

Analysing the effective implementation of selected six sigma principles in a hospitality concern

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ABSTRACT

With the rapid growth in the hospitality industry, its owners and managers are also facing serious challenges. The industry is becoming more and more competitive. Managers are pressed to find the balance between cutting cost to increase profit and improving the quality of the service/product to increase the value their customers' experience. Customers are nowadays more aware of the quality of the service or the product provided to them and more than ever before, hospitality owners and managers need to focus on improving their quality.

The main objective of the research was to establish whether the implementation of selected Six Sigma principles would result in a measurable improvement in the quality of a hospitality establishment. An analysis was done based on three different feedback systems, some Six Sigma-inspired changes were made and a post-measurement was done to establish the effect of the changes.

The study concluded that the implementation of selective Six Sigma principles, can improve the quality of services and products in hospitality establishments, as well as reducing their process waste in such establishments.

KEYWORDS

Six Sigma, Quality improvement, Hospitality industry, total quality management

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ABBREVIATIONS

ADR	Average Daily Rate
CEO	Chief Executive Officer.
DMAIC	Define, Measure, Analyze, Improve and Control
DOE	Design of Experiments
DPMO	Defects Per Million Opportunity.
FIFA	Federation International de Football Association.
FMEA	Failure Mode and Effect Analysis
FO	Front Office.
FY	Financial Year.
GDP	Gross Domestic Product.
GE	General Electric.
GP%	Gross Profit Percentage.
KPA	Key Performance Area
NASDAQ	National Association of Securities Dealers Automated Quotations
QA	Quality Assessment.
SIPOC	Supplier, Input, Process, Output and Customer.
VSM	Value stream mapping

CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1. Introduction

According to Ventures Africa (2014), hotels in the hospitality industry created no fewer than 136000 jobs in Africa in 2014. The hospitality industry is considered to be part of the larger tourism industry (Nicolaidis, 2008:13). The World Travel and Tourism Council (2013) estimated that travel and tourism comprised 9% of global (GDP)Gross Domestic Product(US \$6.6 trillion) in 2012 and generates 1 in every 11 jobs in the world, of which the hospitality industry is playing a vital part.

With the rapid growth in the hospitality industry, its owners and managers are also facing serious challenges. The industry is becoming more and more competitive. Managers are pressed to find the balance between cutting cost to increase profit and improving the quality of the service/product to increase the value their customers' experience.

According to the former (CEO) of the Protea Hospitality group(Gillis, 2013), the days of "building it and they will come" are long gone. In the present global economic climate, there is substantial economic growth in the area (Gillis, 2013).At the same time, customers in the hospitality industry are getting more demanding because of the exposure they gained from lifestyle channels on television and from the Internet (Agarwal, 2012).

The hospitality industry is primarily related to the service industry, but it also manufactures meals and presents a product, namely a room for their guests. Customers are nowadays more aware of the quality of the service or the product provided to them and more than ever before, hospitality owners and managers need to focus on improving their quality. Because of the constant need for hospitality establishments to

improve their quality of service, it is necessary to research philosophies and methods that worked in other industries.

One of the most successful methods ever created to improve quality, was Six Sigma. According to the American Society for Quality (2009:2), eighty two of the top Fortune 100 companies in the world implemented Six Sigma and it saved over \$400 billion for the Fortune 500 companies who decided to implement it over the years.

1.2. Problem statement

Customers are getting more sophisticated and this is increasing the pressure on businesses to provide value to customers (Marketingcharts.com, 2010).

At the same time, more and more hospitality establishments open their doors in South Africa and all over the world. According to Price-Waterhouse-Coopers (2011:11), "South Africa will have to gain an additional 3.5 million visitors per year to address the enormous oversupply of hotel rooms created". After the 2010 FIFA world cup many accommodation owners felt the pinch and were forced to sell their properties. In some cases establishments were sold for 25% less than their real value to cover the debt owed on the property (Dungan, 2011).

Hospitality establishments are constantly pressured to improve the quality of their facilities and services in order to stay competitive. The problem that many establishments have is that they cannot afford to upgrade their establishments to compete with the new establishments that open and they cannot afford to drop their rates as low as their competitors' market cutting pricing strategy.

During the 2008-2014 world-wide recession; many properties neglected maintenance and tried to stay competitive by reducing the quality of their products (Nehmer, 2011). Not only were these properties losing market share, but they could also damage a hotel chain's brand (Nehmer, 2011). These hotels could face a scenario where they need to improve their quality or be de-branded.

Another strategy hospitality establishments used during the recession was to lay off staff and cut training programs to curtail costs. These actions had long-term consequences and it damaged the quality of the industry's service.

In the hospitality industry, one room night lost is a room night that can never be sold again. The moment a guest walks out of the hotel because of poor quality of the service, or the product, the room or the food, that room can never be sold again and it is a loss of income for that night or period the guest would have stayed. These losses are often long-term losses. Some of these neglects are often caused by secondary problems, for example plumbing issues that have not been fixed that cause geysers to burst, resulting in serious maintenance costs.

According to Wikins, Merrilees and Herington (2007:840), service quality is core to the success in the hospitality sector. Hotel managers need to understand customers' needs and deliver high quality service to achieve a sustaining competitiveness (Kokkranikalet *al.*, 2012:317).

Hospitality owners and managers find themselves at a crossroad. As previously stated, hospitality owners and managers can no longer neglect the need to improve the quality of their products and services to stay competitive, but at the same time, the property does not always have enough capital to renovate or buy the most expensive towels or bed linen as the new establishments in town. The company also needs to cut costs to optimise profit.

This fundamental problem necessitates research for a possible solution for the hospitality industry's dilemma. By researching similar types of industries, one method to improve an organisations quality and at the same time reduce cost, came to light. This method is Six Sigma quality improvement.

1.3. Research objective

The objectives of this study are divided into primary and secondary objectives.

1.3.1. Primary objectives

The primary objective of the research is to establish whether the implementation of selected Six Sigma principles will result in a measurable improvement in the quality of a hospitality establishment. The aim is therefore to measure the effect of implementing Six Sigma tools in this establishment and to draw conclusions that could be applicable to a broader spectrum of hospitality establishment owners and managers.

1.3.2. Secondary objectives

The secondary objectives of the study are to:

- a) Establish what tools and techniques will be appropriate for Six Sigma in the hospitality industry.
- b) Establish what research has been done on Six Sigma in the hospitality industry.
- c) To establish the effect that implementation of selected Six Sigma tools and techniques could have on the researched hotel and guesthouse.
- d) Identify financial benefits implementing Six Sigma principles could have on hotels and guesthouses.

1.4. The research methodology

The study consists of two sections. The first part is a literature study on Six Sigma and the hospitality industry, and the second part is an empirical study, where the effects of the implementation of selected Six Sigma principles in the Protea Hotel Klerksdorp and Acacia Guesthouse in Klerksdorp, are quantified.

1.4.1. Part1: Literature study

The literature study defines and gains insight on the methodology and philosophy of Six Sigma. The different Six Sigma tools and principals are researched, as well as some of the success it had in different industries where these principles were implemented. By gaining a better understanding of the history and origin of Six Sigma, its principles and tools are better understood when it comes to implementing them.

The current study will be done in the accommodation part of the hospitality industry, more specifically hotels and guesthouses. The industry is narrowed down to the hospitality part of the service and tourism industry. In the literature study, the hospitality industry is defined to establish which Six Sigma principals will best suit the industry. A study will be done on previous research on Six Sigma's best practices in the hospitality industry and the service industry in general.

1.4.2. Part 2: Empirical study

The empirical study was done by using standardised guest feedback cards, internal inspection data, inspections done by the franchise head office and questionnaires handed out to guests and employees of the hotel.

The organisations used for the purpose of this study will be defined. The organisations selected for the research are Protea Hotel Klerksdorp, which is part of one of the biggest hotel chains in the world, Marriott International, and a guesthouse called Acacia Guesthouse.

The guest feedback history consists of comment cards completed by guests at the hotel and the guesthouse over a 3-year period. More than a thousand guests have completed the comment cards. The data was significant to identify the defects in the services rendered and products sold before the implementation of the Six Sigma principles.

The internal inspections and the head office inspection data collected over the last 5 years will also project a picture of the areas that need to be addressed to eliminate

defects before the implementation of Six Sigma principles. This information will enable the researcher to identify the areas where the Six Sigma principles will be most effective.

The questionnaires and additional internal inspections will also be scrutinized after implementing the Six Sigma principles to establish whether the Six Sigma principles that were implemented, were successful. The challenges implementing the Six Sigma principles will be identified and a conclusion will also be drawn on the effectiveness of the Six Sigma principles.

The effect of selected Six Sigma tools and techniques will then be tested in the researched organisations, by measuring the organisations' service quality through guest comment forms and internal measurements in each department.

1.5.Limitations of the study

- The Six Sigma principles were only implemented in two organisations for the purpose of this study. This limits the extent to which the results could be extrapolated to other establishments in the industry.
- The study was only done in Klerksdorp. The profile of a guest who visits a hotel or guesthouse in Klerksdorp is probably vastly different from one that visits a hospitality establishment in other areas.
- The research on the selected establishments limited the conclusions drawn to similar types of establishments and not on the entire hospitality industry, because this study was limited to one hotel and one guesthouse.
- Almost 80% of the income from the hotel and the guesthouse that were studied, came from two market segments, namely the business travel and the Government travel market segments. This limited the study to only these two market segments.

1.6.Chapter division

Chapter 1: Nature and scope of the study

This chapter describes the objectives of the study and outlines the scope of the study. In this chapter the problem statement, research methodology and the limitations of the study will also be discussed.

Chapter 2: Literature study

This chapter defines and outlines in depth what Six Sigma is, and describes the history of the methodology. Chapter 2 provides a literature study on Six Sigma and the success of implementing it to improve an organisation's quality.

This chapter also provides an overview of the hospitality industry,as well as what will work and what will probably not work when implemented.

Chapter 3: Empirical research

In this chapter the two organisations used for implementation of the Six Sigma principles are discussed,as well as the backgrounds of the organisations.

Data collected in the past from these organisations will be interpreted by using Six Sigma metrics. The interpretation of the feedback cards, inspections and questionnaireswilldetermine the effective areas the organisations need to focus on to eliminate the defects in their services and products sold.

This chapter will describe the changes that were made and then analyse the effects and the results after these changes were made.Data was collected over a three year period. This chapter will also establish what the challenges werein implementing Six Sigma.

Chapter 4: Conclusions and recommendations

In this chapter a conclusion is reached on the study and certain recommendations and comments are made on the success of implementing certain Six Sigma principles and tools.

1.7. Contribution of the study

The contribution of the study can be divided into three sub-categories: The contribution to the individual, the organisations, and the industry, as well as the contribution to literature. This study addresses the key problems concerning the quality and competitiveness that the hospitality industry is facing around the world.

1.7.1. Individual

The contribution of this study for the individual would be that it highlighted some tools that could be used to improve their organisations through the knowledge and experience gained from the research and practices of this dissertation.

1.7.2. The organisations

The contribution to the organisations that were researched could be immense, especially in the long run. The expectation is that the organisations will visibly improve on their quality as measured by customer feedback.

Not only is the expectation quality related improvement, but also improvement on the organisations profitability because of the cost cutting mechanisms put in place. The research will mean a great deal to the hospitality industry around the world. This will establish a competitive advantage for hotels implementing the quality improving method of Six Sigma.

1.7.3. Literature

The contribution to literature is to focus on a fairly neglected area of research, especially since very little research has been done on Six Sigma in the service industry as well as the hospitality industry.

1.8. Chapter conclusion

In Chapter 1 the researcher identified the challenges and problems facing the hospitality industry. Selective Six Sigma principles could be the solution for the shortcomings in the hospitality industry.

To be able to achieve the objectives of this chapter, it was necessary to do an in-depth study on Six Sigma and whether it could be applied to the hospitality industry.

The next chapter is a literature review on Six Sigma.

CHAPTER 2

LITERATURE STUDY

2.1. Introduction

Volumes could be written on the success of the use of the Six Sigma methodology to improve quality and save costs in companies. One of the companies renowned for improving their quality with Six Sigma, is General Electric (GE). Jack Welch was the CEO of GE between 1981 and 2001. Welch was a visionary back in 1981 and identified the value of improving quality through Six Sigma. In his first letter to shareholders in 1981 concerning Six Sigma, Welch said: "... this commitment to the utmost in quality and personal excellence in our path to continued business success. Quality is our best assurance of customer allegiance. It is our strongest defence against foreign competition and the only path to sustained growth and earnings".

Hospitality is a global industry and international and local competitors will always be a threat to hospitality companies. Much could be learned from past experience of implementing Six Sigma principles in other establishments in the hospitality industry.

2.2. The origin and history of Six Sigma

The early roots of Six Sigma can be found in the work of Carl Fredrick Gauss (1777–1855) (Ahmed, 2012:375). He introduced the concept of normal distribution. (McGready, 2009:6).

In the 1920s Walter Shewhart showed that a deviation of three standard deviations (sigma, or σ) to either side of the mean is the point where a process requires correction

(Ahmed, 2012:375). Shewhart described the first control chart and he launched statistical process control and quality improvement (Best & Neuhauser, 2006).

An engineer from Motorola, named Bill Smith, receives the credit for the term “Six Sigma” in 1986 (Ahmed, 2012:375). In the early and mid-1980s, the engineers of Motorola used Six Sigma as an in-house initiative for reducing defects to improve the quality levels in their production processes (Anon, 2014). The engineers decided that measuring defects in thousands of opportunities did not provide as much granularity as measuring per million opportunities (Ahmed, 2012:375). According to Lancaster (2011:5), the goal was “to achieve 3.4 defects per million opportunities” and it “relies greatly on the statistical analysis of the processes”. This was the start of the Six Sigma metric DPMO, or “defects per million opportunity”.

By 1988 the inaugural Malcolm Baldrige National Quality Award was bestowed on Motorola for the staggering increase in the quality levels of their products (Gygi, *et al.*, 2005:15). The president back then, Bob Galvin, chose to share their secret to success openly and by the mid-1990s, companies such as Texas Instruments, Asea Brown Boveri, Allied Signal and General Electric (GE) began reaping the same rewards (Gygi, *et al.*, 2005:15). Motorola created the methodology and started the much needed culture change associated with it. Motorola documented a saving in costs of more than \$16 billion because of Six Sigma (Ahmed, 2012:375).

In 1991, under the leadership of Lawrence Bossidy, Allied Signal claimed a significant improvement and cost savings within six months of implementing Six Sigma (Anon, 2014). Jack Welch, the CEO of General Electric (GE) back then, knew Lawrence Bossidy, because he once worked at GE for Welch. General Electric conducted a cost-benefit analysis on implementing Six Sigma. The analysis showed them that running at three to four sigma quality levels that raised the quality to six sigma, the cost saving opportunity was somewhere between \$7 billion and \$10 billion, and it amounted to 10% to 15% of sales (The process quality association, 2006). By 1995 Welch decided to implement Six Sigma and by 1998 GE claimed to have saved over \$750 million in costs because of Six Sigma (Anon, 2014).

Welch was quoted saying: “Quality can truly change General Electric from one of the greatest companies to absolutely the greatest company in world business.” He challenged his employees to achieve the same quality standards that took Motorola 10 years, within 5 years (The process quality association, 2006).

2.3. Defining Six Sigma

The Greek symbol for Sigma is ‘ σ ’, and it is a statistical term for measuring deviation (Rusko&Kralikova, 2011:40). The basis of Six Sigma consists of knowledge of customer requirements and the disciplined use of facts and objective data.

The term ‘six sigma’ was first defined and implemented in the American company, Motorola, as a method to reduce manufacturing defects. Bill Smith introduced the Six Sigma concept in 1986 to their Chairman, Bob Galvin, in response to the problem the company was facing related to warranty claims.

In a letter to General Electric’s shareholders in 1997, Jack Welch defined Six Sigma as: “The Six Sigma quality initiative, very briefly, means going from approximately 35000 defects per million operations, which is average for most companies, including GE, to fewer than 4 defects per million in every element in every process that this company engages in every day” (Hendricks & Kelbaugh, 1998:48).

According to Motorola University (2005), “Six Sigma has evolved over the last two decades and so has its definition. Six Sigma has literal, conceptual, and practical definitions. At Motorola University, we think about Six Sigma at three different levels:

- As a metric.
- As a methodology.
- As a management system.”

In Knowles’ (2011:13) view, Six Sigma has three distinct elements in its definition:

- A Measure – statistically calculating how far a process deviates from perfection.

- A Target – only 3.4 defects per million opportunities.
- A Philosophy - a long-term strategy to improve quality by removing variability from the business processes and to reduce cost.

2.4. Six Sigma Basics

The basic idea behind Six Sigma can be found in statistical principals that a deviation spread by the sixth standard deviation can capture almost all of the normal-cause process variation (Aikens, 2011:533). Therefore, if a process variation can be controlled and the mean is on target, the customer will be satisfied (Aikens, 2011:533).

Six Sigma is a managerial approach where the aim is to control the process, ensuring that the result is no more than 3.4 defects per million (Levine, *et al.*, 2011:710). According to Levine *et al.* (2011:710), “The Six Sigma approach assumes that processes are designed so that the upper and lower specifications limits are six standards deviations away from the mean”.

In a normal distribution (see Figure 2.1) the largest concentration of values is around the mean and tails off symmetrically (George, 2003:25). Sigma σ is the distance between the center line and the inflection point in Figure 2.1.

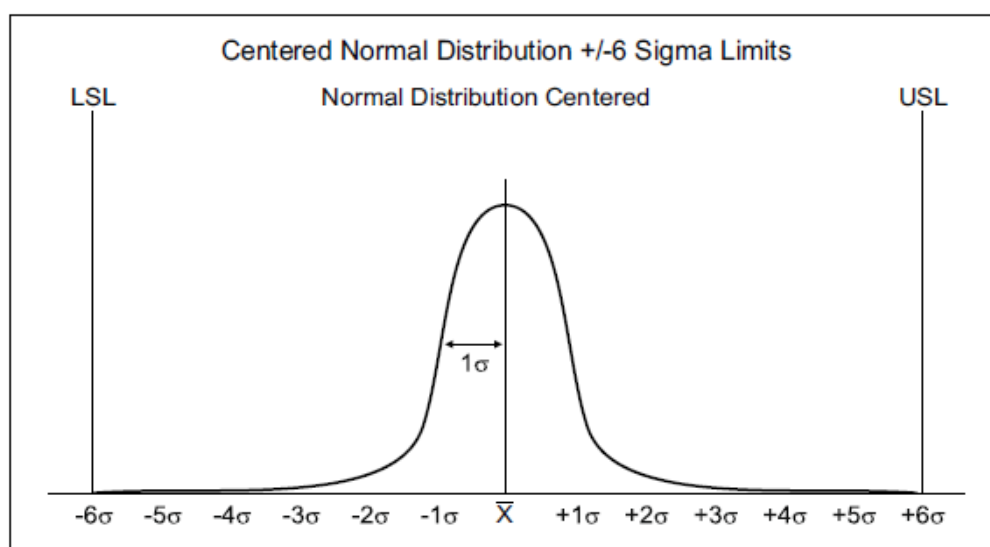


Figure 2.1: The normal curve (George, 2003:25).

The sigma scale is a universal measure of the performance of a procedure (Gygi, 2005:23). The higher the score, the higher the probability that defects will be less. That means that the closer a process is to the Sixth Sigma, the fewer customers will be unhappy and the chances are better that their companies' products or services satisfies. Table 2.1 explains the different levels of sigma and the amount of defects in a process per million.

'Long Term Yield' (basically the percentage of successful outputs or operations) %	Defects Per Million Opportunities (DPMO)	'Process Sigma'
99.99966	3.4	6
99.98	233	5
99.4	6,210	4
93.3	66,807	3
69.1	308,538	2
30.9	691,462	1

Table 2.1: The Six Sigma conversion table (Ahmed, 2012: 380).

According to Gygi *et al.* (2005:27) Six Sigma starts with one simplistic equation:

$$Y = f(X) + \varepsilon$$

The Y is the result or is a function of the X's. To determine the outcome, a company needs to apply a transformatory function f on the input of the process (Gygi *et al.*, 2005:28).

Gygi *et al.* (2005:28) used the analogy of baking a loaf of bread as an example for the above-mentioned equation. The ingredients for baking a loaf (flour, yeast etc.), are the X's. The action of mixing the ingredients together and the baking of the bread are the transformation process for function (f). The result of the process, the loaf of bread, is Y.

Sometimes the bread flops, because of an error or defect, for instance not enough yeast added to the mixture. The error is represented by the Greek letter ϵ for epsilon.

This equation is easy to understand, but during the day to day operations of a company the errors (ϵ) that cause variances in a baking process should be controlled to eliminate waste and result in a constant desired high quality product or service as a result (Y).

2.5. Benefits of implementing Six Sigma

Since Motorola's success with Six Sigma, thousands of companies have followed and claimed success. According to Klefsjoet *al.*'s (2001:32) studies, they concluded that the cost of poor quality at three sigma is between 25-40% of sales; four sigma is between 15–25% of sales; and five sigma is between 5–15% of sales. The goal, according to Klefsjoet *al* (2001:32), is to reduce the cost of poor quality down to 1% of sales which will be found at the sixth level of sigma. By reducing variation in a process, a company can save on their expenses.

Six Sigma can also reduce the waste in a process. These reductions in costs are not always calculated. Traditional accounting processes are focused on tracking the inflow and outflow of money in a company and there is little emphasis on tracing the cost saved by improving the process (Knowles, 2011:14). Improving the process, means that a company should eliminate variations that in turn will lead to fewer defects. According to Rusko and Kralikova (2011:43) eliminating variation, eliminates waste in 3 fundamental ways:

- Less products will be scrapped.
- Less energy will be used and fewer raw materials will be wasted.
- Less time will be spent fixing defective products.

According to Knowles (2011:16) the logic of a small increase in expenditure to prevent defects, will reduce appraisal and failure costs. See Figure 2.2 below.

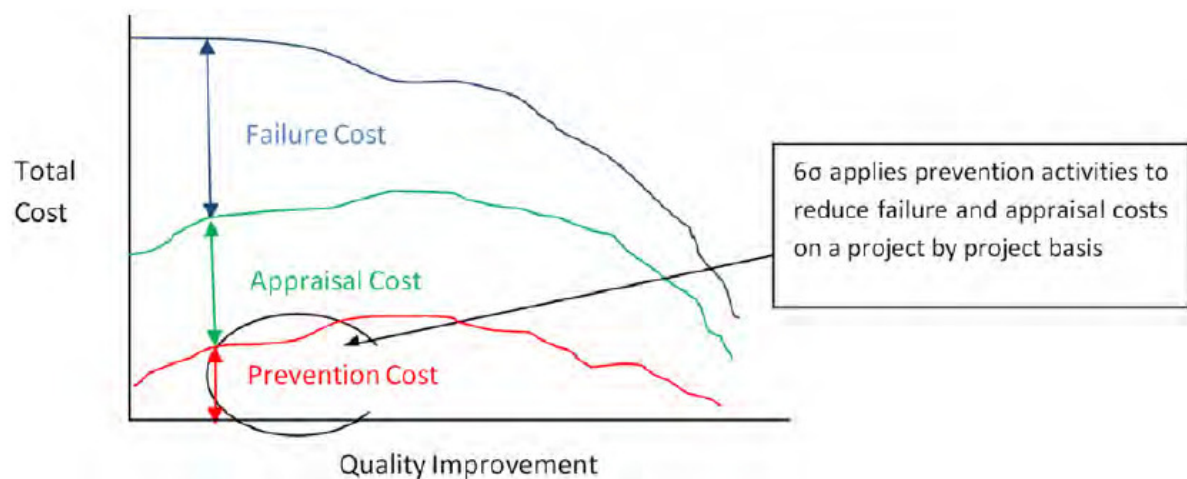


Figure 2.2:Quality cost during improvement (Knowles, 2011:16).

Six Sigma improves the quality of a company's services and products. By increasing quality the company can increase its profitability and revenue generated, because it increases its market share (Grzinic, 2007:83).

According to Knowles (2011:16), the focus on failures (defects) neglects the aspect of waste in a process. Waste could also be called non-value added activities or process waste, and it needs to be eradicated in every process (Knowles, 2011:16). Table 2.2 defines the different types of waste that could be found in companies' operations. This could reduce the profit made by the companies.

