The purpose of this Capstone Project is to assess the customer satisfaction level of the Oregon High Intensity Drug Trafficking Area (HIDTA) funded interagency drug enforcement task force members who utilize the Oregon HIDTA Investigative Service Center (ISC) Analytical Unit. The SERVQUAL customer perception tool is used to measure gaps between customer expectation and customer perception of service quality along five dimensions:

- Tangibility
- Reliability
- Responsiveness
- Assurance
- Empathy

Using SERVQUAL to Assess the Customer Satisfaction Level of the Oregon HIDTA ISC Analytical Unit

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TABLE OF CONTENTS

I. INTRODUCTION ..................................................................................................................................... 3
   A. PURPOSE ............................................................................................................................................ 3
   B. IMPORTANCE .................................................................................................................................... 4
   C. RESEARCH QUESTION .................................................................................................................... 5
   D. LITERATURE REVIEW ..................................................................................................................... 5
   E. METHODOLOGY ............................................................................................................................... 8
   F. RESEARCH SIGNIFICANCE AND IMPLICATION OF FINDINGS ............................................... 9

II. DESCRIPTIONS AND APPLICATION ............................................................................................... 11
   A. THE HIDTA PROGRAM .................................................................................................................. 11
      1. EXECUTIVE BOARDS ................................................................................................................. 13
      2. HIDTA DIRECTOR ....................................................................................................................... 14
      3. THREAT ASSESSMENT AND STRATEGY IMPLEMENTATION .......................................... 14
      4. INTELLIGENCE AND INFORMATION SHARING ................................................................... 15
      5. HIDTA LOCATIONS .................................................................................................................... 17
   B. THE OREGON HIDTA ..................................................................................................................... 17
   C. ANALYTICAL UNIT SERVICES .................................................................................................... 20
   D. HIDTA DRUG TASK FORCE INITIATIVES AND REPORTED FULL TIME PARTICIPANT NUMBERS ............................................................................................................................................. 22

III. SERVQUAL APPLICATION AND RESULTS .................................................................................. 23
   A. SERVQUAL OVERVIEW ................................................................................................................ 23
   B. SERVQUAL DATA ANALYSIS METHODOLOGY, RELIABILITY AND VALIDITY ............. 29
   C. DATA COLLECTION STRATEGY ................................................................................................. 30
   D. STUDY POPULATION .................................................................................................................... 31
   E. SERVQUAL APPLICATION AND RESPONSE RATES ............................................................... 32
   F. SERVQUAL DIMENSION IMPORTANCE SCORES ..................................................................... 33
   G. PERCEPTION SCORE AS A MEASURE OF SATISFACTION .................................................... 34
   H. SERVQUAL RESULTS BY DIMENSION ...................................................................................... 36
      1. TANGIBILITY ............................................................................................................................... 36
      2. RELIABILITY ................................................................................................................................. 38
      3. RESPONSIVENESS ......................................................................................................................... 40
      4. ASSURANCE ................................................................................................................................ 43
      5. EMPATHY ..................................................................................................................................... 45

Chris Gibson - 1
I. QUANTITATIVE SERVQUAL FINDINGS BY DIMENSION .................................................... 48
  1. TANGIBILITY ............................................................................................................................... 48
  2. RELIABILITY ................................................................................................................................ 48
  3. RESPONSIVENESS ....................................................................................................................... 48
  4. ASSURANCE ................................................................................................................................. 49
  5. EMPATHY ..................................................................................................................................... 49
J. CONCLUSION ................................................................................................................................... 49
IV. DISCUSSION ....................................................................................................................................... 51
  A. INTRODUCTION ............................................................................................................................. 51
  B. FACTORS INFLUENCING SERVICE QUALITY PERCEPTIONS .............................................. 51
     1. GAP 1 – CUSTOMER EXPECTATION – MANAGEMENT PERCEPTION ....................................... 53
     2. GAP 2 – MANAGEMENT’S PERCEPTION – SERVICE QUALITY SPECIFICATION ........... 54
     3. GAP 3 – SERVICE QUALITY SPECIFICATION – SERVICE DELIVERY .............................. 56
     4. GAP 4 – SERVICE DELIVERY – EXTERNAL COMMUNICATION ....................................... 58
  C. SERVICE QUALITY LEADERSHIP ............................................................................................... 60
     1. CHARACTERISTICS OF SERVICE LEADERS ......................................................................... 61
  D. CONCLUDING COMMENTS .......................................................................................................... 62
V. SOURCES .............................................................................................................................................. 64
  A. BIBLIOGRAPHY .............................................................................................................................. 64
  B. TABLE OF FIGURES ....................................................................................................................... 66
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL .......................................................... 67
I. INTRODUCTION

A. PURPOSE

The purpose of this Capstone Project is to assess the customer satisfaction level of the Oregon High Intensity Drug Trafficking Area (HIDTA) funded interagency drug enforcement task force members who utilize the Oregon HIDTA Investigative Service Center (ISC) Analytical Unit.

When three counties in Oregon – Deschutes, Jackson and Marion - were designated as high intensity drug trafficking areas by the White House Office of National Drug Control Policy (ONDCP) in 1999, the Oregon HIDTA Program was created. Subsequently, the Executive Board that was formed to oversee the program was mandated to create an ISC which facilitates de-confliction and criminal intelligence and information sharing. The ISC includes an Analytical Unit which provides case support services and resources to HIDTA funded drug enforcement task forces. At the beginning of the program, the ISC Analytical Unit included three criminal intelligence analysts who provided tactical and strategic analytical support to three drug enforcement task forces; one in each of the designated counties (Rueben, Oregon Department of Justice Special Agent in Charge, 2011).

Since the designation of the three original HIDTA counties, the Oregon HIDTA has grown to encompass nine counties and the Warm Springs Indian Reservation. Because funding for the program has not matched its growth at a rate where analysts could be added for each newly designated area, only one additional analyst has been added to provide support to the task forces. Conventional wisdom indicates that the lack of growth of the Analytical Unit relative to the growth of the Oregon HIDTA Program does not allow the Analytical Unit to provide the
level of service that was intended when the number of analysts was equal to the number of task forces. The decreased capacity of the ISC Analytical Unit threatens the customer service satisfaction levels of its customers, which, in turn, threatens to hamper the ISCs ability to achieve its mission to enhance the efficiency and effectiveness of the Oregon HIDTA task forces. Impediment of this mission threatens the ability of the Oregon HIDTA to achieve its primary goal which is to reduce drug availability in the Oregon HIDTA region by disrupting and dismantling drug trafficking organizations. This Capstone Project seeks to determine if the perceived quality of the services provided by the ISC to HIDTA funded drug enforcement task force members meets their expectations and what, if any, gaps exists between those perceptions and expectations.

B. IMPORTANCE

Assessing the service satisfaction level of the investigators from the Oregon HIDTA supported task forces who utilize the services of the Oregon HIDTA ISC Analytical Unit is important because it will identify and diagnose the service quality gaps that exist within the Oregon HIDTA ISC Analytical Unit. Identification and diagnosis of the gaps will assist with a more focused problem prescription process by Oregon HIDTA leadership. (Stoecker, 2005) Ultimately, the results of this Capstone Project will assist in the attainment of the second goal of the HIDTA Program which is to “increase the efficiency and effectiveness of HIDTA task initiatives” (ONDCP, 2006, pp. 2-2). An analysis of the findings of this study will provide a baseline measurement, which will allow Oregon HIDTA ISC leadership to benchmark performance of any future Analytical Unit improvements.
C. RESEARCH QUESTION

This Capstone Project answers the question of how satisfied Oregon HIDTA funded drug enforcement task force investigators are with the services provided by the Oregon HIDTA ISC Analytical Unit. This Capstone Project answers this question by posing the following:

What is the gap between Oregon HIDTA funded drug enforcement task force supervisors’ and investigators’ expectations of the quality of services provided by the Oregon HIDTA ISC Analytical Unit and their perceptions of the quality of services actually delivered?

D. LITERATURE REVIEW

A 2002 United States Department of Justice (USDOJ) commissioned assessment of the High Intensity Drug Trafficking Area (HIDTA) Program revealed that regional HIDTA programs do their best work in the area of “intelligence and information sharing” (BOTEC Analysis Corporation, 2001, p. 10). The USDOJ report also stresses the importance of ongoing and effective evaluation of the functions of the HIDTA Program as it goes hand in hand with effective program management (BOTEC Analysis Corporation, 2001).

Intelligence and information sharing functions of HIDTAs are divided into two categories; strategic intelligence and tactical intelligence. Strategic intelligence relates to the cultivation and sharing of intelligence information relating to emerging threats and criminal behavior patterns and tactical intelligence relates to particular investigative targets. An example of a strategic analytical product would be a written threat assessment which provides a written description of the threat posed by drug trafficking to a particular area or population. An example of a tactical analytical product would be a telephone toll analysis flow chart which depicts telephone calls made and received by the target of a drug trafficking investigation (BOTEC Analysis Corporation, 2001). “Strategic intelligence always includes a significant analytic component. Tactical intelligence may consist of raw data from a primary source or may be
highly analytic constitution a complete picture of a particular target based on a variety of sources” (BOTEC Analysis Corporation, 2001, p. 31) such as informants, records and databases.

While strategic intelligence has been widely shared in the law enforcement community for some time with many agencies publishing their information openly, the sharing of tactical intelligence is not as widely practiced (BOTEC Analysis Corporation, 2001; Peterson, 2005; Schmid, 2003). USDOJ’s HIDTA assessment concluded that there is a national concern to improve tactical intelligence sharing and that the HIDTA Program has made tactical intelligence sharing a special focus but with only mixed results (BOTEC Analysis Corporation, 2001).

HIDTA intelligence initiatives are designed to support law enforcement efforts and individual investigators through a variety of services, which include: deconfliction (strategic intelligence), threat assessment (strategic intelligence), post seizure analysis (tactical intelligence), toll analysis (tactical intelligence) and, general case support (tactical intelligence) (BOTEC Analysis Corporation, 2001) (Schmid, 2003). During the time that these intelligence initiatives have existed, there have been questions raised about their ability to meet customer needs. A study conducted by the BOTEC Analysis Corporation in 2002 highlighted this during interviews with customers offering, “One senior manager commented on a pattern of slow responses to requests and a resulting loss of interest among agents” (p. 141). Another manager who receives services from a different intelligence center commented that analysts ask for information but that they don’t give anything back; “their approach is to collect and hold information, not collect and disseminate” (p. 70). These comments illustrate how difficult it is for a centralized analytical support group to meet the needs of their decentralized customers thus increasing the chances of these initiatives becoming irrelevant (BOTEC Analysis Corporation, 2001).
The USDOJ assessment report suggests that a way of improving the effectiveness of intelligence centers would be to view the investigators they provide services to as their customers and manage the intelligence centers with increased focus on these customers. The USDOJ has offered, “Since the primary goal of intelligence centers is to support investigative work, there is no reason why the effectiveness of intelligence centers can’t be evaluated on the basis of customer satisfaction, just as many businesses do” (BOTEC Analysis Corporation, 2001, p. 191).

A review of the relevant literature indicates that service quality is closely tied to customer satisfaction (Wisniewski & Donnelly, 1996; Hernon, Nitecki, & Altman, 1999; Sureschandar, Rajendran, & Nitecki, 2002; Kumar, Smart, Maddern & Maull, 2008). Quality and customer service have been identified as critical strategic issues for both public and private sector organizations (Donnelly, Wisniewski, Dalrymple, & Curry, 1995). The “use of a variety of measures of service quality in the private sector as critical indicators of both organizational performance and general customer satisfaction is widely accepted and has given rise to considerable empirical research” (Wisniewski & Donnelly, 1996, p. 357).

In the private sector, customer satisfaction and loyalty are secured through high quality products and services. They provide the consumer value for their money and are seen as being essential for the long-term survival and success of all organizations (Donnelly, Wisniewski, Dalrymple, & Curry, 1995). Public sector organizations are under constant pressure to improve customer service on a continuous basis (Donnelly, Wisniewski, Dalrymple, & Curry, 1995). Some of these pressures arise internally from a genuine desire to improve quality of services provided to communities; others are demanded by outside sources such as governing bodies, oversight groups or the general public (Donnelly, Wisniewski, Dalrymple, & Curry, 1995). It is
recognized that public sector organizations face more difficulties than those in the private sector in their efforts to improve customer service (Donnelly et. al, 1995).

