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Customer satisfaction measures as indicators of service performance

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CUSTOMER SATISFACTION MEASURES AS INDICATORS OF

SERVICE PERFORMANCE

by

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Abstract

This document contains a study of customer satisfaction measures that indicate service performance. The study was performed with the customers of a facilities maintenance service company and focused specifically on janitorial/cleaning services provided on a contract basis.

A discussion of quality and specifically service quality involving both importance and measurement is provided to set the framework for the study. Dimensions of service quality and customer perceptions of service quality are discussed in detail. Methods used to guide the research, to gather and to refine customer data include the critical incidents technique, focus groups, and item analysis surveys.

One final product of this research is an actual customer satisfaction survey using a likert scale and composed of satisfaction requirements derived from customer focus groups. The other product of this research is a set of recommendations to the company involved for use and implementation of the study findings. Both of these final products are contained in this document.
Acknowledgements

There are a number of people who have been influential during the course of the research resulting in this document. I would like to express my thanks and appreciation to them at this point.

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Chapter I

The ultimate success of a service providing organization is dependant on the quality of the service provided. A customer’s satisfaction with such an organization is determined by the way the product or service is delivered as well as by what is delivered. Because of the unique natures of service sector organizations, and their product (service in one form or another), the way the service is provided (the service encounter or moment of truth) is of major importance in determining the quality and success of the service provider.

This study deals with the quality of service as described in the previous passage. Specifically it deals with measuring performance which is an established concept in ensuring quality. Because of the unique nature of service providing organizations the specific method proposed here to be used in measuring service performance is that of customer satisfaction. The introduction and background material that follows will help place these concepts in a real-world setting. The hypothetical framework for the study will allow the reader to understand the problem to be tested regarding the previously stated principles as well as the arena used for the test.

Introduction

“The longer you’re in a certain business, the greater the chances you don’t really understand your customer.” (Albrecht, 1988, p158) So says Karl Albrecht, author and expert on the service industry, regarding an all too common and potentially fatal problem in service sector businesses today. To illustrate this statement an example in the facilities maintenance business may be used as an example:

Envision XYZ Corp., a growing provider of cleaning and janitorial services to office complexes, colleges, etc. They have a good reputation and are experiencing excellent growth potential due to both their marketing acumen and the (downsizing and subsequent outsourcing) need for facilities maintenance
services in the corporate world. They are expanding into new markets as well as providing a broader array of services. New facilities maintenance agreements are being signed every month it seems. Revenue projections are rising exponentially. With XYZ's traditional focus on service and providing what the customer wants the plans are to be one of the top five F.M. providers within the next ten years. Things look rosy but, unbeknown to the company, the seeds of discontent have already been planted.

Business is great for the next several years and expansion is going as planned. The time for contract renewals is starting to come up but nobody is to concerned. Over the next year three good sized contracts are lost to other providers. In the corporate offices there is concern but not much action, the loss is attributed to normal attrition. Business is still growing and new contracts are being negotiated anyway.

The next year four more contracts are lost and due to local competition expansion is levelling off. Now their is real concern in the XYZ executive suite. Inquiries are started and phone calls are made, even a couple of the ex-customers are called to “find out what really happened”. The answer was surprising to the XYZ people but not really unique. Ex-customers replied: “You never asked us how you were doing. Things started off well but our needs changed and sometimes service didn’t meet our requirements. Your staff and managers on our property weren’t accessible and we didn’t feel anyone was closely concerned with our needs. ACME corp. came along and told us how they would do better and we switched.”

The key item in the above scenario was the statement by the customer: “You never asked us how you were doing.” This is a crucial failure of many service sector organizations today. The true measure of success in providing a service is in the eyes of the customer. In the end if the customer is satisfied with a service, in this case cleaning and janitorial services, then the service has been delivered successfully. The level of customer satisfaction with a service is the best measure of service performance, but it must be measured. it can not be assumed.

This concept leads to the root of the problem. In a given service sector organization, specifically facilities maintenance for the purposes of this study, it is first necessary to know what the customers feel is satisfactory performance of the service. Once it is known what activities denote satisfactory service to the
customers it is then necessary to design a means for measuring service performance on a regular basis. In essence this indicates the necessity of “asking the customers how the company is doing” in a format that provides a reliable measure of customer satisfaction and, hence, success of service performance.

**Background**

At this point some elaboration is necessary. To reiterate; before it is possible to measure customer satisfaction and, hence, the degree of success of service performance by a provider it is first necessary to determine exactly what constitutes successful service performance in the eyes of the customer. What actions and/or outcomes of the services provided correspond to satisfaction of the customer’s requirements? There are a number of issues here that are crucial to understanding the depth and importance of this question.

A fundamental issue that needs to be understood here is the definition of “service” and it’s significance as the main product of service sector/service providing organizations. The best way to describe this issue is that service is an intangible product in that it cannot be held in the hand, stored for later usage, or measured using traditional methods. Service is really the interaction, whether face to face or with the results, of the customer and the service providers.

This leads to the next important issue which is characterized by the statement: “What gets measured gets done”. The literature appropriate to this topic, as well as growing common knowledge in the industry, realizes the need for quality in services and also the need for satisfied customers. Measurement of quality conformance, in itself, is not a new concept. It’s principles have been well refined in the manufacturing environment and the results for companies that do it best are well known (Companies such as Motorola, Xerox, etc.). The key to the issue for service sector companies here is twofold; 1) The realization of the importance of customer satisfaction as the best indicator of service performance, and 2) The need to actually measure customer satisfaction instead of just acknowledging it’s importance. If performance is measured there is an actual basis for improving it.
The final item that provides the necessary background in illustrating the importance of this study involves the use of actual customer generated measures of service performance. Referring back to the introductory statement by Karl Albrecht it is not always a given that management truly understands the customers needs. To the true requirements for customer satisfaction it is necessary to actually “ask the customers” what is important.

**Problem Statement**

In defining the problem to be solved in this study it is necessary to ask: What are the elements of customer satisfaction pertaining to a facilities maintenance services provider? In this situation the specific focus is on the cleaning and janitorial services of UNICCO Service Company and which satisfaction measures indicate successful performance. The need to find the most valid and accurate means to resolve this problem leads to the purpose of this study.

**Purpose**

The purpose of this study is to explore key elements of the customer satisfaction requirements in a representative sample of UNICCO’s existing customer accounts. This representative sample includes one University/College account, one Industrial/Commercial account. Through use of interview/focus group and survey research methods the real requirements of facilities maintenance customer satisfaction are identified. This will provide knowledge of key service performance requirements of UNICCO’s customers, a baseline measure of the relative importance of those requirements to the customers, and a specific survey instrument for future use in measuring the customer satisfaction levels.
Significance and Anticipated Outcomes
The anticipated outcome of this study will be the production of a research that has academic importance, industry applicability, and particularly immediate usefulness to UNICCO Service Company. As a result of the findings in this study UNICCO will have a vital knowledge of the exact requirements that it’s customers find important in the performance of facilities management services. There will be potential, by implementation of the survey questions defined, to track the progress of service performance in UNICCO's various accounts and in the company as a whole. By reference to the findings in this study it may be possible to draw conclusions regarding the general sphere of customer satisfaction requirements in facilities management operations. By following the steps outlined in this study it will be possible to apply the methods used to similar organizations in an effective manner.

Methodology
In this study, elements of customer satisfaction in UNICCO’s various types of customer accounts are examined in the present environment. The study identifies key dimensions, customer requirements, and critical events of service performance by soliciting actual customer input through focus group interviews. Data from customer focus groups is transformed into a survey format that will enable the company to evaluate the relationship of service performance to the satisfaction level of the customers. Descriptive methods will be used to define customer satisfaction requirements and relate their importance to service performance.

Hypothesis
The hypothesis proposed in this study states that it is possible use actual customer input from focus group research to determine measures that the customers in that environment positively and significantly relate to successful service performance by the provider (UNICCO). Through determining the relative importance of these incidents to the population by use of an initial survey it is possible to come up with a set of measures that can be used to effectively rate customer satisfaction on an ongoing basis.
Definition of Terms

Facilities Management- This term refers to the activities relating to maintaining the physical plant, grounds, and peripheral functions related to the facilities of a particular organization. In relation to this study the particular services being examined are cleaning and janitorial, which form the majority of the services UNICCO provides.

Outsourcing- The spinning off or contracting for the operation of various functions and/or services that have traditionally been an internal function of the organization.

Account- In this case account refers to the organization or location that has outsourced or contracted with UNICCO to provide facilities maintenance services.

Focus Groups- A group of individuals, customers in this case, brought together for the purpose of conducting a group interview and obtaining the focused input of the participants on particular problems or subjects.

Customer- In this case customer refers to the individual customers in an account serviced by the company. This is not to be confused with client which is the specific person(s) who the company (UNICCO) contracts and/or communicates closely with regarding services provided. The significance of this difference will be discussed in the results section of this study.

Satisfaction item -also referred to as satisfaction requirement, this is a statement of actions that are required by customers to meet their definition of good service. These items are developed from specific critical incidents of good or bad service as provided by actual customers (either in focus group or interview).

Dimension (of service quality)- These are five general groupings that represent the different aspects of service that customers perceive. They are essentially a representation of groupings of satisfaction requirements that previous research has identified for broad populations.

Survey Instrument- The survey instrument in this study is a questionnaire used to determine the importance placed upon various satisfaction items generated through the focus group/critical incident
process. The purpose of administering this instrument is to enable the construction of a final customer satisfaction measurement questionnaire.

**Satisfaction**- In this case relative expression of the negative or positive tendency of the customer’s attitudes and perceptions regarding the performance of facilities maintenance/janitorial services.

**Critical incident**- The particular actual incidents or activities that indicate to customers the successful performance of service activities, and hence, influence satisfaction or dissatisfaction.

**Ideological Assumptions**

An integral assumption to this study is that there is an identifiable correlation between service performance and customer satisfaction. This assumption is supported in the course of the literature review by various sources. Care is taken in the design and execution of this study to guard against personal influence regarding the particular elements that result in satisfaction to UNICCO customers. The primary avenue for researcher influence is in the interpretation of focus group data and the generation of customer requirements from the sets of critical incidents of customer satisfaction in that data. Actual generation of the data comes from customer focus groups and validation of the critical incidents was accomplished by customer survey. The particulars of this process are explained specifically in the methodology section of this study.

**Procedural Assumptions**

The need to guard against bias is a guiding principle for this study, as it should be for any valid analysis of this type. To guard against personal bias in the data gathering and analysis use of focus group methods in conjunction with the critical incidents technique, for gathering customer input and generating satisfaction requirements, are used. These focus groups were conducted using a set protocol that was designed to minimize the effect of facilitator/researcher opinions on group outcomes. The assistance of a neutral third party in interpreting the recorded group conversations and observations was utilized. The third party
assistance was also utilized in the critical incident development stage of the research to minimize interpretation bias on the part of the researcher.

**Scope and Limitations**

The set of satisfaction requirements for any service customer is personal and there may be endless variations. Defining an exhaustive listing, of all of the critical incidents and requirements for customer satisfaction in each type of facilities management setting would not be practical. The scope of this study is to find a common set of requirements that are representative and of significant importance to the general UNICCO customer/client population.

The measures obtained in this study are limited to a qualitative assessment of customer requirements and an assessment of relative importance of individual qualities within the UNICCO customer population. A quantitative assessment of the actual customer satisfaction levels in UNICCO's customer population is beyond the scope of this study but is suggested for further study.
Chapter II

Review of The Literature
With the specific environment and problem to be tested in mind it is now necessary to delve into the larger concepts that form the building blocks of this study. A review of the pertinent literature and research appropriate to each of these areas will serve to explain the importance of this study and illustrate it’s conceptual viability.

For an overall understanding of “Customer Satisfaction Measures as Indicators of Service Performance” it may be best to begin with a discussion of the two major paradigms that underlie the whole study. These are the conceptual areas of “Quality/Total Quality” and, more specifically, “Service/Service Quality”. Subsequently, some more derivative concepts that build upon these two paradigms will also need to be analyzed. These include the areas of “Service Sector”, “Customer Satisfaction”, “Measurement”, and so forth. To enable an actual understanding of the interplay of these concepts within the organizational setting at hand, a brief systemic view of the factors may serve to pull these concepts together.

The Quality Movement/Total Quality
In a very real sense the roots of this specific study lie in the principles of the “Quality Movement” and it’s more recent rendering as “Total Quality” management. The problem in this study and it’s hypothetical solution, regarding measurement of customer satisfaction, are really ‘grandchildren’ of the Quality movement. To understand this analogy it is necessary to delve into some of the concepts that make up the “Quality” paradigm as well as it’s basic history.

The first step in understanding the quality movement and how this study derives from it would logically involve a brief definition of what, exactly, quality is. A concise definition of quality, however, turns out to be something that is extremely difficult to provide. A deeper insight into the opinions of the traditional experts on quality will serve best to explain the social consensus that is referred to as “Quality”
The traditional experts on the phenomenon of quality, as may be expected, have varying definitions of quality. These may best serve to define the perspectives through which quality may be understood. One widely accepted definition that comes from a technology driven/production oriented viewpoint is: quality is conformance to requirements (Crosby 1984). This definition proposes that in order to achieve quality a company must establish requirement specifications. The quality goal of the various functions of the organization, along these lines, is to comply strictly with the specifications. This viewpoint is basically quality management or in other words, do things right.

A definition of quality from the other end of the spectrum serves to address the question of: Who sets these requirements and specifications? This would be to define quality as fitness for use (Juran, 1982). This definition is primarily customer or market oriented as opposed to the Crosby definition which is primarily production oriented. Another way of interpreting this definition of quality would be: do the right things.

Perhaps a more universal definition of quality is provided by Deming: “What is quality? Quality can be determined only in the terms of the agent. Who is the judge of quality?” (Deming, 1986, p168) This definition gets at the root of the matter. In providing such a definition Deming is indicating that having a specific, rigid definition of quality is not the key but that understanding the process is. The definition of quality must be determined by the agent (internally- the production worker, externally- the customer, etc.).

The need for approaching quality in such a manner is built upon the inherent problems in defining the quality of a product or service. These problems were originally outlined by Walter Shewhart, considered the originator of the quality movement. He states that the difficulty in defining quality is to translate future needs of the user into measurable characteristics, so that a product can be designed and turned out to give satisfaction at a price that the user will pay. This is not easy, and as soon as one feels fairly successful in the endeavor, he finds that the needs of the consumer have changed, competitors have moved in, there are new materials to work with, some better than the old ones, some worse; some cheaper than the ones, some dearer. (Shewhart, 1931)
Recognizing the difficulty in mandating a particular definition of quality, the various experts in the field have focused on providing solutions to the quality problem. Their message is simple and is now generally recognized. This message is that a need for quality exists in industry, both goods producing and services, and that specific measures need to be taken to ensure it. This is not a new concept at all, especially in the goods producing (manufacturing) sector. The major contributors of wisdom to the quality movement include Deming (1986), Juran (1979, 1982, 1987), Ishikawa (1982, 1985), Crosby (1979, 1984), and Taguchi (1981) as well as various others who have interpreted their works. The “founder” of this movement who first introduced the principle quality control is generally considered to be Shewhart (1931) with his use of statistical process control and the control chart.

