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The HPT Model Applied to a Kayak Company's Registration Process

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Abstract

This article presents a case study describing the step by step application of the traditional HPT Model (Dessinger, Moseley & Van Tiem, 2004) at a premier kayak company located on the coast of North Carolina. The case study describes how the HPT model was applied to address lost revenues related to three specific business issues: misinformed customers, dissatisfied customers, and guides not showing up for tours or lessons. The case study includes problem statements, Organizational analysis, Environmental Analysis, Gap Analysis, Cause Analysis and Proposed Interventions.

Introduction

HPT is a process that helps a performance technologist bridge the gap between what is and what should be in human performance systems. A number of models exist in the field of Human Performance Technology. Some of the popular HPT models being Mager's performance analysis flowchart (Mager & Pipe, 1984), Rummler's Nine Performance Variables (West, 1997), Wile's synthesized HPT model (Wile, 1997), Language of Work Model (Whiteside, 1998), Traditional HPT Process (ISPI, 2000), Human Performance Model. (Atkinson & Chalmers, 1999) and Process Performance Model (Martin, 2007).

This article uses the Traditional HPT Process of ISPI as its guideline model for this performance case analysis. The true measurement of any HPT model's effectiveness and suitability for use is its ability to visualize and then communicate the process logic to others (Wilmoth, Prigmore, & Bray, 2002). This model has been an excellent guideline for the

performance technologists to visualize the process and communicate the process logic to the client.

[Insert Figure 1]

Problem Statement

Premier Kayaks is a kayak tour and surf lesson business on the coasts of North Carolina. It offers a variety of services which include guided eco-tours, kayak instruction, surf kayak instruction, guided overnight camping trips, surf lessons and multi-day surf camps. Currently reservations are made either online or at one of four locations, either in person or by phone. A hard copy scheduling book is kept at the main location. Also, when scheduling tours online, the company receives an e-mail from PayPal saying that a customer has booked a specific tour. However, it does not tell what time and what date the tour is occurring. The customers are e-mailed by Premier Kayaks to verify the tour time and date. Booking online does not account for the finite number of spaces available for the tour or lesson, and can thus result in overbooking a tour or lesson. Overbooking means that there are too many customers for the number of kayaks available for the tour, or too many surf students to safely teach the lesson for the allotted instructors. At the end of the day after closing time the business phone line is forwarded to the managers' cell phone and calls are fielded until 10 PM. The person closing the shop is responsible for bringing the book to the managers' home so that they can book the tours appropriately. There is an "information blackout" after the phones have been forwarded and before the managers actually receive the book. If a customer calls, the managers do not know what tours are available and what tours have been filled.

Due to miscommunication and a lack of important information, representatives from the company frequently have to reschedule the customers or even worse refund the money because

the client is upset or unable to do the tour at a different time because of their own schedule. They also have to constantly e-mail their on-line bookings to verify date and time of tour. This leaves distaste in customer's mouths as it is unprofessional, unorganized, embarrassing and trifling. It also places a strain on the managers to rearrange schedules, move boats from different locations, and deal with customers who are dissatisfied. There is only one scheduling book, which results in guides not showing up for scheduled tours, guides confusing the meet times, customers confusing the meet times, customers showing up to the wrong location, guides showing up at the wrong locations and at times an over-booking of tours. Once again, the company has to reschedule, or refund the money.

Organizational Analysis

Premier Kayaks prides itself as the most professional kayak outfitter on the Coastal Carolina. They are certified through the American Canoe and Kayak Association (ACA), the National Surf School and Instructor Association (NSSIA), and the American Red Cross. They are a member of 1% For the Planet, a consortium of businesses that donate 1% of their profits to environmental causes. To positively contribute to the community, they have partnered with the YMCA to offer surf lessons and kayak lessons to their summer camp programs at reduced prices so that all Dare County's youth can learn to surf or kayak in their summer programs. It is the company's goal to be the best recreational activities operator on the Coastal Carolina, leading recreational activities in a professional and safe manner that is educational, fun and encourages a respect and appreciation for the coastal environments of North Carolina.

The business consists of two managers who also share ownership of the business and twelve employees. Premier Kayaks is a seasonal business in operation during the peak tourism

months from March to November. One manager is responsible for the hiring of staff, scheduling, guide training, kayak equipment purchasing, retail, internet inquiries, telephone reservations and sales receipts. The second manager is responsible for the surf staff, training, advertising, tax records, payroll, surf lesson scheduling, vehicle maintenance, financial responsibilities, internet, telephone reservations, insurance, tee shirt orders and the purchasing of surf equipment. The two managers also provide the leadership, vision and direction for the company. The staff lead kayak tours, surf lessons and perform secretarial and reservations responsibilities over the phone at their office in Premier.