In an article entitled "Service Quality and Customer Satisfaction: An Assessment and Future Directions" the authors – Peter Hernon, Danuta Nitecki and Ellen Altman – assert that “service quality, developed over time, relates to customer expectations, whereas satisfaction is transaction-specific, is a more short-term measure, and focuses on a personal, emotional reaction to service” (1999, pp. 9-10)). Research on service quality has tended to focus on one dimension – expectations – and has defined service quality in terms of reducing the gap between service provided and customer expectations (Hernon & Nitecki, 1999). This suggests that if public sector leaders want to increase service quality, the gap needs to be narrowed. The potential payoff from improved service quality is considerable. Providing excellent service, which should be the goal of every organization, leads to greater efficiency and effectiveness and a loyal customer base (Zeithaml, Parasuraman, & Berry, Delivering Quality Service - Balancing Customer Perceptions and Expectations, 1990).

E. METHODOLOGY

This Capstone Project involves the use of a customer perception tool known as SERVQUAL. SERVQUAL was developed by A. Parasuraman, Leonard Berry and Valerie A Zeitham in the 1980s. SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses (Parasuraman, Berry, & Zeihaml, 1988). The scale breaks down the notion of service quality into five dimensions which were derived from five years of qualitative and quantitative customer service quality research (Parasuraman, Berry and Zeitham, 1988 and 1990. The five service quality dimensions identified through this process are:
Tangibles - physical facilities, equipment, staff appearance, etc.;
Reliability - ability to perform service dependably and accurately;
Responsiveness - willingness to help and respond to customer need;
Assurance - ability of staff to inspire confidence and trust; and
Empathy - the extent to which caring individualized service is given

SERVQUAL measures service quality as the discrepancy (gap) between a customer's expectations for a service offering and the customer's perceptions of the service received. The SERVQUAL customer perception tool requires customers to answer questions about both their expectations and their perceptions and to assign a numerical weight to each of the five service quality dimensions (Parasuraman, Berry, & Zeihaml, 1988).

F. RESEARCH SIGNIFICANCE AND IMPLICATION OF FINDINGS

Public service quality/customer satisfaction studies utilizing the SERVQUAL customer perception tool appear to have produced promising results (Donnelly, Kerr, Rimmer, & Shiu, 2006; Wisniewski & Donnelly, 1996; Sureshchandar & Rajendran, 2002) but have been limited in number. Service quality/customer satisfaction studies of public safety organizations utilizing the SERVQUAL customer perception tool appear to be limited to one conducted by Donnelly, Kerr, Rimmer and Shiu (2006), which assessed the service quality of the Strathclyde Police Department in Scotland.

This Capstone Project will expand the body of knowledge pertaining to the applicability of SERVQUAL to public sector and public safety organizations. The study will also add to the limited body of knowledge pertaining to the service quality – as measured by customer satisfaction – delivered by a tactical intelligence focused HIDTA ISC analytical unit. Most importantly, this Capstone Project will identify and diagnose the customer service gaps that exist.
within the Oregon HIDTA ISC Analytical Unit which will lead to a more focused problem
prescription process (Stoecker, 2005).

The SERVQUAL instrument results in this Capstone Project will identify positive
performance (perceived level of actual service exceeds the expected level of service) and/or
negative performance levels along the five dimensions (expected level of service exceeds the
perceived level of actual service). The results of this Capstone Project will allow Oregon HIDTA
ISC leadership to focus on any performance gaps, which will allow the leadership to prescribe
and implement initiatives that will fill those gaps, thus increasing the quality of service that the
Analytical Unit provides.
II. DESCRIPTIONS AND APPLICATION

A. THE HIDTA PROGRAM

The High Intensity Drug Trafficking Area Program (HIDTA) is a federal counter drug trafficking grant program that is administered by the White House Office of National Drug Control Policy (ONDCP). The HIDTA Program began when the Anti-Drug Abuse Act of 1988 was signed into law by President Ronald Reagan (ONDCP, 2011) and continues to exist under the authority of Public Law (P.L) 109-469, the “Office of National Drug Control Policy Reauthorization Act of 2006” (ONDCP, 2006, pg. 2-1), which was signed by President George H.W Bush. The original Anti-Drug Abuse Act of 1988 and now P.L 109-469 authorizes the “Director of the White House Office of National Drug Control Policy to designate areas within the United States which exhibit serious drug trafficking problems and harmfully impact other areas of the county as High Intensity Drug Trafficking Areas (HIDTA)” (ONDCP, 2011). The HIDTA Program is designed to provide additional federal resources to HIDTAs under the philosophy that those resources will help law enforcement agencies eliminate or reduce drug trafficking and its harmful effects. “Law enforcement organizations within HIDTAs assess drug trafficking problems and design specific initiatives to reduce or eliminate the production, manufacture, transportation, distribution and chronic use of illegal drugs and money laundering.” (ONDCP, 2011)

The purpose of the HIDTA Program is to help improve the effectiveness and efficiency of drug control efforts by “facilitating cooperation between drug control organizations through resource and information sharing, collocating and implementing joint drug enforcement initiatives.” (ONDCP, 2011). The HIDTA Program provides grant funds to invest in infrastructure and joint drug enforcement initiatives to confront drug trafficking organization that
contribute to the drug threat in the HIDTA. Uses of HIDTA funds for infrastructure include intelligence databases, computer networks and deconfliction systems. Uses of HIDTA funds for joint initiatives to confront drug trafficking organizations include overtime, cash for undercover drug purchases, and investigative travel (ONDCP, 2011).

The key priorities of the HIDTA Program are:

- The assessment of regional drug threats;
- The creation and design of strategies to focus efforts that combat drug trafficking threats;
- The development and funding of initiatives to implement enforcement strategies;
- The facilitation of coordination between federal, state, local and tribal efforts; to
- Improve the effectiveness of drug control efforts to reduce or eliminate the harmful impact of drug trafficking (ONDCP, 2006 &2011).

When the Director of ONDCP decides to designate new HIDTAs, (s)he is required to consult with the Attorney General, the Secretary of the Treasury, the Secretary of Homeland Security, heads of the national drug control program agencies such as the Drug Enforcement Administration (DEA) and the Governor of the state that contains the area under consideration (Public Law 109-469, 2006, Sec. 301 (b)(1)). In deciding whether or not to designate an area as a HIDTA, the following criteria are considered:

- “The extent to which the area is a significant center of illegal drug production, manufacturing, importation, or distribution;
- The extent to which State, local, and tribal law enforcement agencies have committed resources to respond to the drug trafficking problem in the area, thereby indicating a determination to respond aggressively to the problem;
- The extent to which drug-related activities in the area are having a significant harmful impact in the area, and in other areas of the country; and,
- The extent to which a significant increase in allocation of Federal resources is necessary to respond adequately to drug-related activities in the area” (Public Law 109-469, pp. Sec. 301 (d)(1-4), 2006)). (ONDCP, 2011)
ONDCP possesses ultimate responsibility for administering the HIDTA Program. The HIDTA Program Policy and Budget Guidance states that those responsibilities include but are not limited to:

- “Setting program priorities;
- Issuing program and policy guidance;
- Grant administration;
- Publishing regulations;
- Developing and applying performance standards;
- Reviewing threat assessments, strategies, and annual budgets and reports submitted by HIDTAs;
- Reviewing petitions from interested law enforcement agencies for designation as a HIDTA area;
- Designating areas as HIDTAs and removing HIDTA designation from areas that no longer meet statutory requirements;
- Allocating funds to the HIDTAs;
- Conducting program reviews and contracting with external agencies for required audits;
- Providing direction to the NHAC concerning training, financial management, and other assistance offered HIDTAs;
- Designating an ONDCP policy analyst for each HIDTA to serve as the principal point of contact for all matters related to the HIDTA program; and,
- Determining compliance with HIDTA Program requirements” (ONDCP, 2006, pp. 3-1).

1. EXECUTIVE BOARDS

The HIDTA Program is unique as each HIDTA is governed by an Executive Board comprised of an equal number of federal law enforcement executives and state, local and tribal law enforcement executives. Each Executive Board is responsible for facilitating interagency
drug control efforts to eliminate or reduce drug threats by ensuring that the key priorities of the HIDTA Program are addressed and carried out. More specifically, the Executive Boards “ensure threat specific strategies and initiatives are developed, employed, supported and evaluated” (ONDCP, 2011).

HIDTA Executive Boards are comprised of law enforcement executives whose agency has a full time employee assigned to an approved HIDTA initiative. For example, the Federal Bureau of Investigations (FBI) could not serve on a HIDTA Executive Board unless an FBI Special Agent was assigned, as his or her primary duty assignment, to a HIDTA approved initiative.

2. HIDTA DIRECTOR

HIDTA Executive Boards are required to select and hire a Director who serves to implement the Executive Board’s directives, to act as the liaison between ONDCP and the Executive Board and to provide administrative oversight of the HIDTA. The HIDTA Program Policy and Budget Guidance states that the principal duties of the HIDTA Director shall be to:

- “Provide day-to-day administrative, financial, and program management for the HIDTA;
- Facilitate and encourage the development of innovative approaches to drug law enforcement;
- Ensure that HIDTA initiatives are in compliance with HIDTA Program requirements; and
- Advise the Executive Board concerning the performance of HIDTA initiatives” (ONDCP, 2006, pp. 3-5).

3. THREAT ASSESSMENT AND STRATEGY IMPLEMENTATION

Each HIDTA is required to research the drug threat that exists within their regions. The result of that research is documented in an annual Threat Assessment which is then submitted to ONDCP as part of the HIDTA’s annual budget package. In response to the Threat Assessment, the HIDTA is required to create and implement a strategy that addresses the threat. The strategy is carried out by HIDTA funded and supported interagency drug task forces which work in each

Chris Gibson - 14
of the HIDTA designated areas to reduce drug availability by disrupting and dismantling drug trafficking and money laundering organizations. The strategy created by each HIDTA is also documented and submitted to ONDCP as part of its annual budget package. The results of the strategy implementation are documented in an Annual Report which is the third, and final, part of the budget package that is sent to ONDCP.

HIDTAs are required to implement and support at least one type of each of the following classifications of initiatives in order to address their drug trafficking threat:

“1. Enforcement Initiatives: Enforcement Initiatives include multi-agency investigative, interdiction, and prosecution activities targeting drug trafficking and money laundering organizations, drug production organizations, drug gangs, drug fugitives, and other serious crimes with a drug nexus.

2. Intelligence and Information Sharing Initiatives: Intelligence and Information Sharing Initiatives include intelligence analysis (tactical, operational, and strategic), deconfliction services (event and case/subject), information collection and dissemination, and other analytical support for HIDTA initiatives and participating agencies.

3. Support Initiatives: Support Initiatives include activities beyond the core Enforcement and Intelligence and Information Sharing Initiatives, e.g. - training, treatment, prevention, crime and forensic labs, and information technology initiatives.

4. Management and Coordination Initiatives: Management and Coordination Initiatives fund the basic overhead of the HIDTA, e.g. - salaries and fringe benefits for the Director, Deputy Director, and other administrative staff positions approved by the Executive Board, rent and facilities charges for administrative staff etc.” (ONDCP, 2006, pp. 4-2).

4. INTELLIGENCE AND INFORMATION SHARING

The HIDTA Policy and Budget Guidance states that “a basic tenant of the HIDTA Program is that federal, state, local and tribal law enforcement agencies significantly improve their ability to disrupt and dismantle drug trafficking organizations when they work together and share information” (ONDCP, 2006, pp. 5-1). ONDCP believes that for the HIDTA Program to achieve its goals, each HIDTA must strive to create an intelligence and information sharing foundation that enables the enforcement initiatives to become more effective and efficient. It is for this
ONDCP mandates that each intelligence and information sharing initiative within each HIDTA is to be sponsored by at least one law enforcement agency and managed by a sworn federal, state, local or tribal law enforcement officer or a criminal intelligence analyst. ONDCP also suggests that Executive Boards are to ensure joint federal, state, local and tribal oversight over the intelligence and information sharing initiatives. HIDTA Directors, while not possessing any operational or supervisory authority over the information and intelligence sharing initiatives, are charged with oversight responsibilities to ensure that HIDTA Program policy requirements are met (ONDCP, 2006).