Type of Waste	Potential Associated Costs
Waiting	<i>Labour cost associated with idle time.</i> <i>Value of lost production (if units are lost) or cost of overtime if this has to be worked to catch up.</i> Cost of late delivery if overall process time affected.
Correction	Rework cost (direct and overhead if applicable). Cost of delays (as above). Inspection costs. Disposal costs if correction is not possible. Paperwork system costs.
Over-Production	<i>Storage costs (inc. handling costs & capital tied up).</i> <i>Extra material costs if excess cannot be sold.</i> Deterioration/depreciation costs (if appropriate). Cost of delays (as above).
Processing	Additional processing costs (direct and overhead if applicable). Transportation costs.
Conveyance	<i>Additional cost of unnecessary conveyance system.</i> <i>Cost of late delivery if overall process time affected.</i> Deterioration/damage costs.
Inventory	<i>Storage costs (inc. handling costs & capital tied up).</i> <i>Deterioration/depreciation costs (if appropriate).</i> <i>Obsolescence costs (if appropriate).</i>
Motion	<i>Additional labour costs (including absenteeism).</i>

Table 2.2: Types of waste reducing profits (Knowles, 2011:17).

2.6. Six Sigma champions and the Belt System

To roll out any strategy in a company, management needs a team committed to the strategy. In Six Sigma, there is a hierarchical structure for the different levels of team members, with an understanding and expertise regarding the Six Sigma program (Ahmed, 2012:379).

In 1988, Motorola assisted Unisys by solving a production problem, by applying Six Sigma tools. Mikel Harry suggested to Cliff Ames from Unisys, that they call their engineers “Black Belts” to promote the value of the expertise developed (Huesing,

2008;Gygiet *al.*, 2005:51). Ames replied: “that’s it”; “that’s sexy; I can sell that” (as cited by Huesing, 2008). This was the start of the Belt System as a hierarchal structure for Six Sigma. Later lesser degrees of skills were identified as Green Belts and Yellow Belts (Gygiet *al.*, 2005:51).

After two years,one of the Fortune 500 companies on a Six Sigma program,found themselves at a crossroad. Black Belts were allowed to select their own projects and it became frustrating to the organisation, because of the lack of their alignment with the rest of the organisation (George, 2003:185). The plan was to appoint a Six Sigma champion to roll out the initiatives and at the same time report directly to the CEO, ensuring consistency of the message going out to the organisation (George, 2003:187).

- **Six Sigma champions:** They are responsible for the successful application of Six Sigma “technical know-how” and at the same time responsible for the success of the Black Belts, theGreen Belts and the Yellow Belts (Gygiet *al.*, 2005:48). They should remove the barriers for the different belts and ensure that they are tasked, trained and deployed (Gygiet *al.*, 2005:48).

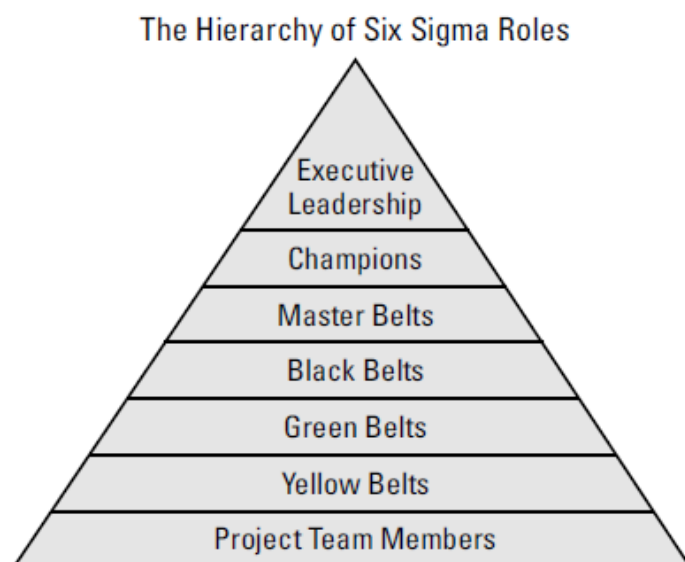


Figure 2.3: The Hierarchy of Six Sigma roles (Gygiet *al.*, 2005:52).

- **Master Black Belts (MBB)** are the mentors and teachers to Black, Green and Yellow belts. They also consult other belts on fundamental issues, challenges and problems in the business (Gygi *et al.*, 2005:52).
- **Black Belts** are professionals who lead most of the company's projects and they are the individuals with the most knowledge and experience (Ahmed, 2012:379). Black Belts normally consist of 1 to 2 percent of the employees in an organisation. They have the skill to facilitate breakthrough-levels of quality improvement (Gygi *et al.*, 2005:52).
- **Green Belts** are professionals who are one step below the Black Belts. They often have enough experience to lead projects, but they act as a middleman between the Black Belts and the Yellow Belts (Ahmed, 2012:379). The Green Belts typically consists of 5 to 10 percent of the employees in the organisation (Gygi *et al.*, 2005:52).
- **Yellow Belts** are everyone else in the organisation who can apply elements of Six Sigma to improve their working environment (Gygi *et al.*, 2005:52). They collect and analyse data and they discuss their results with the Green Belt professionals (Ahmed, 2012:379).

2.7. Six Sigma methodology

The standard approach to a Six Sigma project, developed by General Electric, is the DMAIC methodology (Chase & Jacobs, 2011:328). The DMAIC methodology can be described as the roadmap to Six Sigma (The process quality association, 2006). It can be described as:

Define (D)

The purpose of this phase is to set the goals a company needs to achieve by using Six Sigma principles and to map the process flow of an organisation (Pyzdek, 2003:4). An example of goals that a company could strive to achieve are more loyalty from

customers, a higher quality product or service, less waste in a company's activities, a higher Return on Investment (ROI) or increased market share (Pyzdek,2003:238).

Defining what the objective needs to be could be achieved through sending out surveys to customers or collect customer feedback cards. The following could be defined through this phase:

- The problems.
- The customers of the company.
- The projects suitable for six-sigma.
- What the customers consider to have the most impact on quality (Chase & Jacobs, 2011:328).
- The company process investigated (Knowles, 2011:77).

As an example, the define phase could be used in the hospitality industry to define the different market segments in a hotel and then define the goals the hotel would like to achieve with Six Sigma. The hotel management could then decide to improve their quality to satisfy guests and increase their loyalty to the company.

Measure (M)

This phase establishes the baseline for performance and the basis for improvement (bookboon.com 77). According to Chase and Jacobs (2011:329), during this stage companies determine how to measure the process and how it performs. This is the data collection phase. Here companies establish the output (Y's) characteristics (Cottrill, 2002:1). The Measuring phase:

- Refines the project scope.
- Measures the defects generated relative to the process (Chase & Jacobs, 2011:329).
- Measures the gaps between required performance and current performance (Cottrill, 2002:1).

An example of this phase in a hospitality establishment could be when the establishment decides to collect guests' comment forms to determine which problem areas affect their service quality. This enables the establishment to measure the gaps between required performance and current performance.

Analyse (A)

According to Chase and Jacobs (2011:329), companies determine phase the most likely cause of defects, and why defects are generated in the analysis phase. The analysis phase establishes the significance of potential sources of variation for both special and common cause variation (Knowles, 2011:84).

Here a company can establish the root cause of inputs (X's) that creates problems in the system and define the performance objectives (7231651 bl1). In this phase companies need to establish the inputs (X's) that are key process drivers (Knowles, 2011:84). By making use of a cause and effect diagram (fishbone diagram), companies can establish the most likely cause of variation (Gygi *et al.*, 2005:260). This method ranks the top 3-4 root causes of variation.

Improve (I)

In this phase companies implement and test solutions to the problem (Knowles, 2011:84). During this phase companies identify the means to remove the causes of the defects in the process (Chase & Jacobs, 2011:329). The improving phase focuses on:

- Creating innovative solutions.
- Modifying the process to stay within a range acceptable for customers (Chase & Jacobs, 2011:329).
- Planning the implementation of improvements of the process (Knowles, 2011:84).
- Creating a streamlined "should be" map for the process (Gulmez & Ajanovic, 2013:5).

Control (C)

The objective of the control phase is to avoid potential problems that could happen in the future, by maintaining the improvements made (Levine *et al.*, 2001:711). According to Britz (2009:23), during the control phase the optimal position can be maintained where regular audits and control systems sustain the improvements made. The control phase focuses on:

- Ensuring that the results are sustained (Gulmez&Ajanovic, 2013:5).
- Keeping record and sharing the lessons learned.
- Implementing control mechanisms (Cottrill, 2002:1).

2.8. Six Sigma tools

According to Smith and Blakeslee (2002:21), Six Sigma tools provide a means to align all of an organisation's components (leaders, culture, mission, strategy etc.) that assist a company in achieving breakthrough levels of performance.

There are a number of tools that could be defined for Six Sigma purposes, but the following tools are common to all quality efforts according to Chase and Jacobs (2011:329):

Flow charts: A process flow chart, also known as a process map, is a graphical representation of a process showing inputs, outputs and all activities in the process (Aikens, 2011:218). Flowcharts can be constructed to trace the movement of people (e.g. guests in a hotel) or the path of material (e.g. auto parts in an assembly line).

According to Thomas Pyzdek (2003:252) just as companies have organisational charts, they can also have process maps to show how work flows through the company. It is similar to a road map for accomplishing the company's objectives.

Value stream mapping(VSM): This is a type of a flowcharting tool. This chart is used to visualise the product flow and the various processing steps (Chase & Jacobs, 2011:459).

This could also be used in a hotel, to visualise the process guests go through, from reservations, to check-in, to being escorted to the room and check-out the next day.

With value stream maps, we need to focus on the process of value and evaluate where value is added and where we can eliminate non-value added activities (Knowles, 2011:130). Figure 2.4 is an example of a Value Stream Map of a typical manufacturing process. In this process the time spent adding value to the product is very low and the process analysis can help the manufacturer to establish the shortcomings.

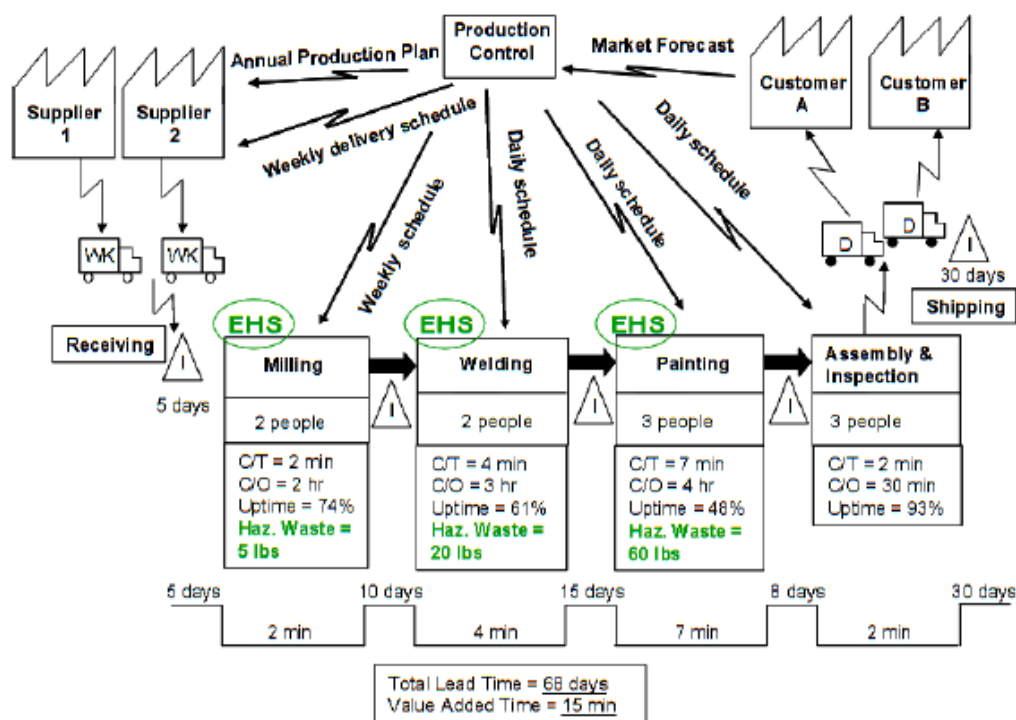


Figure2.4: Value Stream Map (Knowles, 2011:130).

Run charts. This chart is the simplest time order chart that plots individual measurements in the order they occur (Aikens, 2011:206). The run chart projects the trends in the data over time, and it helps a company to understand the magnitude of the problem in the define stage of DMAIC (Chase & Jacobs, 2011:329).

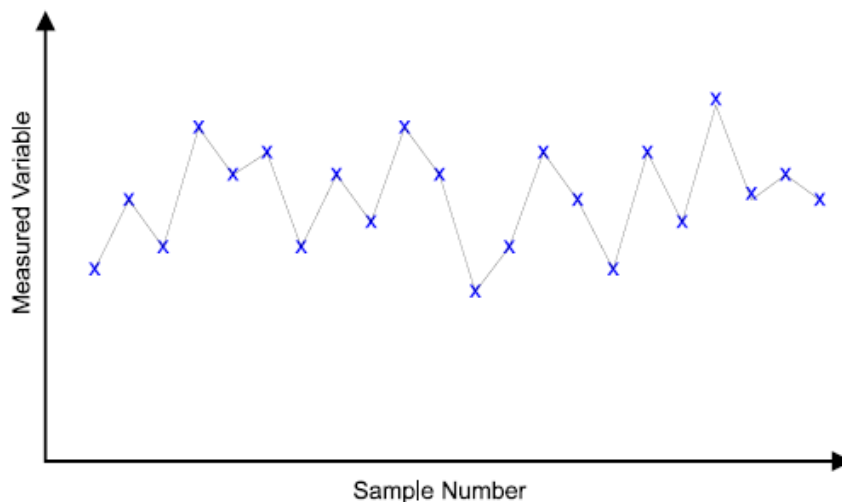


Figure2.5: Run Chart (Knowles, 2011:100).

Figure2.5 shows how judgment can be made about process trends and shifts. This allows a company to compare the current status of the process to the budget or targets that are associated with the process (Knowles, 2011:100).

Pareto charts. This chart helps to break down problems into the different components that contribute to it (Chase & Jacobs, 2011:329). A Pareto chart is a simple tool to use and it could be used, for example, to focus on the factors that contribute the most to cost in a process, and it enables companies to improve efforts for larger gains (George, 2010:108).

Pareto charts are based on empirical findings, such as the 20-80 rule, that states that large percentages of problems are due to small percentages of causes (Chase & Jacobs, 2011:329). For example 80 percent of the complaints received by a hotel restaurant were because of orders taking too long. Late deliveries are only one out of

the five different reasons listed for complaints on all the complaint cards received, thus only 20 percent of all the factors that could contribute to complaints.

Check sheets. These are forms that help to establish a standard in the process and it standardises data collection (Chase & Jacobs, 2011:329). The Hotel industry has several check lists that help to set a standard for daily operations. A few examples of these check lists specifically from the hospitality industry, are:

- Housekeeping room inspection lists. Used by housekeepers and their supervisors to check a room before it is changed to clean and inspected on the property management system (PMS).
- Reservations check list. This assists the reservationist to ask the guests all the necessary questions during the reservation process. This is also in a script format to ensure the conversation is standardised.
- Food quality check lists for the restaurant. These are check lists such as the recording of the temperature readings of the various fridges; food hygiene processes, such as kitchen staff washing hands regularly and different meats that need to be prepared separately.

Cause-and-effect diagrams. These are also called fishbone diagrams, and show the hypothesized relationships between the errors or defects and its causes (Chase & Jacobs, 2011:329).

In the example of a cost reduction project, we would have the head of the fish (See Figure 2.6) that represents the problem and the bones of the fish representing the factors that contribute to the problem (George, 2010:108).

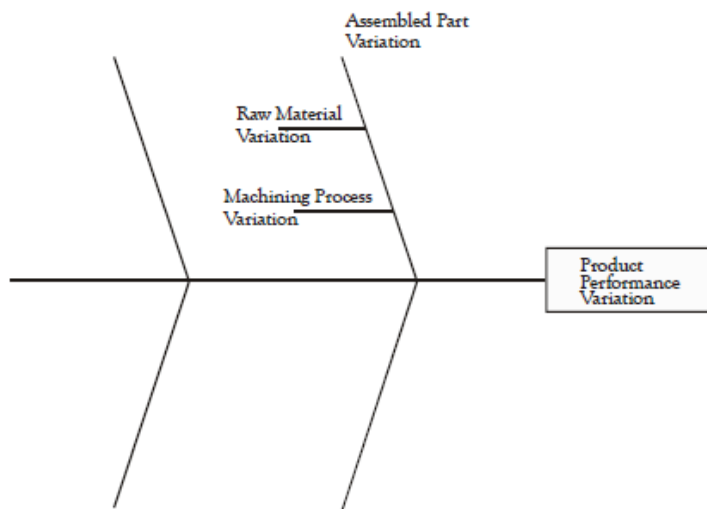


Figure2.6: Cause and Effect Diagram (Knowles, 2011:112).

Cause and effect diagrams could be used to guide a brainstorm session (Knowles, 2011:112). Knowles (2011:112) used the example where the question starts with “Why are customers dissatisfied?” the answer may be because of the variation in the product and service performance according to Knowles (the head of the fish diagram). The next question could be “What caused the product (or service) variation?” and the answers of this question will be the bones or the branch of the cause and effect diagram.

Control charts.

It is a process that consists of inputs and outputs. The inputs and outputs of a process can involve methods, materials, people etc. The variation in outputs can result in poor service and poor quality products. Both could decrease customers’ satisfaction (Levine *et al.*, 2001:684). A control chart is used for monitoring and improving a process by.

analysing a process where data was collected over time(Levine,*et al.*, 2001:684).

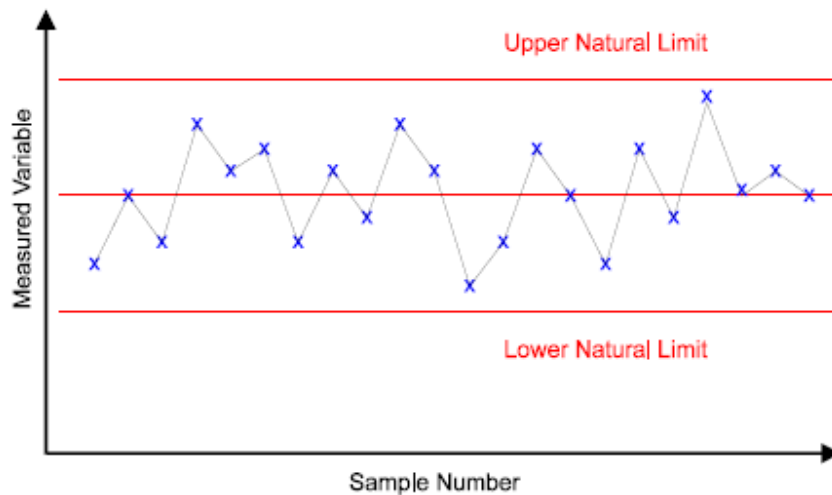


Figure2.7: Control chart (Knowles, 2011:101).

According to Aikens(2011:206) a control chart is a run chart with control limits. It sets limits for the maximum and minimum allowable values plotted (see Figure 2.7 above).

A good example in a restaurant would be measuring and plotting the time it takes for guests to receive their meals. The standard allows for 20 minutes. Taking too long will dissatisfy the guest, but meals that are served quickly, did not receive enough attention to add value to it.

Other tools that can be effective in Six Sigma projects are SIPOC (supplier, input, process, output and customer), failure mode and effect analysis (FMEA), and design of experiments (DOE).

SIPOC: This is an input output model, used in the define stage of DMAIC (Chase & Jacobs, 2011:329). According to Levine *et al.* (2011:711), the SIPOC analysis is used to:

- Identify the Suppliers to the process.
- List the Inputs provided by the suppliers.

- Create a flowchart of the **P**rocess.
- List the different process **O**utputs.
- Identify the **C**ustomers in the process.

FMEA:

According to Chase and Jacobs (2011:330), this analysis ‘...identifies each element, assembly, or part of the process and listing the potential failure modes, potential causes, and effect of each failure’.

DOE: This is a statistical methodology used to determine the cause and effect relationship between the process inputs (X’s) and the process outputs (Y’s) (Chase & Jacobs, 2011:332). Design of experiments are sometimes referred to as “multivariate testing”, because it permits experimentation with many variables simultaneously (Chase & Jacobs, 2011:332).

2.9. Defining the hospitality industry

The hospitality industry provides services such as accommodation, meals, conferencing facilities and personal services for travellers or local residents (Vault.com, 2014). The industry developed from inns built along well travelled routes for the early travellers, to big hotels owned by international hotel chains, such as Marriot and Hilton.

As lodges and hotels developed, properties started hosting parties and functions. The hotels started to grow bigger during the 19th century and many luxury hotels were established to cater for the wealthier traveller (Vault.com, 2014).

The hospitality industry consists of organisations such as: hotels, resorts, catering companies, bars, night clubs, cruise lines and theme parks (Mumma, 2011).

2.10. Previous research done on Six Sigma in the hospitality industry

Justin Lancaster (2010:12) has found that hospitality organisations that used Six Sigma were limited, despite the documented success of Starwood Hotels projects. According to Kokkranika *et al.* (2012:318) "Six Sigma is a powerful business strategy which can offer hospitality managers an extremely powerful competitive advantage". He continues by stating that Six Sigma can "... reduce operational cost, defect rate in core processes and deliver high-quality services which results in superior customer satisfaction."

The methodology of Six Sigma was started and first implemented in the manufacturing industry, but it can also work in service companies such as banks, hotels and hospitals (Gygi *et al.*, 2005:13).

Lancaster (2010:12) suggests that Six Sigma can be beneficial in improving many departments in a hotel. The problem that Lancaster identifies is that different departments operate independently and often do not communicate with one another. Six Sigma principals guide departments to communicate and collaborate.

Ahmed (2012:380) found that the hospitality industry deals with customers "non-stop, day and night", and that the Six Sigma methodology increases productivity and satisfaction in the following ways:

- It increases the customers' loyalty towards the company.
- It reduces employee turnover.
- It helps the company to reduce costs.
- It increases revenue.
- It increases the work-life balance of the employees.

Starwood Hotels are known for their implementation of Six Sigma in their day to day operations. According to Barry S. Sternlicht, Chairman and CEO of Starwood hotels; "The launch of Six Sigma is one of the most important strategic initiatives since the formation of our company" (Ahmed, 2012:383). Starwood Hotels ran over 3000 projects

in areas like productivity, menu redesign, resort concierge, etc. (Tan & Chakraborty, 2009:11).

During the Annual European Six-Sigma summit in London (April 2004), one of Starwood's Hotels, The Westin Turnberry, won an award for their Six Sigma reservation project (Tan & Chakraborty, 2009:5).

Starwood attempted to start a service culture by adopting the Six Sigma management methodology (Brenner, 2006:21). They named hundreds of employees Six Sigma specialists and as they learned and implemented Six Sigma, they increased the levels of their "Belts" (Brenner, 2006:21).

In Gulmez&Ajanovic's(2013:10) studies on Six Sigma in the hospitality industry, they connected certain characteristics to the hospitality industry, such as intangibility and perish-ability -intangible because the hospitality industry's success is measurable through their guests' satisfaction levels, unlike the quality of the final products in the manufacturing industry. Guests however, are not always objective and objective measurements are critical to the Six Sigma aspect (Gulmez&Ajanovic, 2013:10).

Service cannot be stored and it is perishable. Consumption must be immediate and every empty room in a hotel is lost revenue forever (Gulmez&Ajanovic, 2013:10).

Tan &Chakraborty's (2009:4)studies on Starwood Hotels found elements that were constant through their implementation of Six Sigma. Elements such as waiting time and turnaround time (Tan & Chakraborty, 2009:4). Guests normally do not want to wait for their food or to wait to be checked in.

Another defect Tan & Chakraborty found in Starwood Hotels' Six Sigma project, were billing errors that prolonged the money collection process.

A limitation of the Six Sigma methodology is the statistical definition of 3.4 defects per million opportunities (Gulmez&Ajanovic, 2013:10). A hotel might not be able to achieve the success levels of only 3.4 complaints out of a million comments from guests. The

sole effort should be to always improve on service until perfection as a goal is achieved, according to Gulmez&Ajanovic (2013:11).

Tan &Chakraborty's (2009:4-6) listed a fewSix Sigma improvement programs,thatStarwood Hotels implemented with success:

- At their Westin Turnberry Resort incremental spending increased by 11.95% and room revenue increased by 19%, because of Six Sigma.
- Their “unwind” program which offered free massages for guests to draw them to the lobby and mingle. Within the first year of the program, the revenue for paid massages increased with 30%.
- The “Star Meeting Concierge” program resulted in a 95% satisfaction rate for meeting planners in the conference departments. Meeting planners/organisers where business cards were given with the photo of the concierge assigned to the organiser for assistance. The concierge would welcome the delegates, explain how technology worked and anticipated the organisers' needs.
- Cost of poor quality was reduced by an estimated amount of \$500000, at some of the hotels.
- The time it took to clean rooms were reduced by 65% to eight minutes, because of Six Sigma.
- They reduced their amount of defects per room from 42% to 3.7%.
- They saved on labour cost by increasing the amount of rooms housekeeping staff could clean a day, from 13 to 17 rooms, through Six Sigma.