Most of these authorities claim that the principles of quality that they recommend are universally applicable: both for goods and services. Since many of the concepts that they explain are based on a tradition of manufacturing based management, however, there is need for caution here. The unique nature of a primarily service producing organization, to be explained in more detail in the next section, requires special understanding and interpretation of these quality concepts. A brief outline of the principles that represent the core of what these most influential experts propose is, therefore, appropriate before delving into the specifics of their application in a service based setting.

Quality is not a new concept as stated before. Concern with the quality of goods produced has always existed. The concept of Quality Inspection has probably existed since time immemorial. Gummesson says this consists of the producer inspecting the goods he produced before delivering them to ensure that they meet his requirements (Brown, ed., 1991). Customers also use this concept in deciding whether or not to buy goods (or services). Walter Shewhart defined the first real advance in the concept of quality with his introduction of quality control (statistical process control-SPC) in the 1920’s at Bell Telephone Laboratories (Shewhart, 1931). This quality control concept aimed at increasing the % of acceptable products being manufactured as opposed to quality inspection which aims at removing unacceptable products after manufacturing.
This concept of quality control set the stage for many further advances in the realm of quality. Most of these advances focus on the processes needed to ensure and improve quality. They include:

- Continuous improvement
- Long term focus
- Quality (Control) Circles
- Prevention
- Designed in quality
- Measurement (internal & external)
- Zero defects
- Benchmarking
- Management commitment

Total quality management(TQM)- This refers to a total system for achieving quality which is the current approach today. TQM basically seeks to use all of the previously listed tools in an integrated management system. Ciampa defines total quality as “a unifying principle that is the basis for all strategy, planning, and activity in a company that embraces this philosophy. That principle, simply put, is total dedication to the customer.” He goes on to describe total quality as a combination of the proven tools from the quality movement implemented in a system that focuses on continuous improvement of both internal operations and satisfaction of the customer.(Ciampa, 1992, pp6-8)

A comprehensive system for analyzing the standards and results of quality in organizations is contained in the criteria for the Malcolm C. Baldrige national Quality Award. A look at the requirements for the award may provide further insight regarding total quality. This award seeks to rate U.S. companies on both quality systems and results according to a practical framework. The categories and relative importance ratings used to examine quality in the companies that apply for the award are as follows.
• Leadership (100 pts)
• Information and analysis (70 pts)
• Strategic Quality Planning (60 pts)
• Human Resource Utilization (150 pts)
• Quality Assurance of Products and Services (140 pts)
• Quality Results (180 pts)
• Customer Satisfaction (300 pts)

It must be noted for future reference that Customer Satisfaction, which examines the company’s knowledge of its customer service systems, responsiveness, and ability to meet customers’ requirements and expectations, is by far the most important category with a 300 point weighting. These same criteria are used for all companies that apply, regardless of business sector. This supports the assumption that quality principles apply to all organizations regardless of the orientation of their business. (U.S. Dept. of Commerce, 1993)

Service Quality/The service sector
It has been indicated previously that these principals or tools of quality have been developed historically in a manufacturing oriented frame of reference. In many respects they are universally applicable across the spectrum of organizations from strictly “manufacturing-goods producing” to “strictly” service providing organizations. This universal application of these principals is summed up well by Gummesson in a series of statements on the application of quality in all organizations. He says that: “All companies produce/sell both goods and services (although the ratio may be different between the two). Thus, in managing quality, companies must pay respect to both goods and service quality and the synergy effects between them.” This view is further refined regarding the internal as well as external focus of quality by the statements: “Quality
is the integrating concept between production-orientation and marketing orientation, between technology and customer satisfaction.”, and “Quality can be used as an integrating concept between all activities and processes, thus replacing the less dynamic and often rigid ‘administrative routines’.” (Brown, ed. 1991, p5)

The previous statement’s focus on the similarities existing in all organizations as the universal need for, applying quality principles. The importance of both goods and services, the internal vs. external focus, the production vs. marketing approaches are all examples of opposing viewpoints in any firm regardless of what it’s product is (good or service). In keeping with the subject area of this research (a service providing organization), however, some particular understanding of the service sector in respect to quality is necessary. There are two main reasons for this caution. The first is that quality efforts in regards to “service sector” organizations have lagged far behind those in the manufacturing arena. The second caution, building upon the first, is that their are unique characteristics of a service sector organization that need to be understood (and historically have not been) in order to achieve quality improvement such as that seen in the manufacturing sector.

Some views on the state of service sector organizations with respect to quality are needed at this point. W.E. Deming may have somewhat inadvertently summed up the general state of quality in services in a passage regarding improvements in this sector. He states: “Eventually quality improvements will reach not only the production of goods and food (the birthplace of modern statistical theory was agriculture) but the service industries as well- hotels, restaurants, transportation of freight and passengers, wholesale and retail establishments, hospitals, medical service, care of the aged, perhaps even the U.S. Mail.” (Deming 1986. p14) Although this was written in 1986 it still expresses the underlying concept that services have lagged behind manufacturing/goods producing industries in implementation of quality improvements.

There are several key questions that need to be addressed in order to understand how quality applies—specifically in service sector organizations. These are:

- What, specifically, is meant by service and why is it important?
• Why have quality efforts in the service sector lagged behind other sectors?

• What is different about service sector organizations and how does quality apply to them?

• What measures are suggested for managing/improving service quality?

Let's start with the first question: "What, specifically, is meant by service and why is it important?" Let's look at a number of different views on service.

A.C. Rosander provides a number of attributes of service that help to answer this question. As stated previously there is a component of service in any business, however, at this point it is appropriate to concentrate on those businesses that are considered part of the service sector. These are identified by standard industrial classifications, arranged alphabetically: ("nec" indicates not elsewhere classified)

1. Banking

2. Business services: legal, accounting, data processing, etc.

3. Education, nec

4. Entertainment, recreation

5. Finance, other

6. Government: local, state, federal

7. Health

8. Hotels and motels

9. Insurance

10. Personal service: household, beauty, cleaning, etc.

11. Professional services, nec

12. Public utilities: water, gas, electric, telephone
Rosander states that to apply these principles of quality in service operations, such as those listed, an understanding of the unique nature of services is necessary. He describes a number of characteristics that define the highly subjective nature of the product of service sector organizations (that product being "the service"):

1. Services cannot be measured, with exceptions—by this he means that specific measurement may be a part of the service provided but in determining the quality of the service special understanding is necessary in order to measure the quality of service. It cannot be measured using standard industrial practices.

2. Services cannot be stored—Once a service is rendered, it is gone. It can be repeated, but not recovered.

3. Services cannot be inspected or examined—they can be observed but cannot be inspected before rendering them.

4. Quality cannot be determined beforehand—the customer cannot examine the service before purchase/can only base choice on past experience.

5. Services do not have a lifetime—unlike products services have no lifetime, only a time duration.

6. Services have a time dimension—they consist of an activity or series of activities experienced by the customer over time.
7. Services are rendered on demand- this may be at any instant or scheduled as by the customer.

8. Services are much more critical in some industries than others.

9. Services involve human reliability much more than product reliability- services are performed/controlled by people.

10. Services are rendered by the lowest-paid workers in the company or agency- this is important in that the highest paid individuals in the service company are ultimately responsible for ensuring the quality of services but are also those furthest from customer contact. (Rosander 1989, pp.41-44)

These attributes of service are fairly exhaustive and representative of the other opinions of experts in the field. A more condensed version that represents the factors outlined above follows:

1. Services are basically intangible- services consist of performances and experiences rather than objects, precise manufacturing specifications can rarely be set for them. Customers use complex/difficult to capture criteria to evaluate services.

2. Services, especially those with a high labor content, are heterogeneous- the performance of services, from day to day and from producer to producer, varies. This is due to the high human interaction content to the service- it is not a standardized product like a car or ball bearing.

3. Production and consumption of services are inseparable- Quality of service often occurs during the delivery of the service. Service is mainly an interaction of people and the customer is able to observe the whole production (interaction) process. (Zeithaml, et al 1990, pp.15-16)

A very simplified definition of service is provided by Jan Carlzon in his book about Scandinavian Airlines. In analyzing the turnaround of this company he gives a working definition of service as instances of a "Moment of Truth". This defines service, or more specifically service encounters, as the "Moments of Truth" when customers have direct contact with employees or systems of the organization. The degree of
Service quality is then determined by the success or failure of each “Moment of Truth” in the eyes of the customer. (Carlzon, 1987)

This leads to the second question:

“Why have quality efforts in the service sector lagged behind other sectors?”

The fact that quality in services suffers, particularly in essentially service sector firms, has become a recognized fact. It may be more correct to say that service quality has suffered in the past, and continues to suffer, but is improving as the understanding of the particular nature of service increases. As mentioned before, there is a certain component of service in the operations of any organization. There has always been a component of service involved in businesses in the interface of getting goods to consumers, determining their needs, etc. As technology has improved less time and effort has been necessary for actual production and more for “market related” service activities. Historically, however, this has not been as significant a concern as the concrete goods produced and sold by organizations.

The historical lack of emphasis on the quality of service can be attributed to a number of factors. These include:

- Traditional emphasis on manufacturing models of management
- Misconceptions regarding the economic importance of service activities.
- Transition from goods producing to service based economy.
- Prejudices regarding the second rate status attached to “service sector” involvement.
- Lack of systematic knowledge of the nature and importance of service in all organizations.

(Albrecht, 1988)
With a basic understanding of the nature of "service" and why it has traditionally been misunderstood the next question falls naturally in place.

"What measures are suggested for understanding as well as managing/improving service quality?"

There are several schools of thought regarding this issue that will help to answer this question. Gummeson identifies four approaches to service quality which serve to classify the various schools of thought on the matter. (Brown, ed., 1991, p11) These are:

- Dimensions of service quality
- Gap analysis
- The design (of systems) approach
- Direct application of quality principles

Much of the literature falls into the design of systems approach which deals with understanding and organizing the many facets of the service organization. Direct application of quality principles is also tied into many of the design of systems approaches. Because this study deals more specifically with understanding how quality service is defined elements are drawn from the areas of "dimensions of service quality" as well as "direct application of quality principles". The dimensions of service quality area is a result of the work by Zeithaml, Parasuraman, and Berry. Their theoretical framework and conclusions are particularly vital to this study. The basic concepts that they focus on in their work include:

- What is service quality?
- What causes service quality problems?
- What can organizations do to solve these problems and improve their service?

The conclusions that they come to in their work, stated simply, are:
1) Services are basically intangible, heterogeneous, contain a high human interaction content, and are produced and consumed simultaneously,

2) quality requirements for services can only be defined by those receiving the service,

3) quality problems in services are due to "gaps" in understanding the requirements of service customers and the ability of the firm to provide the expected service, and

4) the customer service requirements and satisfaction level with service must be assessed in order to achieve quality.

In their research regarding how to define and judge service quality, Zeithaml, Parasuraman, and Berry have identified five "dimensions" that customers use in evaluating the quality of a service and their satisfaction with it. These dimensions are highly important to this study and are used in the research methodology which follows this section. The five dimensions and their descriptions are:

<table>
<thead>
<tr>
<th>Dimension (customer requirement)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Appearance of physical facilities, equipment, personnel, and communication materials.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide prompt service.</td>
</tr>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to convey trust and confidence.</td>
</tr>
</tbody>
</table>
Empathy

Caring, individualized attention the firm provides it's customers.

Customer Satisfaction and Measurement

There are some common themes that run through all of the previously discussed principles regarding quality and service. The specific research of this study is based upon these themes. The first of these is the concept of measurement as a necessary component of ensuring quality. This has been an important concept in the quality movement from the very start and it's importance, as well as it's proper application, in the service sector (or with service related activities) is becoming recognized. The popular phrase: “What gets measured gets done.” applies very well to quality improvements in service as well as in strict routine oriented tasks (data processing, auto manufacture, etc.). If a regular measurement routine is not in place there will be no valid means of determining actual quality progress in an area, be it highly objective (ie. tolerances in machining) or subjective (quality of service experience).

Issues in measuring service quality are covered by a number of recognized sources. The problems in measuring service quality as well as potential methods of measurement are summarized by Heskett, Sasser, and Hart. Under problems of measurement it is stated:

“The problem of inadequate quality cost measurement is endemic to all industries, but it is particularly troublesome for service firms. Reasons include: 1) service intangibility, 2) lack of error data, 3) the expense of installing quality-cost measurement systems, 4) the incompatibility of cost-of-quality measurement with existing organizational culture, and 5) the design of traditional accounting systems.”

They go on to outline the need for a number of methods of measurement:

“A full understanding of the benefits and costs of service quality requires information, however appropriate, about what actually happened in a service encounter, how employees and customers felt
after experiencing these events, subsequent actions on the part of employees or customers, and costs incurred by both servers and customers both to prevent and correct poor service. Few organizations collect all of these types of information. How is each obtained?”

Four areas are for measurement are outlined which include:

1) Service events- the direct observation of processes and interactions involved in service delivery process.

2) Service perceptions- perceptions and requirements of customers and also those of service delivery personnel involved in the process.

3) Subsequent customer actions- analysis of lost business, customer retention, purchase patterns, etc.

4) Appraisal, prevention, and recovery- analysis of costs/benefits related to service quality appraisal, training and system implementation/maintenance to ensure successful service, and recovery efforts to repair unsuccessful/poor service experiences.

(Heskett, et. al., 1990)

The question of “What to measure” in determining service quality arises naturally at this point. Referring back to the approaches to defining quality of Deming and Juran gives some direction. Juran defines quality as fitness for use or in other term, do the right things. Deming gives the view that “What is quality? Quality can be determined only in the terms of the agent. Who is the judge of quality?” (Deming 1986, p168) If this is the case then in determining service quality, what are the right things to do and who is the agent that determines them? An answer to this forms the basis for determining service quality: “The only criteria that count in evaluating service quality are defined by customers. Only customers judge quality: all other judgements are essentially irrelevant. Specifically, service quality perceptions stem from how well a provider performs vis-a-vis customers’ expectations about how the provider should perform.
It is according to this line of thought that this study has been designed. The concept of linking performance in service organizations to customer satisfaction is supported by a number of experts as outlined previously. Certainly customer satisfaction is not the only measurement method necessary in the particular area of janitorial services as examined in this study. The company being studied here also uses internal quality control measures such as quality audits which measure the level of cleanliness in specific accounts. Adherence to standard work practices and other systematic activities are also examined on a regular basis.