Criminal intelligence is defined as "information compiled, analyzed and/or disseminated in an effort to anticipate, prevent, or monitor criminal activity" (IACP National Law Enforcement Policy Center, 2003, p. 3) and information is everything else that is not classified as intelligence and is pertinent to the work of the HIDTA initiatives. The core intelligence functions of each HIDTA are analytical case support (tactical intelligence), drug threat assessment and the development and dissemination of intelligence products such as special assessments, bulletins and alerts (strategic intelligence) (ONDCP, 2006) (ONDCP, 2006). The core information sharing functions of each HIDTA are event and case/subject deconfliction, obtaining access to using law enforcement databases, establishing and maintaining electronic connectivity to other HIDTAs and sharing drug related information with other HIDTA investigative support centers (ONDCP, 2006).

reason that ONDCP requires each HIDTA to have “at least one intelligence and information sharing initiative that is responsible for collecting, evaluating, collating, analyzing and disseminating law enforcement information and intelligence for the entire HIDTA” (ONDCP, 2006, pp. 5-1).

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5. HIDTA LOCATIONS

To date, 28 individual HIDTAs, including five Southwest Border HIDTA partnerships in California (San Diego), Arizona, New Mexico, West Texas (El Paso) and South Texas (San Antonio). HIDTA designated areas within each of the 28 HIDTAs comprise approximately 14% of the counties in the United States (ONDCP, 2011).

![Figure 1 HIDTA Map](ONDCP, 2011)

B. THE OREGON HIDTA

In 1999 a group of federal, state and local law enforcement executives from Oregon petitioned ONDCP for the state to be designated as a HIDTA. ONDCP granted designation in June 1999 and named Deschutes County, Marion County and Jackson County as the areas that would make up the Oregon HIDTA. Thus, the Oregon HIDTA Program was formed and was placed under the direction of an Executive Board. In compliance with HIDTA Policy and Budget Guidance, the Oregon HIDTA Program Executive Board hired a Director to administer the program.

ONDCP allocated $600,000 to the Oregon HIDTA in August 1999 and the decision was made to utilize the funding to develop the Oregon HIDTA Investigative Service Center (ISC).
Rather than begin from scratch, the Oregon HIDTA Executive Board decided to “utilize the [already existing and operational] Oregon Department of Justice (ODOJ) Criminal Intelligence Unit (CIU) as the foundation for developing” (Oregon HIDTA Program, 1999, p. 6) the ISC. The ODOJ CIU, which consisted of an Analytical Unit and a Watch Center, was already recognized as the central intelligence clearinghouse and statewide criminal intelligence unit and was being used by Oregon law enforcement agencies. This approach was taken because it better leveraged local and state resources, avoided duplication of effort, saved money and allowed the ISC to become operational much more quickly than creating and implementing a center from scratch (Oregon HIDTA Program, 1999).

Even prior to opening the doors of the ISC, the Oregon HIDTA Executive Board pledged, in the original funding request, that the ISC would provide tactical and strategic analysis, target identification, deconfliction services and investigative support to drug enforcement task forces in the three original HIDTA counties. These activities were to be accomplished by intelligence research analysts utilizing an intelligence database to store, collate, evaluate and disseminate criminal intelligence information (Oregon HIDTA Program, 1999). The ODOJ CIU was to – and did - provide the same services to the remaining drug enforcement task forces throughout Oregon (Oregon Department of Justice, 2000).

The original $600,000 HIDTA allocation was used to hire three Research Analyst III positions for the Analytical Unit and two Research Analyst I positions for the Watch Center. The three HIDTA Research Analysts were joined by a Western States Intelligence Network (WSIN) Strategic Analyst to make up the ISC Analytical Unit. Funding three Research Analyst

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1 Within the ODOJ personnel classification system, positions within the same classification are sub classified (I, II, III, etc.) based upon the technical requirements of position.
III positions in the Analytical Unit created a 1.3:1 ratio of analysts to HIDTA designated counties.

When the ISC became operational in 2000, the work of the Analytical Unit and its three Research Analysts and Strategic Analyst was in support of three HIDTA enforcement initiatives which were established, one each, in the three original HIDTA counties. Those initiatives were the Central Oregon Drug Enforcement (CODE) Task Force in Deschutes County, the Jackson County Narcotics Enforcement Team (JACNET) in Jackson County and the Marion Area Gang and Narcotics Enforcement Team (MAGNET) in Marion County.

Since that time, the Oregon HIDTA budget has grown to $3.16 million and the region has grown to encompass a total of nine counties, Deschutes, Marion, Jackson (designated in 1999), Clackamas, Douglas, Multnomah, Washington (designated in 2002), Umatilla (designated in 2005) and Lane, plus the Warm Springs Indian Reservation (designated in 2010). The ISC continues to be sponsored by the ODOJ and the Oregon HIDTA has added funding for an Analytical Supervisor and one additional Research Analyst III position for the Analytical Unit. All staff have obtained, or are awaiting a “secret” clearance or higher from the Portland office of the FBI, which is mandated as a condition of employment (Rueben, 2011).

The four Research Analysts now are expected to provide analytical support and services to what is now a total of seventeen HIDTA funded drug enforcement task force initiatives; a 1:4 ratio of analysts to enforcement initiatives.
C. ANALYTICAL UNIT SERVICES

The ISC Analytical unit provides both tactical and strategic analytical services for the Oregon HIDTA supported drug enforcement task force initiatives. Most requests for ISC Analytical Unit support are made via phone and are routed through the Analytical Supervisor who then assigns the request to one or more of the four Research Analysts (Abt Associates Inc., 2011).

The ISC Analytical Unit provides Communications Assistance law Enforcement Act (CALEA)\(^2\) compliant Title III\(^3\) electronic communications interception support using a state-of-the-art intercept system. This system allows agencies to access voice and call data from a secure terminal within their office. This remote capability enables HIDTA initiatives, drug task forces,

\(^2\) Communications Assistance Law Enforcement Act is a United States federal law that enables the government to intercept wire and electronic communications and call-identifying information under certain circumstances.

\(^3\) Title III refers to provisions in the Federal Wiretap Act which sets procedures for court authorization of real-time surveillance of all kinds of electronic communications, including voice, e-mail, fax, and Internet, in criminal investigations. The Oregon Revised Statues also provide for real-time surveillance of electronic sources of communication for state level criminal investigations.
and major crime investigative teams to operate a Title III without traveling great distances and incurring travel, per diem, and manpower costs usually associated with a Title III operation. The ISC Analytical Unit has permanent connectivity access to most major telecommunication service providers (Rueben, 2011).

In addition to Title III case support, the ISC Analytical Unit provides Oregon HIDTA drug task forces with biographical profiles of criminal suspects as a means of enhancing investigations. Telephone toll analysis is another service provided by the HIDTA Research Analysts. This service, which analyzes incoming and outgoing telephone calls, helps investigators establish ties between suspects and helps to pinpoint suspect locations at certain times during the course of an investigation. Telephone toll analysis reports, as well as other tactical analytical services, such as commodity flow analysis and organizational charts, are used in the creation of visual investigative time line charts by ISC Analytical Unit Research Analysts. Research Analysts also provide post case and post seizure analysis in an effort to link cases in Oregon to cases in other areas of the county (Rueben, 2011).

Utilizing both open and confidential sources of information, the ISC Analytical Unit produces the Oregon HIDTA Drug Threat Assessment, the Oregon HIDTA Annual Report and other strategic spot intelligence reports that inform investigators of new trends or important officer safety information. The ISC Analytical Unit conducts drug trafficking organization assessments that are intended to assist HIDTA drug task force initiatives prioritize and focus their current and future investigations. These assessments often incorporate link analysis which looks for relational and operational ties between investigative targets.

In 2010 the Oregon HIDTA ISC Analytical Unit Research Analysts supported 158 criminal drug trafficking investigations and produced 482 strategic intelligence products.
D. HIDTA DRUG TASK FORCE INITIATIVES AND REPORTED FULL TIME PARTICIPANT NUMBERS

The Oregon HIDTA Program supports twelve drug task force initiatives in the ten HIDTA designated areas within the state. In 2009 there were 121 investigators and supervisors assigned to the initiatives, and in 2010 there were 127 investigators and supervisors assigned to the same initiatives for an average of 124 over the two years. Below is a list of the supported initiatives, the average number of assigned full time investigators and supervisors during 2009 and 2010, and the number of assigned full time investigators and supervisors in 2009 and 2010 as reported on each task force’s Initiative Budget Description in the HIDTA Performance Management Program (PMP) database:

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>2009</th>
<th>2010</th>
<th>2009-2010 AVE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clackamas County Interagency Narcotics Task Force (CCITF)</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Central Oregon Drug Enforcement (CODE) Task Force</td>
<td>12</td>
<td>11</td>
<td>11.5</td>
</tr>
<tr>
<td>Douglas County Interagency Narcotics Team (DINT)</td>
<td>8</td>
<td>9</td>
<td>8.5</td>
</tr>
<tr>
<td>HIDTA Interdiction Team</td>
<td>12</td>
<td>11</td>
<td>11.5</td>
</tr>
<tr>
<td>Medford Area Drug and Gang Enforcement (MADGE) Team</td>
<td>6</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Regional Organized Crime and Narcotics (ROCN) Task Force</td>
<td>11</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>U.S Marshal’s Fugitive Task Force (USMSFTF)</td>
<td>12</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Salem, Marion County DEA Task Force</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Medford, Jackson County DEA Task Force</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Portland Area Metro Gang Task Force (PAMGTF)</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>
III. SERVQUAL APPLICATION AND RESULTS

A. SERVQUAL OVERVIEW

As a byproduct of research being conducted into the subject of service quality, the SERVQUAL instrument was developed during the late 1980s and early 1990s by Valerie A. Zeithaml, A Parasuraman and Leonard L. Berry. Their early research revealed that while the literature in the area of goods quality was fairly abundant, there was practically nothing in the area of service quality. The quality control principals and practices that they uncovered in the area of goods quality were inadequate for understanding service quality. They concluded that the inadequacy of the quality control principals and practices for understanding service quality is the result of three fundamental differences between services and quality (Zeithaml, Parasuraman, & Berry, 1990).

First, services, as opposed to goods, are intangible; they are performances and experiences rather than objects. While precise manufacturing specifications can be set concerning uniform quality standards for objects like vehicles and shovels, the same cannot be said for services like tactical and strategic analytical support since the criteria that are set for evaluating performance of service delivery by the customers is likely “complex and difficult to capture precisely (Zeithaml, Parasuraman, & Berry, 1990, p. 15).

Second, services, as opposed to goods, are “heterogeneous; their performance often varies from producer to producer, from customer to customer, and from day to day” (Zeithaml,
Parasuraman, & Berry, 1990, p. 15). In this case, the quality of the interactions that the Research Analysts assigned to the Oregon HIDTA ISC Analytical Unit have with the Oregon HIDTA drug task force supervisors and investigators cannot be evaluated under a set of uniform standards.

Finally, services, as opposed to goods, are inseparable in terms of their production and consumption. “Quality in services often occurs during service delivery, usually in an interaction between the customer (Oregon HIDTA drug task force supervisors and investigators) and the provider (Oregon HIDTA ISC Analytical Unit research analysts), rather than being engineered at the manufacturing plant and delivered intact to the customer (Zeithaml, Parasuraman, & Berry, 1990, p. 15). Service providers, like the Oregon HIDTA ISC Analytical Unit, do not have the luxury of producing an object outside of the observation of their customers before it is actually consumed. Rather, the customers are able to observe the production of the service while they receive it (Zeithaml, Parasuraman, & Berry, 1990).

While the literature was weak in the area of service quality, the SERVQUAL developers were able to find a few contributions that helped to guide their future development. Those contributions were boiled down into three themes:

- “Service quality is more difficult for customers to evaluate than goods quality.
- Customers do not evaluate service quality solely on the outcome of a service; they also consider the process of service delivery.
- The only criteria that count in evaluating service quality are defined by the customers” (Zeithaml, Parasuraman, & Berry, 1990, p. 16).