We can conclude that certain Six Sigma principals and tools can improve various departments in hospitality establishments,such ashotels. Certain hotel groups have already implemented it with great success.

2.11. Chapter conclusion

Certain Six Sigma tools will be able to assist the management of Protea Hotel Klerksdorp and Acacia Guesthouse in the identified problem areas. Because of the two properties' market mix and the fact that it is only doing business in certain sectors of the hospitality industry, it is impossible to draw conclusions on behalf of the entire hospitality industry.

The hotel and guesthouse can only be compared to establishments similar to them with a market mix dominated by weekly corporate and government travellers. With the research that was done on Six Sigma and its success in hotel chains, e.g. Starwood Hotels, it can be concluded that certain Six Sigma principals and tools can assist hospitality establishments to improve their product and service quality.

CHAPTER 3

EMPIRICAL RESEARCH

3.1. Chapter introduction

In this chapter the background of the selected establishments will be covered in depth, to get a better understanding of the two organisations, the market they serve and the process flow of each establishment.

The two organisations' mini Six Sigma projects will be conducted by using the DMAIC method. In this chapter each organisation's goals will be defined (D), data from each organisation will be captured and measured (M) and the data will be analysed (A) to establish in which problem areas the Six Sigma projects can improve.

Improvements (I) will be made to reduce the defects in the organisations and the improvements will be measured and analysed again to establish the effectiveness of the Six Sigma projects. Certain control (C) measures will then be put in place to consistently improve the two organisations' quality.

3.2. Background on the researched establishments

The two establishments researched in Klerksdorp are Protea Hotel Klerksdorp and Acacia Guest House. A quick overview of both companies' history will be given, including their current challenges with quality and the threat of competitors taking their market share.

3.2.1. Protea Hotel Klerksdorp

Protea Hotel Klerksdorp is a franchise hotel that pays royalties to the brand Protea Hotels that was acquired by Marriott International Inc. (NASDAQ: MAR). Marriott International operates and franchises 4000 properties in 80 countries under 18 brands globally. Protea remains Marriott's African brand.(Protea Hotels, 2014).

Protea Hotel Klerksdorp was built in 1995 and opened its doors to the public for the first time in 1996. During the first few years, the hotel struggled to make a profit because of certain economic and political policies that were in place. The Hotel is currently owned by a prominent family in Klerksdorp.

It has 91 rooms and a conferencing facility that can host up to 500 delegates. The different room types are: executive rooms, deluxe rooms, universally accessible rooms and standard rooms.

Because the hotel is almost 20 years old, the facility is starting to drastically accumulate maintenance expenses. The maintenance problems are also more notable in guest feedback forms compared to previous years.

3.2.1.1. Protea Hotel Klerksdorp's market mix

The corporate market

One of the biggest income segments for Protea Hotel Klerksdorp is the corporate market. Most weeks in 2012 and 2013, the hotel had a 60% to 70% occupancy rate, on average during the week, and a 10% to 30% occupancy rate during weekends.

The travel market to Klerksdorp is primarily business orientated, from the Government and the corporate sector. Currently the corporate travellers visiting Klerksdorp are:

- Sales representatives;

- Training facilitators from large multi nationals, e.g. First National Bank and Old Mutual, etc.
- Semi-government owned companies, e.g. Transnet and Eskom.

Large corporate groups are easily accommodated or facilitated at Protea Hotel Klerksdorp and for that reason the hotel is normally fully booked when there is a big conference booked.

The Government travel market

Most of the travellers coming to Protea Hotel Klerksdorp come from the governmental market segment and include departments from Mafikeng, Kimberley, Bloemfontein, Pretoria and Durban. The key attraction to the hotel is that the conference department offers five venues. This enables Government departments to book an entire group at one venue, enabling them to host the entire conference on the same premises.

The international leisure market

The leisure market segment is normally the most interesting segment for staff members. They normally enjoy communicating with foreign nationals and learning more about the diverse cultures around the world. The majority of foreign tourists visiting Klerksdorp are from Europe, North America and Asia.

During the annual Nampo Harvest Day trade fair in May, European agricultural companies and farmers travel to South Africa to visit the festival in Bothaville, situated about 64km from Klerksdorp. Guests attending this festival are a huge contributor to the hotels revenue, and every year the aim is to sell the maximum room nights. Rates during Nampo Harvest Day trade fair range from R1000 to R1800 per night and in recent history the hotel had a 100% occupancy rate during the 3 nights of the 4 days of the festival and the remaining nights', occupancy ranged between 96 to 98%.

The weekend leisure market

Currently the hotel has a 12–36% occupancy rate over weekends. The hotel is primarily known as a business hotel to business travellers. The weekend leisure market is mostly a family holiday market. Currently Klerksdorp lacks entertainment for the entire family but this market segment has great potential for development.

3.2.1.2. The different departments of Protea Hotel Klerksdorp

The hotel is made up of different departments and all the departments are interlinked to work together. The entire process from reservations to check-in and check-out on the last day revolves around the guest.

The different departments that are in contact with the hotel guests are:

The maintenance department: The maintenance manager and his team are in charge of daily maintenance of the physical resources, prevention of maintenance issues arising during a guest's stay and improving/renovating the physical resources.

- The front office: The front office manager, reservationists, receptionists and porters who assist the guests with their accommodation and ensure that their information is accurate for usage of the hotel's facilities.
- Housekeeping: The main responsibility of the housekeeping is to ensure that the quality of the rooms, as well as the rest of the physical property, are on standard.
- The restaurant or food and beverage department: The management and staff of the restaurant, plan and prepare beforehand in order to be ready to serve the guests on their arrival at the restaurant. The restaurant pertains to the guests' hunger related needs, by stimulating all 5 senses of the guest at the same time. Currently the restaurant is outsourced and not managed by the hotel's management team.

- Conferencing: The conferencing department establishes the opportunity for big groups to communicate with each other in a pleasant environment.
- Security: This is outsourced to a security company that has guards at two different gates until 11pm at night. After 11pm the one gate will be closed and only the main gate will be operational as entrance and exit for both vehicles and pedestrians.
- Management: The primary role of management at Protea Hotel Klerksdorp is to ensure that certain systems stay in place, if need be, and to roll stones out of the way of their staff and guests.

3.2.1.3. The process flow of Protea Hotel Klerksdorp

In short, the face to face interaction process starts in the front office on the day of arrival. According to the Protea Hotel's standard, all staff members have to follow their script and behave in a manner that the standard predetermines. Upon arrival, guests will be greeted by the security personnel, who will assure the safety of their vehicles, and the porter will assist with their luggage. The guests arrive at reception and confirm their reservation to check into the hotel.

Guestscan make reservations via the Internet, email or telephone, with the reservationists of the hotel. The data the reservation team receive from the guests is inserted into the property management system (PMS). The system is accessible to every department in the hotel in order to keep up to date at all times.

The housekeeping and maintenance department extracts the information from the PMS to add explicit service by adding extra items as per request from the guests. These two departments work hand-in-hand to ensure that the room and hotel facilities are clean, functional and on standard before the guests' arrival.

The restaurant uses the same data to establish inventory requirements. A buffet will normally be prepared if the group staying at the hotel is more than 25 people. The majority of guests will arrive at the restaurant for dinner between 7:00 pm and 9:30 pm.

The guests will be greeted by a waiter or a manager at the entrance and escorted to a seat. The guest will receive a menu and asked for his/her room number to determine his/her billing plan. After the guests have finished their meal, they have a choice between mingling with other guests in the cocktail bar, or retiring to their rooms.

The next morning the guests could check out or walk to the conference department if they are part of the delegates that were booked for the conference. On checking out, the guests will be assisted by the porter with their luggage and helped by the friendly receptionists with their invoice, and a Hot or Not card to assess their service experience.

The standard target for guests to be checked in and roomed is 10 minutes and serving of a meal after ordering must be within 15 minutes. According to data collected on the 14th of April 2013 the receptionist could check-in up to three guests, arriving at the same time, within 10 minutes. Four or more guests arriving at the same time created a bottleneck and the 2 receptionists failed to keep up with the 10 minute standard.

3.2.2. Acacia Guest House

The family who owns the Protea Hotel also owns the Acacia Guest House in Klerksdorp. The market segment is currently similar to Protea Hotel Klerksdorp. 80% of Acacia's business originates from government groups and businesses travellers. The only difference is that Acacia caters for the middle to lower income sectors and companies or departments with budget constraints.

3.2.2.1. The different departments of Acacia Guest House

The different departments that assist the guests are:

- The reception and administration office. This office is occupied by the guesthouse General Manager and administration clerk during the day up to 5pm. After 5pm a receptionist attends to guests' requests or check-ins until 11pm.
- Gardening and housekeeping department. There are currently one housekeeper and 1 gardener who work from 8am to 5pm.
- The restaurant. This department has a cook during the morning to serve breakfast and an outsourced caterer for dinners in the evenings.
- The conference department. This department is a high income generating department on its own according to the monthly management statements, but it is operated by the reception and administration team during the day.

3.2.2.2. The process flow of Acacia

Guests arrive at the reception area and they are assisted by management or the receptionist on duty. The guest's information will be verified to ensure that they pay for their stay and that their information is correct.

From reception, the guests will be escorted to their rooms by the same employee that assisted them with the checking in phase. The guests walk to the dining area during the evening where the outsourced caterer serves dinner.

The next morning the guests will walk to the dining area again for breakfast and afterwards depart for their destination, or attend the conference on the premises.

3.3. DMAIC methodology in the organisations

The DMAIC methodology that was developed by General Electric will be used as an approach to implement Six Sigma tools in the selected organisations. The

problem/defect areas will be defined, measured, analysed, improved, and measured again after the improvements were made and control measures have been established.

3.3.1. The Defining (D) phase

The researched organisations process flow and market mix were discussed above. As observed by studying the problems that Protea Hotel Klerksdorp and Acacia Guest House faced as discussed later in this chapter, both organisations had different goals to achieve. The different goals and problem areas that each organisation faced were be described below.

A) Protea Hotel Klerksdorp

Currently the hotel's main focus is on improving the quality of the products and services rendered to its guests. The hotel is also focused on reducing waste and improving the process flow. These goals are set to be achieved within two years of implementation of the Six Sigma tools described in Chapter 2. The hotel is part of a global franchise and it needs to constantly improve its quality to increase guest's loyalty and obtain a competitive advantage in its current market.

The following problem areas exists at the hotel, obstructing it from achieving the above mentioned goals, according to guests, management and the hotels head office:

- **Poor guest service from reception.** In the hospitality industry, friendly service is one of the most important factors determining guest satisfaction.
- **Poor guest service from the outsourced restaurant.** This problem normally exists when a waiter makes a mistake with a guest's order or fails to render professional and friendly service.
- **Restaurant cutlery and appliances.** These problems exist when cutlery and appliances are in a poor state and appliances such as toasters or coffee machines are out of order.

- **Maintenance issues in the restaurant.** Poor maintenance in the bathroom and restaurant area, such as toilets that are out of order or light bulbs and the air-conditioning not working in the restaurant.
- **Poor quality linen and towels.** Worn-out linen and towels which are too old and damaged.
- **The cleanliness of the rooms and the public areas.** The cleanliness of the rooms, showers and public areas are one of the most important factors determining guest satisfaction.
- **The quality of the Meals.**
- **Air-conditioning not functioning correctly.** This is important, especially during winter and the warmest part of summer.
- **Bathroom maintenance.** Toilets that are not functioning, warm or cold water problems, boiler problems, broken soap holders and bathroom doors are the main concerns.
- **Television problems in the rooms.** Televisions not turning on, channels blurry or channels not programmed.
- **Kettles not working.**
- **Room phones not working.**
- **Lights not working.** Room lights, bedside lamps or desk lamps.
- **Irons requested not working.** Irons are available at reception upon request, but sometimes they are faulty or in a poor state.
- **Plugs are faulty or insufficient.** Plugs that do not work or not enough plugs available for guests to use. The franchise standard is two extra available plugs.
- **The quality of the bed.** The quality of the mattress or the feel of the bed.
- **Faulty room safes.** Safes that are locked or batteries that are redundant.
- **Amenities not replaced.**
- **Wi-Fi connectivity problems.**
- **Check in is taking too long.** The standard is 10 minutes. Sometimes the reception team fails to obtain the guest's voucher before he/she arrives, or the room is not ready yet.

- **Meals taking too long to be prepared.** Room service and meal deliveries for guests dining in the restaurant.
- **Guests' requests taking too long to be resolved.** Guests requesting assistance in their rooms.
- **Waste occurring in the company increasing unnecessary expenses.** Waste like unnecessary telephone calls, unnecessary copying and printing, excess use of supplies and amenities in the offices.
- **The physical appearance, look and feel of the rooms.** Décor in the room or the feel of the room to the guest.
- **The physical appearance, look and feel of the property and facilities.** Maintenance of the gardens, pool and building.
- **The physical appearance, look and feel of the restaurant.**

To achieve the above mentioned goals, the management decided to implement 3 projects using Six Sigma tools from the beginning of their financial year in March 2014. To test the effectiveness of the projects, management decided to run the project for 5 months (March to Jul 2014) and then withdraw for 2 months (August and September), to start the project again in October 2014.

The first project was to improve the quality of the service rendered by reception and the outsourced restaurant. The second project was to improve the quality of the product. This included the rooms and facilities and the meals provided by the outsourced company. The third project was to identify and reduce waste to minimise expenses.

The outsourced company was invited to attend the meetings held by the hotel's management, but the hotel's management did not have direct control over the outsourced company.

B) Acacia Guest House

Acacia's process flow was defined in this chapter, indicating that its market mix is similar to that of the hotel. Unfortunately according to records, the only complaint recorded was a guest who complained about the projector not working in the conferencing facility.

Acacia struggled to control their restaurant expenses and the restaurant was suffering losses monthly. The goal at acacia was to reduce waste and decrease expenses in order to achieve a 65% Gross Profit Percentage (GP%).

3.3.2. The Measuring (M) phase

For the measuring phase, the different measuring instruments used to establish what the defects were, and the number of defects, were discussed. The measuring instruments that were used were selected based on the effectiveness and accuracy of the data it provided to determine what the defects were.

3.3.2.1. Data collection at Protea Hotel Klerksdorp

Hot or Not's: This is the standard Protea Hotels guest feedback card. As seen in Figure 3.1 below, the card asks the guest whether the hotel is Hot or Not and if the guest would recommend the hotel to friends or colleagues. The card has a thermometer to judge how Hot the hotel is out of 10 and a comment section for the guests to leave a comment for the General Manager's attention.



PROTEA HOTELS

ARE WE HOT OR NOT?

WOULD YOU RECOMMEND THIS HOTEL
TO YOUR FRIENDS OR COLLEAGUES?

Most Definitely
Definitely Not

10	9	8	7	6	5	4	3	2	1	0
YOU'RE HOT			WARM		COLD					

Dear General Manager

This is why I think your hotel is HOT / NOT:

PLEASE NOTE: If you would prefer to address your comments to our head office, visit the CONTACT US page on www.proteahotels.com, where you will find an online version of this form.

Name: _____

E-mail: _____

Room No: _____

Arrival Date: _____

Figure 3.1: Hot or Not comment card.

Hot or Not's were collected from 2009 up to 20 October 2014 to establish trends, problem areas and defects the hotel had in its service areas and facilities. 1461 Hot or Not's have been completed by guests during this time. This is one of the most effective measuring tools for the hotel, because it presents the view of the guests when they are grieyed with a problem.

Head office Quality Assessments (QA's): These assessments are done annually to assure that all the hotels in the brand are consistently improving on their quality and not damaging the brand. It is of the utmost importance that Protea Hotel Klerksdorp adheres to the comments head office makes. This is an external assessment that helps management to have an outside party evaluate and render a report on factors that influences the brand quality and customer satisfaction. The areas that are assessed in the QA's are:

- Branding. There is a manual on all the branding materials that every hotel needs to adhere to and all print work or artwork that needs to be printed have to be done via the head office. This protocol insures brand consistency.
- Physical property. This area is an assessment of the hotels gardens, rooms and the building. This is assessing where these areas require maintenance and neglect that could cause trouble in the future. This is also an important variable for measuring the quality of the product.
- Breakfast assessment. This area is an assessment of the hotel's breakfast setup and breakfast serving area. Because breakfast is so important to hotel guests, this is an important area to measure and manage in order to achieve the goal of improving guest satisfaction.
- Guest service -one of the most important areas of measurement in the hospitality industry. This area measures the consistency of staff members following their scripts upon making reservations, checking-in guests, right through to room service standards, and assistance from porters.

Internal check sheets and assessments. These are assessments that are done by department heads in their own departments and for an objective view, department heads cross assess one another's departments.

These assessments are based on the head office's assessment lists, but shortened to focus on key variables and enables the assessor to measure more areas quicker. These assessments were implemented in 2014 for the first time and are scheduled to be done on a monthly basis.

Guest studies. This is a time evaluation conducted by management to measure the service time of certain departments. Five scenarios were evaluated:

- The time it takes for a guest to be checked in.
- The time it takes for a guest to receive an iron upon request.
- The time it takes to attend to problems in the guest's room.
- The time it takes for guests to receive their meals in the restaurant.
- The time it takes for guests to receive their room service.

Initially cards were placed in guests' rooms to complete an estimate, but the data received were inconsistent, impossible and sometimes over exaggerated. The method of measuring was then changed to managers physically being present and objectively measuring the above-mentioned scenarios.

Monthly management statements and system reports. These are monthly financial statements and reports to evaluate wastage that could be occurring in certain areas, compared to the budget and previous years. This is an important financial tool to evaluate certain changes made and its financial effect on the company.

These statements were used to measure the effect that improving the quality had on the income and expenses of the company as well as the occupancy percentage.

3.3.2.2. Data collection at Acacia Guest House

Stock sheets. The goal of Acacia is to decrease wastage and to control its cost of sales percentage in the restaurant. By measuring stock consumption with occupancy, wastage can be controlled better.

Monthly management reports and statements. These statements and reports are financial reports compiled on a monthly basis to measure how effectively the company is managed from a financial point of view. By using these instruments the researcher can establish monthly what Acacia's Gross Profit Percentage is, and measure the effectiveness of management's efforts to reduce waste.

3.3.3. The Analysis (A) phase

In this phase the data collected and measured are analysed and compiled in tables and charts. The analysis phase covers the data measured before changes have been made and implemented.

3.3.3.1. Data analysed from Protea Hotel Klerksdorp

Hot or Not's. The following data covers 2009 to February 2014. The analysis of historical data indicates the defects experienced in past years and attempts to eliminate the defects for the present and future.

HOT OR NOT			2009 -2011								
0	1	2	3	4	5	6	7	8	9	10	
48	16	11	9	3	9	7	3	6	30	35	177
27.12%	9.04%	6.21%	5.08%	1.69%	5.08%	3.95%	1.69%	3.39%	16.95%	19.77%	100.00%
NOT HOT =					54.24%	HOT =		45.76%			

Table 3.1: Hot or Not score summary for 2009-2011.

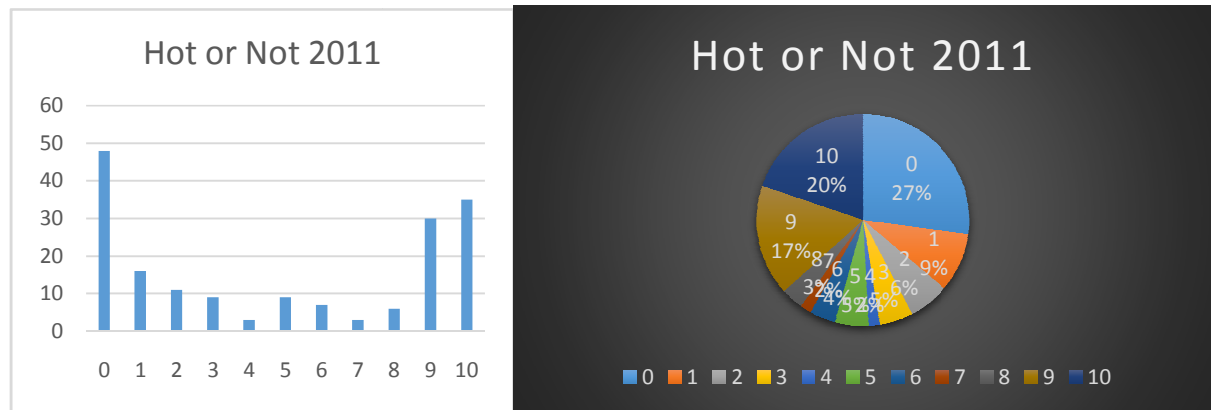


Figure 3.2: Hot or Not graphs for 2009–2011.

Table 3.1 and Figure 3.2 above show a high level of dissatisfied guests from 2009 to 2011. The majority of the guests (54.24%) felt that the hotel was not hot during this period. A total of 177 guest comment cards were measured for this period. When looking at the service aspect in Table 3.2 below, 46 out of 59 comments (77.97%) on the restaurant were negative. Guests complained about bad food and waiters not paying attention to them.

The service received from reception was predominately good, with 52 out of 67 positive comments on reception. The majority of the guests complained about a front office manager during that time. The negative comments about the security at the security gate and cleanliness issues in the rooms were analysed under the problem areas in this chapter. Sixty percent of the housekeeping comments were negative.

	Service		2009 - 2011					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	13	46	52	15	0	2	8	12
Total	59		67		2		20	
	22.03%	77.97%	77.61%	22.39%	0.00%	100.00%	40.00%	60.00%

Table 3.2: Service related comments for 2009–2011.

	Physical Appearance of Product				2009 - 2011	
	Restaurant good	Restaurant Bad	Rooms Good	Rooms Bad	Grounds and facilities Good	Grounds and facilities Bad
Frequency	1	4	16	4	1	2
Total	5		20		3	
	20%	80%	80.00%	20.00%	33%	67%

Table 3.3: Physical appearance comments related to the product for 2006–2011.

The rooms' look and feel were still acceptable, with 80% of the guests commenting positively. The restaurant on the other hand, achieved the same percentage but under the negative comments column. According to guests the restaurant's appearance was dull and the decor and cutlery were outdated.

HOT OR NOT			2012									
0	1	2	3	4	5	6	7	8	9	10		
13	5	6	4	7	5	8	24	29	37	82		220
5.91%	2.27%	2.73%	1.82%	3.18%	2.27%	3.64%	10.91%	13.18%	16.82%	37.27%		100.00%
NOT HOT =					18.18%	HOT =		81.82%				

Table 3.4: Hot or Not score summary for 2012.

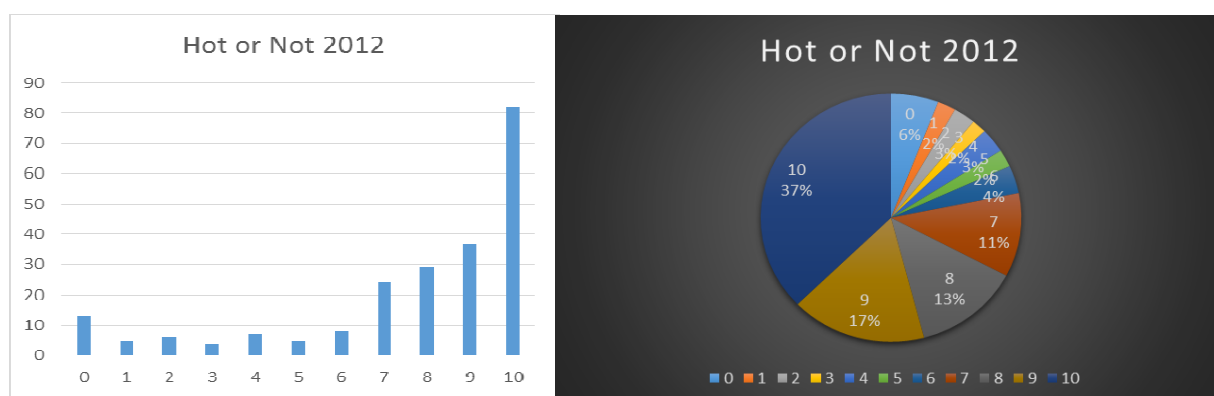


Figure 3.3: Hot or Not graphs for 2012.

In 2012 the hotel improved tremendously on the feedback received. 81.83% of the feedback cards were hot. 148 out of 220 guests scored the hotel between 8 and 10 according to Table 3.4. The improvement can be seen by comparing Figure 3.3 with Figure 3.2 above.

	Service		2012					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	25	16	126	20	0	0	16	8
Total	41		146		0		24	
	60.98%	39.02%	86.30%	13.70%	0.00%	0.00%	66.67%	33.33%

Table 3.5: Service related comments for 2012.

