

Benchmarking

1

A Benchmark for Managerial Effectiveness

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Abstract

This study presents a tool to gauge managerial effectiveness in the form of a questionnaire that is easy to administer and score. The instrument covers eight distinct areas of organizational climate and culture of management inside a company or department. Benchmark scores were determined by administering sample-surveys to a wide cross-section of individuals from numerous firms in Southeast Louisiana, USA. Scores remained relatively constant over a seven-year timeframe. Techniques for using the benchmark by practitioners are discussed.

Keywords:

Benchmarking Managerial Effectiveness

Employee Satisfaction

Expectations of Management

Organizational Climate and Culture

1. Introduction and overview

1.1. Overview

An important part of the task of managers is to influence and steer the climate and culture within their organization so that the goals of the organization are reached as efficiently and effectively as possible. It would seem natural that managers would always recognize their employees' feelings and thoughts. However, counter-intuitively, many managers only have a very faint idea how the culture and climate of their organization is perceived by their employees.

Different organizations have different cultures, and differences in cultures do not necessarily dictate success or failure in reaching some goals of an organization, like profitability or expansion. Nevertheless, a negative climate can also sometimes have disastrous consequences for reaching the goals of the organization. It can decrease productivity, increase absences and sick leaves, lead to high turnover and churning, and have many other negative influences.

Managers are seriously lacking if they do not take their employees' personal needs into account (Cangemi & Miller, 2000; Bailyn, Fletcher, & Kolb,1997).

Perceptions of culture and climate within an organization can change quickly. Change is inevitable. Managing change can be studied and analyzed from many different viewpoints (Schein, 1999; Jacobs, 1997). The results of the present study provide managers with a new tool, the Management Perception Survey, to compress greatly the time and effort required to gauge adequately and accurately the climate and culture of their organization and the possible need for change.

The Management Perception Survey (MPS) is designed to paint a picture or mosaic of the state of the organization's culture and climate as it is perceived by workers and management. It provides a snapshot at a given point-in-time. It can serve as tool for management to increase its effectiveness in influencing climate and culture. Therefore, the results of the survey function also as an indirect measure of management's performance of its on-the-job responsibilities for matching the needs of its employees and of the company.

The MPS questionnaire consists of a beginning section with instructions and questions devoted to the demographics of the respondents. This is followed by eight individual construct sections, referred to herein as Survey/Constructs, and titled Survey One through Survey Eight. Each

of these eight Survey/Constructs or sections contains twenty statements about: Morale and Motivation; Training and Evaluation; Human Relations; Communication; Resources; Problem Solving Strategies; Managerial Stress and Equality and Diversity. These constructs are directly associated with the following five functions of management that have to do with interactions with employees: Planning, Organizing, Directing, Staffing, and Co-ordination (Gulick and Urwick, 1937). The other two of the seven "PODSCORB" principles, Reporting and Budgeting, are not addressed in this study, as they do not pertain to employee interaction.

Each Survey/Construct contains 20 questions. Ten questions draw from policy and procedure, and ten questions to the actions and interactions of the employees at all levels.

The questions are formulated as a grading exercise. The respondents are asked to grade their organization, management, and coworkers on a scale from 0 to 10 on an aspect of how the organization functions. In order to arrive at a benchmark number, the scores of each of the eight surveys are totaled and divided by 2. This gives an outcome between 0 and 100 for each construct. An overall grade is obtained by averaging the results of the eight surveys. The full questionnaire can be requested from the first author by email.

Besides introducing the surveys, this study provides results from samplings carried out in Southeast Louisiana in 1995/1997 and in 2002. The results of these samplings indicate the validity and reliability of the instrument. The study also provides benchmark numbers that practitioners can use to compare their own results with a cross-section of industries in this area.

This study reinforces the theory that technologies and goals may change from industry to industry, yet people will tend to react to positive or negative management behavior in a similar fashion regardless of the industry (Maslow, 1954, 1968, 1971; Herzberg, 1972, 1987; McGregor, 1972, Zimmermann, 1998 p. 205).

There are several ways to use the benchmark. Managers can administer the surveys in their organization, or outside consultants can use it to determine quickly the state-of-affairs within an organization. The numerical results of the eight *Survey/Constructs* give a quick impression of how the organization fares in any particular area. Low results of a particular grouping of questions point to a problem in that area. This can then be analyzed in detail to gain a better understanding of what the issues are.

1.2. Research process and design

In 1989, the initial questionnaire was created. It was based on pragmatic personal management experience, combined with a study of the academic literature in the leadership and management areas including such topics as human needs, morale, motivation, leadership, supervision, training, planning, and communication. The resulting *MPS* provided a quick and effective way for learning how the employees perceived certain aspects of their management's effectiveness.