These internal quality assurance systems are necessary but they only represent half of the picture. As stated previously- the final judge of quality is the customer, hence, the customer’s ways of perceiving quality must be assessed and used to measure service quality in the organization. This necessity leads to the next part of this study which describes the process used to assess the expectations and requirements of the actual customers in determining the quality of the service provided to them.
Chapter III

Methodology
In this study elements of customer satisfaction in UNICCO's various types of customer accounts are examined in the present environment. The study seeks to identify key customer requirements of service performance by soliciting actual customer input and evaluating the relationship of their performance to the satisfaction level of the customers. Descriptive methods will be used to define customer satisfaction requirements and relate their importance to service performance.

Setting of the Study
The specific setting of this study, as mentioned before, involves the facilities maintenance services provider; UNICCO Service Company of Boston, MA. The company provides services such as janitorial, cleaning, grounds maintenance, copy room services, etc. on an outsourcing basis to a wide array of different organizations. The bulk of the services that UNICCO provides are in the area of cleaning and janitorial work. The specific nature of the services are highly tailored to the needs of the "customer" or "client" firms on a contractual basis. This study centers on the customer requirements regarding cleaning and janitorial services since these services are the common denominator in all of the company's accounts.

The company has three divisions of business oriented to the market segments that they serve. These market divisions best represent the main functional groups of customers in respect to their common organizational traits and needs. The three divisions consist of Schools and Colleges, Commercial, and Industrial accounts.

The Study Sample
The sample used for this study is was originally to be taken from the three account types previously explained. In order to gain a representative sample of all customer types, one account from each division was chosen as a research site. Since it was assumed that there may be variation in the attitudes of individuals within the various customer accounts according to the market segment it was deemed necessary
to represent each account type. Upon completion of focus groups in a School/college account and an industrial/office account, logistical difficulties precluded the conduct of a group in a commercial account (high rise office/tenant type setting). Since feedback from the previous groups was similar and consistent along most issues raised, however, this elimination is not considered a substantial effect on results.

The focus group sample size was 12 people for School/College group and 13 for the industrial/office type account. Group members consisted of facility/property managers and others (such as area coordinators) within the organization that had a significant amount of contact or coordination regarding cleaning and janitorial issues. These people were viewed as the most homogeneous set within UNICCO's customer population with regards to their needs and characteristics of their interplay with UNICCO staff.

**Instruments Used**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Figure</th>
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<tbody>
<tr>
<td>Guidelines for Focus Group</td>
<td>3.2</td>
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<tr>
<td>Focus Group Protocol</td>
<td>3.3</td>
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<tr>
<td>Letter of Introduction</td>
<td>3.1</td>
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<tr>
<td>Focus Group Release Form</td>
<td>3.4</td>
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<tr>
<td>Item Selection Survey</td>
<td>4.5</td>
</tr>
<tr>
<td>Statistical Analysis Matrix</td>
<td>4.6</td>
</tr>
</tbody>
</table>

**Period and Circumstances of Data Collection**

Focus group selection for both groups, including initial coordination with target customer organization staff, took approximately 2 months. After a list of participants was determined, and individuals were contacted, the both groups were conducted within one month. Analysis of data from the groups was performed over the space of the next month.
The coordination with UNICCO regarding a list of contacts for the initial survey was rather lengthy and required approximately 3 to 4 months. Upon determination of a final list of contacts, surveys were mailed and returns were received within 3 weeks.

**Critical Incidents Technique (Method)**

The primary methodological means for this study involves an adaptation of the Critical Incident Technique (CIT). This procedure was originally developed for use in industry by John Flanagan (Flanagan, 1954). Flanagan’s original use for the CIT was in determining critical job requirements. Specific instructions for its application in determining customer satisfaction requirements are presented in a practical text by Bob Hayes (Hayes, 1992). These guidelines form a significant portion of the practical usage of CIT in this study.

The Critical Incident Technique consists of a set of specifically defined procedures for collecting observations of human behavior in such a way as to make them useful in addressing practical problems (Flanagan 1954, 327). The strength of CIT is in the carefully structured data collection and classification procedures that result in detailed information about the problem being researched. By using either direct observation or recalled information collected by interview, the technique enables researchers to gather direct “customer perspective” information. This sort of observed data results in rich detail and genuine personal experience of individuals directly involved in the area being studied. The focus of CIT on explicit requirements in specific situation is another strength of the method important to this study.

Work conducted by Andersson and Nilsson on the general reliability and validity aspects of the CIT lead them to conclude that information collected using this technique is both reliable and valid (1964). More recently, Ronon and Latham (1974) and White and Locke (1981) have reached similar conclusions.

(Czepiel, et. al. 1985, p197)

There are five steps to the CIT as outlined by Flanagan (1954) which are followed effectively by this study with assistance from a number of sources. These steps are as follows; 1) establishment of the general aim of the activity to be studied; 2) development of a plan for observers or interviewers; 3) collection of data...
4) analysis (classification) of data; and 5) interpretation of data. A description of the development of the research methodology along these lines, as well as the resources used, follows next.

**Establishment of General aim of activity to be studied**
The activity to be studied, as established through the introduction and literature review, is the perception of customers in UNICCO accounts regarding service quality. This specifically involves measures that the customers themselves would consider to be important in determining their level of satisfaction or dissatisfaction with the cleaning and janitorial services provided by UNICCO.

**Plan for Observation**
Customer focus groups were the method chosen for observation in this study. This method is supported by a number of experts in the service quality arena as well as in other disciplines. Albrecht suggests their usage in obtaining information for satisfaction questionnaires, etc. (Albrecht & Bradford, 1989) Focus groups were one of the primary means of data collection in the SERVQUAL research by Zeithaml, Parasuraman and Berry. Hayes also suggests the focus group or "group interview" as an option in his text, which is used as a guide for this study.

Guidelines for conducting the focus groups were taken from several sources. The text by Greenbaum on focus group research provided guidance for the actual operation of the groups, the role of the moderator, timing, and group size. The text by Albrecht and Bradford contained sample letters of introduction, focus group protocols, and release forms that were used as a basis for those used in this study. The actual questions to be asked during the group to provide the needed critical incidents of customer satisfaction are from Hayes (pp14,15) The text by Earl Babbie (Babbie, 1990) provided additional information in the areas of questioning, controlling the group, and general group procedures. A summary of the plan and guidelines for operating the group follows:

**Collection of Data**
The ideal number of participants for a group such of this is 10 people. These don't have to come from any particular level or segment of the organization. Since all of those who work at your location experience the
service provided by UNICCO it would be best to have a broad array of job types. These may include anyone from production workers to managers, department heads, etc. Some of the participants should be those that have more direct contact with UNICCO, such as property or facility managers. A broad array of viewpoints and experience with the cleaning and janitorial service will help to provide a complete spectrum of discussion regarding individual satisfaction requirements for the service. The time commitment involved would be no more than two hours on a one time basis.

Invitation of the participants may be handled internally within the customer organization or by the researcher affiliated with the service provider (UNICCO). Arrangement and invitation of participants internally (by customer organization with resources provided by the researcher) may be more likely to ensure participation and a greater comfort level for the participants. For practical purposes this was the method chosen in the course of this research. A model letter of invitation was provided for customization by the specific organizations.

Focus Group / Research Procedures
With a basic understanding of the background and purpose for this research achieved, a discussion of the details for the focus group component of the process is now in order. There are two main issues I will cover in this section. The first area to discuss is the viability and theory behind focus groups that make them appropriate for use in research situations such as the one at hand. The second area I will discuss involves the actual mechanics of focus group operation and specific plans for the group I intend to conduct at your location. Some basics regarding the appropriate usage of focus groups in this situation are as follows:

In any hypothetical research there is a need to collect data to support the hypothesis that is proposed. The hypothesis in this study essentially states that..."Recipients of a service (Customers) are capable of providing qualitative information, regarding their satisfaction requirements, that is significantly related to the performance of that service by the provider (UNICCO in this case)" Another way of stating this might be to say.."The customers know what they like and we need to ask them what that is." This may be done in
a number of ways which include individual interviews, phone interviews, focus groups, and certain types of mailed surveys.

The need to guard against bias is a guiding principle for this study, as it should be for any valid analysis of this type. To guard against personal bias in the data gathering, and to gain the widest range of input in the most efficient manner, focus group methods for gathering customer data were selected. These groups were conducted using a set protocol that was designed to minimize the effect of facilitator/researcher opinions on group outcomes (full transcript of protocol included in following pages). The assistance of a neutral third party in interpreting the recorded group conversations and observations was utilized. The third party assistance was also be utilized in the critical incident development stage of the research (interpreting the opinions recorded from the focus groups in order to develop a survey instrument) to minimize interpretation bias.

Selection and Recruitment of Participants
The selection and recruitment of participants was done internally at the two locations by staff of the customer organizations in conjunction with the UNICCO account manager at the location. This involved personal meetings with the customer organization representatives arranged and attended by UNICCO staff members. Upon tentative agreement for conducting groups further information on the process was requested. These were the general guidelines provided for the selection of participants:

“As stated during our meeting, the desired number of participants for the focus group is 10. This will probably require asking around 15 people. The participants need not be all department heads or executives, etc. in order to be productive. The real requirement is that they experience the various services, both routine and non-routine, that are provided by UNICCO. Some members of the organization may have more contact with these services than others and it would be desirable to seek them out for this group. A model of the letter of invitation that I have devised is included here for your information. It provides a general orientation to the purpose of the group research and places an emphasis on the importance of having that individual’s input.”
The following figures represent the information provided to targeted organizations regarding the focus groups. These will serve to illustrate how the groups were organized and operated. All conversations during the groups were tape recorded and protocols and guidelines were followed as closely as possible.
This is a sample letter of invitation:

(Date)

(Inside Address)

Dear [Customer Name]:

Jon Kemp, a researcher at the Rochester Institute of Technology, in conjunction with UNICCO Service Company and (customer organization), is conducting a study of customer satisfaction requirements and service quality related to janitorial and building maintenance services.

[Mr./Mrs. Customer], you are the most important part of this effort. I would like you to participate in a small group discussion where you can tell UNICCO how they are doing as well as what good cleaning and janitorial services mean to you. You will be part of a small group of approximately 10 other individuals from the Gillette organization.

The time required is minimal (no more than 2 hours) and your input is extremely important to us. Your comments will help us paint an accurate picture of the current level of service that UNICCO provides—where it’s working and ways it can be improved. In order to capture and preserve the information you provide, the group discussion will be audiotaped by the researcher. Your individual identities will not be revealed to anyone, including UNICCO staff, and the recordings will only be used to provide an accurate record of the proceedings. All audiotapes will be erased within one month of their recording date and will be heard only by the researcher.

Your opinions are very important to us. To make your attendance more convenient, with as little interruption in your schedule possible, we have planned the group for [lunch/mid-day time frame-2hrs.] and will be providing [lunch/refreshments] for you during the break.

Sincerely,

[appropriate person]
Figure 3.2

Moderator Role

I, the researcher, will be functioning as the moderator (interviewer) for the group. Essentially, it will be my task to lead the group through a series of questions related to service quality and satisfaction otherwise known as the protocol. A full script of the protocol is included in this section. I will also be responsible for maintaining a productive quality of discussion in the group, ensuring equal participation by all members, maintaining adequate adherence to the time schedule, and facilitating the organization of thoughts and responses during discussion. Some of the qualities and behaviors that will be part of my role as moderator are as follows:

- Encouraging the expression of different opinions.
- Discouraging attempts to put down or forcibly change the opinions of others.
- Turn to or respond to group members based on both verbal remarks and non verbal communications.
- Use neutral and open ended questions as much as possible.
- Reward productive responses through attention, acknowledgement, and follow-up questions.
- Interrupt non-productive responses non-verbally or verbally, eg.:
  - looking away/holding up my hand
  - re-stating or re-phrasing original question
  - saying I’m going to interrupt and why
- Encourage all group members, including the shy ones, to participate.
- Remain actively involved in the discussion without influencing it with my personal opinion.
- Use probing questions to pursue understanding of the meanings and intents behind group responses.
- Linking trains of thought and divergent comments into cohesive ideas. Rephrasing confusing responses to gain better group understanding.

Topics to be covered

To guide the discussion of the group, and to provide a framework for the moderator, a protocol (basically a script of questions) is used. This outlines the introduction and course of questions, from general to specific, for the group. The full text of the protocol is included here. The protocol also includes a release form for recording the group discussions, which is follows.
Hello everyone. My name is Jon Kemp but please call me Jon; let’s keep this informal. Thank you all for making time to be here today. During the discussion we will generally try to go in order around the table but since this is informal please feel free to make comments or ask any questions you’d like. For my information please write your name on the card in front of you with the markers provided. Before we begin, please read the following “release form”, sign and date it, and pass it to me. Now I’d like to start by giving you a general introduction to the topic we are going to discuss today.

Before we get into the middle of our discussion questions let’s take a moment to reflect. The subject of our discussion today is that of service quality and how you, as customers, react to good or bad service. I realize that this may not be a subject you analyze in great detail, from day to day, but I’m willing to bet it’s important to you none-the-less.

If we reflect on the course of our day we may come to realize that service experiences, of varying quality, are a constant part of our lives. Some service really stands out as being excellent, some also stands out for it’s aggravating indifference. Sometimes service is so reliable that we come to hardly notice it until something goes wrong. You experience service everywhere from your daily lunch break at local restaurants to infrequent trips to your auto mechanic to the phone conversation regarding your credit card bill.

As you think about all of the instances of service you receive during the day it surely comes to mind how you feel after receiving really good or unexpected service. Really poor service also has a way of standing out and leaving a bad taste in your mouth. The more you think about it, the more you may realize that there are certain areas of expectation that you have when receiving services that need to be met. These areas may include such things as the personality of the individual providing the service, how prompt the service was, how easily accessible the service provider was, and was the service provided in a technically correct manner.

Our purpose for being here today is for you to give me you definition of good service. Each of you may have different priorities for service, particularly janitorial and building maintenance in this case, and they are all important. The series of questions that I have for us to discuss is meant to help formulate your requirements for service and then relate them to the specific services I have mentioned. Please remember that this is an informal discussion and there are no wrong answers.

Guiding Questions:

1. With the preceding introduction in mind, let’s go around the table and each give a brief definition of service and what it means to us. Say whatever first comes to mind. If you change your mind or
have more ideas as we go around the room, write your ideas down. You will have time later to change your definition.

2. When you think of good service what comes to mind?

3. When you think of bad service what comes to mind?

***break for refreshments***

6. Let’s go around the table and each give 5-10 specific examples of good or satisfactory service. In this discussion let’s deal only with the cleaning and janitorial service company UNICCO who provides these services in your building. Try to be creative and not focus on just the mechanical aspects of the service (garbage cans emptied, etc.)

7. Now let’s each give 5-10 examples of poor or un-satisfactory service in the same area. Again, let’s be creative and look at the complete scope of important service issues that we have already discussed.