	Physical Appearance of Product				2012	
	Restaurant good	Restaurant Bad	Rooms Good	Rooms Bad	Grounds and facilities Good	Grounds and facilities Bad
Frequency	3	2	19	3	0	2
Total	5		22		2	
	60%	40%	86.36%	13.64%	0%	100%

Table 3.6: Physical appearance comments related to the product for 2012.

The service guests received at the restaurant in 2012, also improved compared to 2009–2011, according to Table 3.5. The 39% negative comments were due to meals taking up to an hour to be prepared and that waiters were noting down orders incorrectly. The restaurant was still managed by the hotel management team in 2012. More and more guests started to comment on the friendliness of the staff.

The service received from reception also improved, to 86% of comments about reception being good. The defects that started to show was complaints of receptionists

booking guests into rooms where other guests were already staying and payments that were not allocated by receptioniststo guests' profiles. More than once guests were charged double for services, because payments were not allocated or allocated incorrectly. In 2012 a few guests started to complain about the rooms ageing, but the restaurants appearance increased a lot to 60% positive, according to Table 3.6.

HOT OR NOT		2013										
0	1	2	3	4	5	6	7	8	9	10		
20	5	6	8	5	8	9	32	29	39	58		219
9.13%	2.28%	2.74%	3.65%	2.28%	3.65%	4.11%	14.61%	13.24%	17.81%	26.48%		100.00%
NOT HOT =						23.74%		HOT =		76.26%		

Table 3.7 Hot or Not score summary for 2013.

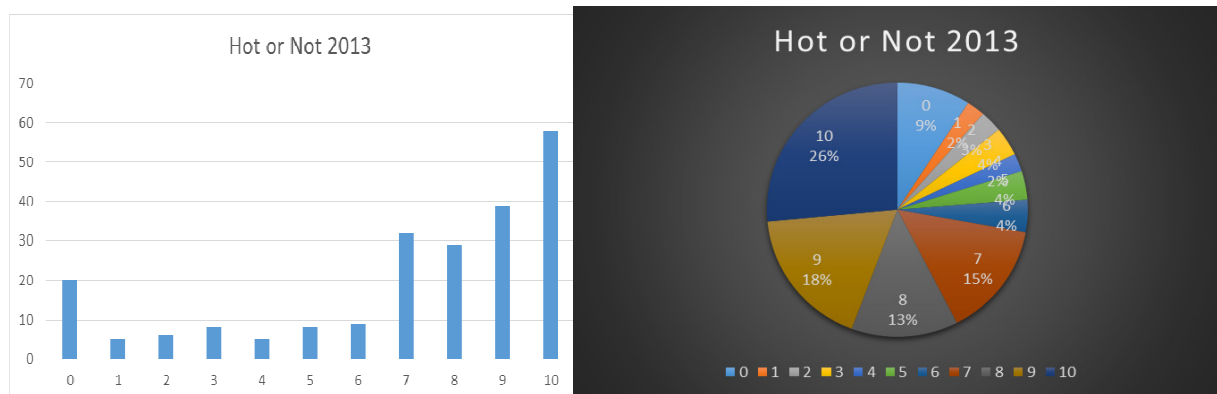


Figure 3.4: Hot or Not graphs for 2013.

In 2013 76.26% of the guest comments said that the hotel was hot according to Table 3.7 above. The hotel received 219 Hot or Not cards, one less than 2012. Figure 3.4 also changed significantly with more extremely angry guests scoring the hotel 0.

The problems referring to service received from reception also decreased. Only 8 cards out of 118 commented negative on reception's service, according to Table 3.8. Complaints about reception werethat calls to reception was not being answered and guestswere waiting very long to be attended to.DuringAugust 2013, the restaurant was outsourced again to a national restaurant chain.

	Service		2013					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	20	23	110	8	1	1	15	9
Total	43		118		2		24	
	46.51%	53.49%	93.22%	6.78%	50.00%	50.00%	62.50%	37.50%

Table 3.8: Service related comments for 2013.

The outsourced company renovated the restaurant to improve the look and feel. Initially the complaints regarding service rose again because the outsourced company had to find its feet. The majority of the service related complaints were because the restaurant did not provide room service to the hotel guests yet.

	Physical Appearance of Product				2013	
	Restaurant good	Restaurant Bad	Rooms Good	Rooms Bad	Grounds and facilities Good	Grounds and facilities Bad
Frequency	1	1	10	19	1	1
Total	2		29		2	
	50%	50%	34.48%	65.52%	50%	50%

Table 3.9: Physical appearance comments related to the product for 2013.

The appearance of the restaurant improved, but only one person commented on the improvement and another complained about the play area for kids.

HOT OR NOT			Jan - Feb 2014								
0	1	2	3	4	5	6	7	8	9	10	
2	0	1	1	2	0	0	1	2	0	1	10
20.00%	0.00%	10.00%	10.00%	20.00%	0.00%	0.00%	10.00%	20.00%	0.00%	10.00%	100.00%
NOT HOT =					60.00%	HOT =		40.00%			

Table 3.10: Hot or Not score summary for January to February 2014.

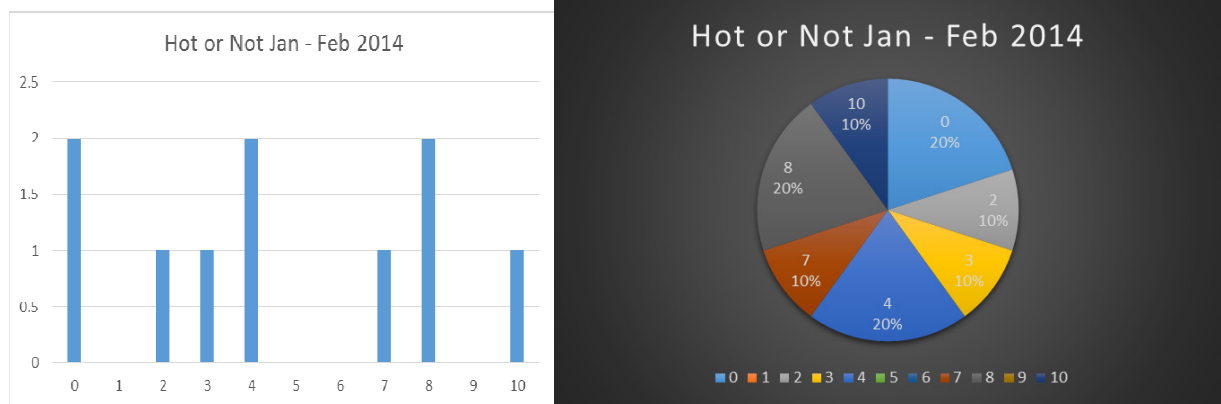


Figure 3.5: Hot or Not graphs for January to February 2014.

During January to February 2014, complaints increased notwithstanding less Hot or Not cards being completed. 60% of the guests who commented said that the hotel was not hot according to Table 3.10. During this period the hotel struggled with hot water problems and the majority of the complaints were because of this situation.

The problem areas that guests experienced with the physical product was measured to conclude which defects appeared the most from 2009 to January and February 2014.

Problem Areas								
	2009 - 2011		2012		2013		Jan - Feb 2014	
	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev
Restaurant cutlery and appliance	3	2.46%	2	4.76%	2	1.96%	0	0.00%
Restaurant Maintenance	1	0.82%	0	0.00%	0	0.00%	0	0.00%
linin, towels	9	7.38%	3	7.14%	2	1.96%	0	0.00%
Cleanliness	20	16.39%	8	19.05%	11	10.78%	0	0.00%
Food	21	17.21%	9	21.43%	12	11.76%	0	0.00%
Aircon	10	8.20%	2	4.76%	14	13.73%	1	11.11%
Bathroom Maintenance	14	11.48%	3	7.14%	36	35.29%	8	88.89%
TV	13	10.66%	2	4.76%	9	8.82%	0	0.00%
Kettle	2	1.64%	0	0.00%	0	0.00%	0	0.00%
Phone	3	2.46%	4	9.52%	3	2.94%	0	0.00%
Lights	4	3.28%	2	4.76%	4	3.92%	0	0.00%
Irons	4	3.28%	4	9.52%	2	1.96%	0	0.00%
Plugs	3	2.46%	0	0.00%	3	2.94%	0	0.00%
Beds	4	3.28%	0	0.00%	0	0.00%	0	0.00%
Room Safes	2	1.64%	0	0.00%	1	0.98%	0	0.00%
Amenities	8	6.56%	2	4.76%	2	1.96%	0	0.00%
Wifi	1	0.82%	1	2.38%	1	0.98%	0	0.00%
	122	100.00%	42	100.00%	102	100.00%	9	100.00%

Table 3.11: Problem areas from 2009 – February 2014.

All the areas complained about are listed in Table 3:11. The areas with the highest frequency of complaints per period were coloured red. During 2009–2011 guests complained about the rooms that were dirty or not clean upon arrival. During this period the majority of the quests complained about a bad smell coming from the drains in the rooms; the food did not taste good, and some guests claimed food poisoning during that period.

During 2012, some of the guests complained that the phones were not working when they phoned reception. There were fewer complaints about the food, but the percentage of complaints about food compared to other variables, changed to 21.43%, according to Table 3.11. Cleanliness was still a major concern in the hotel, because 19.05% of the complaints received about the product were because of cleanliness.

In 2013 problems related to the product increased again from forty two in 2012 to a hundred and two in 2013. The majority of the complaints were about showerheads not

spraying enough water and the water temperature changing constantly. Guests also complained about the state of the showers and asked that the bathrooms be renovated. The percentage of complaints about the food decreased, but guests were unhappy that there was no room service because of the new outsourced restaurant.

From January to February, 88% of the complaints were about the water pressure and the temperature changes while guests were showering. The key defects that were visible in almost all periods in Table 3.11, were:

- Cleanliness of the rooms and bathrooms.
- The food in the restaurant.
- Faulty air conditioners in the rooms.
- The bathrooms having maintenance issues like toilets not flushing, faulty doors and warm and hot water problems.
- Television's not working, channels not programmed or vague channel displays.
- The room phones not working or faulty.
- The irons delivered upon request are defective or not working.

The above-mentioned defects were not the only defects that should be focused on, but were the most prominent ones. Please see Appendix 1 for a more visual and detailed description of the defects in certain periods.

Head office Quality Assessments (QA's). The Protea Hotels head office sends an assessor once a year to critically assess the Protea properties. The assessment results improved from 2012 to 2013 but slightly decreased again in 2014. If a franchise does not improve and adhere to the Protea standard, Protea Hotels has the right to disfranchise a hotel. This is a very important assessment and it is important to analyse it critically.

QA RESULTS	2012	2013	2014	BENCHMARK
Branding	66%	93%	86%	100%
Physical Property	73%	79%	80%	80%
Breakfast Assessment	67%	80%	63%	87%
GUEST Service	75%	80%	80%	87%

Table 3.12: Head office QA results for 2012–2014.

In 2014 the branding assessment decreased to 86% and the breakfast assessment decreased dramatically to a 63% compliancy rate according to Table 3.12. The assessment will be analysed in detail in Table 3.15 - 3.18 below.

Protea Hotel Klerksdorp	DATE : 14 - 16 March 2012			
BRANDING COMPLIANCE ASSESSMENT	Factors	NA	Total	%
EXTERIOR, GROUNDS AND PARKING	5	1	4	100%
LOBBY AND RECEPTION	14	3	6	55%
CONFERENCE ROOM(S)	2	0	2	100%
RESTAURANT(S) AND BAR(S)	2	1	0	0%
GUEST BEDROOMS AND BATHROOMS	18	2	12	75%
ALL AREAS	8	1	3	43%
BRANDING COMPLIANCE TOTAL	49	8	27	66%

Table 3.13: Branding compliance assesment 2012.

PROTEA HOTEL KLERKSDORP	DATE : 08 - 10 MAY 2013			
BRANDING COMPLIANCE ASSESSMENT	Factors	NA	Total	%
EXTERIOR, GROUNDS AND PARKING	5	2	3	100%
LOBBY AND RECEPTION	14	2	12	100%
CONFERENCE ROOM(S)	2	0	2	100%
RESTAURANT(S) AND BAR(S)	2	1	1	100%
GUEST BEDROOMS AND BATHROOMS	18	1	14	82%
ALL AREAS	8	0	8	100%
BRANDING COMPLIANCE TOTAL	49	6	40	93%

Table 3.14: Branding compliance assesment 2013.

Protea Hotel Klerksdorp	DATE : 9 - 11 April 2014			
BRANDING COMPLIANCE ASSESSMENT	Factors	NA	Total	%
EXTERIOR, GROUNDS AND PARKING	5	2	3	100%
LOBBY AND RECEPTION	14	1	9	69%
CONFERENCE ROOM(S)	2	0	2	100%
RESTAURANT(S) AND BAR(S)	2	2	0	NA
GUEST BEDROOMS AND BATHROOMS	18	1	15	88%
ALL AREAS	8	0	8	100%
BRANDING COMPLIANCE TOTAL	49	6	37	86%

Table 3.15: Branding compliance assesment 2014.

In 2013 the hotel achieved 93% for branding. It would have achieved 100%, but the hotel failed to have the artwork for the new folders in the rooms,printed through head office.

In 2014 the hotel failed to buy the newly branded amenities, because it still had old amenities in stock. The hotel scored less for branding under lobby and reception as well as bedrooms and bathrooms, because the newly branded amenities were supposed to be kept at reception as well.

2012									
PHYSICAL PROPERTY ASSESSMENT		Score	Factor	Overall		MS	CL	RM	CX
		Total	Total	%					
EXTERIOR, GROUNDS AND PARKING		390	560	70%		4	0	7	3
LOBBY AND RECEPTION		735	880	84%		13	2	4	4
PUBLIC AREAS		520	680	76%		4	1	12	1
CONFERENCE ROOM(S)		550	850	65%		7	2	9	3
RESTAURANT(S)		600	930	65%		12	1	7	5
BAR(S)		0	0	NA		0	0	0	0
STAFF AREAS		60	120	50%		2	0	0	2
GUEST BEDROOM AVERAGE	4	1234	1670	74%		69	19	15	16
GUEST BATHROOM AVERAGE	4	639	805	79%		28	1	17	1
PROPERTY PHYSICAL TOTAL		4728	6495	73%		139	26	71	35
						51%	10%	26%	13%

Table 3.16: Physical property assessment for 2012.

2013									
PHYSICAL PROPERTY ASSESSMENT		Score	Factor	Overall		MS	CL	RM	CX
		Total	Total	%					
EXTERIOR, GROUNDS AND PARKING		550	640	86%		1	0	4	2
LOBBY AND RECEPTION		840	940	89%		7	6	4	0
PUBLIC AREAS		680	860	79%		6	0	9	1
CONFERENCE ROOM(S)		570	790	72%		7	2	5	1
RESTAURANT(S)		720	990	73%		4	1	8	5
BAR(S)		0	0	NA		0	0	2	1
STAFF AREAS		80	160	50%		2	0	0	2
GUEST BEDROOM AVERAGE	4	1343	1740	77%		43	18	36	13
GUEST BATHROOM AVERAGE	4	764	935	82%		8	12	14	3
PROPERTY PHYSICAL TOTAL		5546	7055	79%		78	39	82	28
						34%	17%	36%	12%

Table 3.17: Physical property assessment for 2013.

2014

PHYSICAL PROPERTY ASSESSMENT	Score		Factor		Overall %	MS	CL	RM	CX
	Total		Total						
EXTERIOR, GROUNDS AND PARKING	570		640		89%	6	0	2	2
LOBBY AND RECEPTION	825		940		88%	12	1	2	3
PUBLIC AREAS	605		790		77%	5	0	11	2
CONFERENCE ROOM(S)	620		810		77%	3	0	3	4
RESTAURANT(S)	685		970		71%	7	1	8	2
BAR(S)	0		0		NA	0	0	3	0
STAFF AREAS	100		160		63%	1	0	0	2
GUEST BEDROOM AVERAGE	4	1403	1773		79%	57	10	26	7
GUEST BATHROOM AVERAGE	4	794	938		85%	19	2	16	0
PROPERTY PHYSICAL TOTAL	5601		7020		80%	110	14	71	22
						51%	6%	33%	10%

Table 3.18: Physical property assessment for 2014.

The hotel improved on their property inspection with 1%. The physical property assessment was predominantly a maintenance inspection. There were between 7020 to 7055 factors being scored on, and to improve by 1%, the hotel had to improve 70.22 factors, while constantly maintaining the 5601 factors that scored positive. According to Table 3.18, the hotel improved on all the assessed areas, except the restaurant that has been outsourced since 2013.

2012

BREAKFAST - PHYSICAL			32						
Not Applicable			0						
Score Totals			430		430				
Factor TOTALS			640		640				67%

2013

BREAKFAST - PHYSICAL			32						
Not Applicable			0						
Score Totals			510		510				
Factor TOTALS			640		640				80%

2014

BREAKFAST - PHYSICAL			32						
Not Applicable			0						
Score Totals			400		400				
Factor TOTALS			640		640				63%

Table 3.19: Breakfast assessment 2012–2014.

The breakfast assessment score, in Table 3.19, decreased from 510 factors achieved to 400 factors achieved (17%). The breakfast assessment was based on the Protea standard manual that sets the standard on how a breakfast buffet should be displayed, the content of the buffet, the service provided and the restaurant setup during buffets.

2012

GUEST SERVICE ASSESSMENT	Factors	Meet	Below	NA	TOTAL
BREAKFAST SERVICE	12	6	6	0	50%
SWITCHBOARD	4	4	0	0	100%
RESERVATIONS	5	2	2	1	50%
CHECK IN	14	7	7	0	50%
GUEST ROOMING	8	6	1	1	86%
CHECK OUT AND BILLING	8	6	1	1	86%
GENERAL SERVICE	14	11	2	1	85%
HOUSEKEEPING SERVICE	33	26	7	0	79%
ROOM SERVICE	23	14	6	3	70%
LUNCH/DINNER A'LA CARTE SERVICE	33	21	2	10	91%
FOOD QUALITY	5	2	1	2	67%
LUNCH/DINNER BUFFET SERVICE	31	0	0	31	NA
BAR SERVICE	16	0	0	16	NA
SERVICE ASSESSMENT TOTAL	206	105	35	66	75%

Table 3.20: Service assessment for 2012.

2013

GUEST SERVICE ASSESSMENT	Factors	Meet	Below	NA	TOTAL
BREAKFAST SERVICE	12	9	3	0	75%
SWITCHBOARD	4	4	0	0	100%
RESERVATIONS	5	2	2	1	50%
CHECK IN	14	11	3	0	79%
GUEST ROOMING	8	6	1	1	86%
CHECK OUT AND BILLING	8	7	1	0	88%
GENERAL SERVICE	13	8	4	1	67%
HOUSEKEEPING SERVICE	33	27	6	0	82%
ROOM SERVICE	23	15	5	3	75%
LUNCH/DINNER A'LA CARTE SERVICE	33	23	4	6	85%
FOOD QUALITY	5	4	0	1	100%
LUNCH/DINNER BUFFET SERVICE	31	0	0	31	NA
BAR SERVICE	16	0	0	16	NA
SERVICE ASSESSMENT TOTAL	205	116	29	60	80%

Table 3.21: Service assessment for 2013.

2014

GUEST SERVICE ASSESSMENT	Factors	Meet	Below	NA	TOTAL
BREAKFAST SERVICE	12	7	5	0	58%
SWITCHBOARD	4	3	0	1	100%
RESERVATIONS	5	3	2	0	60%
CHECK IN	14	9	5	0	64%
GUEST ROOMING	8	0	0	8	NA
CHECK OUT AND BILLING	8	8	0	0	100%
GENERAL SERVICE	13	11	2	0	85%
HOUSEKEEPING SERVICE	33	26	6	1	81%
ROOM SERVICE	23	0	0	23	NA
LUNCH/DINNER A'LA CARTE SERVICE	33	27	4	2	87%
FOOD QUALITY	5	3	1	1	75%
LUNCH/DINNER BUFFET SERVICE	31	0	0	31	NA
BAR SERVICE	16	0	0	16	NA
SERVICE ASSESSMENT TOTAL	205	97	25	83	80%

Table 3.22: Service assessment for 2014.

By analysing the data in Table 3.21 and Table 3.22, the hotel generally improved in their service rendered except in:

- Service received during breakfast, decreased from 75% to 58% (a 17% decrease).
- Service during check in, decreased from 79% to 64% (a 15% decrease).
- The food quality, decreased from 100% to 75% (a 25% decrease).

The majority of the QA defects noted from Table 3.12 to Table 3.22, were defects related to the outsourced restaurant.

Guest time related to service studies. During March 2014 to Jun 2014 the different departments were unaware when they were monitored on the time it took to serve guests. The following results were achieved in Table 3.23. Up to 13 samples were measured for questions 1–3 and less for questions 4 and 5, because the outsourced company had to be measured by hotel management to get an accurate sample. The unit of measurement, was minutes.

	March 2014 - Jun 2014												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Time it takes to Check Guest In	7	6	11	4	4	3	5	8	6	12	6	8	7
2. Time it takes to receiving an Iron	23	25	4	15	8	6	11	28	16	9	9	21	5
3. Time it takes to attend to room problems	5	20	8	40	16	18	4	16	26	20	5	20	6
4. Time it takes to receive meal	32	30	25	41	36	21	25	16	35	25	38		
5. Time it takes for room service	41	35	32	38	48	44	120						

Table 3.23: Time summary.

The Protea Standard states that a guest should be checked in within 10 minutes of arrival at the reception. The receptionist has a script of things that needs to be explained to a guest before the guest receives his/her key card and sign the registration card. The moment a guest checked-in too quickly, it means that not everything had been explained to the guest, or that he/she is a regular.

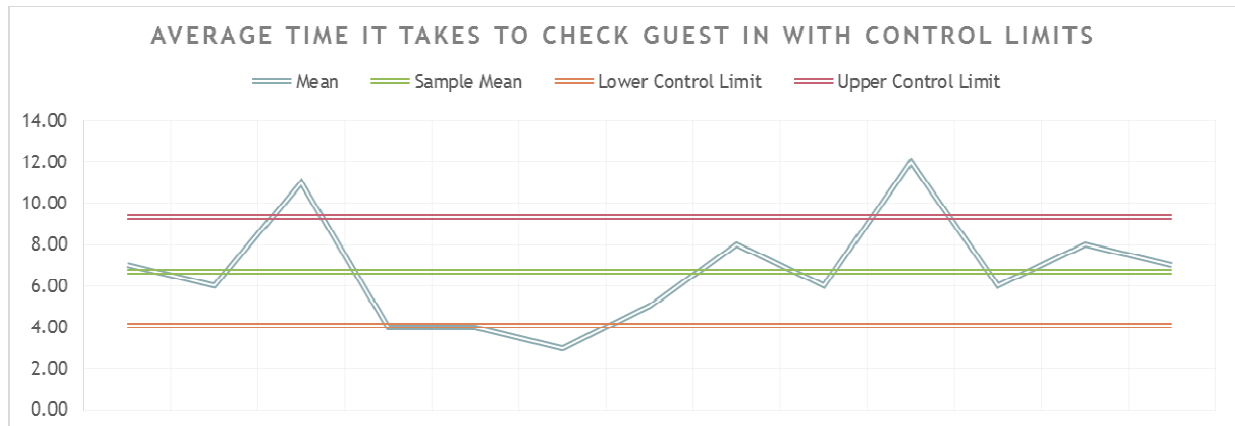


Figure 3.6: Control chart of the average time it takes to check a guest in March – Jun 2014.

By comparing Figure 3.6 with Table 3.23 we can conclude that there are a few outliers in the data range. The time it takes to check a guest in should be between the controlling limits 10 min and not sooner than 4 minutes. The statistical analysis of figure 3.6 can be found in Appendix 3.

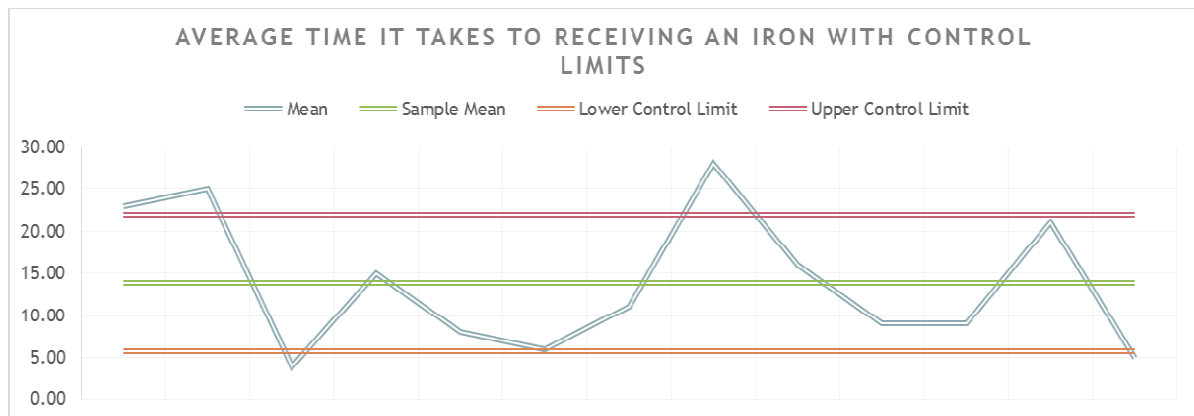


Figure 3.7: Control chart of the average time it takes to receive an iron in March – Jun 2014.