This research project has been continued since 1989, with only minor improvements and enhancements to the sample-survey instrument itself. Originally, it was only envisioned as a snapshot of one particular organization at one particular time. However, many of the individuals who have taken part in this study have asked the following two questions:

- How does the management effectiveness score for my company compare to the scores of other companies?
- Why is my company's overall grade better or worse than the score other companies get from their employees?

These two important questions, the first one asking how do I compare, and the second asking what the comparison means, prompted research to see if a relevant general—benchmark, with stable scores over time and over various industries, could be derived by sampling and statistically testing a sufficient number of employees. The answer turned out to be affirmative. The uniqueness of this study lies in the effort to gather data from many industries located over time within a well-defined geo-social area.

2. Discussion

This study is not intended to explain *why* employees feel the way they do about their organization's managerial effectiveness, climate and culture. Quoting Sabourin (2000), "A perception survey measures how the people perceive the situation, it records what they believe to be

true, and it gauges opinion, outlook and attitude. In other words, it measures the 'culture' or the operative reality in the workplace."

Employees' perceptions of the strengths and weaknesses of an organization are not necessarily an indicator of the level of performance of the organization. In addition, depending on the circumstances, perceptions can change rapidly. However, the general agreement among most management practitioners is that employee perception of what the reality is in the environment of that workplace influences their behavior (Kienzle, M.A., & Shadur, 1999). Blacker (1984) wrote that regardless of the actual facts surrounding any given situation, perception is reality to the perceiver.

This study addresses the reaction of employees to various approaches to the management of technology involving both people and operations. *Technology Management* and the *Management of Technology* are integral functions of business today (Chanaron, Jolly and Soderquist, 2001). The information gathered by the *MPS* provides internal managers as well as outside consultants with a valid roadmap for identifying both positive and negative issues at the time the survey is conducted in an organization.

In the end, however, the real value in finding out how employees feel and think is realized only if something is done about it. If management is not really interested in finding out how their employees view their work environment, then it is a waste of time to go to the trouble of conducting this type of survey (Altmann, 2000).

Although there are common elements in many perception surveys, the MPS is different from other perception surveys in the literature. It is not intended as a tool for an overall productivity or outcome performance evaluation (Green & Henderson, 2000), nor as a definitive gauge of employee job satisfaction (Janssen, 2001). The purpose of this study is to show that its use as a diagnostic tool is practical and valid. It provides timely data that is useful for management.

2.1. Construction of the Questionnaire

The definition of *Benchmark* used for this study is: "A standardized problem or test that serves as a basis for evaluation or comparison" (Merriam-Webster, 2004).

In this study, the following five functions of the PODSCORB management tasks are assessed: *Planning, Organizing, Directing, Staffing,* and *Coordination*. The *MPS* seeks data concerning all three levels of internal stakeholders within an organization: executive policy administrators, mid-level to senior management personnel, and the operational workers. A basic tenet of this study proposes that employees react to management in a similar fashion in all types of businesses. The basis for the contents and format of the data gathering sample-survey questionnaire are stated in the two hypotheses presented below:

Hypothesis #1) Any company's overall organizational management effectiveness can be broken down into a limited number of areas of study, which encompass the major aspects of organizational behavior, culture, and managerial effectiveness

We will use eight different areas here and exclude non-humanistic aspects like finances and capital resources.

Hypothesis #2) Any company's perceived overall people management skill level and organizational effectiveness is functionally independent from that company's actual physical and financial resources.

In other words, the study assumes that the basic functions and skills required for effective human resource and/or organizational management are fundamentally similar for all organizations, regardless of the number of employees; the size of a company; the financial strength or profitability of the organization; or to the type of industry or profession.

Although theoreticians have expanded on and offered variations explaining employee behavior and motivation, the theories proposed by Maslow and others still provide a sound framework (Maslow, 1954, 1968, 1971; McGregor, 1972; Herzberg 1987). In their vision, managers and business leaders are responsible for creating a working atmosphere that meet most of those basic human needs in a manner acceptable to the employees. The concept of meeting the needs of employees forms a solid foundation for each statement contained in the *MPS*.

The following is a description of how the Benchmark was constructed. The following eight areas, considered closely tied to *Planning*, *Organizing*, *Directing*, *Staffing*, and *Coordinating*, were identified as factors that influence management's effectiveness in influencing the culture and climate of an organization:

- Morale and Motivation;
- Training and Evaluation
- Human Relations
- Communication
- Resources
- Problem Solving Strategies
- Managerial Stress
- Equality and Diversity

In each area above, ten questions were constructed that measure the influence of policies and procedures within the company on culture and climate in that general area of concern, and ten questions gauging the actions and interactions of the employees at the worker and manager level. The latter were sub-divided into five statements concerning the line-workers and five statements involving the working managers.