As a result of the insights obtained during their initial research into the area of service quality, the SERVQUAL developers sought to ascertain the following:

- How customers evaluate the quality of the service provided to them.
Whether customers directly make a global evaluation or if they assess specific facets of a service in arriving at an overall evaluation.

- If they assess specific facets, what the facets or dimensions on which they evaluate the service.

- Whether or not the facets or dimensions vary across services or and different customer segments.

- If customers’ expectations play a crucial role in the assessment of service quality, what are the factors that shape and influence those expectations? (Zeithaml, Parasuraman, & Berry, 1990)

In order to obtain this information, the SERVQUAL developers conducted an exploratory study which consisted of 12 customer focus-group interviews which encompassed customers of the retail banking, credit card, securities brokerage, and product repair and maintenance industries. They chose these service industries because they felt that they “varied along key attributes used to categorize services” (Zeithaml, Parasuraman, & Berry, 1990, p. 17) and because they were looking for service quality insights that would “transcend the boundaries of specific industries” (Zeithaml, Parasuraman, & Berry, 1990, p. 17). The focus group composition was varied in order to ensure that the findings would generalize to a variety of settings.

The focus group interviews resulted in a great deal of knowledge about service quality from a customer perspective about how customers define and evaluate service quality. In a nutshell, the “focus groups unambiguously supported the notion that the key to ensuring good service quality is meeting or exceeding what customers expect from the service” (Zeithaml, Parasuraman, & Berry, 1990, p. 18). If a customer has an expectation of what constitutes...
excellent service quality before receiving service and the actual service exceeds the expectation, then the customer will evaluate the service quality as excellent. On the contrary, if the actual service falls short of the expectation, then the customer will evaluate the service quality as something less than excellent. The SERVQUAL developers defined service quality, as perceived by customers as “the extent of discrepancy between customers’ expectations or desires and their perceptions” (Zeithaml, Parasuraman, & Berry, 1990, p. 19).

The focus group interviews also identified four factors that influence the expectations of customers. First is word of mouth communications about the service experienced by others. Prospective customers of a service will listen to what others say about the service provider, which will influence their expectations. Second are the personal needs of the customer. For example, and in the context of this Capstone Project, a HIDTA task force supervisor or investigator may need the Oregon HIDTA ISC Analytical Unit to produce a time line within twenty four hours for court. The supervisor or investigator’s expectation is that it will be done in that time frame. Third, is the past experience of the customer; the better the experience, the higher the expectation and vice-versa. Finally, external communications from the service provider play a role in the expectations of the customer. If the service provider advertises that it will deliver a service within twenty four hours, then that is likely to have an impact on the expectations of a customer as far as how quickly the provider will deliver its service (Zeithaml, Parasuraman, & Berry, 1990).

The SERVQUAL developers felt that the greatest knowledge derived from their focus group interviews was the identification of ten dimensions by which customers use to judge the quality of the service delivered by the provider. Each of the ten dimensions identified were consistent among the focus groups and spanned the four service sectors that were studied. The

Chris Gibson - 26
ten service dimensions that were identified were labeled as: “tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the customer” (Zeithaml, Parasuraman, & Berry, 1990, p. 20). At the conclusion of the exploratory study, the SERVQUAL developers were confident that the ten dimensions of service quality were exhaustive and appropriate for assessing quality in a broad variety of services even though the specific evaluative criteria may vary from service to service (Zeithaml, Parasuraman, & Berry, 1990).

Following the exploratory study, the SERVQUAL developers began a quantitative research project to develop an instrument for measuring customers’ perceptions of service quality. The instrument that was ultimately developed was SERVQUAL. The SERVQUAL customer perception tool which was developed through this process consisted of 22 statements to ascertain the general expectation of customers concerning a service and 22 matching statements to measure customers’ assessment of a specific organization within the service industry.

During the development phase of SERVQUAL the developers “followed well established procedures for designing scales to measure constructs that are not directly observable” (Zeithaml, Parasuraman, & Berry, 1990, p. 24). They developed 97 items that corresponded with the 10 dimensions of service quality that were identified during the exploratory research phase. Each of those items was incorporated into a pair of statements. One of the statements was designed to measure an expectation about service organizations in general and the other was designed to measure a perception about the actual service provided by the actual service organization being studied. A seven point scale ranging from 7 (strongly agree) to 1 (strongly disagree) accompanied each question (Zeithaml, Parasuraman, & Berry, 1990). Each set of statements earned a difference score by subtracting the perception score from the
expectations score. The difference scores could range from +6 to -6 with more positive scores representing higher perceived service quality (Zeithaml, Parasuraman, & Berry, 1990, p. 24).

During the qualitative testing phase, the 97 item instrument was administered to 200 customers of who had recently used the services of an appliance repair firm, a retail banking establishment, a long distance telephone company, a securities brokerage and a credit card company. The difference scores that resulted from this phase of the SERVQUAL development were analyzed using “several statistical analyses” which resulted in the elimination of roughly “two-thirds” of the original items and the consolidation of several overlapping quality dimensions into five new, combined dimensions (Zeithaml, Parasuraman, & Berry, 1990, p. 24).

The five new dimensions identified were:

- **Tangibles** - physical facilities, equipment, staff appearance, etc.;
- **Reliability** - ability to perform service dependably and accurately;
- **Responsiveness** - willingness to help and respond to customer need;
- **Assurance** - ability of staff to inspire confidence and trust; and
- **Empathy** - the extent to which caring individualized service is given.

The reliability and validity of the new 22 item, five dimension SERVQUAL customer perception tool was established by administering it to “four independent samples of 190 customers each” (Zeithaml, Parasuraman, & Berry, 1990, p. 24) who had recently used a bank, a credit card issuer, an appliance repair and maintenance firm and a long-distance telephone company. An analysis of the data gathered during that phase of the research “resulted in additional refinement of the SERVQUAL instrument and confirmed its reliability and validity” (Zeithaml, Parasuraman, & Berry, 1990, p. 24).
B. SERVQUAL DATA ANALYSIS METHODOLOGY, RELIABILITY AND VALIDITY

The SERVQUAL customer perception tool consists of 22 statements that are grouped and related to one of the five service quality dimensions listed above. Each of the statements is presented in two different forms. The first time that the question appears it is designed to measure customers’ general expectations (E) about the service area being measured. The second time that the question appears it is designed to measure customers’ perceptions (P) about the organization whose service quality is being assessed (Wisniewski & Donnelly, 1996).

In both cases, customer responses are being measured on a seven point Likert scale that ranges from “strongly disagree”, which elicits a score of 7, to “strongly agree”, which elicits a score of 1, with no labels attached to scores 2 through 6. An example of a statement that is designed to elicit customer expectations (E) relating to the reliability dimension is:

“An excellent tactical analytical unit will provide their services at the time they promise to.”

Later in the survey tool a comparable statement designed to elicit a perception (P) measurement appears as:

“The Oregon HIDTA ISC Analytical Unit provides its services at the time it promises to.”

The SERVQUAL instrument captures customer expectations of service quality as well as their perception of the services actually provided to them. “The perceived service quality, or gap, score (denoted as Q) is calculated for each statement by subtracting the E score from the P score, implying a Q score for each statement ranging between -6 and +6” (Wisniewski & Donnelly, 1996). A negative Q score indicates a level of service quality which is below that which is expected by the customer. Conversely, a zero to positive Q score indicates a level of service
which is equal to or exceeds customer expectations (Parasuraman, Berry, & Zeihaml, 1991; Wisniewski & Donnelly, 1996).

The SERVQUAL developers’ research indicated that the customers don’t hold each of the service quality dimensions in the same regard and are not uniformly important (Parasuraman, Berry, & Zeihaml, 1991). Therefore, the SERVQUAL customer perception tool also collects respondent input as to the importance of each construct by having them allocate a total of 100 points across the various service quality dimensions (Parasuraman, Berry, & Zeihaml, 1991). This information allows for a measure of salience that can be used to determine which of the service quality dimensions are the most important to the customers. The salience scores may also be used to weight the results of the SERVQUAL Q scores for each service quality construct by multiplying the Q score by the salience score obtained from the survey population. The weighted scores provide greater insight as to the overall importance of the service quality construct to the survey population, thus allowing service leaders to implement more targeted service improvement initiatives later on.

The SERVQUAL instrument has been assessed by its developers for both reliability and validity. As a result of those assessments, the SERVQUAL instrument was determined to be both reliable and valid. The developers also found, as a result of its reliability and validity, that the SERVQUAL instrument can be “suitably reworded to and/or augmented to make them more germane to the context in which the instrument is to be used” (Parasuraman, Berry, & Zeihaml, 1988, p. 28).

C. DATA COLLECTION STRATEGY

Data collection was accomplished through a facilitated survey method which utilized an adapted SERVQUAL form that utilized the Likert scale to assess customer attitudes along the
five customer service quality dimensions listed above (Wisniewski & Donnelly, 1996; Donnelly, Kerr, Rimmer, & Shiu, 2006). The application of the SERVQUAL customer perception tool in this Capstone Project involved rewording it in order to make it germane to the Oregon HIDTA ISC Analytical Unit services.

The adapted SERVQUAL instrument was administered to 61 Oregon HIDTA supported drug enforcement task force investigators from 15 Oregon HIDTA supported drug enforcement task forces.

D. STUDY POPULATION

Between 2009 and 2010 the Oregon HIDTA Program supported - financially and through the provision of services such as training and criminal intelligence analysis - twelve drug enforcement task force initiatives. Each of those task forces is located and operates in at least one of the ten HIDTA designated areas of Oregon. Each of the task forces is staffed with full time investigators, supervisors and support personnel. The study population used for this application of the SERVQUAL tool was Oregon HIDTA supported drug enforcement task force initiative investigators and supervisors. The SERVQUAL instrument was administered, in conjunction with annual internal reviews, to HIDTA drug task force initiative investigators and supervisors between August and December 2010.

The work of the task force staff varies slightly depending upon the mission of the task force and the specific assignment of the investigator. As such, the dependence upon the Oregon HIDTA ISC Analytical Unit varies as well. For example, an investigator assigned to the Douglas Interagency Narcotics Team (DINT) will likely utilize the services of the Analytical Unit on a more regular basis than an investigator assigned to the U.S Marshal’s Fugitive Task Force (USMSFTF). DINT’s mission is to disrupt and dismantle drug trafficking organizations which
involve analysis of intelligence derived during an investigation (tactical) and the USMSFTF’s basic mission is to locate and arrest fugitives, which typically does not require the type of analysis provided by the Analytical Unit. Also, individual investigators within drug task force initiatives perform different functions. Some investigators act, as a result of their experience and skill set, as lead case agents and depend upon analytical services while others support the case work by conducting surveillance, acting in undercover roles, obtaining records, etc. and do not depend upon analytical services as heavily. Therefore, not all of the HIDTA funded drug task force initiatives or the investigators utilize the services of the Oregon HIDTA ISC Analytical Unit and are not in a position to evaluate the quality of their services (ONDCP, 2011).

E. SERVQUAL APPLICATION AND RESPONSE RATES

This Capstone Project involves the administration of the SERVQUAL customer perception tool to 49% (61 of 124) of the Oregon HIDTA Initiative investigator and supervisor population. The SERVQUAL instrument was administered to Oregon HIDTA drug task force initiative supervisors and investigators, who were available to complete the survey during their initiative’s 2010 on site internal review between August and December, 2010. Of the 61 surveys which were completed, 10 (5 from the USMSFTF, 2 from WIN, 2 from CCITF, and 1 from PAMGTF) were found to be unusable because the person who completed it indicated that they had not utilized the service of the Oregon HIDTA ISC Analytical Unit at all during the previous 24 months. In total, useable surveys were received from 41% (51 of 124) of the Oregon HDITA drug task force initiative investigator and supervisor population.
F. SERVQUAL DIMENSION IMPORTANCE SCORES

Understanding that the five dimensions of customer service quality have been identified and established by extensive research conducted by the SERVQUAL developers and that all five have been found to be important to customers, they have also concluded that the customer base assign different levels of importance to each dimension. (Zeithaml, Parasuraman, & Berry, Delivering Quality Service - Balancing Customer Perceptions and Expectations, 1990). The SERVQUAL customer perception tool that was administered to the Oregon HIDTA drug task force supervisors and investigators included a section between the expectation and perception sections that asked the respondents to divide 100 points between the five dimensions based upon their perception of importance. The respondents were asked to assign the most points to the most important dimension and fewer points to the least important dimensions.