According to Figure 14 and Table 25, the time it took to receive an iron varied between 4 to 28 minutes. The time it took was far too long thus it caused complaints when a guest needed an iron urgently in the mornings. According to the statistical analysis in Appendix 3, the sample mean is 13.85 minutes and the standard deviation is 8.12 minutes. The variance between the samples was too high.

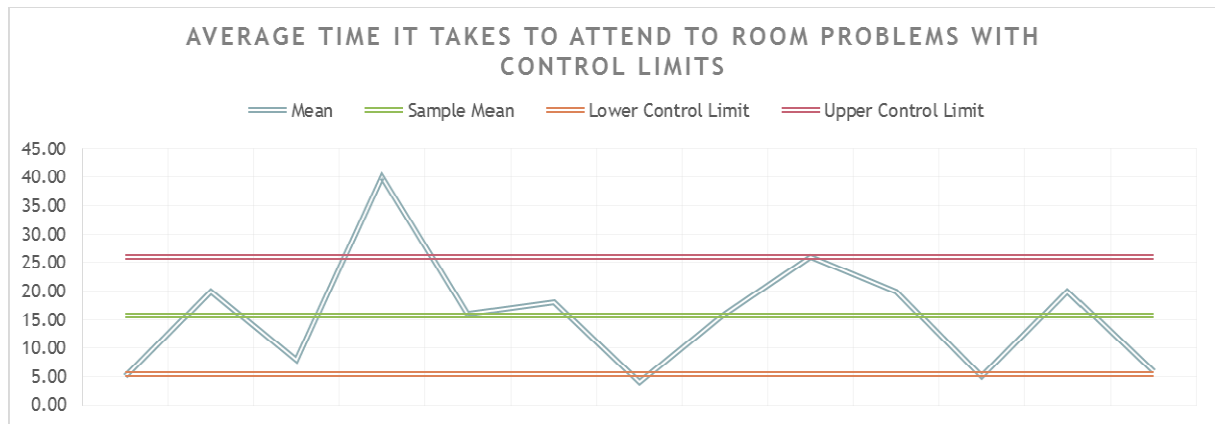


Figure 3.8: Control chart of the average time it takes to attend to room problems March – Jun 2014.

By comparing the data from Table 3.23 and Figure 3.8, the sample times it took to attend to a guest's needs varies between 4 and 40 minutes. This is far too long for a guest to wait if he/she requires urgent assistance.

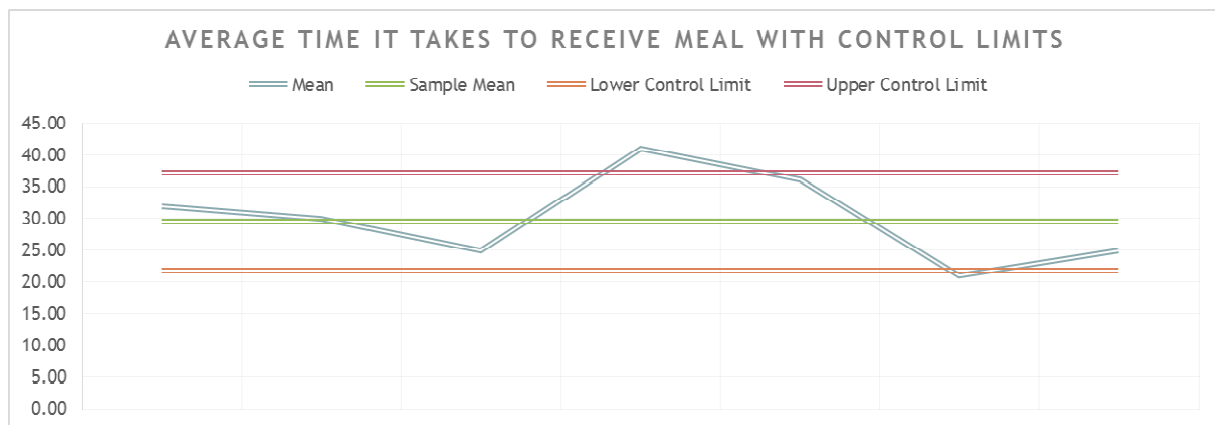


Figure 3.9: Control chart of the average time it takes to receive a meal March – Jun 2014.

The general time norm for a guest to receive ordered food is 20 minutes. According to Figure 3.9 and Table 3.23, only one guest, out of a sample of 11 guests, received ordered food within the required 20 minutes.

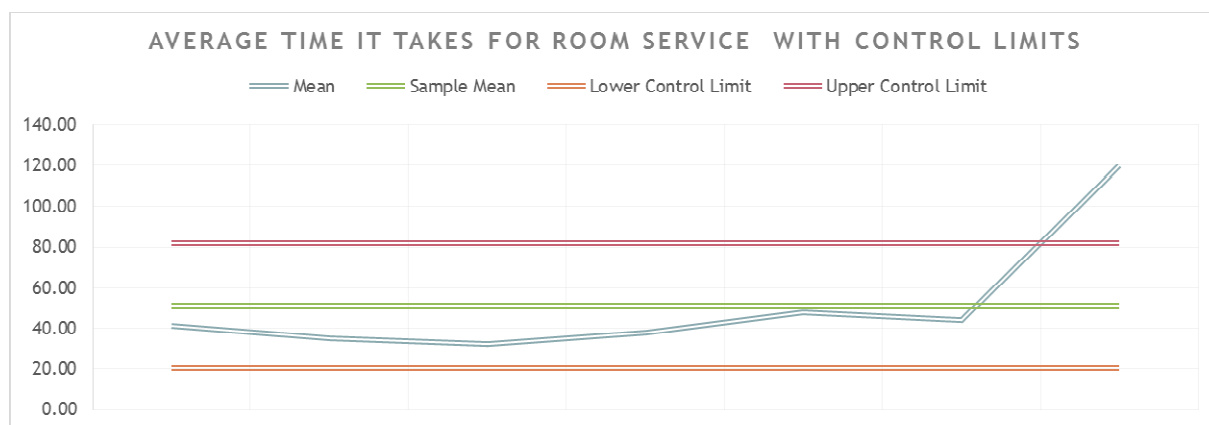


Figure 3.10: Control chart of the average time it takes for room service March – Jun 2014.

According to Figure 3.10, the time it took for guests to receive their room service, was consistently too long. The only outlier was the last sample that took 120 minutes because the waiter forgot to punch the order in. Almost all the above areas related to the time it took for guests to receive the required service, could improve to maximise customer satisfaction.

Monthly management statements and system reports. By making use of management reports and statements, the management wanted to measure the effectiveness of changing certain items in a room.

In 2009 the hotel had built an additional 20 rooms. These rooms were more spacious and luxurious and they were called executive rooms. The problem was that these rooms had 2 three-quarter beds in while the standard rooms had 2 double beds, yet the executive rooms were priced higher per room night. Guests complained about the small beds in the rooms, and started to prefer standard rooms.

To decrease the amount of complaints management decided to join the 2 three-quarter beds and convert it into a super king sized bed. See Appendix 2 for images before and after. Table 3.24 is a summary of the total cost incurred to improve the executive rooms.

Item	Unit Price in ZAR	Quantity	Total Cost in ZAR
Scatter Cushions	50	60	3,000.00
Mattress Joiners	1100	20	22,000.00
Super King Size Duvet Covers	185.95	22	4,090.90
Super King Size Duvet Inners	430.95	22	9,480.90
Sheets	113.40	44	4,989.60
			43,561.40

Table 3.24: Upgrading cost summary.

In total it cost the hotel R43,561.40to upgrade the 20 executive rooms and have additional covers, inners and sheets in case of an emergency. Tables3.25 to 3.28below is an analysis of the difference in room occupancy and the effect on revenue, within the first year of improvements made, compared to the previous year.

	Sep-12	Sep-11	Oct-12	Oct-11	Nov-12	Nov-11	After	Before	Difference
Rooms Occupied	285	166	164	172	308	211	757	549	208
	Dec-12	Dec-11	Jan-13	Jan-12	Feb-13	Feb-12			
Rooms Occupied	106	136	149	54	215	226	470	416	54
	Mar-13	Mar-12	Apr-13	Apr-12	May-13	May-12			
Rooms Occupied	251	222	276	79	296	189	823	490	333
	Jun-13	Jun-12	Jul-13	Jul-12	Aug-13	Aug-12			
Rooms Occupied	250	138	198	236	228	238	676	612	64
							2726	2067	659

Table 3.25:Executive room occupancy from Sep 2011 to Aug 2012.

According to Table 3.25, the room occupancy increased by 659 rooms during the year after improvementshad been made. The table divided the months into 4 quarters. December to February were normally less volatile months because the hotel's market segments are primarily government and corporate market driven, which decreased their activities during this period.

	Sep-12	Sep-11	Oct-12	Oct-11	Nov-12	Nov-11	After	Before	Difference
% Rooms Occupied	47.50	27.67	26.45	27.74	51.33	35.17	41.76	30.19	
	Dec-12	Dec-11	Jan-13	Jan-12	Feb-13	Feb-12			
% Rooms Occupied	17.10	21.94	24.03	8.71	38.39	38.97	26.51	23.21	
	Mar-13	Mar-12	Apr-13	Apr-12	May-13	May-12			
% Rooms Occupied	40.48	35.81	46.00	13.17	47.74	30.48	44.74	26.49	
	Jun-13	Jun-12	Jul-13	Jul-12	Aug-13	Aug-12			
% Rooms Occupied	41.67	23.00	31.94	38.06	36.77	38.39	36.79	33.15	
							37.45	28.26	9.19

Table 3.26: Executive room occupancy: % from Sep 2011 to Aug 2012.

The percentage of occupancy for the executive rooms had also increased by 9.19% within a year, according to Table 3.26. This indicated that the new executive rooms are preferred by the market and increased the amount of guests sleeping in these rooms.

	Sep-12	Sep-11	Oct-12	Oct-11	Nov-12	Nov-11	After	Before	Difference
Average Daily Rate	621.74	583.62	644.52	625.33	630.40	636.42	632.22	615.12	17.10
	Dec-12	Dec-11	Jan-13	Jan-12	Feb-13	Feb-12			
Average Daily Rate	625.58	674.59	735.19	595.60	658.06	779.54	672.94	683.24	-10.30
	Mar-13	Mar-12	Apr-13	Apr-12	May-13	May-12			
Average Daily Rate	690.72	589.15	668.53	608.74	740.67	717.18	699.97	638.36	61.62
	Jun-13	Jun-12	Jul-13	Jul-12	Aug-13	Aug-12			
Average Daily Rate	666.38	341.91	661.07	496.75	732.76	655.66	686.74	498.11	188.63
							672.97	608.71	64.26

Table 3.27: Average daily rate summary from Sep 2011 to Aug 2012.

The Average Daily Rate (ADR) charged per room, excluding vat, also increased with R64.26, according to Table 3.27. This means that the guests were willing to pay more for the rooms.

	Sep-12	Sep-11	Oct-12	Oct-11	Nov-12	Nov-11	After	Before	Difference
Total Revenue	177,284.79	96,881.41	105,789.79	107,583.38	194,252.34	134,258.19	477,326.92	338,722.98	138,603.94
	Dec-12	Dec-11	Jan-13	Jan-12	Feb-13	Feb-12			
Total Revenue	66,311.79	91,744.86	109,640.25	32,162.46	141,647.67	176,176.99	317,599.71	300,084.31	17,515.40
	Mar-13	Mar-12	Apr-13	Apr-12	May-13	May-12			
Total Revenue	173,927.37	130,800.75	184,962.12	48,195.96	222,391.00	135,547.84	581,280.49	314,544.55	266,735.94
	Jun-13	Jun-12	Jul-13	Jul-12	Aug-13	Aug-12			
Total Revenue	167,217.55	47,184.12	131,007.97	117,453.76	168,500.76	156,048.12	466,726.28	320,686.00	146,040.28
							1,842,933.40	1,274,037.84	568,895.56

Table 3.28: Total revenue summary from Sep 2011 to Aug 2012.

According to Table 3.28, the total increase in revenue for the year, after upgrading the executive rooms, was R568895.56. The revenue growth within the first month of improvements was (R177284.79 - R96881.41) R80403.38. This means that the improvement cost of R43561.40 in Table 3.24 was recovered within the first month it after it was upgraded.

The analyses of the increase could have been due to an improvement in all the room categories and we have to measure the income received from all 91 rooms

during Financial Year (FY) 2011, Financial Year 2012 and Financial Year 2013. Protea Hotel Klerksdorp's financial year stretches from the 1st of March to the end of February.

	FY 2011	Variance	FY 2012	Difference
TOTAL REVENUE	8,115,562.62	13.44%	9,206,255.88	1,090,693.26
Occupancy %	39.33%	8.08%	42.51%	3.18%
ADR	609.47	3.99%	633.79	24.32
Room Nights Sold	13,208	8.08%	14,275	1,067

Table 3.29: Protea Hotel Klerksdorp financial information FY2011 and FY2012.

Table 3.29 measured the difference and variance between FY2011 and FY2012. According to Table 3.29 occupancy only grew with 3.18% and the Total Room Revenue increased by 13.44% in FY2012 (R1090693,26).

	FY 2012	Variance	FY 2013	Difference
TOTAL REVENUE	9,206,255.88	14.79%	10,567,965.22	1,361,709.34
Occupancy %	42.51%	24.41%	52.89%	10.38%
ADR	633.79	-6.49%	592.68	-41.11
Room Nights Sold	14,275	24.41%	17,760	3,485

Table 3.30: Protea Hotel Klerksdorp financial information FY2012 and FY2013.

According to Table 3.30 the occupancy grew with 10.38%. This constituted a variance in change of 24.41%. The Total Room Revenue grew by 14.79%, adding an additional R1361707,34 to room sales. According to Table 3.30 the ADR decreased with 6.49% (R41.11). This means that the rooms were sold for less during FY2013.

	Before	Variance	After	Difference
TOTAL REVENUE	1274037.84	44.65%	1842933.4	568895.56
Occupancy %	28.26%	32.52%	37.45%	9.19%
ADR	608.71	10.56%	672.97	64.26
Room Nights Sold	2,067	32.52%	2,726	659

Table 3.31: Executive room financial information before and after renovation.

Table 3.31 analysed the growth of the executive rooms within a year of renovating them. The total room revenue received increased by 44.65% and the occupancy grew with 9.19%. The total occupancy growth from FY2011 to FY 2013 was 13.56% - an average of 6.78% per year, according to Tables 3.30 and 3.29.

By comparing Table 3.31 with Table 3.29 and Table 3.30, the conclusion could be drawn that the executive rooms grew more than all the rooms combined and that the improvements made had a positive effect on sales and occupancy.

3.3.3.2. Data analysed from Acacia Guest House

Monthly management reports and statements. Acacia's gross marginal profit fluctuated dramatically in the past. The months that were analysed to find an average variance was March, April, and May. Tables 3.32 – 3.34 below were part of a departmental financial breakdown to evaluate each department's contribution separately. Tables 3.32 – 3.34 were only focused on the restaurant that served breakfast only.

		Acacia Restaurant			Mar-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
Breakfast Income		20902	15000	9658	15000	9658
Min:	Cost of Sales	2744	5250	4574	5250	4574
	Gross Profit %	87	65	53	65	53
Gross Profit		18158	9750.00	5084	9750	5084

Table 3.32: Breakfast income for March 2014.

Table 3.32 was a section of the financial managerial report in Appendix 4 on the restaurant department at Acacia Guest House. March showed a Gross Profit Percentage (GP%) of 53%. The goal was to achieve a GP% of 65%.

		Acacia Restaurant			Apr-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast Income	31209	13000	1158	28000	10816
Min:	Cost of Sales	6607	4550	1770	9800	6344
	Gross Profit %	79	65	-53	65	41
	Gross Profit	24602	8450.00	-612	18200	4472

Table 3.33: Breakfast income for April 2014.

In April the food cost increased dramatically according to Table 3.33- the cost of sales was R1770 and the total income for breakfast was R1158. This could mean that the restaurant either bought very expensive stock, was under-pricing its breakfasts, or that theft or wastage was occurring.

		Acacia Restaurant			May-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast Income	51373	15750	6940	43750	17756
Min:	Cost of Sales	16455	5513	4620	15313	10964
	Gross Profit %	68	65	33	65	38
	Gross Profit	34918	10237.50	2321	28438	6792

Table 3.34: Breakfast income for May 2014.

In May the Gross Profit Percentage increased again to 33%, but it was 32% short from the target of 65%. According to Table 3.34 Acacia's Cumulative GP% for the Financial Year ending February 2015, was only 38%. Acacia's restaurant also made a cumulative loss for the department according to Appendix 4.

3.3.4. Implementation (I) phase

In this phase, the key defects identified were improved and the improvements were implemented. To test the effectiveness of the improvements made, the management team implemented the changes between March and July 2014, stopped with the project during August and September and restarted the project in October 2014 again. The idea behind this approach was to implement the improvements, measure the months during implementation and after stopping, in order to find out what effect the Six Sigma project had on the hotel.

3.3.4.1. Improvements implemented at Protea Hotel Klerksdorp

The following changes were made to improve key problem areas with a high defect rate:

- **Unfriendly staff:** The hotel staff felt demotivated and frustrated when guests complained to them. Management decided to include all staff members in the Six Sigma projects and have a team building day to communicate with staff members and include their ideas in the change process. The idea was to motivate staff members and to include their opinions in the decision making process.
- **Reception not answering internal calls from the rooms:** When investigating the problem, management realised that guests were dialling extension 9, because this was the number provided for reception in the guest folders in the rooms. The problem was that extension 9 was a phone in the back office that rang very soft whilst the receptionists were standing in front to assist guests. The solution implemented was to print a sticker with the reception's correct extension numbers 133-135 and stick it onto the room phones.
- **Staff taking long to assist with guest queries when contacting reception:** When investigating the problem, management realised that almost all the complaints were made during certain time periods of the day. Early morning between 6am and 8am guests requested irons and during the evenings from

6pm to 9pm when guests requested extra amenities and needed assistance with their air conditioners and televisions. The problem was that almost all the staff and management works from 8 to 5 and sometimes it is only the one or two receptionists on duty who had to assist the guests checking in. The solution was to change the shifts of the maintenance men, one from 6am to 3pm and the other one from 2pm to 9pm.

This enabled reception staff to attend to the guests while the two maintenance men to attend to maintenance during the day and during peak time assist by being porters and resolving problems in the rooms.

- **Guest profile errors.** Most of the guests who arrived at the hotel made bookings via a travel agent. Occasionally the hotel did not have a voucher yet on the guest's arrival, although a reservation had been made. This halted the check-in process while the guests had to wait for the hotel to first receive a voucher before they could be checked in. Another problem was caused by incorrect items that were charged to the guest's account before check-out.

The improvement made was to draw up a list of tasks for each shift. The task added to the duty list of the morning shift in reception, was to follow up on the arrival vouchers during the day while the night shift had to view all the previous day's guest's billing profiles and correct billing errors before the guests checked out in the morning. This became a Key Performance Area (KPA) for front office staff members.

- **Air-conditioning problems.** When analysing the complaints concerning the air-conditioners from previous years, the majority of complaints were received during the winter.

The improvement made was that during the winter months May, June and July 2014 the housekeeping staff members would turn on the room air-conditioning an hour before guests normally arrived, to heat up the room.

- **Bathroom maintenance.** The majority of the complaints from Hot or Not's, were concerning the bathroom and bathroom maintenance. When analysed, the biggest problem for guests were the water flow from the small water saving showerheads and the water temperature fluctuating during showers. When doing an inspection in the rooms where guests complained about the showerheads, management realised the showerheads were never adjusted to its full capacity.

The improvements made was that the plumbing company ran various tests on the boiler and the housekeeping staff added 'adjusting the showerheads' to their inspection lists when inspecting the rooms. The plumbing company eventually found at the end of September 2014 that the boiler had a defective circulating pump and pressure control valves.

- **Television (TV) problems.** The majority of the complaints were that certain TV channels were snowy or showing an error report. Upon investigating it, it turned out that the housekeeping staff were monitoring the TV channels before they finalised their rooms and marked it as 'inspected' on the system. Management however found that housekeeping could not tell the difference between the different channels, because they did not have cable TV at home. Thus they never reported faulty TV channels because they could not determine which channels were faulty.

After a quick training session, the housekeeping staff could tell the difference between the channels and report problems.

- **General problems in the rooms.** Problems such as lights, telephones, hairdryers, small maintenance problems, etc. could be picked up before the guests checked into the rooms. Check lists were provided to the housekeeping staff members to inspect a room before marking it as inspected on the property management system (PMS).
- **Food complaints and restaurant service.** Because the restaurant was an outsourced service company, the hotel management did not have a direct effect

on improving the restaurant, but rather an indirect effect by increasing meetings between the management of the hotel and the restaurant.

HOT OR NOT			Mar 2014								
0	1	2	3	4	5	6	7	8	9	10	
0	2	1	1	3	2	7	25	23	26	38	128
0.00%	1.56%	0.78%	0.78%	2.34%	1.56%	5.47%	19.53%	17.97%	20.31%	29.69%	100.00%
NOT HOT =					7.03%	HOT =		92.97%			

HOT OR NOT			Apr 2014								
0	1	2	3	4	5	6	7	8	9	10	
0	0	1	4	2	4	3	7	24	40	47	132
0.00%	0.00%	0.76%	3.03%	1.52%	3.03%	2.27%	5.30%	18.18%	30.30%	35.61%	100.00%
NOT HOT =					8.33%	HOT =		91.67%			

HOT OR NOT			May 2014								
0	1	2	3	4	5	6	7	8	9	10	
4	1	3	1	1	3	8	17	22	25	37	122
3.28%	0.82%	2.46%	0.82%	0.82%	2.46%	6.56%	13.93%	18.03%	20.49%	30.33%	100.00%
NOT HOT =					10.66%	HOT =		89.34%			

Table 3.35: Hot or Not score summary for March 2014 – May 2014.

By measuring the Hot or Not scores from March – May 2014 after implementation of above mentioned changes, the measurements in Table 3.35 reflected that guest satisfaction levels were very high. When comparing Table 12 with Table 3.35 it was noticeable that guest satisfaction levels increased from 40% of guests commenting that the hotel was hot to 92%; 91%, and 89% of guests commenting that the hotel was hot. The amount of Hot or Not cards that were completed increased from 219 during the entire year of 2013 (Table 9) to 382 in only 3 months, according to Table 3.35. This meant that the data received were more accurate because more guests were commenting about what they experienced during their stay.

HOT OR NOT						Jun 2014											
0	1	2	3	4	5	6	7	8	9	10							
3	1	4	4	2	5	8	12	17	18	32							106
2.83%	0.94%	3.77%	3.77%	1.89%	4.72%	7.55%	11.32%	16.04%	16.98%	30.19%							100.00%
NOT HOT =						17.92%						HOT =					
HOT OR NOT						Jul 2014											
0	1	2	3	4	5	6	7	8	9	10							
1	1	1	4	0	2	4	13	11	13	23							73
1.37%	1.37%	1.37%	5.48%	0.00%	2.74%	5.48%	17.81%	15.07%	17.81%	31.51%							100.00%
NOT HOT =						12.33%						HOT =					

Table 3.36: Hot or Not score summary for June 2014 and July 2014.

June and July were normally the months that the hotel's complaints increased because of the cold weather. In Table 3.36 the satisfaction levels decreased slightly with 82% scoring the hotel as Hot in June 2014, and 87% of guests scoring the hotel as Hot in July 2014. This is a significant improvement compared to previous winters.

Service		Mar-14							
Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad		
Frequency	1	5	43	1	0	1	5	3	
Total	6		44		1		8		
	16.67%	83.33%	97.73%	2.27%	0.00%	100.00%	62.50%	37.50%	

Service		Apr-14							
Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad		
Frequency	15	6	71	3	0	0	9	1	
Total	21		74		0		10		
	71.43%	28.57%	95.95%	4.05%	0.00%	0.00%	90.00%	10.00%	

Service		May-14							
Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad		
Frequency	9	4	54	0	0	0	7	1	
Total	13		54		0		8		
	69.23%	30.77%	100.00%	0.00%	0.00%	0.00%	87.50%	12.50%	

Table 3.37: Service related comments for March 2014 – May 2014.