8. If you could tell UNICCO Service Company one thing about the service they provide, or make one suggestion regarding services in your building, what would it be?

Thank you for your time. This session has been very productive and you have all been very helpful. Please keep in mind that this is objective research and that specific complaints will not be going back to UNICCO. The results of the study will be summarized for them but if you have specific items that need to be addressed please communicate them to the UNICCO staff on location. Thank you again for your time and have a good afternoon.
This is an example of the release form that will be passed out at the beginning of the session:

**Release Form**

I understand that the focus group in which I am participating is being audio taped. I give permission to Rochester Institute of Technology and researcher Jon Kemp to use my voice for internal use only. I understand that I shall not be identified by name and that this audiotape will not be used outside R.I.T. or in any public setting.

Signed ........................................ Date ........................................

*Note-* The following section was included to provide some brief theoretical background on the study for the information of personnel the targeted organizations.
BACKGROUND ON THE STUDY
The following paragraphs are extracts from the thesis proposal titled "Customer Satisfaction Measures as Indicators of Service Performance" which describes the theoretical background for this research. The extracts from various sections are as follows:

....A significant problem in many companies today is their failure to communicate with their customers specifically regarding the successful performance of the service that they provide. The true measure of success in providing a service is in the eyes of the customer. In the end if the customer is satisfied with a service, in this case cleaning and janitorial services, then the service has been delivered successfully. The level of customer satisfaction with a service is the best measure of service performance, but it must be measured, it can not be assumed.

....This concept leads to the root of the problem. In a given service sector organization, specifically facilities management (UNICCO) for the purposes of this study, it is first necessary to know what the customers feel is satisfactory performance of the service. Once it is known what activities denote satisfactory service to the customers it is then necessary to design a means for measuring service performance on a regular basis. In essence this indicates the necessity of "asking the customers how the company is doing" in a format that provides a reliable measure of customer satisfaction and, hence, success of service performance.

....At this point some elaboration is necessary. To reiterate; before it is possible to measure customer satisfaction and, hence, the degree of success of service performance by a provider it is first necessary to determine exactly what constitutes successful service performance in the eyes of the customer. What actions and/or outcomes of the services provided correspond to satisfaction of the customer's requirements? There are a number of issues here that are crucial to understanding the depth and importance of this question.

....A fundamental issue that needs to be understood here is the definition of "service" and it's significance as the main product of service sector/service providing organizations. The best way to describe this issue is
that service is an intangible product in that it cannot be held in the hand, stored for later usage, or measured using traditional methods. Service is really the interaction, whether face to face or with the results, of the customer and the service providers.

....This leads to the next important issue which is characterized by the statement: “What gets measured gets done”. The literature appropriate to this topic, as well as growing common knowledge in the industry, realizes the need for quality in services and also the need for satisfied customers. Measurement of quality conformance, in itself, is not a new concept. It’s principles have been well refined in the manufacturing environment and the results for companies that do it best are well known (Companies such as Motorola, Toyota, Xerox, etc.). The key to the issue for service sector companies here is twofold; 1) The realization of the importance of customer satisfaction as the best indicator of service performance, and 2) The need to actually measure customer satisfaction instead of just acknowledging it’s importance. If performance is measured there is an actual basis for improving it.

....The final item that provides the necessary background in illustrating the importance of this study involves the use of actual customer generated measures of service performance. Referring to work by Karl Albrecht, noted author of “At America’s Service” and “Service America”, it is not always a given that management truly understands the customers needs. To provide true critical incidents to customer satisfaction it is necessary to actually “ask the customers” what is important.

....The purpose of this study, then, is to explore key elements of the customer satisfaction requirements in a representative sample of UNICCO’s existing customer accounts. This representative sample will include one University/College account, one Industrial Account, and one Office Complex account. Through use of interview/focus group and survey research methods, the real dimensions of facilities management customer satisfaction will be identified and measured. This would provide knowledge of key service performance elements, a baseline measure of the importance of that performance, and potential for future tracking of progress using the identified measures.
Analysis of Data
The analysis (as well as collection) of data regarding customer satisfaction using the critical incidents process is particularly well described by Hayes. The following process is from his book on "measuring Customer Satisfaction...". This process was used for data gained from the performance of two focus groups, selected and operated as described previously, and is outlined as follows:

*note- Hayes also states that the first three steps may go in the opposite direction, starting with the customer requirements (quality dimensions) and placing the satisfaction items and critical incidents under them. This option is explained in detail later. (Hayes 1992, pp26-27)
<table>
<thead>
<tr>
<th>CRITICAL INCIDENTS APPROACH</th>
<th>Important Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steps</strong></td>
<td><strong>Important Points</strong></td>
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</tbody>
</table>
| 1. Generate critical incidents | > Interview customers  
> Critical incidents should be specific examples of good or poor service or product quality  
> Each critical incident reflects only one example |
| 2. Categorize C.I.’s into clusters. | > Categorization is based on similarity in content of the incidents |
| 3. Write satisfaction items for clusters. | > Each satisfaction item should be a declarative statement  
> Satisfaction items should be specific |
| 4. Categorize sat. items into clusters. | > Categorization should be based on each cluster representing similar customer satisfaction items.  
> Customer requirement must reflect the content of satisfaction items. |
| 5. Determine the quality of the categorization process. | > Two judges should do categorization steps.  
> Calculate interjudge agreement. |
CHAPTER IV

TABULATION AND ANALYSIS OF DATA

The first step in critical incidents process outlined in the previous chapter involved breaking down the focus group comments from the transcripts into actual critical incident format. Hayes describes the proper form for critical incidents in this manner: “A good critical incident for defining customer requirements has two characteristics: 1) it is specific; and 2) it describes the service provider in behavioral terms or describes the service or product with specific adjectives. ...A critical incident is specific if it describes a single behavior or characteristic of the service or a single characteristic of the product. The incident should be written so that it is interpreted the same way by different people. ...A critical incident should also focus on behaviors of the service provider or specific adjectives that describe the service or product.” (Hayes 1992, pp13-14)

*note please refer to figures 4.1 through 4.5 to see the actual data transformation as described here.

As noted in the outline of the critical incidents approach (Hayes) used here the next step was to choose a set of quality dimension under which to organize the critical incidents. The reverse order option that is discussed by Hayes was chosen for a number of reasons in this study. By reverse order I mean the hierarchal categorization of the data from general(quality dimensions) to specific (critical incidents). Hayes states that this is an equally viable option because it results in the same hierarchal relationship of critical incidents, satisfaction items, and customer requirements (quality dimensions).

The need to choose the order of categorization from general to specific was driven by one of the assumptions regarding the data generated from the focus groups. As stated in previous passages, it was assumed that the customer requirements generated by the groups would follow the quality dimension categories identified by Zeithaml, Parasuraman, and Berry in their SERVQUAL research and its interpretation. (Zeithaml, et. al., 1990) The findings of their research, to re-state, identified ten general
dimensions that represent the evaluative criteria customers use to evaluate service quality. These 10 dimensions, through their further statistical analysis, were consolidated into 5 distinct dimensions that represent the core criteria that customers employ in evaluating service quality. These dimensions that represent the core customer requirements, along with their definitions, are as follows:

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Through inspection of the focus group transcripts, which consisted of input from individuals who experience the services provided by UNICCO, it was determined that actual examples of customer requirements tended to fall into the categories (Dimensions) identified in the SERVQUAL research (previous chapter. Further, through development of proper format critical incidents from the transcripts, it became obvious that the focus groups had provided not only specific critical incidents of service but also many satisfaction items that described groups of incidents. This was probably due somewhat to the order of questioning- i.e. first give general definitions of good service, second give specific examples services provided by UNICCO) This tendency made the “reverse order” grouping a more expedient choice as well as supporting the assumption that the customers requirements would follow the dimensions described by Zeithaml, et.al.

To help visualize the categorization process a series of documents are displayed that show the evolution of critical incident/satisfaction data from the initial incidents list derived from the transcripts to a full categorization and ranking of critical incidents, satisfaction items, and quality dimensions. The process used here generally follows that outlined previously from Hayes.
Figure 4.1
Initial Data List from Focus group Transcripts:

Written in rough critical incident form as described by Hayes.

Code to Quality Dimension assignment for each item:

\[
\begin{align*}
T &= \text{Tangibles} & \text{"Appearance of physical facilities, equipment, personnel, and communication materials"}. \\
R &= \text{Reliability} & \text{"Ability to perform the promised service dependably and accurately"}. \\
S &= \text{Responsiveness} & \text{"Willingness to help customers and provide prompt service"}. \\
A &= \text{Assurance} & \text{"Knowledge and courtesy of employees and their ability to convey trust and confidence". - (includes areas of competence, courtesy, credibility, security) \\
E &= \text{Empathy} & \text{"Caring, individualized attention the firm provides its customers". - (includes areas of access, communication, understanding the customer) 
}
\end{align*}
\]

| T | UNICCO staff are always properly groomed. |
| T | UNICCO cleaners have pleasant/neat looking uniforms. |
| T | UNICCO managers maintain a professional appearance. |
| T | The UNICCO managers at my location are always well dressed. |
| T | The UNICCO managers at my location are always well groomed. |

| T | The cleaners from UNICCO always appear to be busy. |
| T | UNICCO managers maintain a visible presence in my area/building. |
| T | I see the cleaners responsible for my area on a regular basis. |

| T | The level of turnover of UNICCO employees has a negative effect on the service we receive. |
| T | Their aren't enough cleaning staff on duty at our location. |

| T | Equipment and collected trash are often left in plain view. |
T I often have to walk around equipment or collected trash (in hallways, work areas, etc.)
T The cleaners leave collected trash in unsightly places.
T The cleaners leave equipment where it doesn't belong.

T Areas are sufficiently clean after UNICCO cleaners perform their cleaning tasks.
T UNICCO maintains the same level of cleanliness in high traffic areas.

T UNICCO equipment is too noisy.
T UNICCO equipment is not properly maintained.
T The cleaners do not appear to have adequate equipment.

R The level of cleanliness that UNICCO provides is consistent.
R My area is cleaned with the same level of care each time.
R I can count on cleaning tasks being performed the same way each time.

R Some areas get cleaned more thoroughly than others.
R The level of service for my area varies from that of similar areas.
R Other areas get better service from UNICCO than mine does.

R Bathroom cleaning is performed consistently
R The bathrooms are always clean when I use them.

R Bathroom cleaning tasks are performed thoroughly.
R The bathrooms are very clean after UNICCO staff clean them.
R The bathrooms are not as clean as I would like them to be.

R Common areas and hallways are always kept clean by UNICCO.
R The level of common area/hallway cleanliness delivered by UNICCO meets my expectations.

R UNICCO cleaners sometimes avoid tasks that they are supposed to perform regularly.

R UNICCO cleaning staff don't always adhere to our recycling policies.
R Trash is emptied properly by the cleaning staff.

R Trash is emptied consistently by the cleaning staff.
R UNICCO cleaners consistently remove trash/items I want them to.
R Trash is removed when it is supposed to be.
| R | The cleaners perform their routine on a regular schedule. |
| R | I know when to expect the cleaning staff in my area. |
| R | The cleaners perform their routine tasks consistently. |
| R | UNICCO managers don't always answer my messages. |
| R | UNICCO managers respond to communications consistently. |
| R | Cleanliness standards need to be higher. |
| R | The services contracted from UNICCO are appropriate to maintain a good level of cleanliness. |
| S | UNICCO staff respond quickly to my requests. |
| S | UNICCO handles emergency service requests quickly. |
| S | UNICCO handles special cleaning requests quickly. |
| S | Areas that receive more use/more traffic are cleaned more frequently. |
| S | UNICCO monitors areas that receive more traffic for cleanliness. |
| S | The UNICCO staff clean areas more frequently during busy times. |
| S | The cleaners don’t react effectively to changes in the area to be cleaned. |
| S | UNICCO responds well to changing cleaning needs in our building(s). |
| S | UNICCO managers respond to communications promptly. |
| S | UNICCO managers don’t answer my messages quickly. |
| S | The cleaning staff won’t alter their routine to meet the needs of my area. |
| S | The cleaners will come back to clean later if I ask them to. |
| S | I am able to easily address complaints regarding UNICCO services. |
| S | My complaints with UNICCO services are resolved quickly. |
| S | I often have to ask more than once to have a task performed by UNICCO. |
| S | I often have to ask for tasks to be performed that UNICCO should do automatically. |
| A | The cleaners always have proper supervision. |
| A | Supervisors consistently check the work performed by the cleaners. |
| A | UNICCO staff respond cheerfully to my requests. |
| A | UNICCO staff are friendly when I see them. |
UNICCO workers present a friendly attitude when I see them.

UNICCO workers appear to be properly trained to work in high-tech. or hazardous areas.

New cleaners in my area quickly learn the proper cleaning routines.

The cleaners interrupt my work routine when they are in my area.

UNICCO workers have access to areas they are not supposed to.

UNICCO workers clean areas they aren’t supposed to.

The access of cleaning staff to restricted/sensitive areas is properly supervised.

The cleaners remove items from my area that should not be removed.

Personal and office items are safe when cleaners have access to them.

I am confident that UNICCO takes proper security precautions when cleaning in my area.

Personal and work related items in my area are always safe around the UNICCO cleaners.

The cleaners greet me pleasantly when I see them.

The cleaners address me in a respectful manner.

The cleaners are polite when they address me.

Emergency services from UNICCO are easily obtained.

UNICCO handles special cleaning requests efficiently.

UNICCO handles emergency service requests efficiently.

The UNICCO cleaners display personal pride in their work in my area.

The cleaners show respect for my privacy when performing their duties.

The cleaners knock/announce themselves before coming into offices to clean.

Items or areas are cleaned/altered by UNICCO staff that should not be.

Areas are returned to their proper condition after cleaning.

UNICCO cleaners leave my work area in an acceptable state after cleaning.
A The UNICCO staff always maintain a professional manner of conduct.
A Some of the UNICCO cleaners make inappropriate comments in public areas.
A The cleaners gossip about members of our organization where I can hear them.
A The cleaners openly criticize people in our organization.

A The UNICCO staff do not use their time efficiently.

A The same UNICCO employees clean my area each time.
A Having the same staff clean my area on a regular basis is reassuring.
A The same cleaners are responsible for my area on a consistent basis.

E I know who to contact for after hours cleaning needs and emergencies.

E The UNICCO supervisors/managers take time to speak to me personally.
E The UNICCO managers regularly ask us for feedback on services they provide.

E I know the UNICCO managers at my location personally.
E I know who the UNICCO managers at my location are.
E I know the names of the UNICCO managers at my location.
E I know the names of the cleaners responsible for my area.
E I know who the cleaners responsible for my are.
E I don't know the names of UNICCO managers and staff that I see.

E UNICCO communicates well with other departments.

E UNICCO staff adhere to policies of our organization where appropriate.

