



Kitty Hawk Kayaks: Problem Identification, Problem and Cause Analysis

June 4, 2008

MIT 502

Amanda Blakley

Matthew Gayford

Erin Gunter

Herman Hall

Problem Statement

Kitty Hawk Kayaks is a kayak tour and surf lesson business on the Outer Banks of North Carolina. They offer a variety of services which include guided kayak 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 Kitty Hawk 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

Kitty Hawk Kayaks prides themselves as the most professional kayak outfitter on the Outer Banks. 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 Outer Banks, leading recreational activities in a professional and safe manner that is educational, fun and encourages a respect and appreciation for the coastal environments of the Outer Banks.

The business consists of two managers who also share ownership of the business and twelve employees. Kitty Hawk 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 Kitty Hawk.

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 Outer Banks 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 Kitty Hawk 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 Outer Banks. Tours are provided in the towns of Corolla, Kitty Hawk, 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 Kitty Hawk Kayak's services. Also, payment information is taken through the internet and e-mail confirmations, invoices and standard tour information.

There is walk-in traffic through a store location on route 158 at 6150 North Croatan Highway in Kitty Hawk, NC. Kitty Hawk Kayaks is the first tour operator many people see once they arrive on the Outer Banks. 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 in Nags Head and Corolla. In Nags Head, Kitty Hawk Water Sports takes walk-in and call-in reservations and traffic for us, and take a 20% cut off the total sale amount. This is the same situation at Corolla Watersports in the Tim Buck II shopping center in Corolla. 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 Kitty Hawk 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. The majority of these exchanges occur at the main shop in Kitty Hawk, but they also occur at the Corolla Water Sports and Kitty Hawk Water Sports stores in lesser degrees. 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 of the Alligator River, Pea Island, Manteo, Roanoke River and Palmetto-Pear Tree Preserve 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, Kitty Hawk 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 and can be seen at www.khkss.com.

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 Kitty Hawk 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 at 6150 North Croatan Highway in Kitty Hawk, NC. 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, including those over the phone, internet and retail locations, can be found in Appendix A.

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 Appendix B for a graphical representation of reservations that were lost last year due to problems in the reservation process.

Desired Performance & Gap

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 Kitty Hawk 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, Kitty Hawk 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 Kitty Hawk 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 Kitty Hawk 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 Kitty Hawk Kayaks can cause confusion and chaos for both parties in terms of activity reservations. The performance analysis found that the client, Kitty Hawk 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.

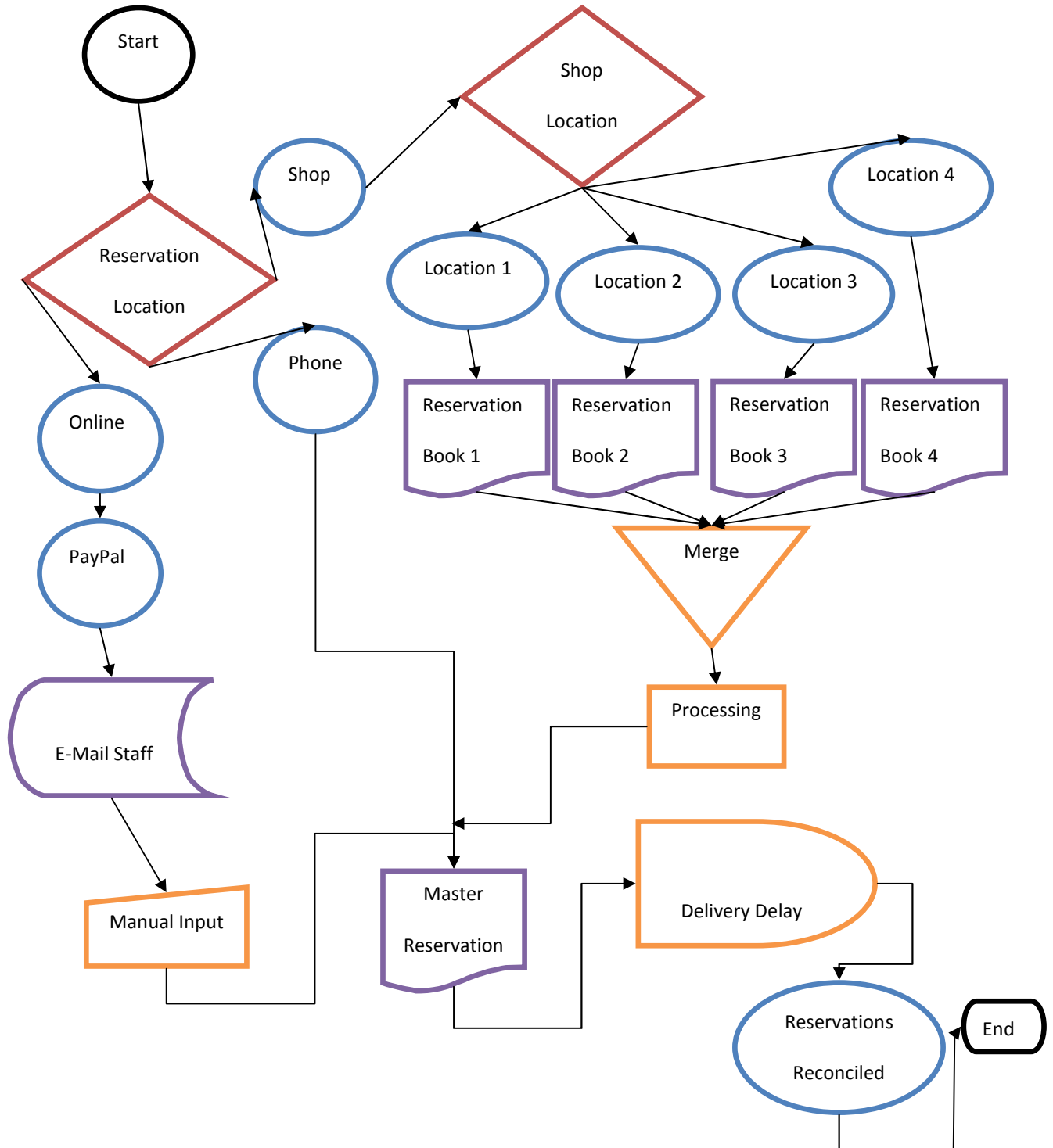
It can be argued that the individual worker is a cause of the performance gap because they are often uninformed and uncertain of their work shifts due to booking errors. At the same time, the individual worker is highly trained and specialized for the skills regarding their position at Kitty Hawk Kayaks. 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 Appendix C.