Table 3.37 summarised all the good and bad comments regarding service received from the reception, the restaurant, housekeeping and security from March to May 2014.

Reception received the most comments during this period and it was primarily favourable comments. During March, reception received 43 good comments out of 44 comments, while 97.7% of the comments were favourable. During April, 95.95% of all comments about reception were good and reception scored a 100% score rate in May 2014. The conclusion could be made that the effort to motivate the staff increased their drive to satisfy the guests in the hotel. Not one complaint was received during this period concerning reception not answering the phones when internal calls were made for assistance. Only 2 guests out of the 382 that completed Hot or Not cards, during this period, complained about billing errors. Another guest complained that reception did not provide him with proper directions to the hotel over the phone.

The restaurant's complaints percentage was still very high. It started to decrease from March, but the outsourced company had to improve more. By comparing Table 3.37 with Table 3.7 the housekeeping service score also increased from 2013.

	Service		Jun-14					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	6	9	42	3	0	1	3	1
Total	15		45		1		4	
	40.00%	60.00%	93.33%	6.67%	0.00%	100.00%	75.00%	25.00%
	Service		Jul-14					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	3	12	28	0	0	0	3	1
Total	15		28		0		4	
	20.00%	80.00%	100.00%	0.00%	0.00%	0.00%	75.00%	25.00%

Table 3.38: Service related comments for June 2014 and July 2014.

During winter the service levels of reception were still positively commented on by the guests. The restaurant's service started to decline again. Despite numerous meetings between the management of the hotel and the management of the outsourced

restaurant, the Six Sigma program did not have a direct effect on the operations of the restaurant.

Problem Areas										
	March		April		May		Jun		Jul	
	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev
Restaurant cutlery and appliance	2	11.76%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Restaurant Maintenance	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
linin, towels	1	5.88%	0	0.00%	2	10.53%	1	2.33%	1	6.67%
Cleanliness	2	11.76%	1	2.86%	1	5.26%	4	9.30%	2	13.33%
Food	3	17.65%	5	14.29%	0	0.00%	4	9.30%	3	20.00%
Aircon	0	0.00%	4	11.43%	3	15.79%	7	16.28%	3	20.00%
Bathroom Maintenance	5	29.41%	16	45.71%	8	42.11%	14	32.56%	4	26.67%
TV	1	5.88%	1	2.86%	2	10.53%	3	6.98%	0	0.00%
Kettle	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Phone	0	0.00%	2	5.71%	0	0.00%	1	2.33%	0	0.00%
Lights	1	5.88%	2	5.71%	2	10.53%	3	6.98%	0	0.00%
Irons	0	0.00%	1	2.86%	0	0.00%	0	0.00%	0	0.00%
Plugs	2	11.76%	0	0.00%	0	0.00%	4	9.30%	0	0.00%
Beds	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Room Safes	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Amenities	0	0.00%	2	5.71%	0	0.00%	2	4.65%	0	0.00%
Wifi	0	0.00%	1	2.86%	1	5.26%	0	0.00%	2	13.33%
	17	100.00%	35	100.00%	19	100.00%	43	100.00%	15	100.00%

Table 3.39: Problem areas March 2014 – July 2014.

According to Table 3.39, the majority of the complaints were still related to bathroom maintenance, meals and the quality of the food and the air-conditioning. During June and July complaints decreased concerning the air-conditioning, compared to previous years. The fact that the air-conditioning was turned on an hour before a guest's arrival during winter, could have had an effect on the decreased complaints.

Complaints regarding television channels also decreased compared to previous years. The check system that was implemented, where housekeeping inspected the television channels before guests' arrival, could be the reason that complaints decreased.

3.3.4.2. Improvements implemented at Acacia Guest House

To improve the gross profit percentage at Acacia Guest House meant that either the breakfast price had to be increased or the cost of the stock had to decrease, or both. In order to achieve the required gross profit percentage, the guesthouse implemented the following improvements:

- The stock prices on the stock sheets were updated after every large purchase of ingredients and supplies used for the breakfasts in the mornings. This enabled management to do up-to-date cost calculations during the month.
- Management started to manage their purchases better and changed their suppliers on certain high volume items, such as meat, coffee and eggs.
- They sold their leftover items at the end of the week to staff members to avoid wastage after the guests checked out.
- The restaurant slightly increased their breakfast price to a price range where the guesthouse was still competitive compared to the competitors surrounding the establishment.
- The guesthouse marketed their breakfast pack more to guests who checked out earlier in the mornings before the restaurant opened. This enabled the guesthouse to increase the volume of breakfasts that could be sold.

3.3.4.3. Analyses of the effect the improvements had

The management of Protea Hotel Klerksdorp decided to halt their Six Sigma projects from the beginning of August to the end of September and restart the projects again in October. The reason was that management wanted to monitor the effectiveness of the Six Sigma projects when the efforts were not constantly maintained and to conclude what effect the Six Sigma project had on the quality of services and products.

HOT OR NOT		Aug 2014										
0	1	2	3	4	5	6	7	8	9	10		
9	5	8	5	9	7	13	18	18	24	31	147	
6.12%	3.40%	5.44%	3.40%	6.12%	4.76%	8.84%	12.24%	12.24%	16.33%	21.09%	100.00%	
NOT HOT =					29.25%	HOT =		70.75%				

HOT OR NOT		Sep 2014										
0	1	2	3	4	5	6	7	8	9	10		
7	2	4	1	4	6	7	8	6	7	10	62	
11.29%	3.23%	6.45%	1.61%	6.45%	9.68%	11.29%	12.90%	9.68%	11.29%	16.13%	100.00%	
NOT HOT =					38.71%	HOT =		61.29%				

HOT OR NOT		Oct 2014										
0	1	2	3	4	5	6	7	8	9	10		
4	0	2	1	2	1	1	8	13	13	20	65	
6.15%	0.00%	3.08%	1.54%	3.08%	1.54%	1.54%	12.31%	20.00%	20.00%	30.77%	100.00%	
NOT HOT =					15.38%	HOT =		84.62%				

Table 3.40: Hot or Not score summary for August 2014 – October 2014.

The guest satisfaction levels decreased during the two months the Six Sigma project was halted according to Table 3.40. In August 2014 only 70.75% of guests scored the hotel as Hot compared to 87.67% in July 2014 when the Six Sigma project was still running, according to Table 3.36 and Table 3.40 above. In the second month that the project was stopped, the guest satisfaction levels decreased even more with only 61.29% of guests scoring the hotel as Hot, according to Table 3.40.

In October 2014 the Six Sigma project was continued again and the guest satisfaction levels increased from 61.29% of guests rating the hotel as Hot, to 84.62% of guests rating the hotel as Hot, according to Table 3.40. The conclusion could be made that the Six Sigma project had a positive influence on guest satisfaction.

	Service		Aug-14						
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad	
Frequency	4	16	28	3	0	0	3	4	
Total	20		31		0		7		
	20.00%	80.00%	90.32%	9.68%	0.00%	0.00%	42.86%	57.14%	

	Service		Sep-14					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	3	13	11	2	0	0	4	0
Total	16		13		0		4	
	18.75%	81.25%	84.62%	15.38%	0.00%	0.00%	100.00%	0.00%

	Service		Oct-14					
	Restaurant Good	Restaurant Bad	Reception Good	Reception Bad	Security good	Security Bad	Housekeeping Good	Housekeeping Bad
Frequency	7	4	31	1	0	0	5	2
Total	11		32		0		7	
	63.64%	36.36%	96.88%	3.13%	0.00%	0.00%	71.43%	28.57%

Table 3.41: Service related comments for August 2014 to October 2014.

During August and September staff meetings also decreased because the Six Sigma project was stopped and less information was communicated to staff members. According to Table 3.41, fewer guests commented positively on reception's service. During August 91.67% of guests commented positively on reception's service while 84.62% commented positively on reception's service in September, according to Table 3.41. Complaints about billing errors and staff ignoring requests increased again during August and September.

During the first 20 days of October, 31 guests commented positively on reception's service. Reception only received one complaint about an iron that took too long to be delivered to a guest's room. No complaints were received concerning billing errors or unfriendly staff during the first 20 days of October.

During October, the outsourced restaurant's negative comments decreased from 80% and 81.25% in August and September respectively, to 36.36% during October. Meetings between the restaurant management and the hotel's management team increased again during October.

	Aug		Sep		Oct	
	Feq	Std Dev	Feq	Std Dev	Feq	Std Dev
Restaurant cutlery and appliance	0	0.00%	0	0.00%	0	0.00%
Restaurant Maintenance	0	0.00%	0	0.00%	0	0.00%
linin, towels	0	0.00%	0	0.00%	1	8.33%
Cleanliness	2	5.71%	1	3.45%	1	8.33%
Food	7	20.00%	7	24.14%	2	16.67%
Aircon	0	0.00%	0	0.00%	1	8.33%
Bathroom Maintenance	16	45.71%	15	51.72%	2	16.67%
TV	1	2.86%	3	10.34%	2	16.67%
Kettle	0	0.00%	0	0.00%	0	0.00%
Phone	1	2.86%	0	0.00%	0	0.00%
Lights	1	2.86%	1	3.45%	1	8.33%
Irons	0	0.00%	0	0.00%	0	0.00%
Plugs	3	8.57%	2	6.90%	1	8.33%
Beds	2	5.71%	0	0.00%	0	0.00%
Room Safes	0	0.00%	0	0.00%	1	8.33%
Amenities	1	2.86%	0	0.00%	0	0.00%
Wifi	1	2.86%	0	0.00%	0	0.00%
	35	100.00%	29	100.00%	12	100.00%

Table 3.42: Problem areas for August 2014 to October 2014.

In October 2014, the hotel's boilers with the defective circulating pump and pressure control valves were replaced, and bathroom maintenance problems decreased from 45% and 51% of all the physical problem areas complained about, to 16.67% of the complaints, according to Table 3.42 The amount of physical problems complained about decreased from 35 in August and 29 in September to only 12 in October 2014. The complaints about the restaurant's food also decreased in October.

At Acacia Guest House the improvements made could only be measured for the month of June, because of accounting related errors that still needed to be resolved during the time the research was conducted.

		Acacia Restaurant			Jun-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast Income	81353	18950	15789	62700	33546
Min:	Cost of Sales	27271	6633	4293	21946	15257
	Gross Profit %	66	65	73	65	55
	Gross Profit	54082	12317.00	11497	40755	18289

Table 3.43: Breackfast income for June 2014.

In the month of June the Gross Profit percentage increased from 33% in May to 73% in June according to Table 3.43 and Table 3.34 above. The Gross Profit Percentage improved by 40% and it increased 8% higher than the expected 65%. This indicated that the changes implemented at Acacia improved the Gross Profit Percentage of the restaurant, but the effect that the Six Sigma project had on the months to follow was still unknown.

3.4. Control (C) phase

The aim of the Control phase is to avoid potential problems and maintain improvements.

In October 2014 the management of the Protea Hotel Klerksdorp implemented mechanisms to keep maintaining and improving on the quality of service and products provided for their guests. Control mechanisms that were instituted were:

- Monthly audits done by management on the rooms and service standards, based on the criteria of head office's Quality Assessment.
- Revised training manuals for new staff members, with examples of scenarios found from implementing Six Sigma principles.
- Daily check lists for all departments.

- Daily meetings scheduled and weekly management meetings reporting on progress made with the Six Sigma projects in each department.
- Weekly scheduled meetings between restaurant management and hotel management.
- Input sheets were created to record the data received from the Six Sigma project.

3.5. Financial performance compared to Hot or Not comments received

Table 3.44 compares the financial performance of Protea Hotel Klerksdorp with Hot or Not scores and complaints of defects/problems listed under problem areas.

	Mar-14			
	Last Year	Actual	Budget	Variance
Acomodation	1,052,088	1,005,877	1,049,950	-4.59%
Roomnight sold	1,643	1,407	1,465	-16.77%
ADR	640.35	714.91	716.69	11.64%
Hot or Not score	NOT HOT =	7.03%	HOT =	92.97%
Problem areas	17			

	Apr-14			
	Last Year	Actual	Budget	Variance
Acomodation	891,371	898,176	945,100	0.07%
Roomnight sold	1,432	1,282	1,320	-11.70%
ADR	622.47	700.61	715.98	12.55%
Hot or Not score	NOT HOT =	8.33%	HOT =	91.67%
Problem areas	35			

	May-14			
	Last Year	Actual	Budget	Variance
Acomodation	1,134,694	1,056,382	1,140,650	-7.41%
Roomnight sold	1,617	1,313	1,595	-23.15%
ADR	701.73	804.56	715.14	14.65%
Hot or Not score	NOT HOT =	10.66%	HOT =	89.94%
Problem areas	19			

	Jun-14			
	Last Year	Actual	Budget	Variance
Acomodation	1,010,321	955,650	1,066,300	-5.72%
Roomnight sold	1,512	1,373	1,495	-10.12%
ADR	668.20	696.03	713.24	4.16%
Hot or Not score	NOT HOT =	17.92%	HOT =	82.08%
Problem areas	43			

	Jul-14			
	Last Year	Actual	Budget	Variance
Acomodation	725,350	1,414,808	854,900	95.05%
Roomnight sold	1,195	2,011	1,201	68.28%
ADR	606.99	703.53	711.82	15.90%
Hot or Not score	NOT HOT =	12.33%	HOT =	87.67%
Problem areas	15			

Table 3.44: Protea Hotel Klerksdorp Financial performance March – July 2014.

During the period that the Six Sigma projects were implemented, there were no definite correlation between revenue generated and guests' satisfaction levels, according to Table 3.44. During June 2014 the average daily rate only increased by 4.16% and the guest satisfaction levels were at its lowest with 17.92% of guests scoring the hotel as Not Hot while guests complained 43 times about certain problem areas. This could mean that the staff was hesitant to charge a higher rate to a complaining guest.

	Aug-14			
	Last Year	Actual	Budget	Variance
Acomodation	963,731	1,139,118	1,064,150	18.19%
Roomnight sold	1,478	1,615	1,475	9.26%
ADR	652.05	705.34	721.46	8.17%
Hot or Not score	NOT HOT =	29.25%	HOT =	70.75%
Problem areas	35			

	Sep-14			
	Last Year	Actual	Budget	Variance
Acomodation	1,068,578	1,210,648	1,204,100	13.29%
Roomnight sold	1,828	1,640	1,670	-11.46%
ADR	584.56	738.20	721.02	26.28%
Hot or Not score	NOT HOT =	38.71%	HOT =	61.29%
Problem areas	29			

	Oct-14			
	Last Year	Actual	Budget	Variance
Acomodation	1,231,498	1,352,696	1,231,000	9.84%
Roomnight sold	1,895	1,888	1,705	-0.37%
ADR	649.87	716.47	721.99	10.24%
Hot or Not score	NOT HOT =	15.38%	HOT =	84.62%
Problem areas	12			

Table 3.45: Protea Hotel Klerksdorp Financial performance Aug – Oct 2014.

During the period the Six Sigma projects were stopped. According to Table 3.45, the revenue grew with 18% compared to the previous year in August. This means that there was no direct correlation between revenue growth and Six Sigma efforts during the month of August.

In September guest satisfaction levels were at its lowest, but the average daily rate increased by 26% compared to the previous year. This is in contrast with June's ADR decrease.

3.6. Chapter conclusion

The empirical research done on the two organisations in this chapter appears to have been effective. By using of the DMAIC, the Six Sigma methodology guided the hotel and guesthouse management teams to accurately set a goal and to measure it with Six Sigma tools, improve and achieve it.

The conclusion drawn is that the Six Sigma principles positively improved the two hospitality establishments. The results were quickly visible in the months the Six Sigma projects were implemented, and decreased its effectiveness visibly during the months the projects were stopped.

Chapter 4

Conclusions and recommendations

4.1. Introduction

This chapter describes the benefits Six Sigma had for the hospitality industry that was included in this study. The effect that Six Sigma had on Protea Hotel Klerksdorp and Acacia Guest House were concluded in the light of the empirical research that was done. Recommendations were made on improving the researched organisations' Six Sigma efforts.

4.2. The benefits of Six Sigma in the hospitality industry

In Chapter 2, research was done concerning Six Sigma projects in hospitality organisations like Starwood Hotels and The Westin Turnberry Resort. The conclusion drawn from the research was that establishments which implemented Six Sigma principles and projects, benefited by:

- Delivering higher quality service to their guests.
- Improving the quality of their facilities and products.
- Reducing operational costs.
- Increasing customer satisfaction and loyalty.
- Reducing waste in the companies.
- Increasing revenue and occupancy levels.
- Reducing the waiting time and turnaround time for guests.

All the above benefits established a strong competitive advantage for the companies over their competitors.

4.3. The effect Six Sigma had on Protea Hotel Klerksdorp

By making use of the DMAIC methodology, the problem areas Protea Hotel Klerksdorp faced were easily established and defined. The hotels management team set a goal to measurably improve the quality of their service, products and facilities.

The methods of measuring the defects in the hotel's operations were focused on guest feedback, the head office feedback and internal measurements on time factors constraining guests. By analysing the various measurements, the analyses phase concluded that certain key problem areas were found in the majority of the guests complaints from 2009 to October 2014. The head office Quality Assessment (QA) also concluded that there were defects in the same areas that guests complained about. The most frequent problem/defective areas were:

- Bathroom maintenance caused by water pressure and temperature controlling instruments at the hotel's boiler. Other bathroom maintenance issues were shower doors that were defective and drains that were blocked.
- Room related maintenance issues like the air-conditioning, televisions not working, lights and plugs not working in the rooms.
- Problems related to the restaurant's service and food. It was established that the restaurant was one of the key problem areas causing guests to complain and the hotel's head office to score the hotel less on its recent Quality Assessment.
- Service received from the front office (FO) of the hotel. The front office played a key role in receiving communication from guests. A fair amount of complaints came from the front office, but this department also received far more compliments than any other department in the hotel.
- Housekeeping cleanliness issues and failure to place amenities in the rooms. These defects were more common in the previous years at the hotel, but it still played a key role in effecting guest satisfaction levels.

The Six Sigma project established that the above mentioned defects and problems prohibited the hotel from achieving its goals. The improvement phase helped the hotel to minimise the above-mentioned defects by implementing certain change strategies.

The improvements made during the improvement phase of the Six Sigma projects had a visible impact on the feedback received from guests. The following conclusion could be drawn from the effect the Six Sigma projects had on Protea Hotel Klerksdorp:

- The bathroom maintenance problems were reduced. It was established through feedback received from guests during the month of October that the valves and pumps that were replaced at the boiler of the hotel reduced the amount of complaints received concerning bathroom maintenance.
- The front office service improved. During the months that the Six Sigma projects were implemented the service levels of the hotel improved and during the months the projects were stopped the service levels decreased. The Six Sigma project had a direct effect on the service received from the front office team.
- Restaurant complaints. The fact that the hotel management did not have direct control over the restaurant, reflected that the restaurant lagged in improving at the pace the hotel did. The meetings held with the management of the outsourced restaurant could have had the effect that the complaints received from the restaurant decreased in October 2014.
- Cleanliness. It could be concluded that the check lists that were implemented for housekeeping staff members to use, were effective in establishing that they needed training to improve. The check lists reduced the number of problems complained about during the month of October 2014.
- Guest satisfaction. The Hot or Not scores received from the guests during the months that the Six Sigma projects were implemented, were higher than the scores received during the months that the projects were stopped.

4.4. The effect Six Sigma had on Acacia Guest House

The goal that was defined by the management of Acacia Guest House was to improve their restaurant's Gross Profit Percentage and achieve a Gross Profit Percentage closer to the 65% budgeted.

The guesthouse improved its operations by reducing waste. The management controlled purchases and sold stock to the employees before it went to waste or had to be thrown away.

These improvements proved to be more profitable for the company because the guesthouse achieved a 73% Gross Profit Percentage on the breakfasts sold during the first month of implementing the Six Sigma improvements.

4.5. What conclusions could be drawn from the empirical research?

The conclusion drawn was that the implementation of Six Sigma principles measurably improved the organisations that were researched. Six Sigma helped the organisations to establish what the defects were and it constructively reduced the defects. This improved the quality of the services rendered to the guests at the hotel and it also improved the quality of the hotel's rooms and facilities. At the guesthouse, wastage was reduced to increase the profit that a struggling department made.

The empirical research enabled the hospitality industry to learn from the trials and errors of the researched establishments and implemented it in their organisations. This helped hospitality organisations to achieve a competitive advantage through improving their operations.

4.6. Recommendationsto theorganisations that were studied

The following recommendations could improve the effect the Six Sigma projects have on the hotel:

- The hotel could renovate their deluxe rooms in order to establish if it would have the same effect that it had on the executive rooms. This could mean that the occupancy could increase because of the deluxe room renovation, guest satisfaction could improve and the revenue that these room categories generate,could increase.
- The hotel management team should send a letter of demand to the owners of the outsourced restaurant to comply with the standards set by the hotel. This could have the effect that the outsourced company would be more determined to make use of the Six Sigma principles to improve.
- The hotel should continue with the Six Sigma projects and add additional projects after a while. According to the empirical research the effectiveness of the Six Sigma decreased when the project was not consistently implemented and controlled.

4.7. Have the study objectives been reached?

The primary objective was to establish whether the Six Sigma principles would have measurably improved hospitality establishments. This was witnessed in the effect the Six Sigma principles had on the two hospitality establishments,Protea Hotel Klerksdorp and Acacia Guest House. The Six Sigma projects resulted in measurable improvements that were analysed in Chapter 3. The primary objective was achieved in this study.

The secondary objectives were:

- To establish what tools and techniques would be appropriate for Six Sigma in the hospitality industry. The appropriate tools and techniques were established in

Chapter 2 of this study and certain tools and techniques were used in improving the researched organisations.

- To establish what research had been done on Six Sigma in the hospitality industry. Chapter 2.10 elaborated on the research done on the Starwood Hotel Group.
- To establish the effect that the implementation of selected Six Sigma tools and techniques could have on the researched hotel and guesthouse. In Chapter 3 the effect the implementation had, was described in detail. It was established that Six Sigma had a positive effect on improving the researched organisations.
- Identifying the financial benefits that implementing Six Sigma could have on hotels and guesthouses. Six Sigma reduced the costs of the restaurant's stock at Acacia Guest House and improved the Gross Profit Percentage for breakfast. At Protea Hotel Klerksdorp, the effect that renovating the executive rooms had on occupancy and revenue received, were established.

4.8. Final conclusion

The conclusions that were reached in this study were that Six Sigma is an effective method of improving a hospitality organisation. By making use of selective Six Sigma principles, an organisation can improve its quality of service and product quality. The organisation can also reduce its process waste.

This enabled a hospitality organisation to improve its competitiveness in its market and reduce its operational expenses. The Six Sigma projects are a long-term spinoff for the organisation implementing it. Even though the organisation implementing it cannot see immediate results regarding the quality that was improved, the company will experience improved results in the long-term. Guests will start referring the hospitality organisation and more guests will visit the organisation. The bottom line profit of the organisation will

also be positively affected in the long-term, because more guests will prefer the specific hospitality organisation.