This Capstone Project revealed the importance ranking of the SERVQUAL dimensions of the Oregon HIDTA drug task force supervisors and investigators from most important to least important as:

1. Reliability
2. Assurance
3. Responsiveness

<table>
<thead>
<tr>
<th>SURVEYS COMPLETED</th>
<th>SURVEYS ELIMINATED</th>
<th>USEABLE AS A PERCENT OF POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>10</td>
<td>41%</td>
</tr>
</tbody>
</table>
4. Empathy

5. Tangibility

The average importance score was also used to weight the gap scores for each dimension. Weighted scores were established by multiplying the dimension weight and the dimension gap score. The weighted score helps to clarify the significance of the perception/expectation gaps that were measured during this Capstone Project.

**Figure 5: Dimension Weights**

![Dimension Weights](image)

**G. PERCEPTION SCORE AS A MEASURE OF SATISFACTION**

For the purpose of this Capstone Project, the perception score of 5.6 out of 7 (80% of the maximum) is the minimum score needed to measure true satisfaction for the combined dimensions as well as each subcategory of the dimensions. For example, a SERVQUAL respondent perception score of 5.6 in Responsiveness would indicate an acceptable level of satisfaction for that category. The same would be true for each of the subcategory of that dimension as long as each achieved at least a 5.6 perception score. Conversely, a SERVQUAL
respondent perception score of 5.5 in Tangibility would indicate a non-acceptable level of satisfaction for that category.

The 80% perception threshold has been used in other customer service satisfaction assessments where SERVQUAL was used as the primary assessment tool. In a customer service assessment of the Shahjalal Islami Bank Limited, Azim Ferdous justified the 80% threshold as follows:

“All some researchers prefer to concentrate on the —top box responses—those scores of 4 or 5 out of 5—the excellent or very good ratings. It is argued that these are the scores that are required to create genuine satisfaction and loyalty. In their book “The Service Profit Chain”, Heskett, Sasser and Schlesinger argue that a rating of 9 or 10 out of 10 is required on most of the key issues that drive the buying decision. If suppliers fail to achieve such high ratings, customers show indifference and will shop elsewhere. Capricious consumers are at risk of being wooed by competitors, readily switching suppliers in the search for higher standards. The concept of the zone of loyalty, zone of indifference and zone of defection as suggested by the three Harvard professors is illustrated below in the diagram. (Ferdous, 2008, p. 50)”

Figure 6: Zone of Loyalty

(Heskett, Sasser, & Schlesinger, 1997)

While Ferdous’ study deals with services provided by a private sector bank and this Capstone Project deals with the services provided by a public sector Analytical Unit, the concept of loyalty, keeping customers, and gaining new customers applies equally to the bank and the
Oregon HIDTA ISC Analytical Unit. Customers of the bank who are unsatisfied will become less loyal and will go somewhere else to bank. Likewise, customers of the Oregon HIDTA ISC Analytical Unit who, by and large, don’t have other alternatives as far as obtaining analytical support and who are not satisfied will simply give up and not seek analytical services. Therefore, the correlation between satisfaction and loyalty which led to Ferdous’s application of the 80% threshold applies to this Capstone Project as well.

**H. SERVQUAL RESULTS BY DIMENSION**

**1. TANGIBILITY**

The Tangibility dimension of the SERVQUAL customer perception tool is comprised of the first four questions which assess Oregon HIDTA drug task force initiative investigator and supervisor perceptions of the tangible appearance aspects (equipment, materials, physical facility and employees) of the Oregon HIDTA ISC Analytical Unit. When looking at each of the four factors making up the tangibility dimension of customer satisfaction, the expectations of the Oregon HIDTA drug task force supervisors and investigators expectations exceed their perceptions in the area of modern looking equipment (gap score – P-E = -.21) and in visually appealing materials (gap score – P-E = -.22). Perceptions exceed expectations in the areas of visually appealing facilities (gap score – P-E = .12) and professional appearance of employees (gap score – P-E = .53).

The average unweighted gap score (P-E) for the tangibility dimension of customer satisfaction is .05. When applying the tangibility weight score of 8.11 to the gap score, the weighted gap score jumps to .44. In both cases, the survey results show that the perception of the Oregon HIDTA drug task force supervisors and investigators exceed their expectations of the tangible appearance aspects of the Oregon HIDTA ISC Analytical Unit.
A summary of the survey results for the tangibility dimension of customer service quality are summarized in the three tables that appear below.

**Figure 7: Tangibility Dimension - SERVQUAL Results**

<table>
<thead>
<tr>
<th>TANGIBILITY FACTOR DIMENSIONS</th>
<th>EXPECTATION (E)</th>
<th>PERCEPTION (P)</th>
<th>GAP SCORE (P-E)</th>
<th>AVERAGE SERVQUAL P SCORE FOR TANGIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modern looking equipment.</td>
<td>4.71</td>
<td>4.50</td>
<td>-0.21</td>
<td></td>
</tr>
<tr>
<td>2. Visually appealing physical facilities.</td>
<td>4.25</td>
<td>4.37</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>3. Professional appearance of employees.</td>
<td>4.62</td>
<td>5.15</td>
<td>0.53</td>
<td>4.96</td>
</tr>
<tr>
<td>4. Visually appealing materials.</td>
<td>6.02</td>
<td>5.80</td>
<td>-0.22</td>
<td></td>
</tr>
</tbody>
</table>

Dimension Weight: 8.11

Average Unweighted Tangibility Gap Score: 0.05

WEIGHTED GAP SCORE: 0.44
2. RELIABILITY

The Reliability dimension of the SERVQUAL instrument is comprised of questions 5-9, which assess Oregon HIDTA drug task force initiative investigator and supervisor perceptions of the reliability aspects (acting according to promises, sincerity in problem solving, performing the service right at the first time, providing service at the promised time & insistence on error free records) of the Oregon HIDTA ISC Analytical Unit. When looking at each of the five factors making up the reliability dimension of customer satisfaction, the expectations of the Oregon HIDTA drug task force supervisors and investigators expectations exceed their perceptions in all
five areas; act according to promises (gap score – P-E = -.79), sincere interest in solving problems (gap score – P-E = -.36), performing services right the first time (gap score – P-E = -.33), providing service at the promised time (gap score – P-E = -.48), and insistence on error free records (gap score – P-E = -.57).

The average unweighted gap score (P-E) for the reliability dimension of customer satisfaction is -.51. When applying the reliability weight score of 41.36 to the gap score the gap score jumps to -20.98. In both cases, the survey results show that the perception of the Oregon HIDTA drug task force supervisors and investigators fall below their expectations of the reliability aspects of the Oregon HIDTA ISC Analytical Unit.

A summary of the survey results for the reliability dimension of customer service quality are summarized in the two tables that appear below.

<table>
<thead>
<tr>
<th>RELIABILITY FACTOR DIMENSIONS</th>
<th>EXPECTATION (E)</th>
<th>PERCEPTION (P)</th>
<th>GAP SCORE (P-E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Act according to promises.</td>
<td>6.40</td>
<td>5.61</td>
<td>-0.79</td>
</tr>
<tr>
<td>6. Sincere interest in solving problems.</td>
<td>6.31</td>
<td>5.94</td>
<td>-0.36</td>
</tr>
<tr>
<td>7. Services are performed right the first time.</td>
<td>6.04</td>
<td>5.70</td>
<td>-0.33</td>
</tr>
<tr>
<td>8. Provide services at the time promised.</td>
<td>6.24</td>
<td>5.76</td>
<td>-0.48</td>
</tr>
<tr>
<td>9. Insist on error</td>
<td>6.05</td>
<td>5.48</td>
<td>-0.57</td>
</tr>
</tbody>
</table>

A summary of the survey results for the reliability dimension of customer service quality are summarized in the two tables that appear below.
3. RESPONSIVENESS

The Responsiveness dimension of the SERVQUAL instrument is comprised of questions 10-13, which assess Oregon HIDTA drug task force initiative investigator and supervisor.
perceptions of the responsiveness aspects (informing when services will be performed, providing services promptly, willingness to help, never being too busy to respond to request for service) of the Oregon HIDTA ISC Analytical Unit. When looking at each of the four factors making up the reliability dimension of customer satisfaction, the expectations of the Oregon HIDTA drug task force supervisors and investigators expectations exceed their perceptions in three of the four areas; informing when services will be performed (gap score – P-E = -.63), providing services promptly, (gap score – P-E = -.31), and willingness to help (gap score – P-E = -.33), providing service at the promised time (gap score – P-E = -.09), and insistence on error free records (gap score – P-E = -.57). Perception exceeds expectation in the areas of never being too busy to respond to requests for service (gap score – P-E = .30).

The average unweighted gap score (P-E) for the responsiveness dimension of customer satisfaction is -.18. When applying the responsiveness weight score of 18.95 to the gap score, the gap score increases to -35. In both cases, the survey results show that the perception of the Oregon HIDTA drug task force supervisors and investigators fall below their expectations of the responsiveness aspects of the Oregon HIDTA ISC Analytical Unit.

A summary of the survey results for the responsiveness dimension of customer service quality are summarized in the three tables that appear below.
### Responsiveness Dimension – SERVQUAL Results

<table>
<thead>
<tr>
<th>RESPONSIVENESS FACTOR DIMENSIONS</th>
<th>EXPECTATION (E)</th>
<th>PERCEPTION (P)</th>
<th>GAP SCORE (P-E)</th>
<th>AVERAGE SERVQUAL P SCORE FOR RESPONSIVENESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Informs exactly when services will be provided.</td>
<td>5.82</td>
<td>5.19</td>
<td>-0.63</td>
<td></td>
</tr>
<tr>
<td>11. Provides prompt services.</td>
<td>6.05</td>
<td>5.74</td>
<td>-0.31</td>
<td></td>
</tr>
<tr>
<td>12. Always willing to help.</td>
<td>6.16</td>
<td>6.07</td>
<td>-0.09</td>
<td>5.60</td>
</tr>
<tr>
<td>13. Never too busy to respond to service requests.</td>
<td>5.05</td>
<td>5.35</td>
<td>0.30</td>
<td></td>
</tr>
</tbody>
</table>

**Dimension Weight:** 18.95

**Average Unweighted Responsiveness Gap Score:** -0.18

**WEIGHTED RESPONSIVENESS GAP SCORE:** -3.5

---

### Responsiveness Dimension – Unweighted and Weighted Gap Score

![Graph showing responsiveness gap scores](chart.png)
4. ASSURANCE

The Assurance dimension of the SERVQUAL instrument is comprised of questions 14-17 which assess Oregon HIDTA drug task force initiative investigator and supervisor perceptions of the assurance aspects (employee behavior instills confidence, customers feel secure in their transactions, employees are consistently courteous, employees have the knowledge to answer questions) of the Oregon HIDTA ISC Analytical Unit. When looking at each of the four factors making up the assurance dimension of customer satisfaction, the expectations of the Oregon HIDTA drug task force supervisors and investigators expectations exceed their perceptions in three of the four areas; employee behavior instills confidence (gap score – P-E = -.22), customers feel secure in their transactions, (gap score – P-E = -.36), and employees have the knowledge to answer questions (gap score – P-E = -.38). Perception exceeds expectation in the area of consistency of employee courteousness (gap score – P-E = .31).

The average unweighted gap score (P-E) for the assurance dimension of customer satisfaction is -.16. When applying the responsiveness weight score of 20.09 to the gap, the gap score increases to -7.62. In both cases, the survey results show that the perception of the Oregon
HIDTA drug task force supervisors and investigators fall below their expectations of the assurance aspects of the Oregon HIDTA ISC Analytical Unit.

A summary of the survey results for the assurance dimension of customer service quality are summarized in the three tables that appear below.