E The performance of cleaning tasks is not oriented to our operations.
E The cleaners take a personal interest in the needs of the people in my area.
E The cleaners vary their routine around the needs of our facility.
E Cleaning activities often conflict with the business routine in my area.
E More of the cleaning should be done after hours.
I have a complete knowledge of the services UNICCO is supposed to provide.
I don't know what the duties of the cleaners are.
I don't know how often my area is supposed to be cleaned.
I don't know how thoroughly my area is to be cleaned.
We know specifically what cleaning tasks are to be performed in our area.

It is easy to communicate with UNICCO cleaning staff.
Language barrier presents a problem in communicating cleaning needs to the cleaners.
There is a consistent procedure for communicating with UNICCO in my building/area.
I am able to contact the UNICCO managers whenever I need them.
I am not sure how to communicate with UNICCO at my location.
I always know who to contact regarding cleaning concerns.
Figure 4.2

Satisfaction Item (customer requirement) generation:

Categorized by quality dimensions

*note- satisfaction items are indicated by text box.

**Tangibles**

“Appearance of physical facilities, equipment, personnel, and communication materials”.

<table>
<thead>
<tr>
<th>The UNICCO cleaning staff at my location maintain a professional appearance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• UNICCO staff are always properly groomed.</td>
</tr>
<tr>
<td>• UNICCO cleaners have pleasant/neat looking uniforms.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The UNICCO managers at my location maintain a professional appearance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The UNICCO managers at my location are always well dressed.</td>
</tr>
<tr>
<td>• The UNICCO managers at my location are always well groomed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNICCO staff maintain a productive appearance.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>UNICCO staff are readily available at all times.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The cleaners from UNICCO always appear to be busy.</td>
</tr>
<tr>
<td>• UNICCO managers maintain a visible presence in my area/building.</td>
</tr>
<tr>
<td>• I see the cleaners responsible for my area on a regular basis.</td>
</tr>
<tr>
<td>• The level of turnover of UNICCO employees has a negative effect on the service we receive.</td>
</tr>
<tr>
<td>• Their aren’t enough cleaning staff on duty at our location.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collected trash is quickly removed from sight.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Cleaning equipment is properly stored when not in use.</th>
</tr>
</thead>
</table>
Cleaning equipment is bothersome while in use.

- Equipment and collected trash are often left in plain view.
- I often have to walk around equipment or collected trash (in hallways, work areas, etc.)
- The cleaners leave collected trash in unsightly places.
- The cleaners leave equipment where it doesn't belong.

Areas appear to be clean after UNICCO staff perform their cleaning

- Areas are sufficiently clean after UNICCO cleaners perform their cleaning tasks.

UNICCO maintains the same level of cleanliness in all areas.

- UNICCO maintains the same level of cleanliness in high traffic areas.

UNICCO equipment is too noisy.

UNICCO cleaning staff have adequate equipment.

- UNICCO equipment is too noisy.
- UNICCO equipment is not properly maintained.
- The cleaners do not appear to have adequate equipment.
Reliability  “Ability to perform the promised service dependably and accurately”.

**UNICCO staff clean with the same level of care each time they clean.**

- The level of cleanliness that UNICCO provides is consistent.
- My area is cleaned with the same level of care each time.
- I can count on cleaning tasks being performed the same way each time.

**Some areas get better service from the UNICCO cleaning staff than others.**

**Similar areas are not consistently cleaned with the same level of care.**

- Some areas get cleaned more thoroughly than others.
- The level of service for my area varies from that of similar areas.
- Other areas get better service from UNICCO than mine does.

**The bathrooms are maintained with a consistent level of cleanliness.**

**UNICCO does not clean bathrooms as thoroughly as I would like them to.**

- Bathroom cleaning is performed consistently.
- The bathrooms are always clean when I use them.
- Bathroom cleaning tasks are performed thoroughly.
- The bathrooms are very clean after UNICCO staff clean them.
- The bathrooms are not as clean as I would like them to be.

**Floors/carpets are cleaned thoroughly by UNICCO staff.**

**Hallways/common areas are always kept clean by UNICCO.**

- Common areas and hallways are always kept clean by UNICCO.
- The level of common area/hallway cleanliness delivered by UNICCO meets my expectations.
UNICCO cleaning staff sometimes avoid tasks that they are supposed to perform regularly.

- UNICCO cleaners sometimes avoid tasks that they are supposed to perform regularly.

Trash is emptied in the proper manner by the cleaning staff.

- UNICCO cleaning staff don’t always adhere to our recycling policies.
- Trash is emptied properly by the cleaning staff.

Trash is always removed when it is supposed to be.

- Trash is emptied consistently by the cleaning staff.
- UNICCO cleaners consistently remove trash/items I want them to.
- Trash is removed when it is supposed to be.

There is a consistent cleaning schedule that I can count on.

The cleaners perform their routine tasks consistently.

- The cleaners perform their routine on a regular schedule.
- I know when to expect the cleaning staff in my area.
- The cleaners perform their routine tasks consistently.

UNICCO managers at my location always answer my communications (messages, etc.).

- UNICCO managers don’t always answer my messages.
- UNICCO managers respond to communications consistently.

The services contracted for with UNICCO are adequate to maintain cleanliness at our location.

The level of cleanliness provided by UNICCO is not adequate.

- Cleanliness standards need to be higher.
- The services contracted from UNICCO are appropriate to maintain a good level of cleanliness.
### Responsiveness

"Willingness to help customers and provide prompt service".

<table>
<thead>
<tr>
<th>UNICCO staff respond quickly to my requests.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requests for out of the ordinary tasks are handled quickly by UNICCO.</td>
</tr>
<tr>
<td>• UNICCO staff respond quickly to my requests.</td>
</tr>
<tr>
<td>• UNICCO handles emergency service requests quickly.</td>
</tr>
<tr>
<td>• UNICCO handles special cleaning requests quickly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas that receive more traffic are monitored effectively for cleanliness.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Areas that receive more use/more traffic are cleaned more frequently.</td>
</tr>
<tr>
<td>• UNICCO monitors areas that receive more traffic for cleanliness.</td>
</tr>
<tr>
<td>• The UNICCO staff clean areas more frequently during busy times.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The cleaners react effectively to changing cleaning needs in our area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The cleaners don’t react effectively to changes in the area to be cleaned.</td>
</tr>
<tr>
<td>• UNICCO responds well to changing cleaning needs in our building(s).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNICCO managers respond to my communications/messages promptly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• UNICCO managers respond to communications promptly.</td>
</tr>
<tr>
<td>• UNICCO managers don’t answer my messages quickly.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>The cleaners won’t alter their routine if I ask them to.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cleaners will clean areas at an alternate time if necessary.</td>
</tr>
<tr>
<td>• The cleaning staff won’t alter their routine to meet he needs of my area.</td>
</tr>
<tr>
<td>• The cleaners will come back to clean later if I ask them to.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My complaints with UNICCO services are easily resolved.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• I am able to easily address complaints regarding UNICCO services.</td>
</tr>
<tr>
<td>• My complaints with UNICCO services are resolved quickly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I often have to ask more than once to have a task performed by UNICCO staff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• I often have to ask more than once to have a task performed by UNICCO.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>I often have to ask for tasks to be performed that UNICCO staff should do automatically.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• I often have to ask for tasks to be performed that UNICCO should do automatically.</td>
</tr>
</tbody>
</table>
Assurance  
“Knowledge and courtesy of employees and their ability to convey trust and confidence”. -(includes areas of competence, courtesy, credibility, security)

The work of the UNICCO staff is always properly supervised.
UNICCO supervisors do not adequately check the work of the cleaners.

- The cleaners always have proper supervision.
- Supervisors consistently check the work performed by the cleaners.

UNICCO staff always respond to me with a friendly attitude.

- UNICCO staff respond cheerfully to my requests.
- UNICCO staff are friendly when I see them.
- UNICCO workers present a friendly attitude when I see them.

UNICCO staff are properly trained for all of their tasks.

- UNICCO workers appear to be properly trained to work in high-tech. or hazardous areas.
- New cleaners in my area quickly learn the proper cleaning routines.

The cleaners interrupt my work routine when they are in my area.

- The cleaners interrupt my work routine when they are in my area.

The access of the cleaners to sensitive/private areas is properly supervised.

Personal and office items are safe when the cleaners have access to them.

- UNICCO workers have access to areas they are not supposed to.
- UNICCO workers clean areas they aren’t supposed to.
- The access of cleaning staff to restricted/sensitive areas is properly supervised.
- The cleaners remove items from my area that should not be removed.
- Personal and office items are safe when cleaners have access to them.
- I am confident that UNICCO takes proper security precautions when cleaning in my area.
- Personal and work related items in my area are always safe around the UNICCO cleaners.
UNICCO staff always address me politely.

- The cleaners greet me pleasantly when I see them.
- The cleaners address me in a respectful manner.
- The cleaners are polite when they address me.

UNICCO is able to handle emergency service requests efficiently.

- Emergency services from UNICCO are easily obtained.
- UNICCO handles special cleaning requests efficiently.
- UNICCO handles emergency service requests efficiently.

The cleaners display personal pride in their work in my area.

The cleaners show respect for my privacy when performing their duties.

- The cleaners show respect for my privacy when performing their duties.
- The cleaners knock/announce themselves before coming into offices to clean.

The cleaners return areas to their proper condition after cleaning.

- Items or areas are cleaned/altered by UNICCO staff that should not be.
- Areas are returned to their proper condition after cleaning.
- UNICCO cleaners leave my work area in an acceptable state after cleaning.

The UNICCO staff always maintain a professional manner of conduct.

- The UNICCO staff always maintain a professional manner of conduct.
- Some of the UNICCO cleaners make inappropriate comments in public areas.
- The cleaners gossip about members of our organization where I can hear them.
- The cleaners openly criticize people in our organization.

The UNICCO staff do not appear to use their time efficiently.

- The UNICCO staff do not use their time efficiently.

The same UNICCO employees are responsible for my area on a consistent basis.

- The same UNICCO employees clean my area each time.
- Having the same staff clean my area on a regular basis is reassuring.
- The same cleaners are responsible for my area on a consistent basis.
Empathy  “Caring, individualized attention the firm provides it’s customers”. -(includes areas of access, communication, understanding the customer)

It is easy to contact UNICCO for after hours cleaning needs and emergencies.
- I know who to contact for after hours cleaning needs and emergencies.

The UNICCO managers at my location are personally interested in the level of service I am receiving.
- The UNICCO supervisors/managers take time to speak to me personally.
- The UNICCO managers regularly ask us for feedback on services they provide.

I am easily able to identify the UNICCO managers at my location.

I am easily able to identify the UNICCO staff responsible for my area.

The UNICCO staff and managers are interested in knowing me personally.
- I know the UNICCO managers at my location personally.
- I know who the UNICCO managers at my location are.
- I know the names of the UNICCO managers at my location.
- I know the names of the cleaners responsible for my area.
- I know who the cleaners responsible for my are.
- I don’t know the names of UNICCO managers and staff that I see.

UNICCO staff communicate well with other departments.
- UNICCO communicates well with other departments.

The UNICCO staff always adhere to policies of our organization where appropriate.
- UNICCO staff adhere to policies of our organization where appropriate.

The performance of cleaning tasks is suited to the needs of our area.

The cleaners are willing to vary their routine to suit the needs of our area.
- The performance of cleaning tasks is not oriented to our operations.
- The cleaners take a personal interest in the needs of the people in my area.
- The cleaners vary their routine around the needs of our facility.
- Cleaning activities often conflict with the business routine in my area.
I have an adequate knowledge of the services that UNICCO is supposed to provide.

I am able to judge how well UNICCO is performing based on the services they are supposed to provide.

- I have a complete knowledge of the services UNICCO is supposed to provide.
- I don’t know what the duties of the cleaners are.
- I don’t know how often my area is supposed to be cleaned.
- I don’t know how thoroughly my area is to be cleaned.
- We know specifically what cleaning tasks are to be performed in our area.

I am able to communicate easily with UNICCO staff on a verbal basis.

I am able to communicate easily with UNICCO staff on a written basis.

There is a consistent procedure at my location for communicating with UNICCO.

- It is easy to communicate with UNICCO cleaning staff.
- Language barrier presents a problem in communicating cleaning needs to the cleaners.
- There is a consistent procedure for communicating with UNICCO in my building/area.
- I am able to contact the UNICCO managers whenever I need them.
- I am not sure how to communicate with UNICCO at my location.
- I always know who to contact regarding cleaning concerns.
Missing Page
Similar areas are not consistently cleaned with the same level of care.

The bathrooms are maintained with a consistent level of cleanliness.

UNICCO does not clean bathrooms as thoroughly as I would like them to.

Floors/carpets are cleaned thoroughly by UNICCO staff.

Hallways/common areas are always kept clean by UNICCO.

UNICCO cleaning staff sometimes avoid tasks that they are supposed to perform regularly.

Trash is emptied in the proper manner by the cleaning staff.

Trash is always removed when it is supposed to be.

There is a consistent cleaning schedule that I can count on.

The cleaners perform their routine tasks consistently.

UNICCO managers at my location always answer my communications (messages, etc.).

The services contracted for with UNICCO are adequate to maintain cleanliness at our location.

The level of cleanliness provided by UNICCO is not adequate.

UNICCO staff respond quickly to my requests.
Requests for out of the ordinary tasks are handled quickly by UNICCO.

Areas that receive more traffic are monitored effectively for cleanliness.

The cleaners react effectively to changing cleaning needs in our area.

UNICCO managers respond to my communications/messages promptly.

The cleaners won’t alter their routine if I ask them to.

The cleaners will clean areas at an alternate time if necessary.

My complaints with UNICCO services are easily resolved.

I often have to ask more than once to have a task performed by UNICCO staff.

I often have to ask for tasks to be performed that UNICCO staff should do automatically.

The work of the UNICCO staff is always properly supervised.

UNICCO supervisors do not adequately check the work of the cleaners.

UNICCO staff always respond to me with a friendly attitude.

UNICCO staff are properly trained for all of their tasks.

The cleaners interrupt my work routine when they are in my area.
The access of the cleaners to sensitive/private areas is properly supervised.

Personal and office items are safe when the cleaners have access to them.

UNICCO staff always address me politely.

UNICCO is able to handle emergency service requests efficiently.

The cleaners display personal pride in their work in my area.

The cleaners show respect for my privacy when performing their duties.

The cleaners return areas to their proper condition after cleaning.

The UNICCO staff always maintain a professional manner of conduct.

The UNICCO staff do not appear to use their time efficiently.

The same UNICCO employees are responsible for my area on a consistent basis.

It is easy to contact UNICCO for after hours cleaning needs and emergencies.

The UNICCO managers at my location are personally interested in the level of service I am receiving.

I am easily able to identify the UNICCO managers at my location.
I am easily able to identify the UNICCO staff responsible for my area.

The UNICCO staff and managers are interested in knowing me personally.