Questions were formulated in the form of a positive statement pertaining to the subject matter of the individual construct. In that way, the formulation of the question did not suggest any negative feeling or connotation to the respondents. As a sampling control measure, each of the eight Survey/Construct sections or scales contain statements which are similar in context to statements on one or more of the other Survey/Construct sections. The Zero (0) to Ten (10) scoring scale was used to mimic the normal range of grading familiar to most employees who have been educated in elementary, secondary, and higher education institutions in the United States. Keller (2000), in his Harvard Business Review article discusses benchmarking brands, and uses a survey constructed in a similar way to the *MPS*, with a scale from One to Ten and all statements worded positively.

The results of the *MPS* create a clear picture of how the employees perceive the effect of their management and fellow workers on the culture and climate of the organization at a given point in time. It is analogous to the Financial Balance Sheet, as opposed to an Operating Statement. The *MPS* equates to the Balance Sheet, while causal studies correspond to the Operating Statements.

This study does not propose a specific causal relation with an outcome. It is different from other studies which seek to establish a link between specific behavior and specific outcomes. This is not a limitation but a strength: independent of the causes, we show that employees judge management on the same things.

By using a quantitative sampling method instead of an interview-based study, the timeframe for evaluating the state-of-affairs of a firm is reduced from weeks or months to at most a few days, and the results provide more detailed and standardized information than would be gathered from personally interviewing and observing.

According to a study of 523 abstracts by Nosek, Banaji & Greenwald (2002), the most prevalent research themes in leading management journals are: Leadership, Strategic Management, Customers, Information Analysis, Human Resources, Process Management, Business Results, Implementation, and Evaluation and Assessment. The MPS contains statements that directly or indirectly relate to all of these content areas.

2.2. Related Literature

There is scant literature involving studies as wide ranging in content or which has been undertaken across as many types of industries as this study. Examples of questions in the eight areas can be found in the Appendix. The statements in the *MPS* concerning managerial effectiveness, leadership, communication, organizational climate and culture conform to generally accepted theories in the scientific literature. They reflect conditions that much of the current management authors consider essential for good management in the eight constructs listed. We refer to Bain, V., 2001; Denning, J.I., 2001, Baldwin, J.N. & Reinke, S.J., 2001; Bettenhausen, K.L., Davis, W. & Fedor, D. B., 1999; Altmann, R., 2000; Ben-Ari, E.T., 2000; and Clement, D. & Greenspan, D.S. 1999.

Especially within the United States, organizational attitude surveys have become very popular within the corporate culture. The 1999, the Keinzle, Rodwell, and Shadur study identifies three essential variables that are most significant in studying the perception of employee involvement: 1) Input In Decision Making, 2) Teamwork, And 3) Communication. The Keinzle et al. study also looked at employee perception of job satisfaction, commitment, stress, bureaucracy, innovation, and support. The results show that supportive environments and commitment were predictors of each of the employee involvement variables (Keinzle, et al., 1999)

Pekala (2000) reports on an interview discussing the use of performance evaluations with Diane Kristen, Esq., principal of Kristen Coburn Chartered. Kristen points out that the main problem with individual performance evaluations is that they are totally dependent on preconceived notions and prejudices of the evaluators. Likewise, with this study, the opinion of one individual regarding the managerial effectiveness of a company can be influenced by the biases and disposition

of that employee. However, the perceptions of a sufficiently large group of employees indicate a general feeling towards the organization including any group dispositions. In order to get significant results, we suggest that the questionnaire is administered to each member of a department (inside a large company) or the whole company if sufficiently small.

Benchmarking is generally accomplished by making comparisons of performance of organizations within a given industry. The MPS does not look directly at performance numbers. Instead, it looks at the scores to questions on the human support side of five functions of management. Regardless of whether performance numbers are good or bad, by carefully discerning the meaning of the data supplied by the MPS, management has a better chance of understanding the reasons for performance output numbers.

Summarizing the literature, there is ample evidence that using employee perceptions for evaluating the management effectiveness and organizational climate and culture is widely accepted within the academic and business arenas. None of the previous studies reviewed for this study attempted to establish a cross-industry benchmark to establish a scale for management effectiveness, climate and culture. Knowledgeable managers can use the results of the *MPS* to help determine the strengths and weaknesses of their organizations.

The research instrument takes the place of the interviewer, and sets a scale of numeric parameters used to answer the questions. It could be described as a paint-by-the-numbers picture of the organization, with the respondents as the artist. However, just as the qualitative researcher must interpret what interviewees say, so, too, must the observer interpret the story told by the scores of the various statements in the MPS.

