0.674
	1995	25	2.9450			
	vs. 1996	4	3.0000	-0.15	4.31	0.888
<u>Problem Id</u>	1994	21	3.1825			
	vs. 1996	4	2.8750	1.40	13.33	0.186
	1995	24	3.0139			
	vs. 1996	4	2.8750	0.77	7.38	0.465
<u>Rewards</u>	1994	21	2.8952			
	vs. 1996	4	3.1000	-0.76	10.20	0.463
	1995	24	2.7333			
	vs. 1996	4	3.1000	-1.47	8.10	0.179
<u>Teams</u>	1994	20	2.4417			
	vs. 1996	4	2.4167	0.13	5.76	0.899
	1995	25	2.4400			
	vs. 1996	4	2.4167	0.10	11.44	0.921
<u>Politics</u>	1994	22	3.8182			
	vs. 1996	4	3.4375	0.96	3.79	0.394
	1995	25	3.7700			
	vs. 1996	4	3.4375	0.83	3.94	0.453
<u>Resource</u>	1994	21	3.1746			
	vs. 1996	4	2.6667	1.27	4.54	0.265
	1995	26	3.2308			
	vs. 1996	4	2.6667	1.44	4.19	0.220

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 7 - Continued

8 TO 11		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	4	3.4688			
	vs. 1996	5	3.5750	-0.40	5.45	0.701
	1995	5	2.6500			
	vs. 1996	5	3.5750	-3.38	6.74	0.013**
<u>Problem Id</u>	1994	4	3.7500			
	vs. 1996	4	3.7083	0.12	4.12	0.911
	1995	6	2.8889			
	vs. 1996	4	3.7083	-2.88	7.51	0.022**
<u>Rewards</u>	1994	4	3.0000			
	vs. 1996	4	3.0500	-0.13	5.55	0.902
	1995	6	2.8333			
	vs. 1996	4	3.0500	-0.60	5.22	0.575
<u>Teams</u>	1994	4	3.3333			
	vs. 1996	5	3.1000	0.40	5.10	0.704
	1995	5	2.7000			
	vs. 1996	5	3.0000	-0.96	7.98	0.363
<u>Politics</u>	1994	4	2.8125			
	vs. 1996	4	2.6875	0.20	4.34	0.853
	1995	5	3.0000			
	vs. 1996	4	2.6875	0.53	5.93	0.617
<u>Resource</u>	1994	4	4.6667			
	vs. 1996	5	3.6667	2.82	6.52	0.028**
	1995	6	2.7778			
	vs. 1996	5	3.6667	-2.00	9.00	0.077*

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 7 - Continued

12 & OVER		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	4	3.2188			
	vs. 1996	8	3.0000	0.40	5.41	0.705
	1995	5	3.3750			
	vs. 1996	8	3.0000	1.09	10.76	0.299
<u>Problem Id</u>	1994	4	3.0417			
	vs. 1996	8	2.7708	0.39	4.95	0.713
	1995	6	3.1111			
	vs. 1996	8	2.7708	0.74	11.92	0.472
<u>Rewards</u>	1994	4	2.9000			
	vs. 1996	8	2.4750	0.79	6.90	0.457
	1995	6	2.6000			
	vs. 1996	8	2.4750	0.31	11.32	0.762
<u>Teams</u>	1994	4	3.0417			
	vs. 1996	8	2.5000	0.93	5.41	0.390
	1995	6	2.7222			
	vs. 1996	8	2.5000	0.54	11.94	0.600
<u>Politics</u>	1994	4	2.9375			
	vs. 1996	8	3.4375	-0.72	4.50	0.507
	1995	6	3.4167			
	vs. 1996	8	3.4775	-0.04	9.71	0.969
<u>Resource</u>	1994	4	3.1667			
	vs. 1996	8	2.8333	0.65	7.07	0.537
	1995	6	3.1667			
	vs. 1996	8	2.8333	0.74	11.87	0.472

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 8 - Comparison of Factors Means by Years in Current Position