Appendices

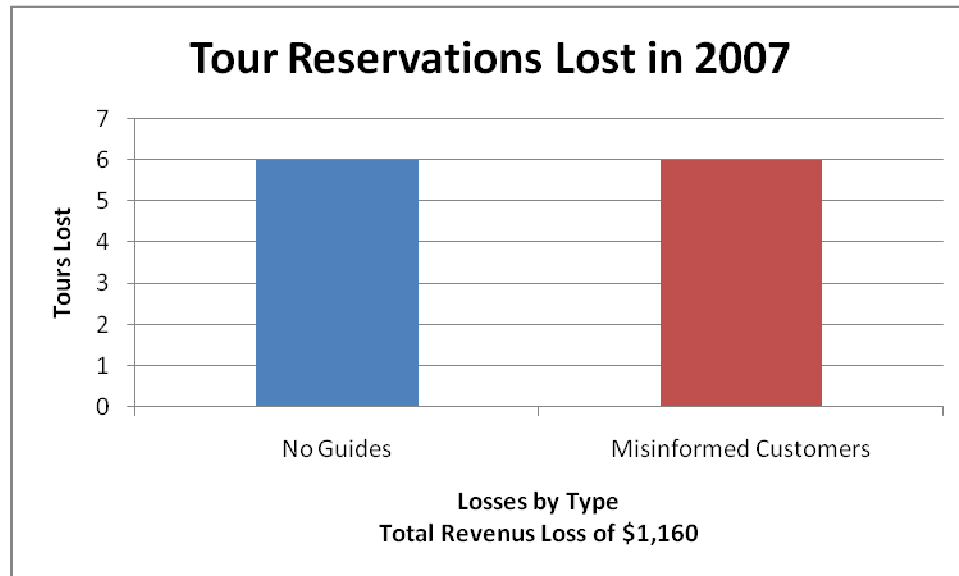
Appendix A - Process

PROCESS FLOW

KITTY HAWK KAYAKS



Appendix B – Tour Reservations Lost in 2007



Appendix C - Fishbone Diagram of the Cause and Effect Relationship at Kitty Hawk Kayaks

Machine

Online booking ineffective, does not allow for customers to pick a specific tour online.
PayPal accepts payment for the tour booking and email the company that a tour has been purchased, but does not specify things such as: time, date, or type of tour or surf lesson.
Customers receive a confirmation email without tour specifics such as: date, time, or type of tour or surf lesson.
Overbooking occurs on some tours due to the inadequate online booking system.

Methods

Only one scheduling book that contains all the information about the tours such as customer information, tour dates and times, surf lesson dates and times.
Online booking does not ensure a reservation for a specific tour or surf lesson.
Reservations forms need to be updated.
Manuals need to be updated.

Company has to reschedule or refund money to the customers.

Managers have to reschedule overbooked tours via email to the customer.
Guides get confused about their schedule and either arrive late for meeting times or not show due
Guides arrive at wrong locations.
Customers are confused about location, meet times, and dates of tours or surf lessons.
Miscommunication between managers and employees managers and customers, and employees and customers.

Not enough guides for overbooked tours.
Only has one copy of all detailed information.
Insufficient online booking computer program.

Man

Materials

References

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.