UNICCO staff communicate well with other departments.

The UNICCO staff always adhere to policies of our organization where appropriate.

The performance of cleaning tasks is suited to the needs of our area.

The cleaners are willing to vary their routine to suit the needs of our area.

I have an adequate knowledge of the services that UNICCO is supposed to provide.

I am able to judge how well UNICCO is performing based on the services they are supposed to provide.

I am able to communicate easily with UNICCO staff on a verbal basis.

I am able to communicate easily with UNICCO staff on a written basis.

There is a consistent procedure at my location for communicating with UNICCO.
Once the raw data from the focus groups was categorized according to the process described by Hayes it was next necessary to refine the pool of requirements by further testing in the customer population. This is referred to as mathematical item selection (Hayes p63) and is the next step in constructing the actual satisfaction measurement tool to be used in the UNICCO customer population. This step involved administering all items generated from the critical incidents approach to actual customers in the form of an initial questionnaire.

After a sample of the customers had completed this questionnaire it was possible to perform actual statistical “item analysis” in order to select valid items for a final questionnaire. According to Hayes: “The general goal in the selection of items is to retain items that differentiate between customers who are dissatisfied and those who are satisfied and drop items that do not... Item analysis will allow us to identify those items that differentiate between varying levels of satisfaction.”

To accomplish this mathematical item selection and item analysis a sample of 25 individuals was used in the UNICCO population across a broad range of specific account locations and types. The following letter and questionnaire were constructed. The general structure of the letter builds upon that used in the focus group stage of the research described previously. Care was taken to clearly describe the purpose of this particular questionnaire in selecting items for a final questionnaire. A Likert type scale was used in the questionnaire to allow the subjects to differentiate between varying levels of importance for each item.

An initial format, based on the full list of satisfaction items, was submitted to UNICCO management for approval before sending it to a list of contacts they provided. To achieve the necessary approval before administering this instrument certain changes in item wording, number of items, and general format were stipulated. A cover letter, to be sent with the item selection survey, was constructed to help explain the research and the importance of customer input at this stage. This letter can be seen in figure 4.4.
Dear [Customer Name]:

UNICCO Service Company in conjunction with Jon Kemp, a researcher at the Rochester Institute of Technology, is conducting a study of customer satisfaction requirements and service quality in its customer accounts.

[Mr./Mrs. Customer], you are a vital part of this effort. I would like you to participate in rating a series of measures that can tell UNICCO how they are doing as well as what good cleaning and janitorial services means to you. Some of these items will be used to create a questionnaire that will be used to help rate the satisfaction level of the customers in UNICCO's various accounts. The time required is minimal (about 10 minutes) and your input is extremely important to us.

The series of statements that you will see on the following pages are the result of interviews with individuals in several organizations that UNICCO serves. These people were asked to provide examples of activities that indicated good or bad service by UNICCO at their location. The following list represents the array of requirements that they have for judging cleaning and janitorial service by UNICCO.

Your opinions are very important to us. When analyzing the following questionnaire please keep in mind how important each of the statements would be to you in judging good or bad service. Don't worry if the statement is positive or negative. Concentrate on the level of importance you place on the activity described. When you are finished rating the questions please place them in the return envelope I have included and drop them in the mail.

Let me thank you, in advance, for your cooperation with this research. Your assistance is greatly appreciated and I look forward to reading your responses.

Sincerely,

Jon Kemp
In the final version of the item selection questionnaire it must again be noted that certain changes were made to satisfy the needs of UNICCO staff involved in the process. The changes did not affect the conceptual content of any of the items. The major areas of change involved:

1) Deletion of redundant satisfaction items.

2) Rewording of satisfaction item statements appropriate to the purpose of this questionnaire (more explanatory for purpose of rating importance).

3) Change from a five point Likert scale to a seven point.

4) Neutralizing of statements so as not to denote actual good or bad performance.

This final version was sent out to 26 property or facility manager client contacts in various UNICCO accounts. An extra copy of the questionnaire was included in each mailing for that contact to distribute to a colleague with a similar job function if appropriate. Return envelopes were included. The final version of the item analysis questionnaire can be seen in figure 4.5.
Missing Page
To help us create a good questionnaire we need to know how important certain quality issues are to you. The following statements were generated by other UNICCO customers in the first stage of this process. They represent various aspects of service that these other customers found to be significant in determining their level of satisfaction with the cleaning and janitorial services provided by UNICCO or other companies. Please rate the following statements, using the scale below, according to how important or significant you find them to be in judging the quality of any cleaning service. We are not asking whether you agree or disagree with the statement. The numbers between 1 and 7 indicate the degree of importance you place on that item, with 7 representing the most important items.

1. **Not important**--performance in this area does not matter to my overall evaluation of service quality.
2. **Not very important**--performance in this area matters much less than many other factors.
3. **Somewhat important** --performance in this area matters, but less than many other factors
4. **Important**--performance in this area matters.
5. **Very important**--performance in this area is one of many things I look at in judging cleaning service.
6. **Extremely important**--performance in this area outweighs many other factors, but other items may be just as important.
7. **Most important**--performance in this area is more significant than any other individual factor.

<table>
<thead>
<tr>
<th>PLEASE CIRCLE THE APPROPRIATE NUMBER</th>
<th>Least Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A visibly productive, hard-working cleaning staff........</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. Cleaning managers and supervisors who look professional..........................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. Cleaners who look professional..................................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. Whether cleaning equipment is or is not unsightly or noisy when in use ..................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. The apparent condition, quantity, and quality of the cleaning equipment...................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

Not Important  Most Important

6. The quality of cleaning in the rest rooms, as observed at the beginning of the business day............................................. 1 2 3 4 5 6 7

7. Whether the rest rooms are or are not kept continuously clean throughout the business day....................................................... 1 2 3 4 5 6 7

8. The quality of cleaning of hard-surface floors and carpets, as observed at the beginning of the business day............................................. 1 2 3 4 5 6 7

9. Whether or not hard-surface floors and carpets are cleaner some mornings than others (consistency)................................. 1 2 3 4 5 6 7

10. The quality of cleaning in high-visibility public areas, such as hallways and entrances, as observed at the beginning of the business day............................................. 1 2 3 4 5 6 7

11. Whether the high-visibility public areas are or are not kept continuously clean throughout the business day............................... 1 2 3 4 5 6 7

12. Whether trash is never, sometimes, or frequently missed.......................................................... 1 2 3 4 5 6 7

13. The overall quality of cleaning of less-visible office and work areas, including dusting and vacuuming, as observed at the beginning of the business day............................................. 1 2 3 4 5 6 7

14. Whether less-visible offices and work areas are cleaner some mornings than others (consistency)................................. 1 2 3 4 5 6 7

15. Whether less frequent tasks, like floor waxing and carpet shampooing, appear to be done on a regularly scheduled basis.......................................................... 1 2 3 4 5 6 7

16. Whether you never, sometimes, or frequently have to ask the cleaners to perform a routine task, such as dusting or vacuuming.......................................................... 1 2 3 4 5 6 7
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

<table>
<thead>
<tr>
<th>Not Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

17. The response time of cleaning managers or supervisors when you leave a message (relative speed in getting back to you) ......................................................... 1 2 3 4 5 6 7

18. The total time it takes to resolve cleaning complaints ......................................................... 1 2 3 4 5 6 7

19. The ease or difficulty of ordering special or unusual service ......................................................... 1 2 3 4 5 6 7

20. The availability or unavailability of cleaning staff at all times during the business day ................................. 1 2 3 4 5 6 7

21. The willingness or unwillingness of the cleaning staff to deviate from established schedules ...................................... 1 2 3 4 5 6 7

22. How frequently or rarely you see a cleaning supervisor out actually checking on the cleaners and inspecting completed work ................................................................. 1 2 3 4 5 6 7

23. The courtesy or lack of courtesy of the cleaning staff ................................. 1 2 3 4 5 6 7

24. Whether or not the cleaning staff has a friendly attitude (more than just courtesy) ......................................................... 1 2 3 4 5 6 7

25. Whether or not the cleaners avoid disrupting your routine when they enter your area while you are still working ......................................................... 1 2 3 4 5 6 7

26. Whether or not you witness cleaning supervisors controlling access to hazardous or high-security areas ................................. 1 2 3 4 5 6 7

27. The ability or inability of the cleaning staff to respond to building emergencies, such as floods, during times when service is not normally provided ......................................................... 1 2 3 4 5 6 7
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

Not Important   Most Important

28. Whether or not the cleaners respect your personal privacy (e.g. not reading paperwork left out on your desk, avoiding the appearance of eavesdropping, etc.)......

29. Your observation, or lack of observation, of direct evidence of the proper training of the cleaners (e.g. formal or informal training sessions, the use of manuals and instructional charts, impressive displays of skill in performing tasks).................................

30. Whether the cleaners do or do not square away furniture, close doors, and otherwise generally tidy up an area after cleaning it.................................

31. How rarely or often you see a different employee assigned to clean your area.................................

32. The ease or difficulty of reaching a cleaning manager or supervisor during his or her off-shift.................................

33. Whether or not you know the names and faces of the cleaning managers and supervisors at your location........

34. Whether or not you know the names and faces of the cleaning staff assigned to clean your area of the building....

35. Whether the cleaning staff does or does not coordinate and communicate well with the various departments or tenants of your building.................................

36. Whether or not the cleaning staff, on its own, reacts to special needs, as when special events create heavier trash and dirt..................................................

37. Whether you know, or do not know, exactly what services the cleaning contract calls for..........................
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

<table>
<thead>
<tr>
<th>Not Important</th>
<th>Most Important</th>
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<td>3</td>
<td>4</td>
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<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

38. The presence or absence of language barriers when you speak directly to the cleaning managers and supervisors... 1 2 3 4 5 6 7

39. The ability or inability of cleaning managers to communicate with you in writing... 1 2 3 4 5 6 7

40. The presence or absence of language barriers when you speak directly with the cleaners... 1 2 3 4 5 6 7

PLEASE COMPLETE THE FOLLOWING

Note: You will not be recontacted by any party in connection with this survey. All results will be confidential, except for summary results which will not identify any individual or company.

My job function is that of a (check one) ____ commercial property manager, ____ facility manager, ____ maintenance or physical plant manager, ____ purchasing manager, or ____ other (please describe if other)________________________.

The building I work at is a (check one) ____ multi-tenant office building, ____ corporate office building or manufacturing plant, ____ retail mall, ____ government office building, ____ non-profit institution, ____ school or college, or ____ other (please describe if other)________________________.

Name (optional)____________________________

Company name (optional)______________________

Job Title (optional)_________________________
Analysis of Survey Returns & Item Selection

Following analysis of the survey returns it was possible to select the satisfaction items under each dimension that were statistically most important in determining customer satisfaction. These items have been reworded into a declarative statement from the more neutral statement used in the item selection survey (appropriate for use in questionnaire that measures actual satisfaction levels with the items). The dimensions and their representative satisfaction items are as follows:

Tangibles:

1. A visibly productive, hard-working cleaning staff.
2. Cleaning managers and supervisors who look professional.
3. Cleaners who look professional.

Reliability:

6. The quality of cleaning in the rest rooms, as observed at the beginning of the business day.
7. Whether the rest rooms are or are not kept continuously clean throughout the business day.
8. The quality of cleaning of hard-surface floors and carpets, as observed at the beginning of the business day.
9. Whether or not hard-surface floors and carpets are cleaner some mornings than others.
10. The quality of cleaning in high-visibility public areas, such as hallways and entrances, as observed at the beginning of the business day.
11. Whether the high-visibility public areas are or are not kept continuously clean throughout the business day.
12. Whether trash is never, sometimes, or frequently missed.
13. **The overall quality** of cleaning of less-visible office and work areas, including dusting and vacuuming, as observed at the beginning of the business day.

**Responsiveness**

16. Whether you never, sometimes, or frequently have to ask the cleaners to perform a routine task such as dusting or vacuuming.

17. **The response time** of cleaning managers or supervisors when you leave a message. (speed in getting back to you)

18. The total time it takes to resolve cleaning complaints.

**Assurance**

23. **The courtesy or lack** of courtesy of the cleaning staff.

27. The ability of the cleaning staff to respond to building emergencies, such as floods, during times when service is not normally provided.

28. Whether or not the cleaners respect your personal privacy (e.g. not reading paperwork left out on your desk, avoiding the appearance of eavesdropping, etc.

**Empathy**

33. Whether or not you know the names and faces of the cleaning managers and supervisors at your location.

36. Whether or not the cleaning staff, on its own, reacts to special needs, as when special events create heavier trash and dirt.

37. Whether you know, or do not know, exactly what services the cleaning contract calls for.
Interpretation and Use of Data

The results of returned satisfaction item selection questionnaires were analyzed and interpreted using basic statistical methods. The compiled data on survey returns is displayed in the following table. In selecting items by use of the data analysis it was observed that a certain set of items had mean importance ratings of 6 or greater and correspondingly lower variances and standard deviations. These were the general guidelines used in selecting final items for use in the customer satisfaction questionnaire.
### FIGURE 4.6