UNDER 1		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	26	3.2548			
	vs. 1996	49	3.3214	-0.40	49.51	0.689
	1995	43	3.3634			
	vs. 1996	49	3.3214	0.31	89.26	0.759
<u>Problem Id</u>	1994	26	3.1410			
	vs. 1996	50	3.3267	-1.13	49.44	0.263
	1995	45	3.3444			
	vs. 1996	50	3.3267	0.14	92.80	0.889
<u>Rewards</u>	1994	26	2.9462			
	vs. 1996	48	2.9125	0.18	55.71	0.860
	1995	44	3.0909			
	vs. 1996	48	2.9125	1.01	88.68	0.313
<u>Teams</u>	1994	26	2.5641			
	vs. 1996	50	2.8167	-1.67	64.93	0.099*
	1995	42	2.9008			
	vs. 1996	5	2.8167	0.53	86.44	0.595
<u>Politics</u>	1994	25	3.6800			
	vs. 1996	50	3.2500	2.34	62.29	0.022**
	1995	44	3.0455			
	vs. 1996	50	3.2500	-1.07	88.95	0.286
<u>Resource</u>	1994	26	3.4103			
	vs. 1996	50	3.2333	0.79	46.89	0.433
	1995	45	3.3926			
	vs. 1996	50	3.2333	0.96	92.70	0.338

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 8 - Continued

1 TO 3		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	36	3.2014			
	vs. 1996	18	3.0069	0.92	37.64	0.362
	1995	38	2.9539			
	vs. 1996	18	3.0069	-0.26	34.25	0.795
<u>Problem Id</u>	1994	38	3.1930			
	vs. 1996	17	3.0784	0.56	34.11	0.578
	1995	38	2.9211			
	vs. 1996	17	3.0784	-0.81	29.88	0.426
<u>Rewards</u>	1994	39	2.8359			
	vs. 1996	17	2.4706	2.03	42.99	0.048**
	1995	39	2.7179			
	vs. 1996	17	2.4706	1.37	43.37	0.178
<u>Teams</u>	1994	38	2.7412			
	vs. 1996	18	2.3704	1.87	31.07	0.071*
	1995	38	2.4956			
	vs. 1996	18	2.3704	0.61	34.24	0.545
<u>Politics</u>	1994	39	3.4615			
	vs. 1996	16	3.5938	-0.53	39.07	0.596
	1995	39	3.3269			
	vs. 1996	16	3.5938	-1.14	31.96	0.262
<u>Resource</u>	1994	38	3.2456			
	vs. 1996	18	3.4630	-0.82	36.31	0.415
	1995	39	3.2222			
	vs. 1996	18	3.4630	-0.94	33.56	0.353

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 8 - Continued

4 TO 7		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	12	3.1146			
	vs. 1996	13	3.1667	-0.23	7.58	0.821
	1995	13	3.0865			
	vs. 1996	3	3.1667	-0.30	11.50	0.773
<u>Problem Id</u>	1994	13	3.2308			
	vs. 1996	3	3.0556	0.74	13.34	0.472
	1995	13	3.0641			
	vs. 1996	3	3.0556	0.05	10.38	0.965
<u>Rewards</u>	1994	12	2.8667			
	vs. 1996	2	3.0000	-0.35	9.44	0.731
	1995	14	2.7286			
	vs. 1996	3	3.0000	-0.88	5.79	0.413
<u>Teams</u>	1994	11	2.3939			
	vs. 1996	3	2.8333	-1.19	2.53	0.333
	1995	13	2.3718			
	vs. 1996	3	2.8333	-1.13	3.72	0.325
<u>Politics</u>	1994	13	3.7692			
	vs. 1996	3	3.0833	2.98	6.40	0.023**
	1995	14	3.5536			
	vs. 1996	3	3.0833	1.52	12.38	0.154
<u>Resource</u>	1994	13	3.5641			
	vs. 1996	3	2.8889	2.39	13.98	0.032**
	1995	14	3.1905			
	vs. 1996	3	2.8889	1.17	14.67	0.262