**Figure 16: Assurance Dimension – SERVQUAL Results**

<table>
<thead>
<tr>
<th>ASSURANCE FACTOR DIMENSIONS</th>
<th>EXPECTATION (E)</th>
<th>PERCEPTION (P)</th>
<th>GAP SCORE (P-E)</th>
<th>AVERAGE SERVQUAL P SCORE FOR ASSURANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Employee behavior instills confidence.</td>
<td>6.00</td>
<td>5.78</td>
<td>-0.22</td>
<td>5.99</td>
</tr>
<tr>
<td>15. Customers feel secure in their transactions.</td>
<td>6.47</td>
<td>6.11</td>
<td>-0.36</td>
<td></td>
</tr>
<tr>
<td>16. Employees are consistently courteous.</td>
<td>5.89</td>
<td>6.20</td>
<td>0.31</td>
<td>5.99</td>
</tr>
<tr>
<td>17. Employees have the knowledge to answer questions.</td>
<td>6.27</td>
<td>5.89</td>
<td>-0.38</td>
<td></td>
</tr>
</tbody>
</table>

Dimension Weight: 20.09

Average Unweighted Assurance Gap Score: -0.16

WEIGHTED ASSURANCE GAP SCORE: -7.62
5. EMPATHY

The Empathy dimension of the SERVQUAL instrument is comprised of questions 18-22 which assess Oregon HIDTA drug task force initiative investigator and supervisor perceptions of the empathy aspects (provides individual attention, has convenient operating hours, employees provide personal attention, has the best interest of the customer at heart, employees understand the needs of the customers) of the Oregon HIDTA ISC Analytical Unit. When looking at each of the five factors making up the empathy dimension of customer satisfaction, the expectations of the Oregon HIDTA drug task force supervisors and investigators expectations exceed their perceptions in all five areas; provides individual attention (gap score – P-E = -.15), has
convenient operating hours (gap score – P-E = -.71), employees provide personal attention (gap score – P-E = -.15), employees have the best interest of the customer at heart (gap score – P-E = -.11), and employees understand the needs of the customers (gap score – P-E = -.35).

The average unweighted gap score (P-E) for the empathy dimension of customer satisfaction is -.29. When applying the reliability weight score of 10.75 to the gap score, the gap score increases to -3.16. In both cases, the survey results show that the perception of the Oregon HIDTA drug task force supervisors and investigators fall below their expectations of the empathy aspects of the Oregon HIDTA ISC Analytical Unit’s customer satisfaction level.

A summary of the survey results for the empathy dimension of customer service quality are summarized in the three tables that appear below.

Figure 19: Empathy Dimension – SERVQUAL Results

<table>
<thead>
<tr>
<th>EMPATHY FACTOR DIMENSIONS</th>
<th>EXPECTATION (E)</th>
<th>PERCEPTION (P)</th>
<th>GAP SCORE (P-E)</th>
<th>AVERAGE SERVQUAL P SCORE FOR EMPATHY</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Provides individual attention.</td>
<td>5.80</td>
<td>5.65</td>
<td>-0.15</td>
<td></td>
</tr>
<tr>
<td>19. Has convenient operating hours.</td>
<td>5.87</td>
<td>5.17</td>
<td>-0.71</td>
<td>5.67</td>
</tr>
<tr>
<td>20. Employees provide personal attention.</td>
<td>5.80</td>
<td>5.65</td>
<td>-0.15</td>
<td></td>
</tr>
<tr>
<td>21. Has the best interest of the customers at heart.</td>
<td>6.13</td>
<td>6.02</td>
<td>-0.11</td>
<td></td>
</tr>
<tr>
<td>22. Employees understand the</td>
<td>6.20</td>
<td>5.85</td>
<td>-0.35</td>
<td></td>
</tr>
</tbody>
</table>
needs of their customers.

<table>
<thead>
<tr>
<th>Dimension Weight:</th>
<th>10.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Unweighted Empathy Gap Score:</td>
<td>-0.29</td>
</tr>
<tr>
<td>WEIGHTED EMPATHY GAP SCORE:</td>
<td>-3.16</td>
</tr>
</tbody>
</table>

Figure 20: Empathy Dimension – Unweighted and Weighted Gap Score

Figure 21: Empathy Dimension – Average Perception Score
I. QUANTITATIVE SERVQUAL FINDINGS BY DIMENSION

The quantitative findings that are found by analyzing the Oregon HIDTA drug task force supervisor and investigator response through the SERVQUAL instrument are as follows:

1. TANGIBILITY – Appearances in satisfying customers:

The average SERVQUAL perception value for tangibility is 4.96 out of a possible 7. While not quite meeting the 80% satisfaction threshold as explained in the previous section, the SERVQUAL score for tangibility, combined with the fact that it received the lowest dimension importance score (8.11) and the perception score exceeded the expectation score (.44 gap score), indicates that Oregon HIDTA drug enforcement task force supervisors and investigators are satisfied with the overall tangible appearances (equipment, materials, physical facilities and employees) of the Oregon HIDTA ISC Analytical Unit.

2. RELIABILITY – Ability of the Oregon HIDTA ISC Analytical Unit to perform promised services dependably and accurately:

According to the average SERVQUAL perception value for reliability - 5.7 out of a possible 7 -, performance of all of the dimensions listed under Reliability (acting according to promises, sincerity in problem solving, performing the service right at the first time, providing service at the promised time & insistence on error free records) is satisfactory. Put more succinctly, Oregon HIDTA drug enforcement task force supervisors and investigators are satisfied with the ability of the ISC Analytical Unit to provide promised services dependably and accurately.

3. RESPONSIVENESS - Response & willingness of employees in providing service:

The average SERVQUAL perception value for responsiveness is 5.59 out of a possible 7. This score indicates that the Oregon HIDTA drug task force supervisors and investigators are satisfied with the overall responsiveness of the Oregon HIDTA ISC Analytical Unit. More
specifically, they are satisfied with the Oregon HIDTA ISC Analytical Unit’s performance in the areas of informing when services will be performed, providing services promptly, willingness to help, and never being too busy to respond to request for service.

4. ASSURANCE - Assurance of competency, courtesy, credibility & security:

The average SERVQUAL perception value for assurance is 5.99 out of a possible 7. This score indicates that, the Oregon HIDTA drug task force supervisors and investigators feel safe in their transaction with the members of the Oregon HIDTA ISC Analytical Unit. Additionally they indicate that the members of the Oregon HIDTA ISC Analytical Unit are consistently courteous, that they possess good knowledge when answering questions and that their behavior instills confidence when they are called upon for assistance.

5. EMPATHY - Performance in personal care, understanding customers and convenient operating hours:

The average SERVQUAL perception value for empathy is 5.67 out of a possible 7. This score indicates that the Oregon HDITA drug task force supervisors and investigators are satisfied with the overall empathy displayed and demonstrated by the Oregon HIDTA ISC Analytical Unit. Oregon HIDTA drug task force commanders responded that they believe that the Oregon HIDTA ISC Analytical Unit provides individual attention, has convenient operating hours, has employees who provide personal attention, who have their (supervisors and investigators) best interests at heart, and who understand their needs.

J. CONCLUSION

The overall perceived SERVQUAL score for the five dimensions of customer satisfaction is 5.58. This indicates a satisfactory level of customer satisfaction in the service quality, as assessed by the Oregon HIDTA drug task force supervisors and investigators, delivered by the Oregon HIDTA ISC Analytical Unit.

Chris Gibson - 49
From the quantitative analysis it is found that, although gaps exist in the expected vs. perceived level of service quality satisfaction, the Oregon HIDTA drug task force supervisors and investigators are satisfied with the quality of service being delivered by the Oregon HIDTA ISC Analytical Unit. The negative gaps that exist in the expected vs. perceived level of service quality indicate that there are areas where efforts to improve should be focused. The weighted, negative gap scores suggest that Oregon HIDTA ISC Analytical Unit leadership should prioritize and focus improvement efforts in order and in the areas of Reliability, Assurance and Responsiveness.

Figure 22: Oregon HIDTA ISC Analytical Unit SERVQUAL Gap Scores – All Dimensions

The final chapter will examine the factors that influence the service quality gaps that were identified as well as concluding comments about service quality leadership.
IV. DISCUSSION

A. INTRODUCTION

While the purpose of this Capstone Project is to assess the customer satisfaction level of the Oregon HIDTA drug enforcement task force supervisors and investigators who utilize the Oregon HIDTA ISC Analytical Unit, the goal is to provide the Oregon HIDTA ISC Analytical Unit leaders with information that can be used to improve the quality of services provided. This chapter will entail a discussion about the factors that influence the service quality gaps, as well as recommendations for minimizing the gaps that were identified in the previous chapter. Finally, this chapter will conclude with a discussion about service quality leadership.

B. FACTORS INFLUENCING SERVICE QUALITY PERCEPTIONS

Leaders of public and private organizations who provide services to a customer base must understand that their organization’s viability and sustainability depends upon the quality of service that they provide. In his book, “Leadership in Public Organizations”, Montgomery Van Wart (2008) writes that “exceptional performance is necessary for organizational success, whether that entails higher productivity levels, greater contribution in adaptation and innovation, or effective organizational transformation” (p. 81). The SERVQUAL developers argue that it is also important for leaders to put into place a process to continually monitor customer’s perceptions of service quality, identify the causes of service quality shortfalls and take appropriate action to improve the quality of the service provided (Zeithaml, Parasuraman, & Berry, 1990). Whereas the previous chapter illustrated a process for monitoring customer perceptions as well as an application of SERVQUAL, this section entails a discussion about the factors that influence customer perceptions of service quality.
Much like the exploratory study conducted with customers of service industries described in the previous chapter, the SERVQUAL developers conducted a similar study with the executives from “marketing, operations, customer relations, and senior management – areas in which executives should have a keen interest in service quality” (Zeithaml, Parasuraman, & Berry, 1990, p. 36). In a focus group setting, the executives were asked:

- What they perceived to be service quality from a customers’ point of view,
- Which key criteria the executives felt their customers used in judging the quality of service provided by their organizations,
- What problems they faced in consistently delivering high quality service, and
- What steps they take to control or improve the quality of their services (Zeithaml, Parasuraman, & Berry, 1990).

Again, much like the exploratory study conducted with the service industry customers, the discussions with the executives revealed consistent patterns; many of which cut across all areas of the service industry. The SERVQUAL developers found that the themes, “which offer critical clues for achieving effective service quality control, can be cast in the form of four key discrepancies or gaps pertaining to executive perceptions of service quality and the tasks associated with service delivery to customers” (Zeithaml, Parasuraman, & Berry, 1990, p. 36). The four themes that were identified by the SERVQUAL developers were numbered and labeled as:

- Gap 1 - Customer Expectation – Management Perception;
- Gap 2 – Management’s Perception – Service Quality Specification;
- Gap 3 – Service Quality Specification – Service Delivery and;

As a result of additional research, these four gaps were found to be the major contributors to the gap(s) between customer expectation and customer perception, which the SERVQUAL customer perception tool was designed to measure. In this analysis, the gap between customer expectation and customer perception was labeled Gap 5 (Zeithaml, Parasuraman, & Berry, 1990).

1. GAP 1 – CUSTOMER EXPECTATION – MANAGEMENT PERCEPTION

As a result of their work with service industry executives, Zeithaml, Parasuraman and Berry (1990) determined that the executive’s perceptions about what customers expect from superior quality service were, for the most part, in line with what the customers really did expect. Executives understood that customers expected things like courtesy, error free work and having customer’s best interests at heart. Despite this basic understanding, differences between the expectations of the customers and the executive’s understanding of the importance placed on those expectations by the customers were noted.

As an example, customers of a bank place the highest priority on feeling secure in their transactions when judging the service quality of the bank. The bank executives, while understanding that feeling secure in their transactions is an important aspect of service quality to customers, may have the perception that providing prompt service is what the customers feel is the most important. This misperception of customer expectations by management and leadership was labeled as Gap 1 by Zeithaml, Parasuraman and Berry (1990).
When Gap 1 misperceptions by the leaders of an organization occur, it may “trigger a chain of bad decisions and suboptimal resource allocations that result in perceptions of poor service quality” (Zeithaml, Parasuraman, & Berry, 1990, p. 38). As discussed in the previous chapter, the most important aspect of service quality to the Oregon HIDTA drug task force supervisors and investigators is reliability. If the leadership of the Oregon HIDTA ISC Analytical Unit does not understand this and believes that the most important aspect of service quality is actually tangibility - when in reality it was a distant last - and focuses on enhancing the appearance of the facilities and implementing strict personal appearance policies, it is unlikely that the customer’s overall perception of service quality will change. The possibility also exists that, as a result of these types of gaps between customer expectation and management perception (Gap 1), the overall gap between the customer’s expectation and perception of service quality (Gap 5) will become greater as a result of resources being directed toward and aspect of service quality that don’t matter to the customer.