As a service provider it is imperative that the business provides superior customer service, as service is their product. If customers feel valued and enjoy a pleasurable, safe, professional and meaningful experience in nature kayaking or surfing, they are more likely to return the next time they are in the area and recommend the business to their friends. Since many families spend every summer vacationing on the Coastal Carolina as a tradition, customer loyalty can reap dividends for generations of customers. During a typical transaction, a customer will interact with the reservationist, a manager, and a tour guide or surf instructor and every one is expected to provide consistent, correct information for everything to work properly. The nature of the business also requires that customers and guides are well-informed of the times of their tours or lessons, as well as the tour locations. Due to the nature of our business, clients need to follow several sets of instructions on their own, and be given specific information, in order for the service to be a success. This information includes, but is not limited to, meeting time, location of tour, appropriate attire, supplies and provisions.

Environmental Analysis

There are 6 distinct interfaces with the clients of Premier Kayaks. Below is a description of the locations where customers are provided with information about services available or are provided with the service.

Kayak tours and surf lessons occur at several locations along North Carolina's northern Coast. Tours are provided in the towns of Corolla, Premier, Kill Devil Hills and Manteo. These areas are found within Currituck and Dare County respectively. Tours are also done within the National Wildlife Refuges of Alligator River and Pea Island. Besides these tour locations, kayak tours are done within the Nature Conservancy's Nags Head Woods Ecological Preserve in Kill Devil Hills. Overnight trips occur on camping platforms along the Roanoke River and within the Palmetto-Pear Tree Preserve. These areas are found within Hyde and Washington counties. Surf lessons primarily occur in the towns of Kill Devil Hills and Nags Head.

E-mail inquiries are answered on a daily basis during the peak season of April through October. These e-mail exchanges frequently provide customers with FAQ documents, tour schedule information and general scheduling inquiries about Premier Kayak's services. Also, payment information is taken through the internet and e-mail confirmations, invoices and standard tour information.

Premier Kayaks is the first tour operator many people see once they arrive on the Coastal Carolina. At the shop, customers are attended to by reservationists, managers and any guides or instructors who are working at that time. Customers also must pick up rental equipment such as wetsuits, surfboards, kayaks, paddles and life jackets at this location.

There is also walk-in traffic at two affiliate water sports providers. These Water Sports takes walk-in and call-in reservations and traffic for us, and take a 20% cut off the total sale amount. Frequently there is typically a breakdown in communication, expected standards of

customer service and competency. These stores are managed by other people outside of the Premier Kayaks organization; however their exposure, location and similar services make them a worthwhile venture to help bring in business.

Despite all of these interfaces, the most important interchange is that which occurs over the phone. During peak season each day we receive, anywhere from ten to thirty calls from people shopping around for the right tour at the right price at the right time. As of now this is our greatest source of business, though internet and walk-in traffic is rapidly expanding. All store locations are equipped with computers, internet connections, printers, scanners, promotional materials, phone lines and training manuals for the reservations process. These are used perfectly by the employees; however, they are seldom used to their fullest potential by the affiliate water sports providers. Cellular phones are heavily relied on for constant communication with the guides, reservationists, managers and customers. Three vehicles are owned and used by the company primarily for services, and they also have two kayak trailers that are towed to the kayak launch locations. The two trailers are towed with a 2000 Dodge 12 passenger van and a 2004 Chevy Silverado pick up truck. Surf boards are transported to the beach using a 1996 Saturn SC Coupe with surfboard racks. The company owns 75 kayaks, paddles, life jackets, and 20 surf boards along with wetsuits, tents, and camping equipment.

As the business is seasonal, so are the employees, and thus employees are hired seasonally. All told, Premier Kayaks employs about 14 people: 6 kayak guides, 4 surf instructors, a secretary/reservationist and the 2 managers. All staff work as a reservationist, as well as their position, in order to fill in the hours around the full time secretary. All staff begins making \$8 an hour and receives tips from the customers. A good guide can expect to earn anywhere from \$20 to \$100 a tour depending on the crown. All staff can receive a \$1 raise in August if they meet

certain criteria (punctuality, professionalism, work ethic and attitude) and all staff receive a \$500 bonus if they stay through the duration of their contract, which is through Labor Day weekend. Anyone who comes back the following year can earn \$10 an hour.

Initially employees attend week long training about local wildlife, emergency procedures, local history, ecology, ornithology and weather. They also receive training according to ACA and NSSIA protocols. Throughout the season, guides are expected to keep the boats and vehicles clean, and sell tee shirts and stickers out of the vehicles after the tours. Employees are compensated for overtime during particularly busy weeks. They also attend a weekly meeting on Monday evenings; participate in beach cleanups, charity events, kayak demo promotions, as well as leading customers through the tour areas safely.

Gap Analysis

Current Performance

The current on-line booking system allows for on-line reservations, but does not prevent customers from overbooking a tour or lesson, or show clients that a certain tour is full. Overbooking means that there are too many customers for the number of kayaks available for the tour, or too many surf students to safely teach the lesson for the allotted instructors. The process is as follows.

1. The client selects the tour of their choice which has a link to Google Calendar for the dates and times the tour is offered.
2. They then click a book button and receive a PDF file link for a "Crucial Kayak Tour & Surf Lesson" document about what to bring to the tour, where to meet and directions to the tour site. Ideally the customer prints this for their records.