2.3. Setting the benchmark: Sampling Methodology

The primary quantitative research to establish a benchmark involved administering the MPS to a cross-sectional, cross-industry sampling of employees.

The primary research sampling in 2002 was accomplished using the Internet to distribute and collect *Excel* based electronic questionnaires via E-mail. The sample-surveys were e-mailed to specific pre-identified respondents who had expressed an interest in participating. These respondents were both undergraduate and graduate students enrolled at night in a regionally accredited university in the Southeast of the USA. They were all at least twenty-three (23) years-of-

age and worked full-time at various organizational levels within their companies, including: lineworkers, low to mid-level managers and senior executives. The average age of the students was thirty-four (34) years of age. Students represented a range of organizations of various sizes in multiple industries located in Southeast Louisiana. They were advised that the data would be used in a research project for a doctoral dissertation. Completion of the survey was voluntary, not a requirement for course grades, and students were not paid for their participation. The respondents were advised that the research did not seek their views of the University as students.

Most respondents reported that it took them approximately 20 to 25 minutes to complete the sample-survey. The problems of representation and generalization do not affect this study since the use of the Internet was restricted to specific pre-identified participants.

The questionnaire used in the sampling portion of the data gathering process was designed to gather information in two general areas:

- Demographic information about each individual respondent who completed the samplesurvey.
- 2. The respondent's personal perception of the organization's management and leadership effectiveness.

We analyzed then our data and found that scores were generally independent of aspects of demographics like firm size, industry, and position inside the company (with some exceptions to be discussed below) and stable over time. This establishes our claim that we have established a tool that can function as a benchmark.

The current electronic version, titled *Perception Survey in Excel*, contains 160 statements, divided into 8 groupings or constructs of 20 statements each, referred to herein as the *Survey/Constructs*. The respondent simply checks-off the blank space for the demographic option that fits his or her situation, and enters a number from 0 to 10 for each of the 160 statements.

2.4. Results of the Statistical Testing for the 2002 Survey

The computer program SPSS was used to analyze the data. The tests considered the most significant for establishing validity are presented in this article, namely: General Descriptives, Internal Reliability (Cronbach's Alpha), and the One-Sample and Two-Sample Kolmogorov-Smirnov tests.

For our sample of 117 sample-surveys, we found a high degree of *Internal Reliability* in all of the eight survey/constructs according to a measurement of *Cronbach's alpha*. Taking into account the number of questions, these results indicate that the average correlation coefficient between each of the 20 questions of the Survey/Constructs is high. Cronbach's alpha for the overall score as an average from the 8 Surveys/ Constructs is high as well. Numbers are presented in table I

INSERT TABLE I ABOUT HERE

Some demographic questions were asked for this sample-survey. 101 out of 117 respondents answered the question "How long have you been a people manager". 10.9% indicated that they had been in management for less than (3) years; 32.7% answered between (3) and (10) years; and (56.5%) indicated they had been in management for over (10) years. Forty-two respondents stated they were not in management. The breakdown of the "How many people were managed" category was 36.5% managed less than (5) people, 25.2% chose between (5) and (10) people; and 38.3% claimed that they managed more than (10) people.

Forty-three and six-tenths percent (43.6%) of the respondents signaled that they were experienced in management when they were hired, while 56.4% said they were not experienced in management at the time of hire in their present job.

When asked if they were "promoted from the ranks' when first appointed to management, 50.5% responded YES and 49.5% said NO.

Only 32.4% responded YES to the question regarding the formal training prior to being appointed as a manager, while 67.6% answered NO to that question.

The percentage of respondents answering YES to the question asking if they had received in-house or on-the-job training was 53.6%, with 46.4% checking NO.

When asked their perception of profitability or efficiency of the organization, 3.4% thought their organization was *Highly Profitable or Efficient*, 5.2% judged it *Moderately Profitable or Efficient*; 15.5% considered the organization to be *Marginally Profitable or Efficient*; 38.8% offered *Barely Profitable or Efficient*; and 37% thought the organization was Unprofitable and/or *Ineffective and Inefficient*.

In its simplest terms, the Benchmark is expressed as the Mean and Standard Deviation for the eight survey/constructs and an overall average, like in Table II:

INSERT TABLE II ABOUT HERE

For each of the eight Surveys/Constructs, a score of around 70 is average, but the spread is fairly large among the various respondents. Therefore, the mean provides a very quick indication to the sample-survey-taker how the company is doing. A "deep" statistical analysis is unnecessary to administer or interpret this instrument. A simple calculation of the mean score from the twenty questions for each construct is sufficient. Overall scores per Survey/Constructs far below 70 are a sign of potential trouble. Scores substantially higher than 70, indicate that the perceptions of the members of the organization are exceptionally positive. Note that, on a scale of 0 to 10, 7 (a "C" in school terms) is considered, by most individuals, the "average" academic grade that is sufficient to pass without distinction and with a reasonable but unremarkable performance.