2. GAP 2 – MANAGEMENT’S PERCEPTION – SERVICE QUALITY SPECIFICATION

The work with service industry executives revealed to the SERVQUAL developers a need for performance standards that match management’s perception of customer’s expectations. Not creating performance standards that match the customer perception of service quality was labeled Gap 2.

While creating performance standards that match customer perceptions of service quality sounds simple to accomplish, the service industry executives expressed a lot of frustration about actually making it a reality. The SERVQUAL developers’ research revealed that while the executives may actually understand, or have a perception about, the aspects of service quality that is important to the customers, many had not implemented performance standards to address
them. This hadn’t been done for a variety of reasons, all of which were based upon assumptions of the executives; they couldn’t think of a performance standard to address the service quality aspects, they felt that the task of identifying performance standards was impossible, they felt that the variability inherent in the service defies standardization, they felt that the demand for service is too hard to predict, they felt that the expectations of the customer for those aspects were unreasonable, and/or they felt that their organization can’t change (Zeithaml, Parasuraman, & Berry, 1990).

The SERVQUAL developers concluded that the reason’s provided for not establishing performance standards were rationalizations by the executives for not wanting, or not having the knowledge, to establish performance standards. They went a step further and surmised that the “potential gap between awareness of customers’ expectations and the translation of that awareness into appropriate service standards (Gap 2) may be the absence or wholehearted management commitment to service quality” (Zeithaml, Parasuraman, & Berry, 1990, p. 40). Despite what the leadership might say about service quality, a lack of performance standards that address what is important to customers sends the message to line level service providers that providing quality service is may not be of the upmost importance for the organization’s leaders.

The quality of service delivered by line level service providers is influenced by the emphasis placed upon it by organization leadership and the quality of work performed by line level service providers is influenced by the standards against which they are evaluated and compensated. Therefore, if leaders want to demonstrate a commitment to providing quality service, they will take the time to understand what aspects of service quality are important to the customer and then create performance standards that address them. This will, in turn, provide guidance to line level service providers about how to provide quality service to the customer.
base that they serve. This understanding by the line level service providers should then translate into a perception of service quality that that meets or exceeds the expectations of the customers (Gap 5).

In order to positively influence Gap 2, which will play a role in reducing Gap 5, Oregon HIDTA ISC Analytical Unit leadership has to be committed to providing excellent service to Oregon HIDTA drug task force supervisors and investigators. Leadership must communicate that commitment to the Oregon HIDTA ISC Analytical Unit staff by developing and implementing performance standards that address the aspects of service quality identified by the Oregon HIDTA drug task force supervisors and investigators as being the most important to them; reliability, assurance and responsiveness. In order to insure that the commitment to the delivery of excellent service is translated into performance at the line level, Oregon HIDTA ISC Analytical Unit staff should be evaluated based upon those standards.

3. GAP 3 – SERVICE QUALITY SPECIFICATION – SERVICE DELIVERY

Even when organizations understand the service quality expectations of their customers and then translate them into performance expectations, there isn’t a guarantee that service providers will be willing to or capable to deliver. This issue was labeled as Gap 3 and was identified by the executives; most of whom reasoned that their employees were just unwilling to meet the standards that were set for them. This highlights the key role that the line level service providers play in the customer’s perception of the quality of service delivered by organizations. Some of the executives made the point that when it comes to people, it is difficult to maintain standardized quality (Zeithaml, Parasuraman, & Berry, 1990).

The SERVQUAL developers found that service performance gaps (Gap 3) are likely due to personnel centered issues such as “poorly qualified employees, inadequate internal systems to
support service contact personnel, and insufficient capacity to serve” (Zeithaml, Parasuraman, & Berry, Delivering Quality Service - Balancing Customer Perceptions and Expectations, 1990, p. 43). Gap 2 is closely related to Gap 3 in the fact that service standards must not only reflect customer expectations, they also have to be backed up by people, systems and technology which are properly aligned to meet the service standards of the organization. In other words, service providers have to be willing and able to provide excellent customer service and they must be placed into a system and have access to technology that actually supports their work (Zeithaml, Parasuraman, & Berry, 1990).

Additionally, in order for service standards to be effective, organizational leaders have to be willing to support and enforce them. Organizational leaders must hold their service providers accountable to the established standards. The SERVQUAL developers suggest measuring and compensating employees on the basis of their performance along those standards (Zeithaml, Parasuraman, & Berry, 1990). Organizational leaders who are unwilling to facilitate, encourage and require service provider achievement of well-established service standards are likely to contribute to a customer perception of less than excellent service quality.

The SERVQUAL developers conclude that “when the organization’s service delivery performance fall short of the standards (Gap 3), it falls short of what customers expect as well (Gap 5)” (Zeithaml, Parasuraman, & Berry, 1990, p. 43). This suggests that having the right people, systems and technology in place to achieve the organization’s service standards will enhance the organization’s service delivery (Gap 3), which should also have a positive impact on the customer’s perception of service quality (Gap 5).

Therefore, in order to positively influence Gap 3, which will play a role in reducing Gap 5, Oregon HIDTA ISC Analytical Unit leadership should establish performance standards that
address the expectations of the Oregon HDITA drug task force supervisors and investigators that were identified as a result of the SERVQUAL analysis process. The Oregon HIDTA ISC Analytical Unit leadership must support the efforts of the analysts in achievement of those standards by providing them with the mission aligned training, systems and technology necessary to be successful. After providing this support, the Oregon HIDTA ISC Analytical Unit leadership must also measure the analysts’ performance against the standards and take appropriate action – reward or correction - when their performance exceeds or falls below the standards.

4. GAP 4 – SERVICE DELIVERY – EXTERNAL COMMUNICATION

Customers’ expectations about service quality are influenced by, among other things, the information that they receive from the service provider. When service providers advertise or communicate something about their services to their customer base, that communication helps to form the customer’s expectation of service. The ability or inability of the service provider to deliver the services that are promised through their external communications with their customers is Gap 4. When service providers deliver as promised, and they meet or exceed the expectations of their customers, Gap 4 narrows. When service providers don’t deliver as promised and they fail to meet the expectations of their customers Gap 4 widens.

For example, when service providers communicate that they will deliver a product within 24 hours, customers who do business with that service provider will expect to take delivery within 24 hours of making their order. When it comes time for the customer to utilize that provider’s service and the product is not delivered within 24 hours, the customer’s perception of the service quality is less than their expectation. Not meeting the 24 hour delivery expectation of the
customer, which was influenced by the external communication of the service provider, has a negative influence on the perception of service quality by that customer.

While the scenario above describes an instance of external communication, creating a negative perception of service quality, there are ways of minimizing negative such negative perceptions by utilizing external communication to positively influence the service quality perception of customers. This can be done by educating customers about what is being done behind the scenes to serve them better. In the context of the scenario above and assuming that the delivery delay was the result of something that could not be controlled, the service provider could have positively influenced the perception of the customer by placing a phone call prior to the promised delivery time to let the customer know about a delay, the reasons for it and what will be done to solve the problem. The SERVQUAL developers noted that by failing to let the customers know what was happening behind the scenes, organizations may be missing opportunities to “favorably influence customers’ service perceptions” (Zeithaml, Parasuraman, & Berry, 1990, p. 44).

Another way to positively influence customer perceptions is to teach the customer base how to better utilize their services. In the case of the Oregon HIDTA ISC Analytical Unit, analysts assisting with financial investigations may need to have the financial records that they are to analyze arranged in some organized fashion. Financial records that are submitted in an organized manner make it much easier for analysts to assist with the case and to deliver analytical products that meet the expectation of the investigator working the case. Service providers should also explain to their customers why certain things that may be bothersome to the customer have to be done. Investigators who don’t understand why analysts need to submit organized financial records may perceive this requirement negatively in the context of the service delivery.
However, if the investigators understand why financial records need to be organized when they are submitted, they likely won’t perceive the requirement negatively in the context of the service quality.

The main point here is that the external communications of service providers can affect customer’s expectations and perceptions about service quality. The SERVEQUAL developers note that “discrepancies between service delivery and external communications about it (Gap 4) adversely affect customers’ assessment of service quality (Gap 5)” (Zeithaml, Parasuraman, & Berry, 1990, p. 45). As illustrated above, this results in poor service quality perceptions by customers. Effectively coordinating service delivery with the organization’s external communications about service delivery can help to narrow Gap 4 which will favorably affect Gap 5.

In order to positively influence Gap 4, the Oregon HIDTA ISC Analytical Unit leadership should make sure that their communications with Oregon HIDTA drug task force supervisors and investigators about services match the Analytical Unit’s ability of the to deliver. In other words, the leadership should make sure that they don’t make any promises without first making sure that the Analytical Unit can deliver. The leadership should also insure that the Oregon HIDTA drug task force supervisors and investigators are fully educated on the services that the Analytical Unit can provide and their capacity to do so. Making promises about service that can be delivered and educating the customer base will have a positive influence on Gap 5.

**C. SERVICE QUALITY LEADERSHIP**

Organizations, both private and public, provide service to a customer base. To some degree, public and private organizations compete on the basis of the quality of the service that they provide (Zeithaml, Parasuraman, & Berry, 1990). Private organizations that provide similar
services compete against each other for customers and profit. Public organizations, which exist as de facto monopolies and provide exclusive services, compete for public trust and funding. Leadership plays a central role in all aspects of organizational operations and service quality is no exception. The SERVQUAL developers say that they have “seen firsthand how strong management commitment to service quality energizes and stimulates an organization to improved service performance” (Zeithaml, Parasuraman, & Berry, 1990, p. 3). They also state “true service leadership builds a climate for excellence that prevails over operational complexities, external pressures, or any other impediments to quality service that might exist” (Zeithaml, Parasuraman, & Berry, 1990, p. 4). Building a climate of excellence requires transformational leaders; leaders who are “willing to engage their followers in creating a shared vision that raises the level of motivation for both the leader and the follower, transforming the organization” (Kee, Newcomer, & Davis, 2007, p. 157).

1. CHARACTERISTICS OF SERVICE LEADERS

Successful leaders possess and rely upon a wide array of characteristics and attributes as they lead. The SERVQUAL developers assert that there are four characteristics of service leadership that are particularly important and that are consistent with transformational leadership theory; service vision, high standards, in the field leadership style, and integrity.

The foundation of service vision is the belief that service quality is a key to organizational success and not just an issue that is on the periphery. Service leaders believe that superior service is the mechanism by which they can situate their organization in front of the other that they compete against. They don’t stop there; they make service quality the central focus of their organization and they understand that delivering and maintain excellent service...
quality is an ongoing effort that requires constant attention and adjustment (Zeithaml, Parasuraman, & Berry, 1990).

Service quality leaders have and impart high standards about and upon all aspects of the operation of the organizations that they lead. Service quality leaders understand that the little things matter and that if left unattended will turn into larger more complex things that will negatively affect service quality (Zeithaml, Parasuraman, & Berry, 1990).

Service quality leaders lead in the field where their followers are working. They are visible, approachable and available; “they emphasize two way communication because they know this is the best way to give shape, substance, and credibility to the service vision and the best way to learn what is really going on in the field” (Zeithaml, Parasuraman, & Berry, 1990, p. 7).

Finally, leaders who are concerned with high quality service place high value on doing what is right at all times; they possess personal integrity. These leaders believe in fairness, consistency and truthfulness which earns the trust of all that they associate with. They know that trust is a requirement of effective leadership in the fact that it is needed in order for people to follow. The developers of SERVQUAL note service leaders understand that it is impossible for a service minded attitude to become the culture of an organization when its leaders lack integrity.