3. Then they click the Pay Now button for the tour via PayPal. The customer then is taken to PayPal's site for a secure PayPal transaction which funnels the money into the company's bank account.
4. After they pay for the tour, an e-mail is received from PayPal to Premier Kayak's website saying that John Doe has booked a specific tour. However it does not tell the managers the time or date of the tour. It also does not account for the finite number of spaces available for the tour or lesson.
5. Then the managers e-mail the customers to verify the tour time, date and obtain a cell phone number.

This has proven to be ineffective as employees frequently have to reschedule the customers, or even worse refund the money because the client is upset or unable to do the tour at a different time because of their schedule. It is also necessary to constantly e-mail customers who have on-line bookings to verify the date and time of their tour. This leaves a poor attitude with the customer as it is unprofessional and unorganized. For the company and its workers, this is embarrassing and trifling. It also places a strain on the managers to have to change schedules, move boats from different locations, and deal with customers that are not satisfied.

There is also an antiquated paper reservations system that consists of a binder listing the type of tour or surf lesson, the time of the tour, which ones have booked, who is going on that particular tour, their contact information (a cell phone number) and who the guide is for the tour (see appendix for examples of the paper forms). This book is kept at the office. There is a reservationist there who is responsible for answering the phones, booking tours, providing customers with information about our services and taking the payment information of our customers. A typical phone transaction is as follows:

1. A customer calls our office inquiring about a kayak tour or surf lesson.
2. The reservationist answers all the customer's questions and closes the sale by confirming them on a tour. They give the customer the tour time, driving directions, information on what to wear and what to bring to the tour or lesson.
3. The client provides the reservationist with a cell phone number, credit card number and number of customers, and the credit card is charged.
4. The reservationist records all of this data into the tour binder and makes contact with the guides or instructors to confirm the tour time, group size and location.

At the end of the day after closing time, the business phone line is forwarded to the managers' cell phone and they field calls until 10 PM. The person closing the shop is responsible for bringing the book to the managers' home so that they can book the tours appropriately.

Logistically this is a nightmare because there is an "information blackout" after the phones have been forwarded and before the managers actually receive the book. If a customer calls before the book arrives, the managers do not know what tours are available and what tours have been filled.

A full analysis of the reservation process (Langdon, 1999, 2000; Marrelli, 1998) including those over the phone, internet and retail locations, can be found in Figure 2A and Figure 2B.

[Insert Figure 2 here]

All of the information that appears in the book needs to be accessible to the managers, kayak guides, surf instructors, secretary and customers all at the same time, and from various different locations. Logistically this is impossible as the book can only be in one place at one time as there is only one book. This results in many problems such as guides not showing up for scheduled tours, guides confusing the meet times, customers confusing the meet times,

customers showing up to the wrong location, guides showing up at the wrong locations, and at times over-booking tours. Once again, employees have to reschedule, or refund the money. Similar to the online booking system, the paper system is flawed in that a limited number of people can see it at a given time. This results in mistakes that can potentially cause a loss in customers and potential business. Refer to Figure 3 A and 3B for a graphical representation of reservations that were lost last year due to problems in the reservation process.

[Insert Figure 3A here]

[Insert Figure 3B here]

Desired Performance

The ideal situation for this company would be a twofold approach resulting in an improved reservation system and method of communication amongst employees. Ideally, the reservations bookkeeping system would be seamless, allowing customers to schedule tours and pay, as well as giving Premier Kayaks the necessary information about the scheduled tours. Given the different locations from which reservations are processed, it is preferable to have a system that is accurate and limits the movement of information from place to place. For example, an employee would not have to call from a satellite location to give reservation information. Also, an employee would not have to bring a hard copy of the reservation book to the managers' home. In a model system, there would be a central point of reference for any staff member to refer to in the event of an inquiry. This system would also have a history feature which would allow staff to check for previous reservations and possibly errors. Ultimately this system would not allow overbooking to occur as well.

It is the goal of the company to have an online reservations document that lists what is considered to be the most important information. This includes the type of tour or surf lesson, the time of the tour, which tours and lessons have booked, which customers are going on that particular tour, their contact information (a cell phone number), the location of the tour, driving directions to the tour/lesson, what to bring to the tour or lesson, a copy of the waiver, Premier Kayak's contact information, who the guide is for the tour and the guides' contact information. This information would be accessible to the managers, kayak guides, surf instructors, secretary and customers all at the same time, and from various different locations. This would allow for greater information sharing between all parties and improve not only operations, but customer relations, scheduling, organization, work flow and access to information.

If a tour or lesson has been booked, the information needs to be provided to the guides, instructors, managers, secretary, reservationists and customers. All of the aforementioned information should be available 24 hours a day, seven days a week, and months in advance. Guides and instructors need to be fully informed as soon in advance as possible. This would eliminate confusion and they would be available at the correct place and time for tours.