**CS Survey Initial Response Matrix**

<table>
<thead>
<tr>
<th>Importance Rating</th>
<th>Mean</th>
<th>Dev.</th>
<th>Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangibles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5.619</td>
<td>1.090</td>
<td>1.188</td>
</tr>
<tr>
<td>2</td>
<td>6.286</td>
<td>0.825</td>
<td>0.680</td>
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<tr>
<td>3</td>
<td>6.000</td>
<td>1.272</td>
<td>1.619</td>
</tr>
<tr>
<td>4</td>
<td>5.810</td>
<td>1.258</td>
<td>1.583</td>
</tr>
<tr>
<td><strong>Avg</strong></td>
<td>6.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7.301</td>
<td>0.547</td>
<td>0.299</td>
</tr>
<tr>
<td>7</td>
<td>6.490</td>
<td>0.950</td>
<td>0.902</td>
</tr>
<tr>
<td>8</td>
<td>6.190</td>
<td>1.006</td>
<td>1.011</td>
</tr>
<tr>
<td>9</td>
<td>6.910</td>
<td>0.722</td>
<td>0.522</td>
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<tr>
<td>10</td>
<td>6.667</td>
<td>0.563</td>
<td>0.317</td>
</tr>
<tr>
<td><strong>Avg</strong></td>
<td>6.271</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>6.143</td>
<td>1.125</td>
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<tr>
<td>17</td>
<td>6.333</td>
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<tr>
<td>18</td>
<td>6.571</td>
<td>0.728</td>
<td>0.531</td>
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<tr>
<td>19</td>
<td>5.429</td>
<td>1.294</td>
<td>1.673</td>
</tr>
<tr>
<td>20</td>
<td>5.857</td>
<td>1.320</td>
<td>1.741</td>
</tr>
<tr>
<td><strong>Avg</strong></td>
<td>6.032</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assurance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>5.762</td>
<td>1.221</td>
<td>1.515</td>
</tr>
<tr>
<td>23</td>
<td>6.429</td>
<td>0.904</td>
<td>0.816</td>
</tr>
<tr>
<td>24</td>
<td>5.810</td>
<td>1.622</td>
<td>2.630</td>
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<tr>
<td>25</td>
<td>5.810</td>
<td>1.562</td>
<td>2.440</td>
</tr>
<tr>
<td>26</td>
<td>5.429</td>
<td>1.761</td>
<td>3.102</td>
</tr>
<tr>
<td>27</td>
<td>6.714</td>
<td>0.547</td>
<td>0.299</td>
</tr>
<tr>
<td>28</td>
<td>6.381</td>
<td>0.785</td>
<td>0.617</td>
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<tr>
<td>29</td>
<td>5.619</td>
<td>1.463</td>
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<tr>
<td>30</td>
<td>6.238</td>
<td>0.811</td>
<td>0.658</td>
</tr>
<tr>
<td><strong>Avg</strong></td>
<td>5.929</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>32</td>
<td>5.714</td>
<td>1.161</td>
<td>1.347</td>
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<tr>
<td>33</td>
<td>6.095</td>
<td>0.886</td>
<td>0.753</td>
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<tr>
<td>34</td>
<td>4.714</td>
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<td>1.823</td>
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<tr>
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<td>5.048</td>
<td>1.864</td>
<td>3.474</td>
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<tr>
<td>36</td>
<td>6.238</td>
<td>0.683</td>
<td>0.467</td>
</tr>
<tr>
<td>37</td>
<td>6.238</td>
<td>1.019</td>
<td>1.039</td>
</tr>
<tr>
<td>38</td>
<td>5.857</td>
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<tr>
<td>39</td>
<td>4.667</td>
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<tr>
<td>40</td>
<td>4.857</td>
<td>1.698</td>
<td>2.884</td>
</tr>
<tr>
<td><strong>Avg</strong></td>
<td>5.492</td>
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</tbody>
</table>
Average importance ratings for the items representing each quality dimension were also determined. These are generally in accordance with the findings in the SERVQUAL research by Zeithaml, et.al. The relative importance of each dimension in this sample is as follows (1=higher / 5=lower):

1......Reliability
2......Responsiveness
3......Tangibles
4......Assurance
5......Empathy

The SERVQUAL findings generally placed reliability as the most important dimension followed by responsiveness as second most important. The importance of the other three varied according to the business sector of customers studied.(Zeithaml, et. al., 1990). The similarity of the findings here helps to support the conceptual validity of the methodology and actual findings in this study of the UNICCO customer/client population.

As stated in the purpose of this study, the end result of this research was to be the construction of a customer satisfaction measurement instrument (survey) for use with UNICCO’s customers/clients. Given the composition of focus groups and the sample used for the item selection survey, the following questionnaire is most appropriate for use with primary client/customer contacts within the organizations that UNICCO services. (Those individuals within the organization who have direct contact/coordination activities with cleaning and janitorial issues or with UNICCO directly.)
The questionnaire, constructed from satisfaction items determined through the selection process described, is as follows. The items used were altered only to form declarative statements consistent with the guidelines described by Hayes.
In order for UNICCO to provide the best possible service we need to know how you, our customer, feel about certain quality issues. The following statements are a result of research regarding how UNICCO customers judge the quality of cleaning and janitorial services. Please rate these statements for us according to the scale described below. Please note that you will be rating how much you agree or disagree with each statement.

1. I disagree strongly with the statement.
2. I generally disagree with the statement.
3. I disagree somewhat with the statement.
4. I neither agree nor disagree with the statement.
5. I agree somewhat with the statement.
6. I generally agree with the statement.
7. I agree strongly with the statement.

Please circle the appropriate number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The cleaners are visibly productive and hard-working</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. The cleaning managers and supervisors are professional looking.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. The cleaners are professional looking.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. The restrooms are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. The restrooms are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. Hard surface floors and carpets are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. Hard surface floors and carpets are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. High visibility public areas, such as hallways and entrances, are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. High visibility public areas are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
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79
<table>
<thead>
<tr>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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</table>

10. Trash to be emptied/removed is never missed by the cleaners.

11. Less-visible office and work areas are clean at the beginning of the business day. (dusting, vacuuming, etc.)

12. Cleaning appears to be done with the same level of every day. (consistency)

13. It is never necessary to ask the cleaners to perform a routine task, such as dusting or vacuuming.

14. Cleaning managers and/or supervisors respond quickly to messages.

15. Complaints regarding cleaning matters are quickly resolved.

16. The cleaning staff are always courteous.

17. The cleaning staff are able to respond adequately to building emergencies, such as floods, at all times.

18. The cleaners are respectful of personal privacy (e.g. not reading paperwork left out on desks, avoiding the appearance of eavesdropping, etc.).

19. The cleaners always square away furniture, close doors, and generally tidy up an area after cleaning it.

20. I know the names and faces of the cleaning managers and supervisors at my location.

21. The cleaning staff reacts on its own to special needs as when special events create heavier trash and dirt.

22. The exact services that the cleaning contract calls for are clear to me.
CHAPTER V

Long Range Consequences

In the design stage of this research the statement of consequence for agreement with the stated hypothesis was this:

“If the findings of this study are in accordance with the hypothesis, as anticipated, then a significant understanding of the requirements for facilities management customer satisfaction will be obtained. Subsequently, an instrument may then be designed, using these requirements, to measure actual levels of customer satisfaction in UNICCO's various customer accounts. The recommendation for further study would be to apply such an instrument and track the results on a regular basis.”

For an inconclusive research result in relation to the hypothesis the consequence is as follows:

“Should the findings not produce valid indicators of customer satisfaction as measures of service performance, contrary to the hypothesis, the study should be repeated. The suggestion in this instance is to build upon and refine the focus group methods using data gained from the initial study. The same recommendation would be appropriate if the results were more or less equivocal. The continual process of redetermining the customer satisfaction measures through continued focus group processes is recommended in any scenario.”

In summing up the results of this research it is necessary to address both of these situations. As indicated in the body of this research, a conclusive set of customer satisfaction indicators was determined and used to construct a survey instrument. The distinction or caution that needs to be made at this point regards who the instrument is appropriate for use with. Through the conduct of this research it became evident that in this janitorial services outsourcing environment there are two subsets of “customers” in relation to the service provider (UNICCO).

The first of these subsets is the, as “client” referred to in these findings, who are generally facility or property managers and other members of the customer organization that have a greater degree of contact
and/or coordination activity with UNICCO services. The set of satisfaction measures determined in this study is most appropriate for use with this set of customers and, as a result, supports the hypothesis.

Through observation it is apparent that another subset of customers exists that may be best described as end users of the facility. These are the people that sit behind the desks and use the work areas in each facility. This population doesn’t generally have direct contact with UNICCO staff or direct coordination responsibilities regarding cleaning and janitorial issues. It is highly likely that the set of satisfaction requirements for this population would have a different composition than the set determined in this study. The hypothesis would not be conclusive for this sub-population of the customers. It is also likely that the requirements of this group would vary much more widely between different accounts making a single assessment survey difficult to construct.

The critical incidents process, as applied to this study, would be appropriate for use with the “end user” population on a single location basis. The “end user” population of customers within single accounts would certainly be a homogeneous enough group to allow this process to be performed. The recommendation for this usage of the methodology from this study would be to perform focus groups within the specific account (for instance a particular college or office building) and use the same process to come up with a measurement tool specific to that account.

**Recommendations and Implications**
The following points outline the recommendations for further usage of the information and tools gained through this study.

1. Implement the customer satisfaction measurement survey.
2. Track results of the survey.
3. Adopt an effective manner of disseminating the knowledge gained from the surveys within the organization.
4. Assess training needs and areas for improvement based on survey results and the reaction of UNICCO staff to them.
5. Use information gained as part of a complete system of quality improvement.

This ties back into the principles of quality stated earlier in the report. On the most basic level this can be exemplified in the two aspects of defining quality. One aspect was characterized as do things right. This UNICCO is already doing as evidenced by the quality assurance inspections and policies that are in place. This is only a part of the picture in assuring quality however. The other aspect of do the right things is equally as important but not as well addressed. The process undertaken in this study is a component of identifying what the right things are, in the eyes of the customer, and creating a method for measuring their conformance to quality. Particularly as defined by the customer.

The steps outlined previously are focused, in an abbreviated manner, on using information gained through the customer satisfaction measurement process to do the right things as a result of the knowledge gained. The appendices to this study will include documents discussing further recommendations for implementation and use of the customer satisfaction measurement tools created here.

The findings of this study, in themselves, represent a valuable pool of knowledge for UNICCO Service Company as well as the facilities maintenance field in general. As a final note, or call for action, it must be stated that without the actual systematic use of the information gained through a study such as this, no real effective or lasting improvement will result in the organization. For views on how to effectively use the information gained through this study please reference appendices 1 and 2 that follow this section.
Bibliography


Appendix
SUMMARY OF RESEARCH RESULTS:

Customer Satisfaction Measures as Indicators of Service Performance in UNICCO Cleaning/Janitorial Accounts

The following document contains a summary of the results of a research project conducted by Jon Kemp. This project was conducted as part of the requirements for a Master of Science degree at the Rochester Institute of Technology and was funded by UNICCO Service Company. The project was coordinated through Walter Crow at UNICCO, who's help was essential to the completion of the research.

The scope of this project was to describe how customer satisfaction is related to service quality and performance in service sector organizations, particularly UNICCO. Upon determining the basis for linking customer satisfaction to quality and performance, a study of the actual satisfaction requirements of UNICCO customers/clients was performed. The result of this study is a customer satisfaction questionnaire created from actual customer input.

The summary contains:

- General conclusions regarding the study
- The final instrument (questionnaire). See figure 1
- Recommendations for implementation and use of the study findings.
- Limitations regarding use of the findings.
- A summary of the research methods used to conduct the study and create the final questionnaire.

A copy of the full research project text will also be submitted to UNICCO and may be obtained for further detail on the subjects contained in the summary. This copy will reside with Walter Crow. Additional copies will be provided to any person who wishes to have one.
Results of study on Customer Satisfaction
Measures as Indicators of Service Performance
For UNICCO Service Company

CONCLUSIONS

The research that has been conducted regarding the satisfaction and service requirements of UNICCO's customers has yielded significant results. The final result of this research is a customer satisfaction assessment instrument which can be seen in the next section of this report. This instrument (questionnaire) will enable UNICCO to measure client satisfaction levels with cleaning/ janitorial services. Measurement will be possible on an individual account basis as well as broad scale comparison between accounts regarding customer satisfaction levels. Assessing and measuring satisfaction levels with clients will, in turn, enable UNICCO to gain a clearer picture of service quality in it's accounts.

The need for measuring customer satisfaction as an indicator of service performance (quality) forms the basis for this study and should be explained briefly at this point. A large portion of UNICCO's business involves providing "service" to our customers. If we provide high quality service then our customers will be happy and the company will do well. However, to know what level of service we are providing we must actually measure it. Since "service" is a fairly intangible concept there are some difficulties in using standard practices for measurement. "What do we measure?" and "how do we measure it?" are two important questions related to service quality.

In addressing "What do we measure?" a quotation from W. Edwards Deming, recognized expert on quality issues, provides an answer. He states "The only criteria that count in evaluating service quality are defined by customers." Based on this knowledge from a reliable source, the next question regarding "How do we measure it?" naturally arises.

Much of the basis for a customers judgement of the quality of a service is their perception of satisfaction or dissatisfaction with it. Scientific research has determined that customers have a range of subjective requirements that influence their perception of the quality of service. These areas of service quality perception are referred to as "Dimensions" of service quality and are described in the next paragraph. In order to gain specific knowledge of these service satisfaction requirements it is necessary to ask actual customers who receive a service how they judge it's quality. The general process for obtaining and interpreting this customer input is described in the summary of methods section of this report.

By conducting focused group interviews with two groups of UNICCO customers (from the Simmons College and Gillette accounts) an array of specific incidents of good and bad service was collected.
This information was collected for the purpose of defining actual examples of the "service requirements" of UNICCO customers. These "service requirements", which can be seen in survey format in figure 2, were categorized under five dimensions of service quality. The dimensions of service quality, determined by scientific research, represent the various aspects that customers perceive in their satisfaction or dissatisfaction with a service.

The five dimensions of service quality and their descriptions are as follows:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>-Appearance of physical facilities, equipment, personnel, and communication materials.</td>
</tr>
<tr>
<td>Reliability</td>
<td>-Ability to perform the promised service dependably and accurately.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-Willingness to help customers and provide prompt service.</td>
</tr>
<tr>
<td>Assurance</td>
<td>-Knowledge and courtesy of employees and their ability to convey trust and confidence.</td>
</tr>
<tr>
<td>Empathy</td>
<td>-Caring, individualized attention that the firm provides it's customers.</td>
</tr>
</tbody>
</table>

FINAL INSTRUMENT

From the results of the research it is concluded that a comparative assessment of satisfaction with client contacts in the cleaning and janitorial accounts can be performed according to the dimensions of service quality. This may be accomplished by using the questionnaire constructed through the course of this research.

The final questionnaire is composed of the most important customer satisfaction items from an initial 40 item list obtained from conducting the focus group interviews (figure 2). These items were selected statistically and represent the most important items under each dimension as rated by UNICCO clients.

As stated previously, the items listed represent the specific indicators for UNICCO customer satisfaction/dissatisfaction under the five dimensions of service quality. The dimensions and the items in the final questionnaire that represent them are:

Tangibles       -items 1 through 3
Reliability      -items 4 through 12
Responsiveness - items 13 through 15
Assurance - items 16 through 19
Empathy - items 20 through 22
In order for UNICCO to provide the best possible service we need to know how you, our customer, feel about certain quality issues. The following statements are a result of research regarding how UNICCO customers judge the quality of cleaning and janitorial services. Please rate these statements for us according to the scale described below. Please note that you will be rating how much you agree or disagree with each statement.

1. I disagree strongly with the statement.
2. I generally disagree with the statement.
3. I disagree somewhat with the statement.
4. I neither agree nor disagree with the statement.
5. I agree somewhat with the statement.
6. I generally agree with the statement.
7. I agree strongly with the statement.

<table>
<thead>
<tr>
<th>PLEASE CIRCLE THE APPROPRIATE NUMBER</th>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The cleaners are visibly productive and hard-working</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. The cleaning managers and supervisors are professional looking.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. The cleaners are professional looking.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. The restrooms are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. The restrooms are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. Hard surface floors and carpets are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. Hard surface floors and carpets are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. High visibility public areas, such as hallways and entrances, are clean at the beginning of the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. High visibility public areas are kept clean throughout the business day.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
10. Trash to be emptied/removed is never missed by the cleaners.