The fairly large number of twenty questions per construct leads to an approximately normal distribution for each of scores of the eight survey/constructs. This was checked non-parametrically with the One-Sample Kolmogorov-Smirnov test assuming a normal distribution. The results for the overall score and most of the eight constructs are normally distributed. If they are not completely normal, then they are very close to normal. Table III below gives the asymptotic sigma (2-tailed) value assuming a normal distribution for the non-parametric One-Sample Kolmogorov test to test for a normal distribution:

INSERT TABLE III ABOUT HERE

Only construct 5 (and 3 up to a degree) deviates slightly from a normal distribution, and even those have a Bell-curved shape. The individual question with the lowest overall score among all 117 respondents in this 2002 sample-survey is "The organization is fairly problem free", which is part of the Survey 6, *Problem Solving*. This question gets an average score of 5.2. It seems that rarely people consider their organization problem free, which is understandable considering the challenges in nearly every business. The highest average score for any question among the 117 respondents was 8.4, for "The organization believes in service", on Survey Three (Human Relations). This particular result may reflect the relative preponderance of service-oriented industries in Southeast Louisiana and supports the possibility that a benchmark like this one should be calibrated by comparison with industries in the same geographical area.

The median score is 6.80, out of the 160 questions, 80 got an average score of below 6.80 and 80 above. The answers to most individual questions are not normally distributed, and for the purpose of this study they don't need to be, and even shouldn't be. The questions have been

deliberately and carefully constructed in such a way that they discriminate between different environments. Consequently, for a few questions, answers cluster around an average value and the answers follow a normal distribution. Some questions are polarizing, and the answers are multimodal: respondents give organizations either a low score or a high score, with few answers scoring in-between. Some other questions are generally given very high scores, but the respondents who give (very) low scores indicate that something is (seriously) remiss in this area in their organization. An example is the question "I feel that I am accepted and treated very well by my fellow workers", which is question 20 in the *Managerial Stress* survey (Survey Seven). Here 29.1 percent of the respondents gave this question a grade of 8, 29.1% of 9, and 16.2% of 10. So nearly 75% answer this question very high. An additional 11.1% give this an (average) score of 7. The 15% of the respondents that give a (very) low score clearly are expressing their dissatisfaction with an important part of their work environment. Statistically, the skew-ness of this question is –1.837 (standard error of 0.224).

The lack of a normal distribution for the individual variables was confirmed non-parametrically with the one-sample Kolmogorov-Smirnov distribution, assuming a normal distribution. For nearly all questions the 2-tailed asymptotic sigma distribution as zero or very close to zero, indicating a very bad fit to a normal distribution. However, the range in answers for all questions is quite high, by construction. All questions have a sufficient range in scores to make it worthwhile to include them in the sample-survey. Standard deviations (still useful as a measure of dispersion even for non-normal variables) ranged from 1.69 for the question "The overall job efficiency of the workers is excellent" (which clearly did not lead to large outliers and was not seen as very controversial) to the question that generates the largest range in reactions: "The managers never criticize other managers behind his or her back", with a standard deviation of 2.81. The latter question is part of Survey Eight, *Equality* and *Diversity*. Respondents give their organization a larger variation in grade in this area. Clearly, this is just an example of how large the differences in culture can be between organizations. This benchmark serves as a quick diagnostic tool to point out those differences in many relevant areas.

As also can be seen from Table 3 above, Survey Eight, Equality and Diversity, has in general the widest range in scores. This is interesting because this survey only asks very general questions, like "The organization treats all employees like people and not as objects", in order to gauge how the organization values diversity, differences of opinion, etc. This sample-survey does, deliberately, not ask any particular question about explicit racial preferences, about perceived discrimination, etc. Nevertheless, it has been our experience by collecting qualitative information

that it gauges perceptions that are relevant in these areas accurately. This confirms again the central hypothesis of this research, that different organizations differ greatly in their organizational culture and in how far they satisfy the needs of the people that make up the organization.

It is important to realize that the lack of normal distribution does not reflect an error in scale construction. A normal distribution is to be expected when many independent smaller variables contribute to one dependent variable. In this study the questions have been formulated in such a way that they are as uni-variate as possible.

Because of the non-normalcy of the variables, we have not been able to do a post-hoc factor analysis to see if independent factors contribute to the eight postulated constructs among the 160 questions. Principal component analysis relies on factoring out first the factor with the largest variance. If the distributions of the variables are not normal, then the goal-seeking part of the factor analysis algorithm breaks down.