The first area to be improved is that involving the reservation system. The current process involves a physical record book that is circulated between a commercial location and the manager's residence each day. The previously stated commercial location juggles the reservations that are created at either the main location, two affiliate locations in satellite locations or processed via online or phone orders. Because there is only one master copy of the reservations being processed, there is no central point of reference for any staff member to refer to in the event of an inquiry. As well, no form of error-checking exists. Therefore, trips can be

overbooked to the point of not having adequate equipment or staffing, and thus customers are denied their tour.

An ideal reservation system would resolve all of the above stated issues. Clients should be able to create a reservation at the main location, two satellite locations, or by phone or internet and receive the same information from any locale. All of the information processing would happen synchronously to give accurate descriptions of the current availability of the trips or reservations in question. An error-catching mechanism would exist as well that would actively check for any over-booking that may occur in the reservation system and would prevent any bookkeeping errors. This would result in increased revenue for the business as well as increased customer satisfaction as the business would see a decrease in the number of cancellations and refunds due to inaccurate bookkeeping. This system would also manage and send out information to customers, including reservation confirmation as well as any general information necessary for their trip. This would not only reassure the customer and increase satisfaction but would also lead to a decrease in the volume of phone calls and e-mail inquiries that the company receives. This leaves more time for the staff members to attend to other tasks and improve the customer's experience.

The second improvement revolves around increasing communication between the staff members of the company. Due to an improved system of record-keeping, employees would be made more aware of the company's bookings. That way, staff members would always know when they are scheduled for a trip and information about the clients joining them on the tour. There would no longer be any questions about scheduling or the equipment needed for an excursion.

With the improved reservation system and communication method in place, the company would be able to book and keep clients consistently. This gives them an advantage they did not previously have and would likely lead to increased revenue as well as increased customer satisfaction.

Cause Analysis

Using Tom Gilbert's PROBE model, a series of questions were asked to determine possible causes of the performance gap. The questions are designed to help pinpoint environmental and individual causes for the gap in performance. It was found that the majority of the causes were a result of the environment. For this company, the main two environmental causes were a result of tools and information. The tools that are currently being used by this company are lacking. The website booking tool is inadequate at this time. The client desires a more specific and informational booking system. The current tool, PayPal, does not allow customers to book a specific time and place in regards to their kayak tours or surf lessons. Instead, the tool merely charges the customer without giving the customer or client any information about which day the tour will occur and what time the tour will begin and end on that day. Lack of good tools is an environmental factor in this case because the current tool that is being used is unreliable and inefficient. The performance analysis determined that the online booking system was not performing to the optimal performance level that the client desired. The client pointed out that the current system leads to additional work for the company because the current system does not actually book the tours or hold a place for the customer on any specific day.

The other environmental factor is the lack of information. The processes used by Premier Kayaks at this time are not efficient. The online booking system does not specify date and time of any tours or surf lessons. As a result, the managers of the business are required to contact the customer and determine the specific location, time, and date that the customer wants to use the services provided by Premier Kayaks. This current system of online booking therefore causes more work for the people involved. There are many steps that can be avoided by updating the current online booking system. The lack of information given to both the customer and the employees of Premier Kayaks can cause confusion and chaos for both parties in terms of activity reservations. The performance analysis found that the client, Premier Kayaks, currently relies on one book that contains all the vital information such as: tour times, staff schedules, number of customers per tour or surf lesson, to name a few. Information is therefore not shared simultaneously, and that is when errors occur in regards to booking. Due to the book being non-electronic, it is hard for employees to determine their schedule. Each employee must wait to be told their schedule after the manager reviews the book at the end of the day.

It can be argued that the individual worker is a cause of the performance gap because they are often uninformed and uncertain of their work shifts due to booking errors. At the same time, the individual worker is highly trained and specialized for the skills regarding their position at Premier Kayaks. Each individual worker has been trained as a surfing instructor or kayak instructor. The number of tours that a kayak instructor completes is based on the booking and reservations system. So, the manager looks at the book and tells each instructor what they are doing for that day. The same system is in place for notifying surf instructors about their class times and dates. Therefore, the only people that know ahead of time which tours or lessons are booked are the managers. It is then the managers' responsibility to notify the employees about

their shifts. The performance analysis determined that due to the book being non-electronic, it is hard for employees to determine their schedule. Each employee must wait to be told their schedule after the manager reviews the book at the end of the day. The last minute nature of scheduling often leads to conflict and gaps in performance. The causes for the performance gap and its total effect are illustrated in Figure 4.

[Insert Figure 4 here]

Intervention Recommendation

As a result of the analysis on Premier Kayaks, it has been found that serious communication problems exist within the organization. As previously mentioned, in 2007, communication network problems resulted in \$4,249.00 of lost revenue. The goal of Premier Kayaks is to have zero net loss. Consequently, based on the data, findings, and analysis, an Information Systems intervention is recommended. Under the umbrella of Information Systems, there are three types of interventions recommended for Premier Kayaks. First, a pure information system will provide a common database of information which is shared by various employees and can be tailored to meet needs at varying levels. This intervention in particular will help eliminate confusion by allowing employees to access a database that will provide an accurate schedule, as well as important information and updates concerning clients and tours. The simplest and least expensive form of a common database would be Google documents, which include spreadsheets. These documents are easily accessible and free.