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 8 - Continued

8 TO 11		sample size (N=)	mean	t-value	df	p-value
<u>Inputs</u>	1994	4	3.2188			
	vs. 1996	5	2.9250	0.52	6.67	0.618
	1995	0				
	vs. 1996	5	2.9250			
<u>Problem Id</u>	1994	4	3.4583			
	vs. 1996	4	3.0833	0.56	5.53	0.597
	1995	0				
	vs. 1996	4	3.0833			
<u>Rewards</u>	1994	4	2.8500			
	vs. 1996	5	2.5600	0.52	6.93	0.616
	1995	0				
	vs. 1996	5	2.5600			
<u>Teams</u>	1994	4	3.1667			
	vs. 1996	5	2.6000	0.89	5.81	0.408
	1995	0				
	vs. 1996	5	2.6000			
<u>Politics</u>	1994	4	3.0000			
	vs. 1996	5	3.2000	-0.30	4.46	0.780
	1995	0				
	vs. 1996	5	3.2000			
<u>Resource</u>	1994	4	4.0833			
	vs. 1996	5	3.2000	2.04	5.13	0.096*
	1995	0				
	vs. 1996	5	3.2000			

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 8 - Continued

12 & OVER		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	1	4.3750			
	vs. 1996	3	3.8333			
	1995	3	3.3750			
	vs. 1996	3	3.8333	-1.34	2.25	0.298
<u>Problem Id</u>	1994	1	4.6667			
	vs. 1996	3	3.7222			
	1995	3	3.1667			
	vs. 1996	3	3.7222	-0.82	2.03	0.496
<u>Rewards</u>	1994	1	3.8000			
	vs. 1996	3	3.3333			
	1995	3	2.9333			
	vs. 1996	3	3.3333	-0.68	3.72	0.534
<u>Teams</u>	1994	1	2.6667			
	vs. 1996	3	3.0556			
	1995	3	2.8889			
	vs. 1996	3	3.0556	-0.23	3.70	0.830
<u>Politics</u>	1994	1	2.0000			
	vs. 1996	3	2.8333			
	1995	3	2.7500			
	vs. 1996	3	2.8333	-0.16	3.56	0.883
<u>Resource</u>	1994	1	3.6667			
	vs. 1996	3	2.8889			
	1995	3	3.3333			
	vs. 1996	3	2.8889	0.55	2.00	0.635

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 9 - Comparison of Factors Means by Department

EXECUTIVE OFFICE		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	15	3.1833			
	vs. 1996	14	3.1607	0.08	26.07	0.938
	1995	14	2.9821			
	vs. 1996	14	3.1609	-0.59	25.91	0.558
<u>Problem Id</u>	1994	15	3.1111			
	vs. 1996	13	2.9103	0.67	26.00	0.506
	1995	17	3.0490			
	vs. 1996	13	2.9103	0.53	25.35	0.603
<u>Rewards</u>	1994	15	2.9733			
	vs. 1996	12	2.7500	0.88	20.37	0.390
	1995	17	2.6353			
	vs. 1996	12	2.7500	-0.41	24.41	0.683
<u>Teams</u>	1994	15	2.7556			
	vs. 1996	14	2.7024	0.24	26.53	0.813
	1995	15	2.5111			
	vs. 1996	14	2.7024	-0.75	26.59	0.459
<u>Politics</u>	1994	15	3.2500			
	vs. 1996	12	3.5000	-0.81	23.61	0.429
	1995	16	3.3125			
	vs. 1996	12	3.5000	-0.56	25.28	0.577
<u>Resource</u>	1994	15	3.5556			
	vs. 1996	14	3.0476	1.69	23.85	0.103
	1995	17	3.2549			
	vs. 1996	14	3.0476	0.62	28.15	0.540