Obviously, a good instrument minimizes its dependency on demographics. A one-way ANOVA analysis did not find any statistically significant dependency of the results of the eight constructs on demographics (like stated above, those are normally distributed). However, it is possible that there are certain clusters of questions that depend stronger on demographics, but those have not been identified.

In summary, we have shown the following for the results of the 2002 survey:

- Internal Reliability of the Scales is excellent
- There is a large spread in demographic information among respondents, and the benchmark does not depend on the demographics
- The 8 scores for the survey/constructs display a normal distribution among respondents
- Most individual questions do not have a normal distribution. All questions have a sufficiently wide range of answers among respondents
- The benchmark is statistically valid

2.5. Results of the Statistical Testing for the 1995 to 1997 sample-surveys.

This sample-survey was carried out among 85 adult students in a classroom setting. The demographics of those students were mostly identical to the demographics of the students participating in the 2002 study. Since this was a post-hoc analysis of the data from the original

documents filled out by hand, the respondents' demographics were of no interest and not statistically tested. The results of this sample-survey were remarkably similar to the 2002 surveys, supporting the premise that this benchmark is capturing essential information about the climate and organization of an organization.

Survey Eight on *Diversity* was not in this survey but was introduced later. The results of the first seven Survey/Constructs can be compared directly, as the questions were the same. However, care should be taken when the overall score is compared, because in the 2002 survey this is an average of 8 Survey/Constructs and in 1995/1997 an average of only seven.

Like the 2002 results, Cronbach's alpha was high, indicating excellent internal reliability for the various scales. In summary:

- Internal reliability was excellent and comparable with the 2002 survey
- Results for the 1995-1997 survey were very similar to the 2002 survey

The results of the Cronbach's alpha and the Mean and Standard Deviation of the earlier surveys are shown in Tables IV and V below.

INSERT TABLE IV ABOUT HERE

INSERT TABLE V ABOUT HERE

2.6. Comparison of 1995-1997 and 2002 surveys

The results for *Means* and *Standard Deviations* for the 1995/1997 and 2002 surveys are very close. For the original seven Survey/Constructs, they are generally all around a score of 70, and within a 2.5 range of each other, sometimes closer. We used two different, independent ways to confirm this result. When the distribution of variables to compare is normal, the *t-test* for two independent samples can be used (and the test is fairly robust with regards to this assumption). We have seen before (table 3) that the distributions of the different Survey/Constructs are close to normal. First Levene's test for equality of variances confirmed that there was no statistically significant differences in the variances shown in tables 2 and 5 above. Values of sigma for this test for the 7 Survey/Constructs were 0.708, 0.887, 0.838, 0.179, 0.707, 0.327, and 0.701. Therefore we assumed that variances are equal. With this assumption, there is no statistically significant

difference between the means of the seven Survey/Constructs. The *t-test* for equality of the *Mean* resulted in values of sigma (two-tailed) of 0.686, .660, .283, .333, .961, .563, and .269, confirming that there is no statistically significant difference between the results for the 1995/1997 and 2002 surveys.

Alternatively, one can assume that is nothing is known about the distributions and apply the two-independent-sample Mann-Whitney test, a non-parametric test. The results for the overall score (for seven constructs) and for the separate seven Survey/Constructs all indicate that the test does not find any statistically significant differences between the 1995/1997 and 2002 surveys.

The same test was applied to all 140 variables of the first seven Survey/Constructs. Remarkably enough, even at this granular level, most of the variables did not show a statistically significant difference between the 1995-1997 and 2002 surveys! Out of the 140 variables, only 33 had a two-tailed sigma for the Mann-Whitney test below 0.1 (indicating some level of disagreement), and only 18 out of the 33 had a two-tailed sigma for this test below 0.05 (indicating a strong difference).

Although this was not a true longitudinal study, the comparison between 1995/1997 and 2002 does have a quasi-longitudinal aspect. The similarity between the data collected in 1995/1997 and 2002 from different students provides a clear indication that the humanistic psychological and geo-social influences on the average perceptions of management effectiveness in Southeast Louisiana has not significantly changed over the years.

In summary:

- Questions were answered in a similar way in the two surveys from 2002 and 1995-1997
- Benchmark results for the 7 out of 8 survey/constructs that could be compared were statistically not different

2.6. Other surveys

From 1997 until 2000, 185 surveys were administered to a similar group of students. Results for average scores and standard deviations were not statistically different from the other studies. No further analysis was carried out.

3. The instrument: use and limitations

3.1. The use of the instrument

In 1990, the first author used the MPS to analyze the conditions within the management ranks of a major division of a billion dollar corporation located in Southeast Louisiana. This division had been losing millions of dollars every year for several years. The sample-surveys were administered during an all-day training seminar and the results discussed as the day progressed. The scores, shown in Table VI, were well below what has now been established as the Mean and Standard Deviation benchmarks for Southeast Louisiana.