The second strategy is a decision support system. This system will not only provide information, but allow employees to organize information and view it in a variety of ways. Not only can information for tours and schedules be seen, but employees can compare sets of

information, examine alternatives, and ease decision making. As schedules can frequently change at the last minute in this company, one feature will be important to the success of communication: Employees and management will be able to compare data and set up acceptable alternative scenarios, in order to be prepared for changes in schedule, times or tours. This strategy will help prevent miscommunication and allow for alternative scheduling to prevent loss of customers. This intervention is also aided by Google documents. Google documents can be designed so that only certain employees can collaborate and change the document. All other employees will have read only access, which allows them to check the spreadsheets or documents without being able to alter them. For example, Premier Kayaks managers can be the collaborators on the Google documents and they have the ability to alter the document. Employees such as the tour guides or the surf instructors can simply be allowed to view the document for changes and updates to the current schedule.

The third strategy within the Information Systems category is to install a new transaction processing system. Currently transactions are occurring at multiple locations and then reservations are relayed to the main Premier Kayaks store. This is logistically difficult, and has been the source of miscommunication for employees and dissatisfaction for customers. A new transaction processing system will allow for an employee to process an order and schedule tours or lessons regardless of their location. This new system will eliminate the need for one physical reservation book, as well as eliminate excessive phone calls to the main store location. Also, within this system customers will be able to follow a set of directions and not only pay for their tour or lesson, but properly schedule it as well according to availability. The changes to this reservation book will be made immediately and management will be notified of new reservations.

Summary and Implications

Premier Kayaks is a strong, small business; however after careful analysis it has been determined that its greatest weakness is the communication network it is utilizing. Currently Premier Kayaks is losing revenue due to a communications error in multiple forms. This is affecting not only the business's revenue-generating ability, but its reputation and employees as well. In order to create a more balanced organizational environment and to ensure continued success, it is recommended that Premier Kayaks perform an Information Systems intervention.

Results from this case analysis show the value of the traditional HPT process as a model for performance analysis in the small business arena and provide implications for practitioners to demonstrate the model's effectiveness and suitability to clients in any environment. (Wilmoth, Prigmore, & Bray, 2002).

References

- Atkinson, V., & Chalmers, N. (1999). Performance consulting: Get your credit from your clients. *Performance Improvement*, 38(4), 14-19.
- Dessinger, J., Moseley, J., Van Tiem, D. (2004). *Fundamentals of Performance Technology: A Guide to Improving People, Process, and Performance*: Silver Spring, MD: International Society for Performance Improvement.
- International Society for Performance Improvement. (2000). What is HPT? [On-line]. Available: <http://www.ispi.org>.
- Langdon, D. (1999). Process mapping. In D. Langdon, K. Whiteside, & M. McKenna (Eds.), *Intervention resource guide* (pp. 311-317). San Francisco: Jossey-Bass/Pfeiffer.

- Langdon, D. (2000). *Aligning performance: Improving people, systems, and organizations*. San Francisco: Jossey-Bass/Pfeiffer.
- Mager, R.F. & Pipe, P. (1984). *Analyzing performance problems: Or you really oughta wanna*, (2nd ed). Belmont, CA: Lake Publishing Company.
- Marrelli, A. (1998). *Guide to managing process performance improvement projects*. El Segundo, CA: Hughes Space and Communications Company.
- Martin, F. (2008). A Performance Technologist's approach to Process Performance Improvement. *Performance Improvement*, 47, 2, 30-40
- West, J. (1997b). Geary Rummler, PhD: Managing performance in the white spaces. In Dean, P.J., & Ripley, D.E. (Eds.). *Performance improvement pathfinders: Models for organizational learning systems* (Vol. 1). Silver Spring, MD: International Society for Performance Improvement.
- Whiteside, K.S. (1998). Models, mayhem, and mystery. *Performance Improvement*, 37(2), 47-53.
- Wile, D. (1996). Why doers do. *Performance Improvement*, 35(2), 30-35.
- Wilmoth, F.S., Prigmore, C., & Bray, M. (2002). HPT Models. An overview of the major models in the field. *Performance Improvement*, 41, 8, 16-24