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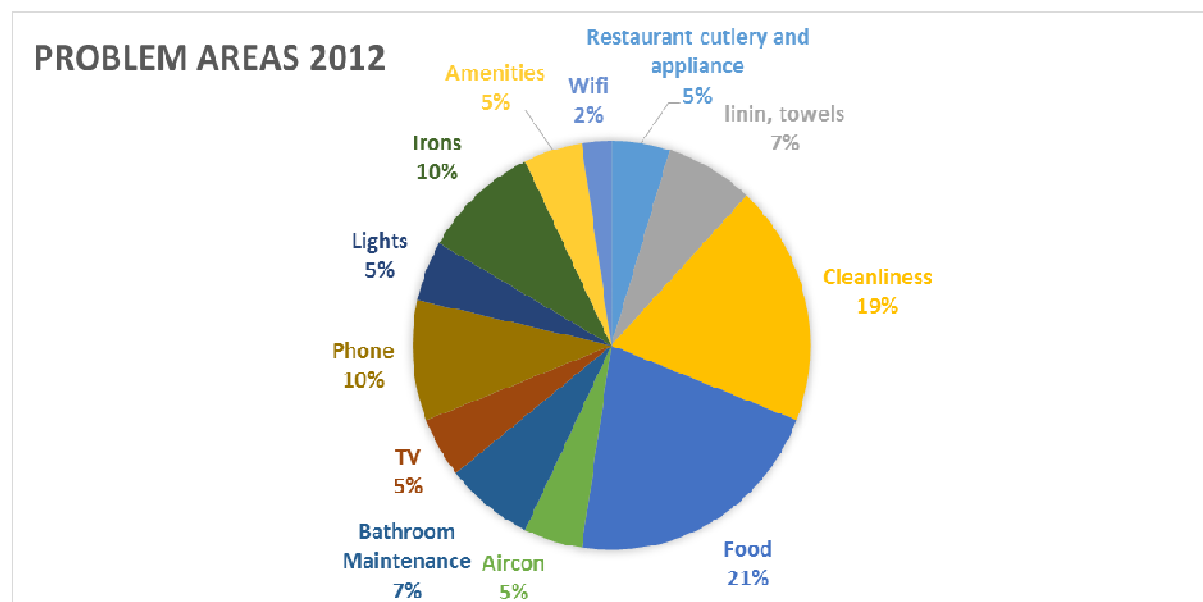
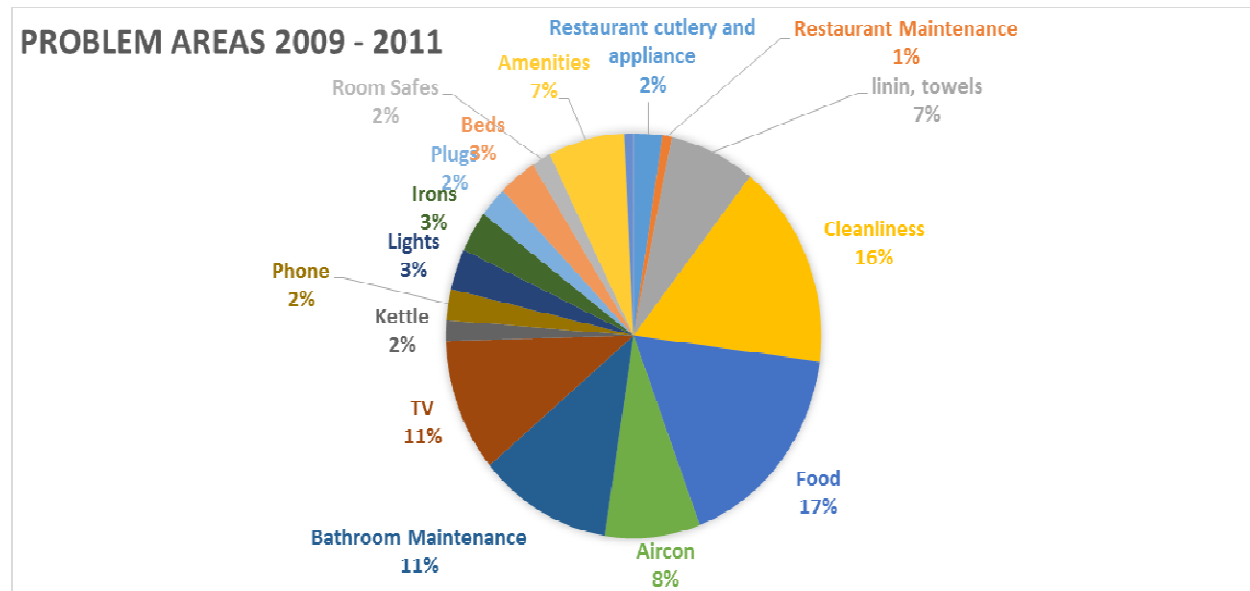
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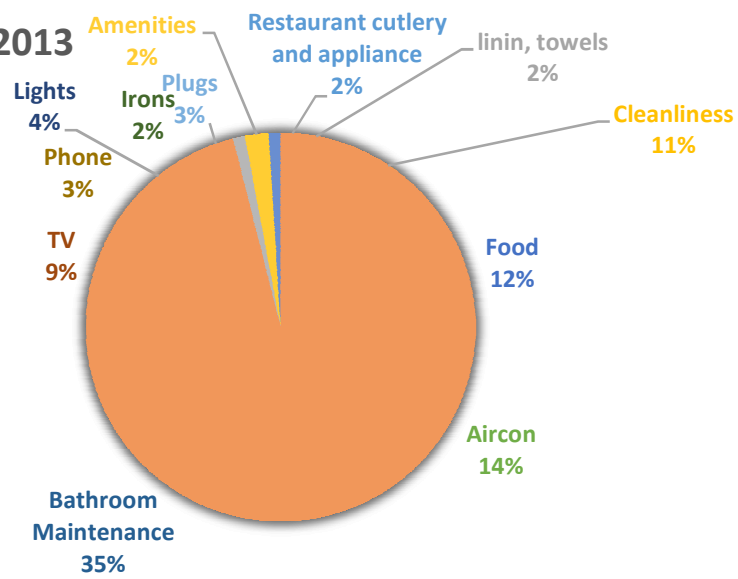
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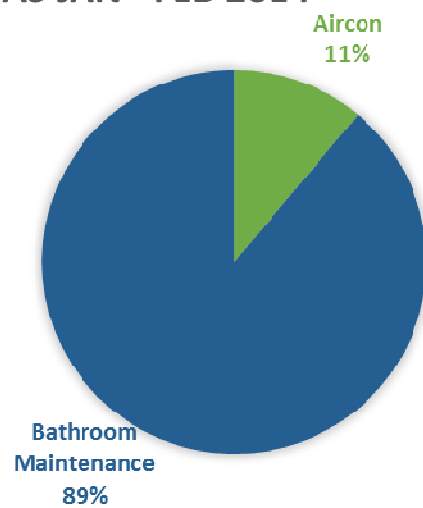
Appendix 1: Problem area summary from 2009 – October 2014



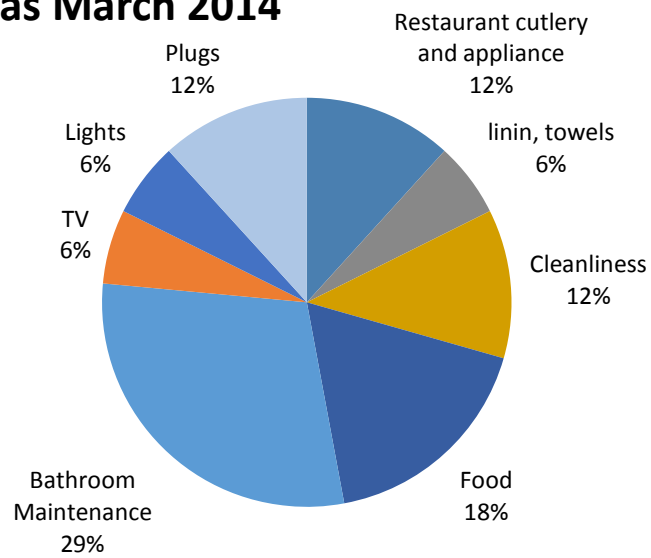
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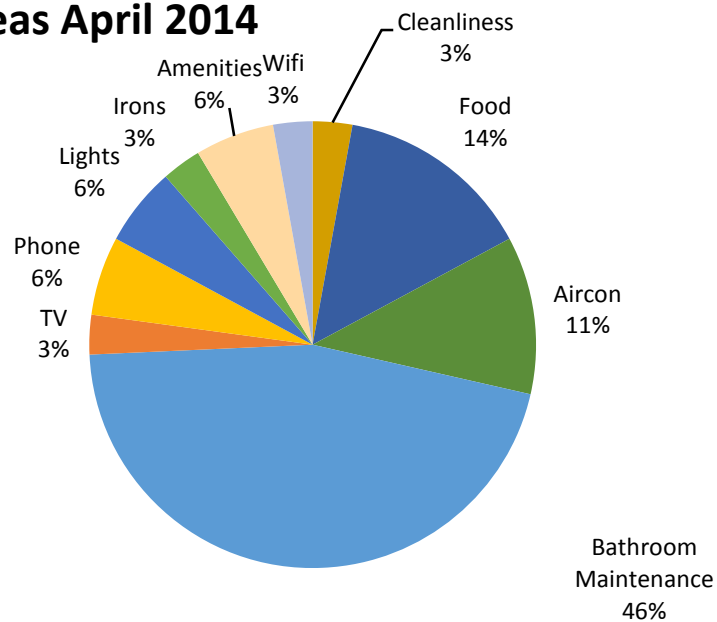
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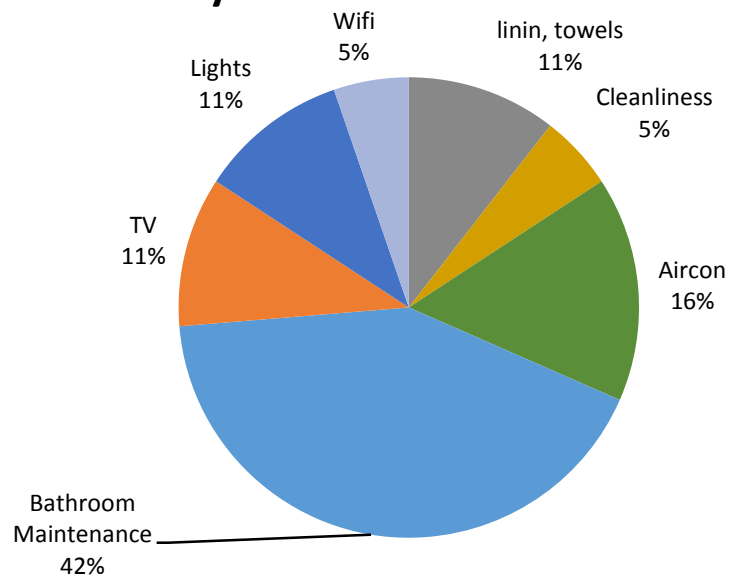
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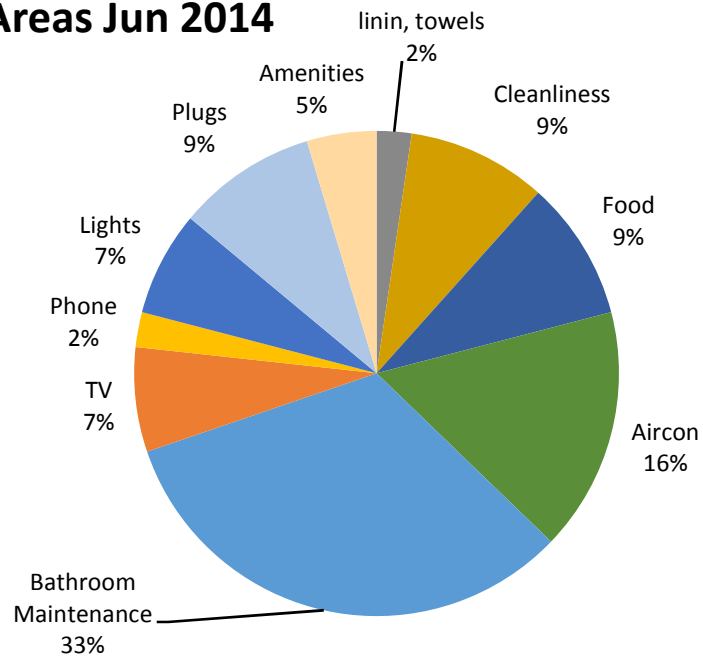
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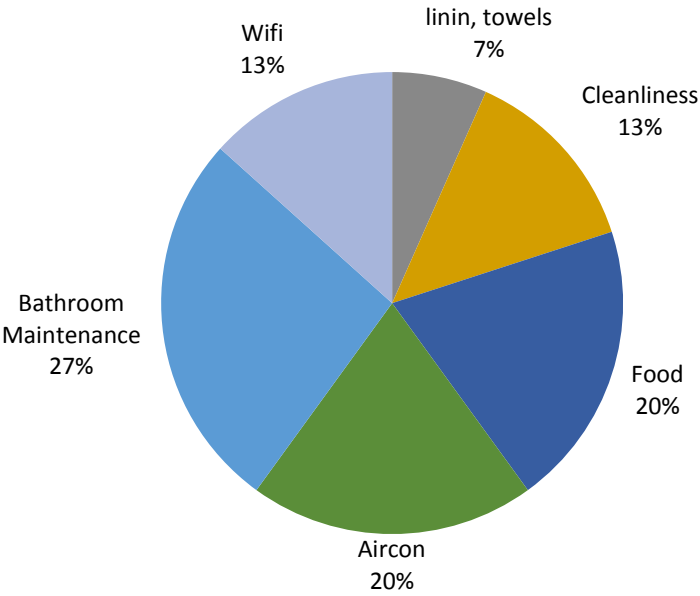
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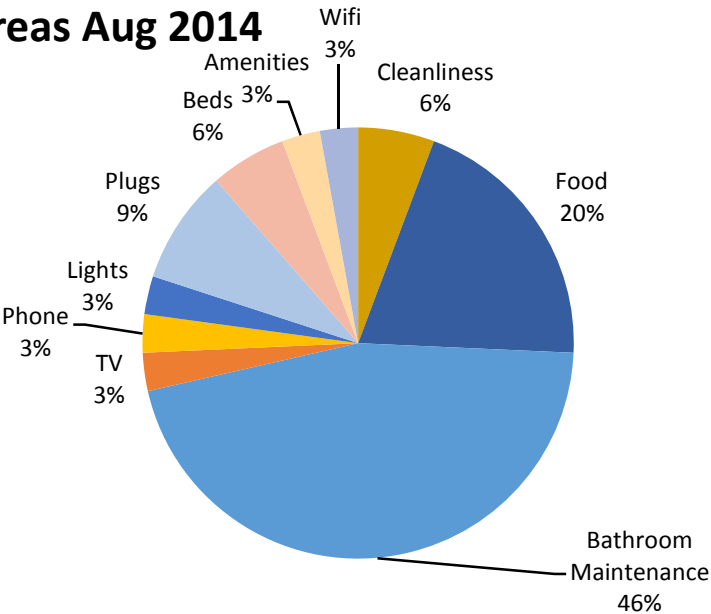
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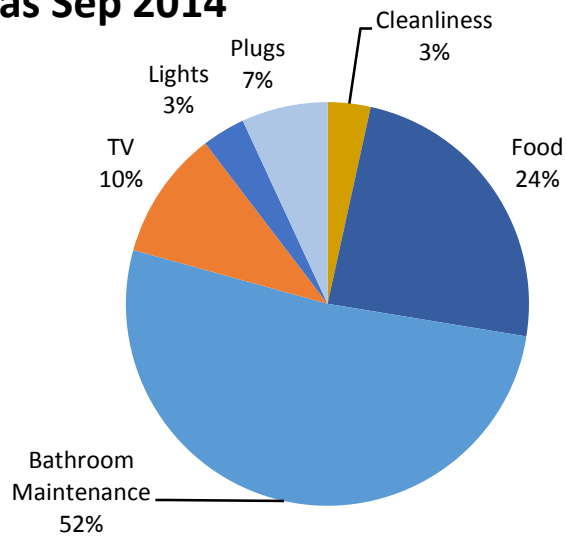
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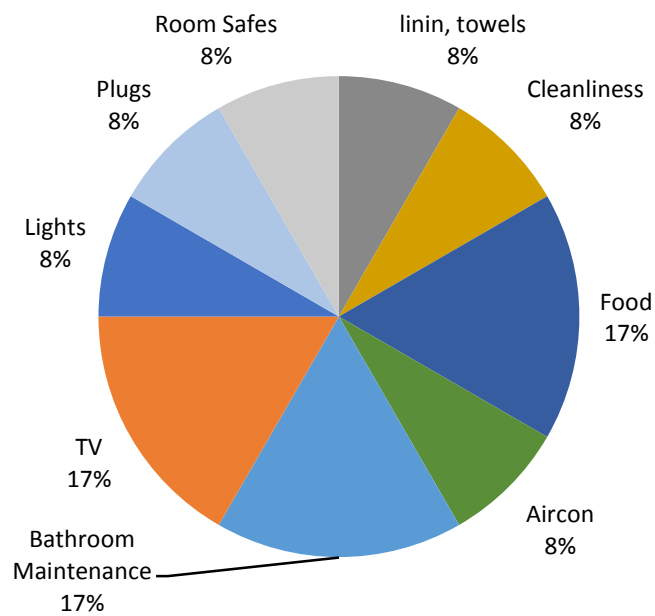
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Problem Areas Sep 2014



Problem Areas OCT 2014



Appendix 2: Before and after the executive rooms were improved



Appendix 3: Control chart statistics

Time it takes to Check Guest In							
Sample	Time in minutes	Mean	Sample Mean	Standard Deviation	Sample Standard Deviation	Lower Control Limit	Upper Control Limit
1	7	7.00	6.69	2.63	2.63	4.07	9.32
2	6	6.00	6.69	2.63	2.63	4.07	9.32
3	11	11.00	6.69	2.63	2.63	4.07	9.32
4	4	4.00	6.69	2.63	2.63	4.07	9.32
5	4	4.00	6.69	2.63	2.63	4.07	9.32
6	3	3.00	6.69	2.63	2.63	4.07	9.32
7	5	5.00	6.69	2.63	2.63	4.07	9.32
8	8	8.00	6.69	2.63	2.63	4.07	9.32
9	6	6.00	6.69	2.63	2.63	4.07	9.32
10	12	12.00	6.69	2.63	2.63	4.07	9.32
11	6	6.00	6.69	2.63	2.63	4.07	9.32
12	8	8.00	6.69	2.63	2.63	4.07	9.32
13	7	7.00	6.69	2.63	2.63	4.07	9.32

Time it takes to receiving an Iron							
Sample	Time in minutes	Mean	Sample Mean	Standard Deviation	Sample Standard Deviation	Lower Control Limit	Upper Control Limit
1.00	23	23.00	13.85	8.12	8.12	5.72	21.97
2.00	25	25.00	13.85	8.12	8.12	5.72	21.97
3.00	4	4.00	13.85	8.12	8.12	5.72	21.97
4.00	15	15.00	13.85	8.12	8.12	5.72	21.97
5.00	8	8.00	13.85	8.12	8.12	5.72	21.97
6.00	6	6.00	13.85	8.12	8.12	5.72	21.97
7.00	11	11.00	13.85	8.12	8.12	5.72	21.97
8.00	28	28.00	13.85	8.12	8.12	5.72	21.97
9.00	16	16.00	13.85	8.12	8.12	5.72	21.97
10.00	9	9.00	13.85	8.12	8.12	5.72	21.97
11.00	9	9.00	13.85	8.12	8.12	5.72	21.97
12.00	21	21.00	13.85	8.12	8.12	5.72	21.97
13.00	5	5.00	13.85	8.12	8.12	5.72	21.97

Time it takes to attend to room problems

Sample	Number of Imperfections		Mean	Sample Mean	Standard Deviation	Sample Standard Deviation	Lower Control Limit	Upper Control Limit
	Time in minutes	Column3 Column4						
1.00	5		5.00	15.69	10.31	10.31	5.38	26.01
2.00	20		20.00	15.69	10.31	10.31	5.38	26.01
3.00	8		8.00	15.69	10.31	10.31	5.38	26.01
4.00	40		40.00	15.69	10.31	10.31	5.38	26.01
5.00	16		16.00	15.69	10.31	10.31	5.38	26.01
6.00	18		18.00	15.69	10.31	10.31	5.38	26.01
7.00	4		4.00	15.69	10.31	10.31	5.38	26.01
8.00	16		16.00	15.69	10.31	10.31	5.38	26.01
9.00	26		26.00	15.69	10.31	10.31	5.38	26.01
10.00	20		20.00	15.69	10.31	10.31	5.38	26.01
11.00	5		5.00	15.69	10.31	10.31	5.38	26.01
12.00	20		20.00	15.69	10.31	10.31	5.38	26.01
13.00	6		6.00	15.69	10.31	10.31	5.38	26.01

Time it takes to receive meal							
Sample	Time in minutes	Mean	Sample Mean	Standard Deviation	Sample Standard Deviation	Lower Control Limit	Upper Control Limit
1.00	32	32.00	29.45	7.74	7.74	21.72	37.19
2.00	30	30.00	29.45	7.74	7.74	21.72	37.19
3.00	25	25.00	29.45	7.74	7.74	21.72	37.19
4.00	41	41.00	29.45	7.74	7.74	21.72	37.19
5.00	36	36.00	29.45	7.74	7.74	21.72	37.19
6.00	21	21.00	29.45	7.74	7.74	21.72	37.19
7.00	25	25.00	29.45	7.74	7.74	21.72	37.19
8.00	16	16.00	29.45	7.74	7.74	21.72	37.19
9.00	35	35.00	29.45	7.74	7.74	21.72	37.19
10.00	25	25.00	29.45	7.74	7.74	21.72	37.19
11.00	38	38.00	29.45	7.74	7.74	21.72	37.19

Time it takes for room service							
Sample	Time in minutes	Mean	Sample Mean	Standard Deviation	Sample Standard Deviation	Lower Control Limit	Upper Control Limit
1.00	41	41.00	51.14	30.84	30.84	20.31	81.98
2.00	35	35.00	51.14	30.84	30.84	20.31	81.98
3.00	32	32.00	51.14	30.84	30.84	20.31	81.98
4.00	38	38.00	51.14	30.84	30.84	20.31	81.98
5.00	48	48.00	51.14	30.84	30.84	20.31	81.98
6.00	44	44.00	51.14	30.84	30.84	20.31	81.98
7.00	120	120.00	51.14	30.84	30.84	20.31	81.98

Appendix 4: Financial results of the breackfast area at Acacia Guest House

		Acacia Restaurant			Mar-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast income	20902	15000	9658	15000	9658
	Less: Cost of sales	2744	5250	4574	5250	4574
	Gross Profit %	87	65	53	65	53
	Gross Profit	18158	9750.00	5084	9750	5084
	Less: Consumable goods	1325	120	1031	120	1031
	Salaries	5592	5778	3100	5778	3100
	Small Assets		50		50	
	Pension	433		690		690
	UIF	58	58	37	58	37
	Medical			575		575
	Maintenance		100		100	
	Total Expenses	7407	6106	5433	6106	5433
	Profit/Loss	10751	3644	-349	3644	-349

		Acacia Restaurant			Apr-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast income	31209	13000	1158	28000	10816
	Less: Cost of sales	6607	4550	1770	9800	6344
	Gross Profit %	79	65	-53	65	41
	Gross Profit	24602	8450.00	-612	18200	4472
	Less: Consumable goods	1325	120	318	240	1349
	Salaries	11370	5778	5448	11556	8548
	Small Assets		50		100	
	Pension	867		1155		1845
	UIF	116	58	67	116	104
	Medical			575		1151
	Maintenance		100		200	
	Total Expenses	13676	6106	7564	12212	12996
	Profit/Loss	10926	2344	-8176	5988	-8525

		Acacia Restaurant			May-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast income	51373	15750	6940	43750	17756
	Less: Cost of sales	16455	5513	4620	15313	10964
	Gross Profit %	68	65	33	65	38
	Gross Profit	34918	10237.50	2321	28438	6792
	Less: Consumable goods	1325	120		360	1349
	Salaries	17054	5778	3702	17334	12250
	Small Assets		50		150	
	Pension	1300		233		2077
	UIF	186	58	43	174	147
	Medical	1245.5		575		1726
	Maintenance		100		300	
	Total Expenses	21111	6106	4552	18318	17549
	Profit/Loss	13808	4132	-2231	10120	-10756

		Acacia Restaurant			Jun-14	
		Cumulative	Month		Cumulative	
		Last Year	Budget	Actual	Budget	Actual
	Breakfast income	81353	18950	15789	62700	33546
	Less: Cost of sales	27271	6633	4293	21946	15257
	Gross Profit %	66	65	73	65	55
	Gross Profit	54082	12317.00	11497	40755	18289
	Less: Consumable goods	1325	120		480	1349
	Salaries	22832	2255	3100	9020	15350
	Small Assets		50		200	
	Pension	1733	232	-233	696	1845
	UIF	250	37	37	148	184
	Medical	1868.25	500	-575	2000	1151
	Maintenance		100		400	
	Total Expenses	28008	3294	2329	12944	19878
	Profit/Loss	26074	9023	9168	27811	-1589