11. Less-visible office and work areas are clean at the beginning of the business day. (dusting, vacuuming, etc.)

12. Cleaning appears to be done with the same level of every day. (consistency)

13. It is never necessary to ask the cleaners to perform a routine task, such as dusting or vacuuming.

14. Cleaning managers and/or supervisors respond quickly to messages.

15. Complaints regarding cleaning matters are quickly resolved.

16. The cleaning staff are always courteous.

17. The cleaning staff are able to respond adequately to building emergencies, such as floods, at all times.

18. The cleaners are respectful of personal privacy (e.g. not reading paperwork left out on desks, avoiding the appearance of eavesdropping, etc.).

19. The cleaners always square away furniture, close doors and generally tidy up an area after cleaning it.

20. I know the names and faces of the cleaning managers and supervisors at my location.

21. The cleaning staff reacts on its own to special needs as when special events create heavier trash and dirt.

22. The exact services that the cleaning contract calls for are clear to me.
RECOMMENDATIONS FOR IMPLEMENTATION AND USE

The information contained in this study has two readily applicable uses. The first of these is to distribute this questionnaire to the client contacts in all of the UNICCO cleaning/janitorial accounts. This would include facility managers, property managers, and other coordinators that our managers and staff have close contact with on a regular basis. The returns from this survey would provide us with a baseline measure of client satisfaction in each account. Since the same questionnaire is being used for all client contacts the results would also provide comparative performance measures between accounts on a company-wide basis.

The second recommended usage of the information from this study builds upon the results gained from the distribution of the questionnaire to client contacts. The questionnaire may also be distributed to the managers in each account so that they may rate how well their clients think they are doing. Essentially, this would involve instructions to the managers such as: "Please rate the following statements as if you were seeing through the eyes of your clients. According to the scale provided please rate each statement according to how much you think your client(s) would agree or disagree with it." The feedback from this rating compared to the actual client ratings would provide managers with valuable insight regarding how their perceptions differ from their clients on the various service quality issues contained therein.

There are several unique benefits for UNICCO management provided by the information previously described. The first of these is to provide an easily accessible and highly pertinent pool of customer satisfaction information on a wide range of accounts. The uses of such information may include:

1. Identification of problem areas in specific accounts or on a broader scale (division, business sector, geographical area, etc.)

2. A complement to information gained through the quality audit process.

3. A basis for managerial performance review.

4. A potential marketing/sales advantage (ie. one of the ways that UNICCO strives to ensure customer satisfaction)

Information gained through the rating of the items by specific managers, in comparison with client ratings, would have additional usages such as:

1. Greater awareness and learning potential for managers regarding the needs of their clients and how well they are actually meeting those needs.

2. Identification of training needs for individual managers related to the service/satisfaction oriented issues identified in this study.
The focus group process used to gather information for this study may, in itself, be a useful tool in many existing accounts. The reactions of the participants in the two groups conducted for this study were positive. The participants were generally appreciative that someone was asking their opinion and much useful feedback was generated. The account managers in both cases seemed very eager to hear about issues that came up in the course of the group discussion. Potential uses of the focus group may include:

1. An information gathering and feedback opportunity for account managers regarding cleaning/janitorial issues that may never reach them otherwise.

2. Another way to display how UNICCO seeks to assess the needs and provide individualized service to both existing and potential clients.

3. A way of promoting better communication and problem solving between clients, UNICCO account managers, and building tenants/staff.

The knowledge regarding the methods and framework for conducting this study also have potential for future use. As stated previously, the particular set of measures defined here is intended for use with the close client contacts in the accounts UNICCO services. By applying the same methods used here with a focus on a different target group, such as the tenants/general population of a particular account, it will also be possible to design a customer satisfaction measurement instrument tailored to the unique needs of that group.

Measures such as a tailored customer satisfaction and service requirement assessment are sure to be an important selling point for UNICCO in the future. This is especially true as more companies seek to put their operations on a Total Quality basis. One important point in the Total Quality arena is to require superior quality assurance measures of suppliers/vendors to ensure that services and/or products that they provide meet the needs of the organization. A specifically tailored program based on the methodology and theoretical framework used in this study would be perfectly suitable.

Imagine the selling power of being able to say to a potential customer: "We at UNICCO are committed to providing you with the best possible service. Our systems, technology, and training of our staff are all designed with this in mind. In addition, so that we may understand and meet the specific needs of those within your organization, we perform a tailored study and ongoing assessment of their service needs...(along the lines of the methodology and findings described here)" This would be an addition to the study already conducted here which is focused on the needs of the client contacts.

LIMITATIONS

There are certain limitations to the use of findings from this study. The main limitation is that the specific set of measurements defined for the questionnaire are not applicable to all customers within the organizations that UNICCO services. The conduct of this research has been directed at the specific client contacts that UNICCO deals with in each organization. These would include facility managers, property managers, coordinators and the like, as mentioned previously.
Two focus groups were conducted at different accounts (Gillette and Simmons College). All conversations were tape recorded and played back later for transcription. A list of critical incidents of good and bad service was obtained from customer responses to questions posed during the group. These incidents were categorized roughly under the five dimensions of service quality listed previously.

The focus groups at both locations were selected with the assistance of the client contacts that UNICCO works with. One group consisted of twelve individuals and the other of thirteen. Guidelines for selecting participants were provided to the client but the final selection was left up to their judgement. The main requirement for selection was that the participants have at least some coordination or evaluation involvement with cleaning / janitorial issues. The job functions of actual participants included department heads, area coordinators, office managers, facilities maintenance, etc.. Client representatives such as facility or maintenance managers were also present.

To guide the course of the group discussion a protocol was prepared which included an introduction, warmup questions, and specific guiding questions regarding cleaning / janitorial service. After the introduction and general warmup questions were presented (to focus participants on specific service quality and satisfaction issues at hand) the specific questions were asked. Participants were asked to each provide five examples of good service by UNICCO in their building. After all participants had responded they were next asked to provide five examples of poor or unsatisfactory service by UNICCO.

The responses of focus group members to the questions were recorded and later transcribed into individual "critical incidents" of good and bad service by UNICCO. These critical incidents consisted of statements such as "The cleaner in my area always puts my furniture back in the right place." or "Garbage cans in our area are not always emptied." Many other issues related with cleaning arose during the discussions which provided well rounded data about the satisfaction needs of the customers.

4) Analysis (classification) of data.

The list of critical incidents of good and bad service obtained from the focus groups was further refined and classified in this step. Satisfaction items or requirements were written which represented similar groupings of critical incidents from the focus groups. The final list of these satisfaction items can be seen in figure 2. This list was sent out in the survey format seen here to a range of client contacts so that they could rate the importance of each of the satisfaction items in their judgement of service quality. The survey returns were tabulated and analyzed using basic statistical means to determine the most important set of requirements for use in a final questionnaire.

The initial item selection survey, as seen in figure 2, was sent to twenty six client contacts in the Mid-Atlantic region. Twenty one of the surveys were returned and items were selected based on the average importance ratings of the responses. The relative importance of each item has been inserted on
figure 2 and is instructive in itself. (1=highest relative importance rating) The items selected from figure 2 for the final survey, grouped under the dimensions of service quality that they represent, were:

- **Tangibles**: items 1, 2, 3
- **Reliability**: items 6, 7, 8, 9, 10, 11, 12, 13
- **Responsiveness**: items 16, 17, 18
- **Assurance**: items 23, 27, 28
- **Empathy**: items 33, 36, 37

The client contacts to which the survey was distributed were also asked to provide information about their job function and the type of building that they worked in. Job titles included: commercial property manager (14), facility manager/coordinator (3), office manager (1), maintenance manager (1). Building types included: multi-tenant office building (12), corporate office building or manufacturing plant (4), government office building (2), mixed use facility (1). The remainder of the respondents chose to not indicate job or building type.

One limitation involved with the analysis of data that should be mentioned here. This involves the size and distribution area of the sample that rated the initial list of items (figure 2). Since this was only in one region (Mid-Atlantic) and only involved twenty six individuals, a greater level of comfort with the results could certainly be obtained by a wider distribution that includes all geographic regions that UNICCO services. More evenly represented distribution among building types may also be helpful for future refinement of the final satisfaction survey (figure 1).

5) Interpretation of data.

The final set of 22 most important satisfaction items was selected from the initial list rated by client contacts. These 22 items, representing the five dimensions of service quality, were altered into declarative statements for use in the final customer satisfaction questionnaire. This is the questionnaire seen in figure 1. This final questionnaire may be used to rate the satisfaction level of UNICCO clients regarding the specific items listed as well as general levels under each dimension of service quality.
To help us create a good questionnaire we need to know how important certain quality issues are to you. The following statements were generated by other UNICCO customers in the first stage of this process. They represent various aspects of service that these other customers found to be significant in determining their level of satisfaction with the cleaning and janitorial services provided by UNICCO or other companies. Please rate the following statements, using the scale below, according to how important or significant you find them to be in judging the quality of any cleaning service. We are not asking whether you agree or disagree with the statement. The numbers between 1 and 7 indicate the degree of importance you place on that item, with 7 representing the most important items.

1. **Not important**--performance in this area does not matter to my overall evaluation of service quality.
2. **Not very important**--performance in this area matters much less than many other factors.
3. **Somewhat important** --performance in this area matters, but less than many other factors.
4. **Important**--performance in this area matters.
5. **Very important**--performance in this area is one of many things I look at in judging cleaning service.
6. **Extremely important**--performance in this area outweighs many other factors, but other items may be just as important.
7. **Most important**--performance in this area is more significant than any other individual factor.

**note for UNICCO readers:** The relative importance ratings of each item, based on averages from survey returns, are indicated under each item. The most important items are rated 1, next most important 2, and so on.

<table>
<thead>
<tr>
<th>PLEASE CIRCLE THE APPROPRIATE NUMBER</th>
<th>Least Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A visibly productive, hard-working cleaning staff........</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>importance rating 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cleaning managers and supervisors who look professional..........................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>importance rating 7</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cleaners who look professional.........................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>importance rating 12</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Whether cleaning equipment is or is not unsightly or noisy when in use .........................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>importance rating 15</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The apparent condition, quantity, and quality of the cleaning equipment........................</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>importance rating 18</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>Factor</td>
<td>Importance Rating</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>6</td>
<td>The quality of cleaning in the rest rooms, as observed at the beginning of the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7</td>
<td>Whether the rest rooms are or are not kept continuously clean throughout the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8</td>
<td>The quality of cleaning of hard-surface floors and carpets, as observed at the beginning of the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9</td>
<td>Whether or not hard-surface floors and carpets are cleaner some mornings than others (consistency)</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10</td>
<td>The quality of cleaning in high-visibility public areas, such as hallways and entrances, as observed at the beginning of the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11</td>
<td>Whether the high-visibility public areas are or are not kept continuously clean throughout the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12</td>
<td>Whether trash is never, sometimes, or frequently missed</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>13</td>
<td>The overall quality of cleaning of less-visible office and work areas, including dusting and vacuuming, as observed at the beginning of the business day</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>14</td>
<td>Whether less-visible offices and work areas are cleaner some mornings than others (consistency)</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>15</td>
<td>Whether less frequent tasks, like floor waxing and carpet shampooing, appear to be done on a regularly scheduled basis</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>16</td>
<td>Whether you never, sometimes, or frequently have to ask the cleaners to perform a routine task, such as dusting or vacuuming</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>17</td>
<td>The response time of cleaning managers or supervisors when you leave a message (relative speed in getting back to you)</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. The total time it takes to resolve cleaning complaints</td>
<td></td>
<td>7 6 5 4 3 2 1</td>
</tr>
<tr>
<td>19. The ease or difficulty of ordering special or unusual service</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>20. The availability or unavailability of cleaning staff at all times</td>
<td></td>
<td>7 6 5 4 3 2 1</td>
</tr>
<tr>
<td>21. The willingness or unwillingness of the cleaning staff to deviate</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>22. How frequently or rarely you see a cleaning supervisor out</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>23. The courtesy or lack of courtesy of the cleaning staff...</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>24. Whether or not the cleaning staff has a friendly attitude</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>25. Whether or not the cleaners avoid disrupting your routine when</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>26. Whether or not you witness cleaning supervisors controlling access</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>27. The ability or inability of the cleaning staff to respond to</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>28. Whether or not the cleaners respect your personal privacy (e.g.</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>29. Your observation, or lack of observation, of direct evidence of</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
<tr>
<td>30. Your observation, or lack of observation, of direct evidence of</td>
<td>1 2 3 4 5</td>
<td>6 7</td>
</tr>
</tbody>
</table>
30. Whether the cleaners do or do not square away furniture, close doors, and otherwise generally tidy up an area after cleaning it ............................................................ 1 2 3 4 5 6 7

importance rating 8

31. How rarely or often you see a different employee assigned to clean your area ............................................................ 1 2 3 4 5 6 7

importance rating 17

32. The ease or difficulty of reaching a cleaning manager or supervisor during his or her off-shift ............................................................ 1 2 3 4 5 6 7

importance rating 11

33. Whether or not you know the names and faces of the cleaning managers and supervisors at your location .... 1 2 3 4 5 6 7

importance rating 14

34. Whether or not you know the names and faces of the cleaning staff assigned to clean your area of the building .... 1 2 3 4 5 6 7

importance rating 23

35. Whether the cleaning staff does or does not coordinate and communicate well with the various departments or tenants of your building ............................................................ 1 2 3 4 5 6 7

importance rating 24

36. Whether or not the cleaning staff, on its own, reacts to special needs, as when special events create heavier trash and dirt ............................................................ 1 2 3 4 5 6 7

importance rating 8

37. Whether you know, or do not know, exactly what services the cleaning contract calls for ............................................................ 1 2 3 4 5 6 7

importance rating 8

38. The presence or absence of language barriers when you speak directly to the cleaning managers and supervisors ............................ 1 2 3 4 5 6 7

importance rating 21

39. The ability or inability of cleaning managers to communicate with you in writing ............................................................ 1 2 3 4 5 6 7

importance rating 24

40. The presence or absence of language barriers when you speak directly with the cleaners ............................................................ 1 2 3 4 5 6 7

importance rating 23

PLEASE COMPLETE THE FOLLOWING
PLEASE RATE EACH FACTOR LISTED BELOW AS TO ITS RELATIVE IMPORTANCE TO YOU IN JUDGING THE OVERALL QUALITY OF THE CLEANING STAFF, CIRCLING THE APPROPRIATE NUMBER

Note: You will not be recontacted by any party in connection with this survey. All results will be confidential, except for summary results which will not identify any individual or company.

My job function is that of a (check one) _____commercial property manager, _____facility manager, _____maintenance or physical plant manager, _____purchasing manager, or _____other (please describe if other)____________________.

The building I work at is a (check one) _____multi-tenant office building, _____corporate office building or manufacturing plant, _____retail mall, _____government office building, _____non-profit institution, _____school or college, or _____other (please describe if other)__________________.

Name (optional)__________________________

Company name (optional)____________________

Job Title (optional)_______________________