HUMAN PERFORMANCE TECHNOLOGY (HPT) MODEL

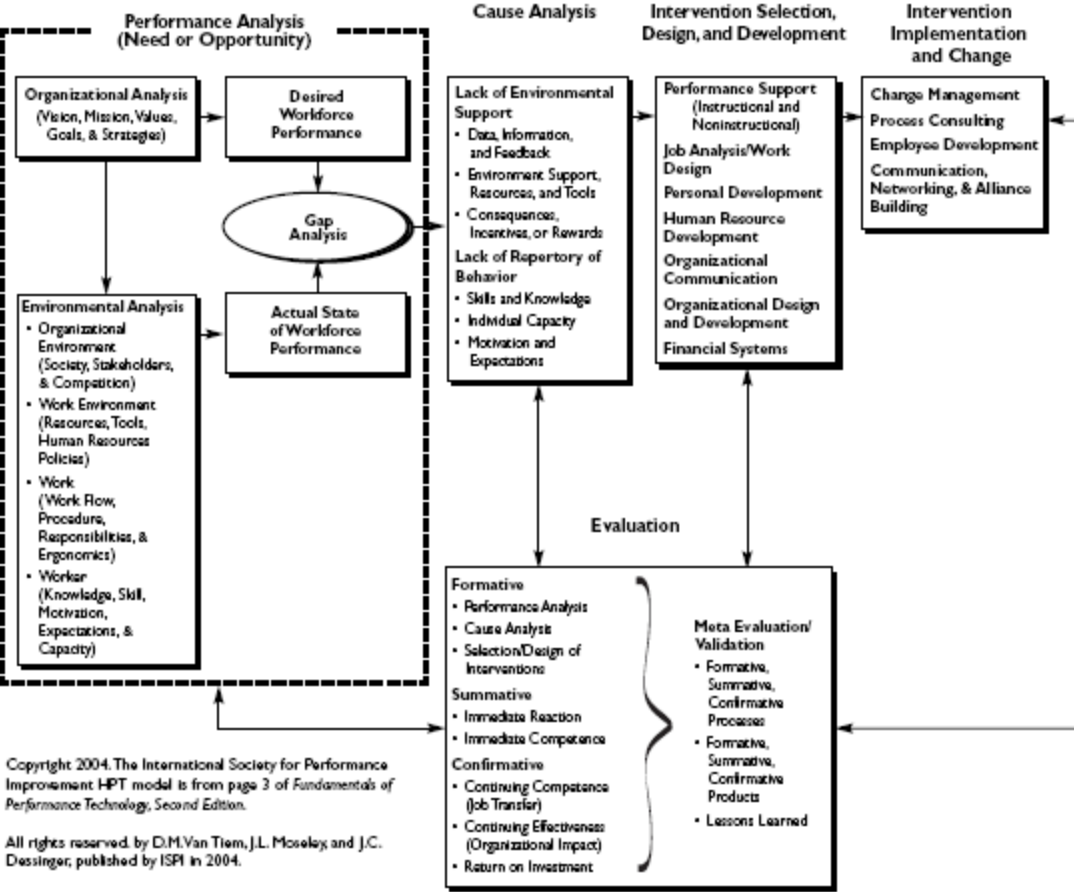


Figure 1. Traditional HPT Model (Need to get permission from authors)