INSERT TABLE VI ABOUT HERE

The scores on *Morale and Motivation* and *Human Relations* showed that morale of the midlevel and senior managers was very low. They felt that they were being blamed for the losses of their division. All of the reasons for the low scores were discussed during the seminars.

The MPS was subsequently used in a similar fashion during a management-training seminar in a local steel fabrication company also located in Southeast Louisiana. In this case, as seen in Table VII, the resulting scores fell more closely in line with the Mean benchmark. In this second case, the MPS was also completed by the two top executives of the company. The Overall Mean results of their sample-surveys is also shown in Table VII below.

INSERT TABLE VII ABOUT HERE

The grade awarded by the President is substantially higher than the average grade given by the employees, and is an illustration of the concept of "Disconnect" that sometimes occurs between what management perceives and what the employees perceive.

During both of these seminars, low scores on statements such as Survey Three, Statement #12, "The workers trust the managers" were discussed in detail in order to find the root cause of the low grade. After both of these management-training seminars, a detailed written report of the findings and implications was submitted to top management.

The electronic version (Excel spreadsheet) lends itself to this same type of review and discussion, with the advantage being that the sampling can be done ahead of time, and quickly.

This gives the manager, trainer, or consultant more time to analyze the results and prepare to discuss them.

3.2. Limitations and further research

The Mean and Standard Deviation benchmarks, along with the descriptive statistics derived from this study, provide strong evidence in support of the concept of this study. But this study is also limited in scope in some respects.

- Results have only been collected for organizations located in a limited geographical area (Southeast Louisiana, USA)
- It does not address potential underlying political or psychological influences on the manner in which employees perceive management
- It leaves room for studying both the employees' and the organization's financial condition and the financial effects on the scoring
- It is more effective in smaller organizations
- Use of the electronic version may be hindered if there is a lack of computers with some employees, and completing the survey by hand is more time consuming.

The results of this study prompt us to give suggestions for five main areas of further research involving the general concept of gauging employee perception of management's effectiveness. These include:

- Possible geo-social variations in the benchmarks
- Causal relationships between the benchmarks and performance outcomes,
- Changes in the questionnaire design
- Scoring
- Drivers of employee expectations

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Discussions of these four main areas of further research follow.

Geographical and Geo-social Expansion

One of the limitations in this study is the restriction of sample data gathering to organizations located within the geographic area of Southeast Louisiana. Completing the research in other major employment areas will provide a comparison across the United States, and possibly internationally. The results might show any geo-social differences that may exist. The expectation is that the differences in national cultures would result in significantly different benchmarks between various countries, such as in Europe and the Far East.

An interesting area of study (suggested by Maslow's hierarchy) would be to determine the potential differences in the way people rate managers in geo-social areas that are routinely concerned with basic survival needs, such as Palestine and Israel, as opposed to people in countries that everyday survival is not a major concern.

Performance Predictability

Another suggested area of research involves administering the MPS longitudinally within individual companies. In order to accomplish this type of research, the researcher will need access to proprietary information. A longitudinal study may relate the changes in scores to specific changes in outcomes, such as profitability, turnover, production, and sales.

Questionnaire Design

Additional examination of the descriptive analysis and other statistical results of the various groupings of the individual questions from the sample data from this study could result in improving the effectiveness of the sample-survey instrument itself, by reducing the number of statements or re-arranging the groupings. However, the broad number of questions makes it a better tool for trainers and consultants for discussion in groups.

Scoring Scale

Instead of a 0 to 10 ranking scale, surveys could use a seven or eight point Likert scale. This change might eliminate any unknown bias in scoring, resulting from having only four positive rankings and seven negative rankings on the 0 to 10 scale used in this study. However, we have no indication that this scale results in any systematic bias.

Expectation Drivers

An intriguing research question remains unanswered in this study, "What are the fundamental drivers behind the specific employee expectations for all, or part, of the 160 statements within the eight survey/constructs?"

For example, why is trust between workers and managers so important? Do all employees place the same emphasis on trusting their managers? Intuition tells us that individuals may differ greatly. However, future research may produce a cluster of drivers for each major area that appear more than any other motivating forces and may not be obvious on the surface. The results of this further qualitative research might assist management to understand more fully the challenges facing them in meeting their employees' expectations.