D. CONCLUDING COMMENTS

The administration of the SERVQUAL customer perception tool and the subsequent analysis of the results have revealed that the overall perception of the quality of service provided by the Oregon HIDTA ISC Analytical Unit is acceptable for the five aspects of service quality measured by the SERVQUAL instrument. While the overall customer perception of the service quality provided by the Oregon HIDTA ISC Analytical Unit was within the acceptable level,
analysis of the difference between the expectation of excellent service quality and perceived service quality revealed room for improvement in all areas except tangibility. When considering the value placed upon the five aspects and applying that information to the Gap 5 results; responsiveness, assurance and reliability are the areas where the most effort should be focused.

Given the results discussed in Chapter 3, it is safe to draw the conclusion that the Oregon HIDTA ISC Analytical Unit leaders are committed to providing excellent customer service and that they are likely equally committed to improving the quality of the current level of service provided. This concluding chapter has provided some insight about what contributes to service quality gaps along with a discussion about service leadership. The purpose of presenting the material in this chapter is to help provide the Oregon HIDTA ISC leaders with a framework for moving forward.
V. SOURCES

A. BIBLIOGRAPHY


Chris Gibson - 64


Rueben, K. (2011, April 27). Oregon Department of Justice Special Agent in Charge. (C. Gibson, Interviewer)

Rueben, K. (2011, April 27). Oregon Department of Justice Special Agent in Charge. (C. Gibson, Interviewer)


*Chris Gibson - 65*

B. TABLE OF FIGURES

Figure 1 HIDTA Map ........................................................................................................................................ 17
Figure 2 Oregon HIDTA Map ......................................................................................................................... 20
Figure 3 HIDTA Drug Task Force Initiative Supervisor and Investigator Population.............................. 22
Figure 4: Oregon HIDTA Drug Task Force Initiative Respondent Rates ....................................................... 33
Figure 5: Dimension Weights ....................................................................................................................... 34
Figure 6: Zone of Loyalty .............................................................................................................................. 35
Figure 7: Tangibility Dimension - SERVQUAL Results .................................................................................... 37
Figure 8: Tangibility Dimension - Unweighted and Weighted Gap Scores ..................................................... 38
Figure 9: Tangibility Dimension - Average Perception Score ........................................................................... 38
Figure 10: Reliability Dimension - SERVQUAL Results .............................................................................. 39
Figure 11: Reliability Dimension - Unweighted and Weighted Gap Score ................................................... 40
Figure 12: Reliability Dimension – Average Perception Score ...................................................................... 40
Figure 13: Responsiveness Dimension – SERVQUAL Results ...................................................................... 42
Figure 14: Responsiveness Dimension – Unweighted and Weighted Gap Score ........................................... 42
Figure 15: Responsiveness Dimension – Average Perception Score ............................................................ 43
Figure 16: Assurance Dimension – SERVQUAL Results ............................................................................ 44
Figure 17: Assurance Dimension – Unweighted and Weighted Gap Score ................................................... 45
Figure 18: Assurance Dimension – Average Perception Score ...................................................................... 45
Figure 19: Empathy Dimension – SERVQUAL Results .................................................................................. 46
Figure 20: Empathy Dimension – Unweighted and Weighted Gap Score ..................................................... 47
Figure 21: Empathy Dimension – Average Perception Score ........................................................................... 47
Figure 22: Oregon HIDTA ISC Analytical Unit SERVQUAL Gap Scores – All Dimensions.... 50
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

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Based upon your experience as an investigator who has received case support from a criminal intelligence analytical unit, please visualize what the ideal analytical unit would look like, the excellent types of services that it would provide, and what you would consider to be an excellent level of customer service.

As you answer each of the survey questions below, please indicate the extent to which you agree with each statement. If you neither agree or disagree that a feature is essential for ideal criminal intelligence analytical units, such as the one you have visualized, to possess check the box under the number 4. If you feel that a feature is absolutely essential, check the box under the number 7. If you feel that a feature is not at all essential check the box under the number 1. If your feelings are less strong, check the box under one of the numbers in between.

There are not any right or wrong answers - all that we are interested in is the number that truly reflects your feelings regarding criminal intelligence analytical units that would deliver an excellent quality of service.

1. Excellent criminal intelligence analytical units will have modern looking equipment.
   
   | strongly agree | neither agree or disagree | strongly disagree |
   | 7             | 6                  | 5                 |
   |              | 4                  | 3                  | 2                  | 1 |

2. The physical facilities where criminal intelligence analytical units are located will be visually appealing.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7             | 6                  | 5                 |
   |              | 4                  | 3                  | 2                  | 1 |
3. Analysts who work in criminal intelligence analytical units will appear professionally dressed.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Neither Agree</th>
<th>Strongly Disagree</th>
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<tbody>
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</table>

4. In an excellent criminal intelligence analytical unit, materials associated with a service (link charts, graphs, intelligence bulletins etc.) will be visually appealing.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Neither Agree</th>
<th>Strongly Disagree</th>
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<tbody>
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</table>

5. When excellent criminal intelligence analytical units promise to do something by a certain time, they will do so.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Neither Agree</th>
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6. When a customer/investigator has a problem, excellent criminal intelligence analytical units will show a sincere interest in solving it.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
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7. Excellent criminal intelligence analytical units will perform the service right the first time.

<table>
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<tr>
<th>Strongly Agree</th>
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</table>
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

8. Excellent criminal intelligence analytical units will provide their services at the time they promise to do so.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
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9. Excellent criminal intelligence analytical units will insist on error-free records.

<table>
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<th>strongly agree</th>
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</table>

10. Analysts in excellent criminal intelligence analytical units will tell customers exactly when services will be performed.

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<tr>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
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11. Analysts in excellent criminal intelligence analytical units will give prompt service to customers/investigators.

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<th>strongly agree</th>
<th>neither agree or disagree</th>
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12. Analysts in excellent criminal intelligence analytical units will always be willing to help customers/investigators.

<table>
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<th>strongly agree</th>
<th>neither agree or disagree</th>
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</table>
13. Analysts in excellent criminal intelligence analytical units will never be too busy to respond to customers/investigators requests.

strongly agree
neither agree or disagree
strongly disagree
7 6 5 4 3 2 1

14. The behavior of analysts in excellent criminal intelligence analytical units will instill confidence in customers/investigators.

strongly agree
neither agree or disagree
strongly disagree
7 6 5 4 3 2 1

15. Customers/investigators of excellent criminal intelligence analytical units will feel secure in their transactions.

strongly agree
neither agree or disagree
strongly disagree
7 6 5 4 3 2 1

16. Analysts in excellent criminal intelligence analytical units will be consistently courteous to customers/investigators.

strongly agree
neither agree or disagree
strongly disagree
7 6 5 4 3 2 1

17. Analysts in excellent criminal intelligence analytical units will have the knowledge to answer customers/investigators questions.

strongly agree
neither agree or disagree
strongly disagree
7 6 5 4 3 2 1
18. Excellent criminal intelligence analytical units will give customers/investigators individual attention.

<table>
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<th>strongly agree</th>
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19. Excellent criminal intelligence analytical units will have operating hours convenient to all of their customers/investigators.

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20. Excellent criminal intelligence analytical units will have analysts who give customers/investigators personal attention.

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21. Excellent criminal intelligence analytical units will have the customers/investigators best interests at heart.

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<tr>
<th>strongly agree</th>
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22. Analysts in excellent criminal intelligence analytical units will understand the needs of their customers/investigators.

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<th>strongly agree</th>
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</table>
SECTION 3: Five Feature Ranking

Listed below are five features pertaining to criminal intelligence analytical units and the service they offer. We would like to know how important each of these features is to you when you evaluate the service offered by a criminal intelligence analytical unit. Please allocate a total of 100 points among the five features according to how important each feature is to you. The more important a feature is to you, the more points you should allocate to it. Please ensure that the points you allocate to the five features add up to 100.

1. The appearance of the criminal intelligence analytical unit's physical facilities, equipment, personnel and analytical products. \[\] POINTS
2. The criminal intelligence analytical unit's ability to perform the promised service dependably and accurately. \[\] POINTS
3. The criminal intelligence analytical unit's willingness to help customers/investigators and provide a prompt service. \[\] POINTS
4. The knowledge and courtesy of the criminal intelligence analytical unit's personnel and their ability to convey trust and confidence. \[\] POINTS
5. The caring, individualized attention the criminal intelligence analytical unit provides its customers/investigators. \[\] POINTS

Total Points Allocated: \[\] POINTS

Which one feature of the above five is the most important to you? (Please enter the feature's number.)

Which feature is the second most important to you?

Which feature is the least important to you?
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

SECTION 4: Your Service Perceptions of the DOJ/Oregon HIDTA Investigative Service Center (ISC) Criminal Intelligence Analytical Unit

of Justice (DOJ)/Oregon HIDTA Investigative Service Center (ISC) Criminal Intelligence Analytical Unit. For each statement, please show the extent to which you believe the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit possesses and demonstrates the feature described by the statement.

If you strongly agree that the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit possesses or demonstrates the feature described in the statement, check the box under the number 7. If you strongly disagree that the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit possesses or demonstrates the feature described in the statement, check the box under the number 1. If you neither agree or disagree that the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit possesses or demonstrates the feature described in the statement, check the box under the number 4. You may mark any of the numbers in the middle that show how strong your feelings are about each statement.

Again, there are not any right or wrong answers - all that we are interested in is the number that truly reflects your feelings regarding the quality of the services provided and delivered by DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit.

1. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit has modern looking equipment.

2. The physical facilities at the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit are visually appealing.
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

3. Analysts at the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit appear professionally dressed.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7 6 5 4 3 2 1 |

4. DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit materials associated with their service (link charts, graphs, intelligence bulletins etc.) are visually appealing.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7 6 5 4 3 2 1 |

5. When the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit promises to do something by a certain time, they do so.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7 6 5 4 3 2 1 |

6. When a customer/investigator has a problem, the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit shows a sincere interest in solving it.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7 6 5 4 3 2 1 |

7. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit performs the service right the first time.

   | strongly agree | neither agree or disagree | strongly disagree |
   | 7 6 5 4 3 2 1 |
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

8. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit provide their services at the time they promise to do so.

<table>
<thead>
<tr>
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<th>strongly agree</th>
<th>neither agree or disagree</th>
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<tbody>
<tr>
<td>Service timeliness</td>
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</table>

9. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit insists on error free records.

<table>
<thead>
<tr>
<th></th>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
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<tbody>
<tr>
<td>Service accuracy</td>
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</table>

10. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit tell you exactly when services will be performed.

<table>
<thead>
<tr>
<th></th>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
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<tr>
<td>Service reliability</td>
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11. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit give prompt service to you.

<table>
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<tr>
<th></th>
<th>strongly agree</th>
<th>neither agree or disagree</th>
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<td>Service promptness</td>
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</table>

12. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit are always willing to help you.

<table>
<thead>
<tr>
<th></th>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
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<td>Service satisfaction</td>
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</table>
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

13. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit are never too busy to respond to your requests.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
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14. The behavior of analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit instills confidence in you.

<table>
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<tr>
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<th>Strongly Disagree</th>
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</table>

15. You feel secure in your transactions with the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit.

<table>
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<tr>
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<th>Strongly Disagree</th>
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</table>

16. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit are consistently courteous to you.

<table>
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<tr>
<th>Strongly Agree</th>
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</table>

17. Analysts in the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit have the knowledge to answer your questions.

<table>
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<tr>
<th>Strongly Agree</th>
<th>Neither Agree or Disagree</th>
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18. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit gives you individual attention.

<table>
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<tr>
<th>strongly agree</th>
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19. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit has operating hours convenient to all of its customers/investigators.

<table>
<thead>
<tr>
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20. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit has analysts who give you personal attention.

<table>
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21. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit has your best interests at heart.

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</table>

22. The DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit understands your needs.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th>neither agree or disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
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<td>3</td>
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</table>
APPENDIX A: SERVQUAL CUSTOMER PERCEPTION TOOL

SECTION 5: Service Frequency.

1. Over the past 12 months, how many times have you utilized the services of the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit?

1. 0 □
2. 1-4 □
3. 5-9 □
4. 10 or more. □

2. Over the past 24 months, how many times have you utilized the services of the DOJ/Oregon HIDTA ISC Criminal Intelligence Analytical Unit?

1. 0 □
2. 1-4 □
3. 5-9 □
4. 10 or more. □