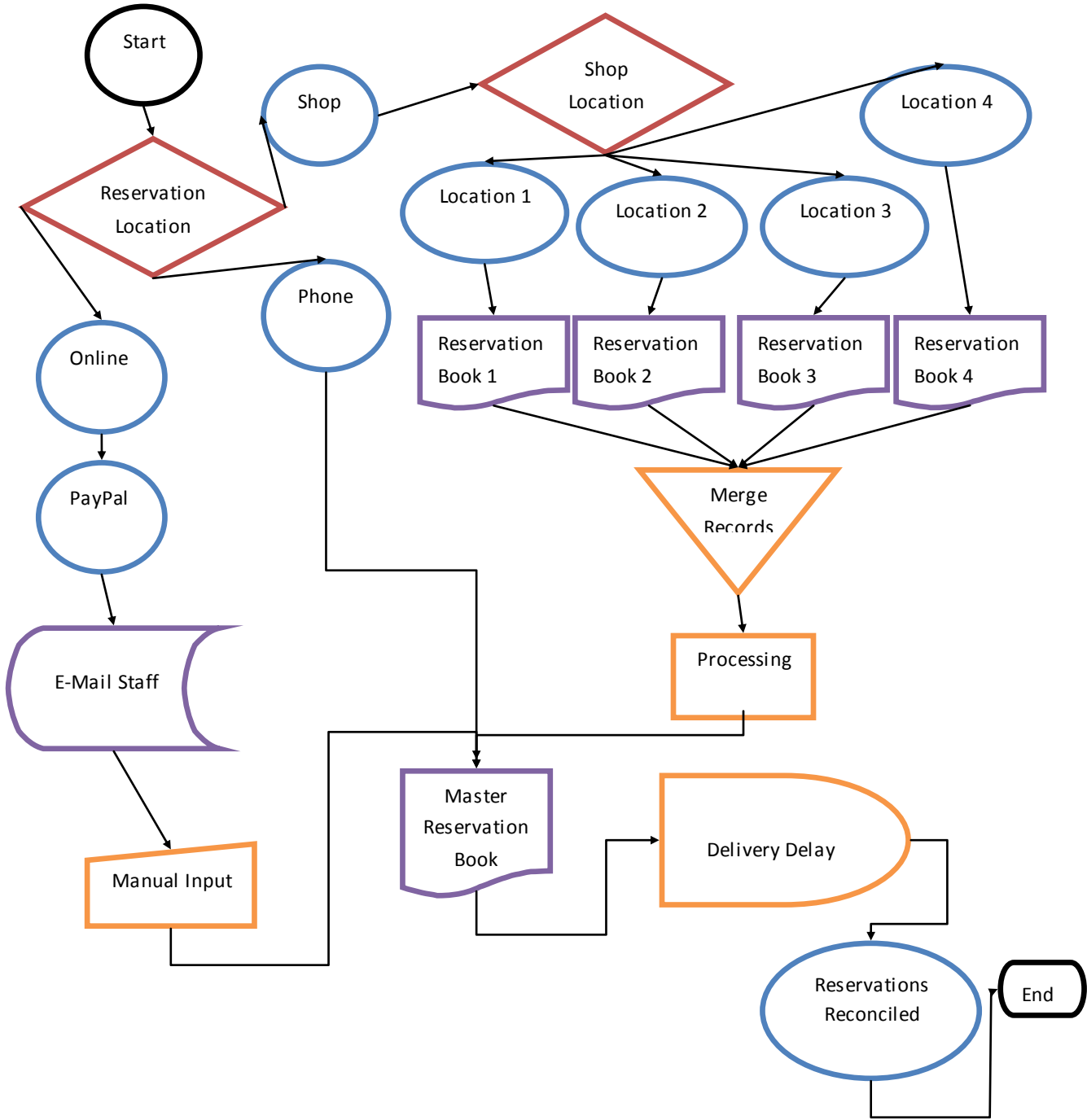


Figure 2. Premier Kayaks Process Flow

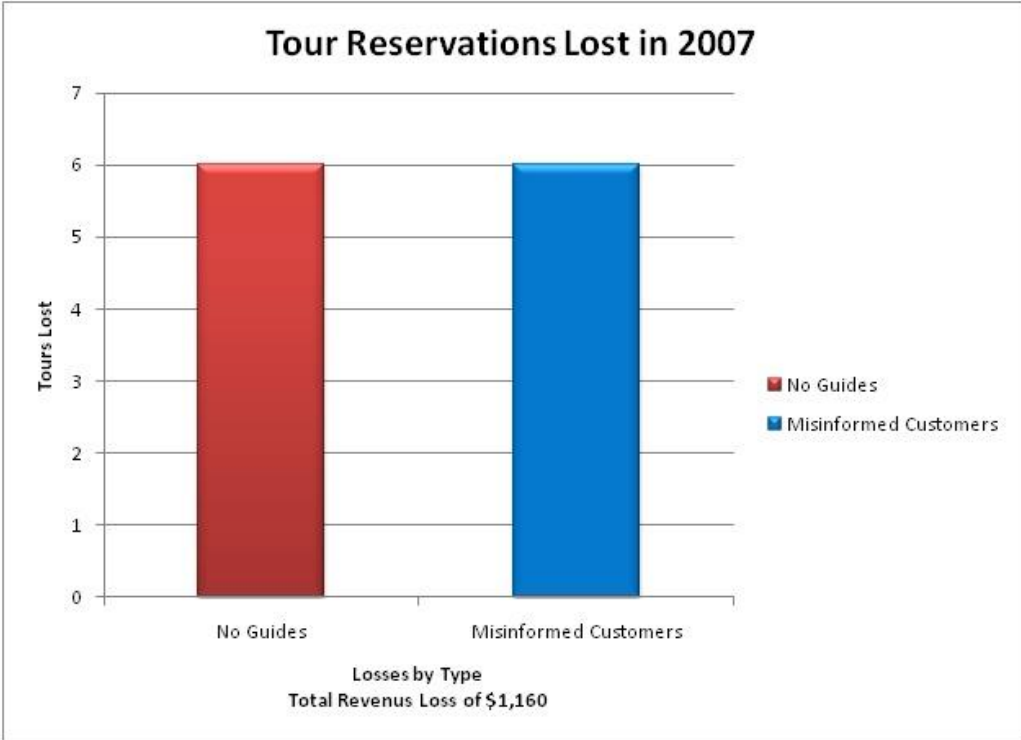


Figure 3A. *Tour Reservations Lost in 2007*