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.10 level

Detailed Table 9 - Continued

ROOM DIVISION		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	19	3.3289			
	vs. 1996	20	3.1625	0.91	36.78	0.370
	1995	30	3.1292			
	vs. 1996	20	3.1625	-0.19	42.02	0.853
<u>Problem Id</u>	1994	21	3.5000			
	vs. 1996	20	3.2000	1.53	39.48	0.133
	1995	32	3.1458			
	vs. 1996	20	3.2000	-0.30	35.72	0.766
<u>Rewards</u>	1994	21	3.2571			
	vs. 1996	20	2.9100	1.47	38.27	0.150
	1995	31	2.9161			
	vs. 1996	20	2.9100	0.03	34.39	0.977
<u>Teams</u>	1994	20	2.7167			
	vs. 1996	20	2.8083	-0.44	34.15	0.660
	1995	28	2.8690			
	vs. 1996	20	2.8083	0.26	44.10	0.798
<u>Politics</u>	1994	20	3.5000			
	vs. 1996	20	3.2750	0.78	37.87	0.442
	1995	30	3.0083			
	vs. 1996	20	3.2750	-0.99	39.91	0.326
<u>Resource</u>	1994	21	3.6032			
	vs. 1996	20	3.4167	0.69	38.67	0.495
	1995	33	3.2929			
	vs. 1996	20	3.4167	-0.51	38.00	0.615

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 9 - Continued

FOOD & BEVERAGE		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	39	3.1859			
	vs. 1996	30	3.3667	-1.10	65.93	0.275
	1995	48	3.2995			
	vs. 1996	30	3.3667	-0.43	68.44	0.670
<u>Problem Id</u>	1994	40	3.0583			
	vs. 1996	31	3.4677	-2.62	68.66	0.011**
	1995	45	3.2630			
	vs. 1996	31	3.4677	-1.44	66.87	0.155
<u>Rewards</u>	1994	40	2.6700			
	vs. 1996	30	2.7867	-0.62	64.30	0.535
	1995	47	3.0383			
	vs. 1996	30	2.7867	1.36	67.16	0.179
<u>Teams</u>	1994	39	2.5513			
	vs. 1996	31	2.6290	-0.42	58.54	0.677
	1995	48	2.6632			
	vs. 1996	31	2.6290	0.19	57.95	0.852
<u>Politics</u>	1994	41	3.6890			
	vs. 1996	31	3.3387	1.73	66.45	0.088
	1995	49	3.2551			
	vs. 1996	31	3.3387	-0.41	71.12	0.683
<u>Resource</u>	1994	40	3.1000			
	vs. 1996	31	3.0645	0.15	67.41	0.883
	1995	48	3.2222			
	vs. 1996	31	3.0645	0.76	56.44	0.451

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level

Detailed Table 9 - Continued

ENGINEER/ SECURITY		<i>sample size (N=)</i>	<i>mean</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
<u>Inputs</u>	1994	8	2.8125			
	vs. 1996	6	3.1667	-0.88	11.98	0.438
	1995	5	2.6500			
	vs. 1996	6	3.1667	-1.16	8.08	0.278
<u>Problem Id</u>	1994	8	2.8958			
	vs. 1996	6	3.3056	-1.02	11.71	0.327
	1995	5	2.6333			
	vs. 1996	6	3.3056	-1.66	7.49	0.138
<u>Rewards</u>	1994	8	2.3750			
	vs. 1996	6	2.8000	-0.87	11.28	0.405
	1995	5	2.2000			
	vs. 1996	6	2.8000	-0.81	6.42	0.445
<u>Teams</u>	1994	8	2.7083			
	vs. 1996	6	3.0833	-0.78	11.76	0.451
	1995	5	2.3333			
	vs. 1996	6	3.0833	-1.71	8.97	0.122
<u>Politics</u>	1994	8	3.2813			
	vs. 1996	6	2.6250	1.10	11.89	0.295
	1995	5	3.9500			
	vs. 1996	6	2.6250	3.38	6.52	0.013**
<u>Resource</u>	1994	8	3.5417			
	vs. 1996	6	3.6667	-0.28	11.65	0.785
	1995	4	4.0000			
	vs. 1996	6	3.6667	1.29	5.00	0.253

*significant at the 0.10 level

** Significant at the 0.05 level

***Significant at the 0.01 level