4. Conclusions and recommendations

Despite its recognized limitations, this study is worthwhile for several important reasons. Altmann (2000) discusses the benefits of surveying employees to discover their perceptions of the climate of the organization. He offers that companies that conduct climate surveys may gain one or more of the following outcomes; 1) better employee buy-in, 2) more positive work results, 3) improved communication, 4) comparisons to others in the industry, and 5) greater management involvement (Altmann, 2000). This study supports Altmann's ideas regarding the value of periodic employee surveys. Although not a performance evaluation in itself, the *MPS* includes numerous questions that can be used to illuminate certain non-numerical aspects of performance.

The results of this study reveal three specific aspects of the research:

1. The statements used in the self-assessment survey are valid indicators of the state of a company's managerial effectiveness and organizational behavior.

- 2. The sample results provide significant data for establishing an organizational behavior effectiveness grade which can be used by management to compare any given company's own individual overall self-assessment grade to a meaningful standard management effectiveness grade. We established such a grade for Southeast Louisiana.
- 3. The effectiveness scores given to specific statements, or group of statements, provide a company's top management with an insight as to the particular strengths and weaknesses of the company's overall management efforts.

For the business community, the value of this research will be seen when the sample-survey is used repeatedly within individual companies, and the resulting knowledge is used for improving the management of technology. In the United States, experience shows that managers do not routinely have to deal with their employees' survival needs. Under normal circumstances, hazardous working conditions and terrorists' attacks excluded, management does not usually have to worry about their workers' personal safety needs other than for normal on-the-job safety concerns. However, management needs to be vitally concerned about their employees' social and self-esteem needs on a daily basis.

The data gathered from the *MPS* tells a rather unique story and paints a vivid picture of the organization. It describes the managerial and social atmosphere in detail. The positive or negative feelings associated with an employee's personal organizational stories prompt the score he or she awards to each statement. If a company gets a low score in a certain area like trust and loyalty, there is a reason; and that low score generally indicates that there is an important story that needs to be examined. After conducting the *MPS* within a specific organization, management can re-visit those stories in an effort to find out why the employees feel about the company the way they do.

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Construct	Cronbach alpha
1. Morale and Motivation	0.9482
2. Training and Evaluation	0.9444
3. Human Relations	0.9498
4. Communication	0.9719
5. Resources	0.9687
6. Problem Solving	0.9627
7. Managerial Stress	0.9432
8. Equality and Diversity	0.9642
Total score:	0.9730

Table I: Internal reliability for the 2002 survey

Construct Grouping	<u>Mean</u>	Standard Deviation
Total:	67.98	15.29
(1) Morale and Motivation	68.29	15.97
(2) Training and Evaluation	65.89	14.83
(3) Human Relations	70.46	15.38
(4) Communication	66.41	17.72
(5) Resources	72.65	17.19
(6) Problem Solving	68.50	16.45
(7) Management Stress	66.50	16.64
(8) Equality and Diversity	65.15	18.93

Table II Means and Standard Deviations for the 2002 Survey/Constructs

Construct	Asymptotic sigma, 2 tailed for one-	
	sample K-S test assuming a normal	
	distribution	
Morale and Motivation	0.546	
2. Training and Evaluation	0.228	
3. Human Relations	0.052	
4. Communication	0.085	
5. Resources	0.036	
6. Problem Solving	0.148	
7. Managerial Stress	0.126	
8. Equality and Diversity	0.207	
Total score:	0.211	

Table III: Deviation from a normal distribution for the eight survey/constructs

Construct	Cronbach's alpha
1. Morale and Motivation	0.9254
2. Training and Evaluation	0.9073
3. Human Relations	0.9238
4. Communication	0.9444
5. Resources	0.9350
6. Problem Solving	0.9437
7. Managerial Stress	0.9177
Total score:	0.9363

Table IV: Internal Reliability for the 1995-1997 survey

<u>Construct Grouping</u>	<u>Mean</u>	Standard Deviation
Total score	69.9160	13 .49683
(1) Morale and Motivation	69.1941	15.03787
(2) Training and Evaluation	66.8294	15.12381
(3) Human Relations	72.8294	15.50471
(4) Communication	68.7706	16.16683
(5) Resources	72.7588	14.59281
(6) Problem Solving	69.8941	17.62086
(7) Management and Stress	69.1353	16.79806

Table V: Mean and standard deviations of the seven constructs for the 1995-1997 survey

Construction Grouping	<u>Average % Grade</u>
Morale and Motivation	31
Training and Evaluation	53
Human Relations	48
Communication	60
Resources	55
Problem Solving	50
Management Stress	50
Overall Average	50%

Table VI: Results from 1990 sample-survey within first company

Grouping	Average % Grade	President	<u>Vice President</u>	
Morale and Motivation	69			
Training and Evaluation	70			
Human Relations	77			
Communication	72			
Resources	72			
Problem Solving	70			
Management Stress	62			
Overall Mean	72%	84%	76%	

Table VII: Results of Second Company Seminar Presented in September, 1995