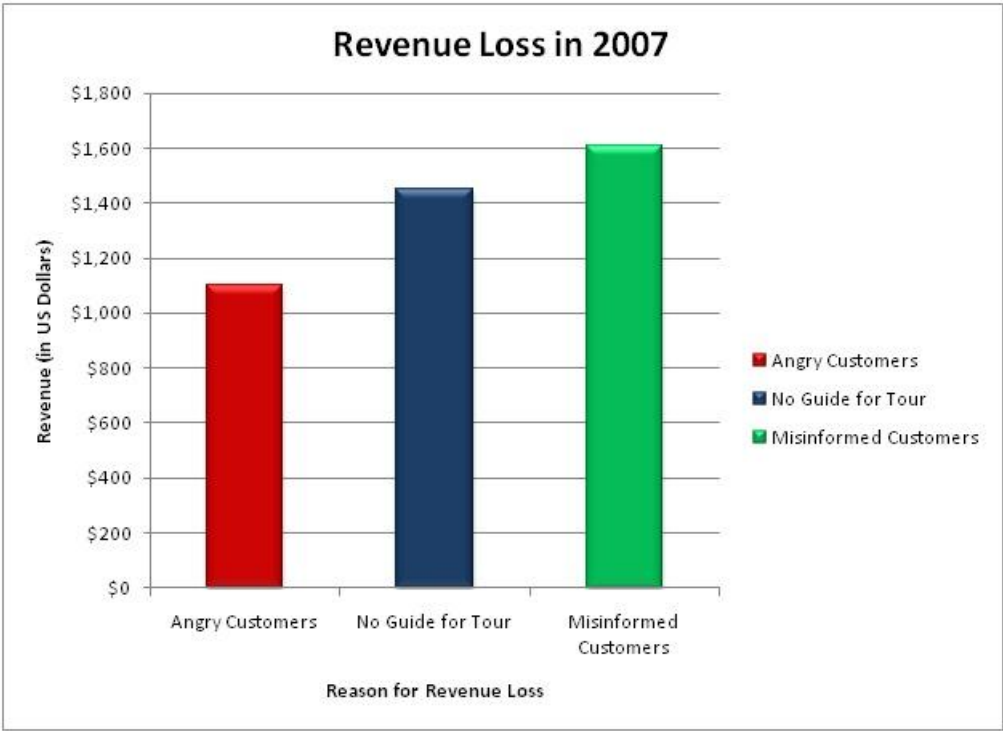


Figure 3B. *Revenue Loss*

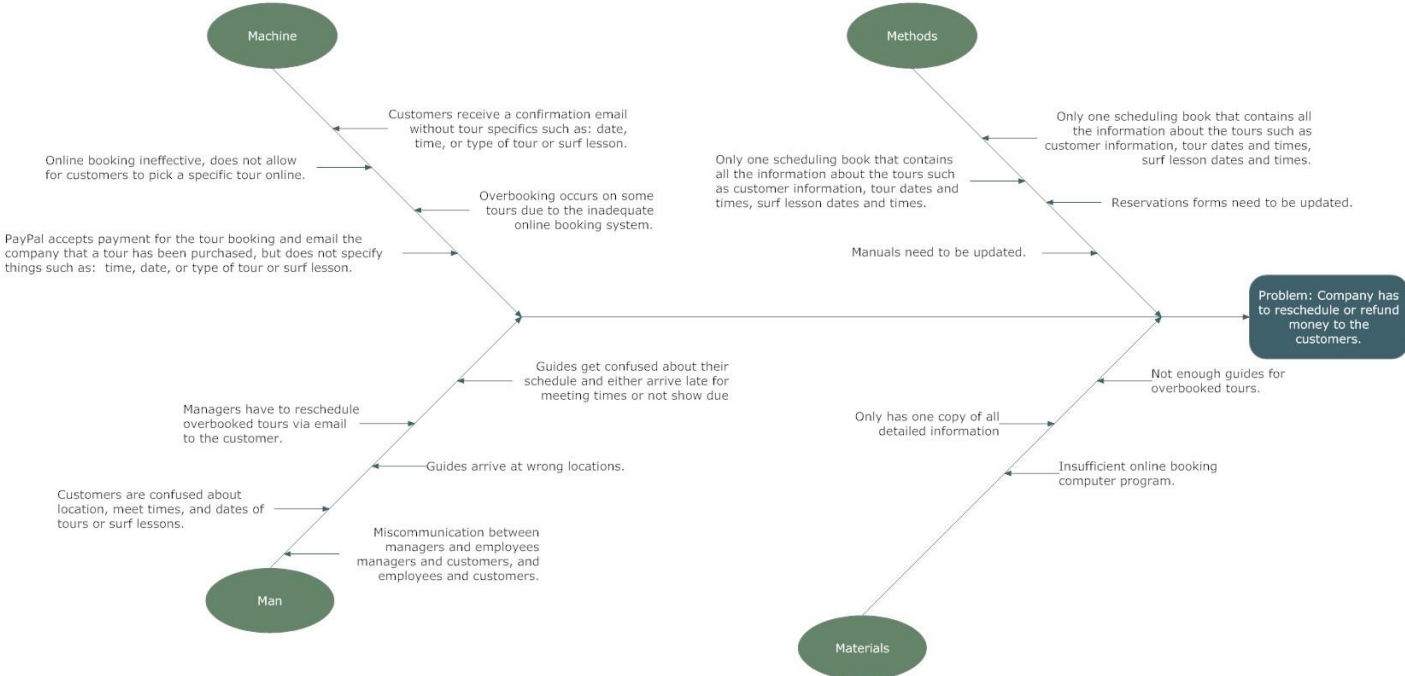


Figure 4. Fishbone Diagram of the Cause and Effect Relationship