Appendix 5: Executive room income summaries September 2011 to August 2013

Protea Hotel Klerksdorp							
23-10-14							
Manager - Flash							
12:55							
	SEPTEMBER	SEPTEMBER	OCTOBER	OCTOBER	NOVEMBER	NOVEMBER	
	2012	2011	2012	2011	2012	2011	
Total Rooms in Hotel	600	600	620	620	600	600	
Rooms Occupied	285	166	164	172	308	211	
Total Rooms in Hotel minus OOO Rooms	600	600	620	620	600	600	
Available Rooms	315	434	456	448	292	389	
Available Rooms minus OOO Rooms	315	434	456	448	292	389	
Complimentary Rooms	4	2	0	0	0	2	
House Use Rooms	0	0	0	0	0	0	
Rooms Occupied minus Comp and House Use	281	164	164	172	308	209	
Rooms Occupied minus House Use	285	166	164	172	308	211	
Rooms Occupied minus Comp	281	164	164	172	308	209	
Day Use Rooms	6	1	1	0	2	1	
Out of Order Rooms	0	0	0	0	0	0	
Out of Service Rooms	0	0	0	0	37	0	
In-House Adults	345	192	218	173	318	212	
In-House Children	3	0	2	0	0	0	
Total In-House Persons	348	192	220	173	318	212	
Individual Persons In-House	348	192	186	173	275	212	
Block Persons In-House	0	0	34	0	43	0	
Member Persons In-House	11	0	10	4	7	6	
VIP Persons In-House	2	0	1	1	1	0	
Individual Rooms In-House	285	166	137	172	265	211	
Block Rooms In-House	0	0	27	0	43	0	
Company Rooms In-House	13	38	15	13	116	5	
Travel Agent Rooms In-House	36	11	35	88	142	76	
Group Rooms In-House	0	1	26	0	42	0	
Blocks In-House	0	0	3	0	4	0	
Birthdays In-House	0	0	0	0	0	0	
% Rooms Occupied	47.50	27.67	26.45	27.74	51.33	35.17	
% Rooms Occupied minus Comp and House	46.83	27.33	26.45	27.74	51.33	34.83	
% Rooms Occupied minus Comp, House and O	46.83	27.33	26.45	27.74	51.33	34.83	
% Rooms Occupied minus Comp	46.83	27.33	26.45	27.74	51.33	34.83	
% Rooms Occupied minus House	47.50	27.67	26.45	27.74	51.33	35.17	
% Rooms Occupied minus Comp and OOO	46.83	27.33	26.45	27.74	51.33	34.83	
% Rooms Occupied minus House and OOO	47.50	27.67	26.45	27.74	51.33	35.17	
% Rooms Occupied minus OOO	47.50	27.67	26.45	27.74	51.33	35.17	
Arrival Rooms	165	112	87	88	145	123	
Arrival Persons	223	137	101	89	151	125	
Deducted Arrivals	165	112	87	88	145	123	
Non-Deducted Arrivals	0	0	0	0	0	0	
Walk-in Rooms	0	0	0	0	0	0	
Walk-in Persons	0	0	0	0	0	0	
Extended Stay Rooms	9	1	5	3	10	1	
Extended Stay Persons	10	1	6	3	11	1	
Departure Rooms	123	90	75	87	133	113	
Departure Persons	158	113	103	87	140	116	
Early Departure Rooms	4	4	10	3	9	13	
Early Departure Persons	4	4	19	3	11	14	
Individual Departure Rooms	123	90	67	87	107	113	
Individual Departure Persons	158	113	88	87	113	116	
Individual Member Departure Rooms	2	1	7	2	6	5	
Individual Member Departure Persons	3	1	10	2	6	6	
% Individual Member Departures	1.63	1.11	9.33	2.30	4.51	4.42	
Member Departure Rooms	2	1	7	2	6	5	
Member Departure Persons	3	1	10	2	6	6	
% Member Departures	1.63	1.11	9.33	2.30	4.51	4.42	
No Show Rooms	16	0	4	1	19	13	
No Show Persons	16	0	7	2	19	13	
Cancelled Reservations for Today	40	14	13	23	18	29	
Late Reservation Cancellations for Today	31	7	13	22	16	8	
Reservations Made Today	116	108	81	113	188	174	
Filter Calendar/Month 2012, 09 Page 1 of 2 manager_report							
Last Year							
Room Class SUP							
Net							

Protea Hotel Klerksdorp						
23-10-14						
Manager - Flash						
12:55						
	SEPTEMBER	SEPTEMBER	OCTOBER	OCTOBER	NOVEMBER	NOVEMBER
	2012	2011	2012	2011	2012	2011
Reservation Cancellations made Today	39	2	13	23	19	29
Room Nights Reserved Today	239	331	162	354	393	380
Today's Demand	285	166	164	172	308	211
Clean Rooms						
Dirty Rooms						
Doubles As Singles	226	140	110	171	298	210
% Beds Occupied	61.05	57.83	67.07	50.29	51.62	50.24
ADR	621.74	583.62	644.52	625.33	630.40	636.42
ADR minus Comp	630.59	590.74	644.52	625.33	630.40	642.51
ADR minus House	621.74	583.62	644.52	625.33	630.40	636.42
ADR minus Comp and House	630.59	590.74	644.52	625.33	630.40	642.51
Average Person Rate	509.18	504.59	480.46	621.72	610.58	633.42
Average Persons per Block Rooms	0.00	0.00	1.26	0.00	1.00	0.00
Average Revenue per Block Rooms	0.00	0.00	623.46	0.00	594.65	0.00
Average Room Revenue per Block Rooms	0.00	0.00	623.46	0.00	594.65	0.00
Room Revenue	177,195.76	96,881.41	105,702.07	107,557.06	194,162.87	134,284.51
Food And Beverage Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Other Revenue	89.03	0.00	87.72	26.32	89.47	-26.32
Total Revenue	177,284.79	96,881.41	105,789.79	107,583.38	194,252.34	134,258.19
Block Revenue	0.00	0.00	16,833.29	0.00	25,570.12	0.00
Block Room Revenue	0.00	0.00	16,833.29	0.00	25,570.12	0.00
Individual Revenue	177,284.79	96,881.41	88,956.50	107,583.38	168,682.22	134,258.19
Individual Room Revenue	177,195.76	96,881.41	88,868.78	107,557.06	168,592.75	134,284.51
Member Revenue	3,999.98	0.00	4,167.99	2,017.56	4,114.05	3,481.96
Member Room Revenue	3,999.98	0.00	4,167.99	2,017.56	4,114.05	3,481.96
Total Revenue per Person	509.44	504.59	480.86	621.87	610.86	633.29
Payment	109,858.65	21,156.69	76,144.41	65,930.15	225,741.35	98,604.70
Maximum Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue for Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue %	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue % per Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Arrival Rooms for Tomorrow						
Arrival Persons for Tomorrow						
Departure Rooms for Tomorrow						
Departure Persons for Tomorrow						
% Rooms Occupied for Tomorrow						
% Multiple Occupancy						
% Rooms Occupied for the Next 7 Days						
% Rooms Occupied for the Next 31 Days						
% Rooms Occupied for the Next 365 Days						
Revenue per Available Room	295.33	161.47	170.49	173.48	323.60	223.81
Revenue per Available Room minus OOO	295.33	161.47	170.49	173.48	323.60	223.81
Individual Member Average Length of Stay	2.00	0.00	1.00	16.00	1.29	1.00
Block Member Average Length of Stay	0.00	0.00	0.00	0.00	0.00	0.00
Filter Calendar/Month 2012, 09 Page 2 of 2 manager_report						
Last Year						
Room Class SUP						
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Protea Hotel Klerksdorp						
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	DECEMBER	DECEMBER	JANUARY	JANUARY	FEBRUARY	FEBRUARY
	2012	2011	2013	2012	2013	2012
Total Rooms in Hotel	620	620	620	620	560	580
Rooms Occupied	106	136	149	54	215	226
Total Rooms in Hotel minus OOO Rooms	599	620	525	620	560	580
Available Rooms	514	484	471	566	345	354
Available Rooms minus OOO Rooms	493	484	376	566	345	354
Complimentary Rooms	0	2	0	1	21	0
House Use Rooms	0	0	0	0	0	0
Rooms Occupied minus Comp and House Use	106	134	149	53	194	226
Rooms Occupied minus House Use	106	136	149	54	215	226
Rooms Occupied minus Comp	106	134	149	53	194	226
Day Use Rooms	0	1	0	0	0	4
Out of Order Rooms	21	0	95	0	0	0
Out of Service Rooms	0	0	8	0	0	0
In-House Adults	110	140	150	58	245	228
In-House Children	0	5	0	0	0	0
Total In-House Persons	110	145	150	58	245	228
Individual Persons In-House	18	145	73	58	195	228
Block Persons In-House	92	0	77	0	50	0
Member Persons In-House	0	5	1	3	17	4
VIP Persons In-House	0	0	0	2	4	0
Individual Rooms In-House	14	136	72	54	167	226
Block Rooms In-House	92	0	77	0	48	0
Company Rooms In-House	4	3	57	0	56	23
Travel Agent Rooms In-House	23	59	24	42	136	42
Group Rooms In-House	92	0	79	0	52	0
Blocks In-House	12	0	7	0	5	0
Birthdays In-House	0	0	0	0	0	0
% Rooms Occupied	17.10	21.94	24.03	8.71	38.39	38.97
% Rooms Occupied minus Comp and House	17.10	21.61	24.03	8.55	34.64	38.97
% Rooms Occupied minus Comp, House and O	17.70	21.61	28.38	8.55	34.64	38.97
% Rooms Occupied minus Comp	17.10	21.61	24.03	8.55	34.64	38.97
% Rooms Occupied minus House	17.10	21.94	24.03	8.71	38.39	38.97
% Rooms Occupied minus Comp and OOO	17.70	21.61	28.38	8.55	34.64	38.97
% Rooms Occupied minus House and OOO	17.70	21.94	28.38	8.71	38.39	38.97
% Rooms Occupied minus OOO	17.70	21.94	28.38	8.71	38.39	38.97
Arrival Rooms	38	72	48	14	120	150
Arrival Persons	39	81	49	16	145	152
Deducted Arrivals	38	72	48	14	120	150
Non-Deducted Arrivals	0	0	0	0	0	0
Walk-in Rooms	0	0	0	0	0	0
Walk-in Persons	0	0	0	0	0	0
Extended Stay Rooms	0	1	3	2	7	18
Extended Stay Persons	0	1	3	3	7	18
Departure Rooms	25	80	37	12	105	117
Departure Persons	25	88	38	14	130	119
Early Departure Rooms	3	3	7	1	3	3
Early Departure Persons	3	3	7	1	3	3
Individual Departure Rooms	7	80	24	12	65	117
Individual Departure Persons	7	88	25	14	89	119
Individual Member Departure Rooms	0	3	0	2	3	3
Individual Member Departure Persons	0	3	0	2	4	3
% Individual Member Departures	0.00	3.75	0.00	16.67	3.81	2.56
Member Departure Rooms	0	3	0	2	4	3
Member Departure Persons	0	3	0	2	5	3
% Member Departures	0.00	3.75	0.00	16.67	3.81	2.56
No Show Rooms	3	3	0	0	2	11
No Show Persons	3	4	0	0	4	11
Cancelled Reservations for Today	6	31	5	16	42	8
Late Reservation Cancellations for Today	5	10	2	2	15	7
Reservations Made Today	24	76	72	89	128	144
Filter Calendar/Month 2012, 12 Page 1 of 2 manager_report						
Last Year						
Room Class SUP						
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Protea Hotel Klerksdorp						
23-10-14						
Manager - Flash						
14:31						
	DECEMBER	DECEMBER	JANUARY	JANUARY	FEBRUARY	FEBRUARY
	2012	2011	2013	2012	2013	2012
Reservation Cancellations made Today	6	31	30	21	22	8
Room Nights Reserved Today	76	194	322	254	245	271
Today's Demand	106	136	149	54	215	226
Clean Rooms						
Dirty Rooms						
Doubles As Singles	102	132	148	50	185	224
% Beds Occupied	51.89	53.31	50.34	53.70	56.98	50.44
ADR	625.58	674.59	735.19	595.60	658.06	779.54
ADR minus Comp	625.58	684.66	735.19	606.84	729.29	779.54
ADR minus House	625.58	674.59	735.19	595.60	658.06	779.54
ADR minus Comp and House	625.58	684.66	735.19	606.84	729.29	779.54
Average Person Rate	602.83	632.72	730.29	554.53	577.48	772.70
Average Persons per Block Rooms	1.00	0.00	1.00	0.00	1.04	0.00
Average Revenue per Block Rooms	611.37	0.00	688.08	0.00	783.26	0.00
Average Room Revenue per Block Rooms	611.37	0.00	688.08	0.00	783.26	0.00
Room Revenue	66,311.79	91,744.86	109,543.7	32,162.46	141,481.87	176,175.24
Food And Beverage Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Other Revenue	0.00	0.00	96.49	0.00	165.80	1.75
Total Revenue	66,311.79	91,744.86	109,640.2	32,162.46	141,647.67	176,176.99
Block Revenue	56,246.00	0.00	52,982.52	0.00	37,596.70	0.00
Block Room Revenue	56,246.00	0.00	52,982.52	0.00	37,596.70	0.00
Individual Revenue	10,065.79	91,744.86	56,657.73	32,162.46	104,050.97	176,176.99
Individual Room Revenue	10,065.79	91,744.86	56,561.24	32,162.46	103,885.17	176,175.24
Member Revenue	0.00	2,412.30	1,096.49	1,447.38	7,908.78	2,622.81
Member Room Revenue	0.00	2,412.30	1,096.49	1,447.38	7,908.78	2,622.81
Total Revenue per Person	602.83	632.72	730.94	554.53	578.15	772.71
Payment	5,533.40	58,927.85	72,587.80	10,725.15	171,767.52	75,655.94
Maximum Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue for Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue %	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue % per Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Arrival Rooms for Tomorrow						
Arrival Persons for Tomorrow						
Departure Rooms for Tomorrow						
Departure Persons for Tomorrow						
% Rooms Occupied for Tomorrow						
% Multiple Occupancy						
% Rooms Occupied for the Next 7 Days						
% Rooms Occupied for the Next 31 Days						
% Rooms Occupied for the Next 365 Days						
Revenue per Available Room	106.95	147.98	176.68	51.87	252.65	303.75
Revenue per Available Room minus OOO	110.70	147.98	208.65	51.87	252.65	303.75
Individual Member Average Length of Stay	0.00	2.20	4.00	1.67	2.38	1.50
Block Member Average Length of Stay	0.00	0.00	0.00	0.00	2.00	0.00
Filter Calendar/Month 2012, 12 Page 2 of 2 manager_report						
Last Year						
Room Class SUP						
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Manager - Flash						
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	MARCH 2013	MARCH 2012	APRIL 2013	APRIL 2012	MAY 2013	MAY 2012
Total Rooms in Hotel	620	620	600	600	620	620
Rooms Occupied	251	222	276	79	296	189
Total Rooms in Hotel minus OOO Rooms	616	620	566	600	611	620
Available Rooms	369	398	324	521	324	431
Available Rooms minus OOO Rooms	365	398	290	521	315	431
Complimentary Rooms	2	7	7	0	2	1
House Use Rooms	3	0	0	0	2	0
Rooms Occupied minus Comp and House Use	246	215	269	79	292	188
Rooms Occupied minus House Use	248	222	276	79	294	189
Rooms Occupied minus Comp	249	215	269	79	294	188
Day Use Rooms	1	0	3	0	0	0
Out of Order Rooms	4	0	34	0	9	0
Out of Service Rooms	0	0	2	0	14	0
In-House Adults	274	237	295	96	368	209
In-House Children	2	0	0	2	0	4
Total In-House Persons	276	237	295	98	368	213
Individual Persons In-House	255	237	280	98	341	213
Block Persons In-House	21	0	15	0	27	0
Member Persons In-House	31	25	73	2	35	15
VIP Persons In-House	2	3	7	1	8	5
Individual Rooms In-House	231	222	261	79	269	189
Block Rooms In-House	20	0	15	0	27	0
Company Rooms In-House	50	16	82	11	124	23
Travel Agent Rooms In-House	168	92	164	24	159	120
Group Rooms In-House	20	2	18	0	84	0
Blocks In-House	4	0	6	0	6	0
Birthdays In-House	0	1	0	0	1	0
% Rooms Occupied	40.48	35.81	46.00	13.17	47.74	30.48
% Rooms Occupied minus Comp and House	39.68	34.68	44.83	13.17	47.10	30.32
% Rooms Occupied minus Comp, House and O	39.94	34.68	47.53	13.17	47.79	30.32
% Rooms Occupied minus Comp	40.16	34.68	44.83	13.17	47.42	30.32
% Rooms Occupied minus House	40.00	35.81	46.00	13.17	47.42	30.48
% Rooms Occupied minus Comp and OOO	40.42	34.68	47.53	13.17	48.12	30.32
% Rooms Occupied minus House and OOO	40.26	35.81	48.76	13.17	48.12	30.48
% Rooms Occupied minus OOO	40.75	35.81	48.76	13.17	48.45	30.48
Arrival Rooms	148	131	145	48	149	109
Arrival Persons	168	141	160	58	173	118
Deducted Arrivals	148	131	145	48	149	109
Non-Deducted Arrivals	0	0	0	0	0	0
Walk-in Rooms	0	0	0	0	0	0
Walk-in Persons	0	0	0	0	0	0
Extended Stay Rooms	3	7	6	1	12	5
Extended Stay Persons	4	7	6	1	16	5
Departure Rooms	137	136	128	37	138	94
Departure Persons	151	146	140	37	160	103
Early Departure Rooms	5	1	12	0	10	8
Early Departure Persons	5	1	13	0	13	11
Individual Departure Rooms	117	136	121	37	113	94
Individual Departure Persons	130	146	133	37	135	103
Individual Member Departure Rooms	14	14	31	2	16	10
Individual Member Departure Persons	19	16	37	2	19	10
% Individual Member Departures	10.22	10.29	24.22	5.41	11.59	10.64
Member Departure Rooms	14	14	31	2	16	10
Member Departure Persons	19	16	37	2	19	10
% Member Departures	10.22	10.29	24.22	5.41	11.59	10.64
No Show Rooms	2	6	3	2	6	7
No Show Persons	3	6	3	2	7	7
Cancelled Reservations for Today	21	17	19	2	24	41
Late Reservation Cancellations for Today	13	13	7	1	11	17
Reservations Made Today	132	144	122	45	132	85
Filter Calendar/Month 2013, 03 Page 1 of 2 manager_report						
Last Year						
Room Class SUP						
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Manager - Flash						
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	MARCH 2013	MARCH 2012	APRIL 2013	APRIL 2012	MAY 2013	MAY 2012
Reservation Cancellations made Today	21	22	21	5	19	28
Room Nights Reserved Today	232	358	234	77	216	151
Today's Demand	251	222	276	79	296	189
Clean Rooms						
Dirty Rooms						
Doubles As Singles	228	207	257	62	224	169
% Beds Occupied	54.98	53.38	53.44	62.03	62.16	56.35
ADR	690.72	589.15	668.53	608.74	740.67	717.18
ADR minus Comp	696.27	608.33	685.93	608.74	745.71	721.00
ADR minus House	699.08	589.15	668.53	608.74	745.71	717.18
ADR minus Comp and House	704.76	608.33	685.93	608.74	750.81	721.00
Average Person Rate	628.16	551.86	625.47	490.72	595.75	636.37
Average Persons per Block Rooms	1.05	0.00	1.00	0.00	1.00	0.00
Average Revenue per Block Rooms	583.34	0.00	649.12	0.00	614.04	0.00
Average Room Revenue per Block Rooms	583.34	0.00	649.12	0.00	614.04	0.00
Room Revenue	173,371.23	130,791.98	184,514.77	48,090.70	219,237.47	135,547.84
Food And Beverage Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Other Revenue	556.14	8.77	447.35	105.26	3,153.5	0.00
Total Revenue	173,927.37	130,800.75	184,962.12	48,195.96	222,391.00	135,547.84
Block Revenue	11,666.76	0.00	9,736.80	0.00	16,579.08	0.00
Block Room Revenue	11,666.76	0.00	9,736.80	0.00	16,579.08	0.00
Individual Revenue	162,260.61	130,800.75	175,225.32	48,195.96	205,811.92	135,547.84
Individual Room Revenue	161,704.47	130,791.98	174,777.97	48,090.70	202,658.39	135,547.84
Member Revenue	13,206.12	10,404.56	37,685.97	1,429.83	18,852.67	7,745.60
Member Room Revenue	13,206.12	10,395.79	37,650.89	1,429.83	18,852.67	7,745.60
Total Revenue per Person	630.17	551.90	626.99	491.80	604.32	636.37
Payment	214,030.62	174,841.45	187,087.77	30,790.26	21,004.57	138,871.90
Maximum Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue for Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue %	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue % per Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Arrival Rooms for Tomorrow						
Arrival Persons for Tomorrow						
Departure Rooms for Tomorrow						
Departure Persons for Tomorrow						
% Rooms Occupied for Tomorrow						
% Multiple Occupancy						
% Rooms Occupied for the Next 7 Days						
% Rooms Occupied for the Next 31 Days						
% Rooms Occupied for the Next 365 Days						
Revenue per Available Room	279.63	210.95	307.52	80.15	353.61	218.63
Revenue per Available Room minus OOO	281.45	210.95	326.00	80.15	358.82	218.63
Individual Member Average Length of Stay	1.27	2.41	2.60	1.00	2.81	2.00
Block Member Average Length of Stay	0.00	0.00	0.00	0.00	0.00	0.00
Filter Calendar/Month 2013, 03 Page 2 of 2 manager_report						
Last Year						
Room Class SUP						
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24-10-14						
Manager - Flash						
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	JUNE 2013	JUNE 2012	JULY 2013	JULY 2012	AUGUST 2013	AUGUST 2012
Total Rooms in Hotel	600	600	620	620	620	620
Rooms Occupied	250	138	198	236	228	238
Total Rooms in Hotel minus OOO Rooms	600	600	587	620	616	620
Available Rooms	350	462	422	384	392	382
Available Rooms minus OOO Rooms	350	462	389	384	388	382
Complimentary Rooms	3	0	8	0	2	0
House Use Rooms	1	72	1	18	0	5
Rooms Occupied minus Comp and House Use	246	66	189	218	226	233
Rooms Occupied minus House Use	249	66	197	218	228	233
Rooms Occupied minus Comp	247	138	190	236	226	238
Day Use Rooms	1	0	0	0	1	2
Out of Order Rooms	0	0	33	0	4	0
Out of Service Rooms	0	0	0	0	0	0
In-House Adults	269	142	216	371	240	254
In-House Children	0	4	2	171	0	2
Total In-House Persons	269	146	218	542	240	256
Individual Persons In-House	263	146	179	542	159	256
Block Persons In-House	6	0	39	0	81	0
Member Persons In-House	40	5	53	21	22	6
VIP Persons In-House	5	0	8	0	3	0
Individual Rooms In-House	244	138	159	236	147	238
Block Rooms In-House	6	0	39	0	81	0
Company Rooms In-House	54	30	66	5	67	29
Travel Agent Rooms In-House	129	49	95	14	69	109
Group Rooms In-House	6	0	39	0	81	0
Blocks In-House	6	0	6	0	7	0
Birthdays In-House	0	0	0	0	0	0
% Rooms Occupied	41.67	23.00	31.94	38.06	36.77	38.39
% Rooms Occupied minus Comp and House	41.00	11.00	30.48	35.16	36.45	37.58
% Rooms Occupied minus Comp, House and O	41.00	11.00	32.20	35.16	36.69	37.58
% Rooms Occupied minus Comp	41.17	23.00	30.65	38.06	36.45	38.39
% Rooms Occupied minus House	41.50	11.00	31.77	35.16	36.77	37.58
% Rooms Occupied minus Comp and OOO	41.17	23.00	32.37	38.06	36.69	38.39
% Rooms Occupied minus House and OOO	41.50	11.00	33.56	35.16	37.01	37.58
% Rooms Occupied minus OOO	41.67	23.00	33.73	38.06	37.01	38.39
Arrival Rooms	133	65	133	104	151	154
Arrival Persons	147	70	148	183	162	170
Deducted Arrivals	133	65	133	104	151	154
Non-Deducted Arrivals	0	0	0	0	0	0
Walk-in Rooms	0	0	0	0	0	0
Walk-in Persons	0	0	0	0	0	0
Extended Stay Rooms	1	3	1	4	4	7
Extended Stay Persons	1	3	1	13	4	7
Departure Rooms	121	50	99	105	153	135
Departure Persons	136	53	116	160	162	151
Early Departure Rooms	8	0	2	10	5	25
Early Departure Persons	9	0	3	19	5	25
Individual Departure Rooms	119	50	84	105	91	135
Individual Departure Persons	134	53	101	160	100	151
Individual Member Departure Rooms	12	3	21	1	9	3
Individual Member Departure Persons	16	4	29	1	11	4
% Individual Member Departures	9.92	6.00	21.21	0.95	7.84	2.22
Member Departure Rooms	12	3	21	1	12	3
Member Departure Persons	16	4	29	1	14	4
% Member Departures	9.92	6.00	21.21	0.95	7.84	2.22
No Show Rooms	13	4	3	4	4	8
No Show Persons	13	6	5	4	5	7
Cancelled Reservations for Today	11	13	15	11	28	18
Late Reservation Cancellations for Today	7	13	15	5	26	8
Reservations Made Today	83	61	94	75	151	144
Filter Calendar/Month 2013, 06 Page 1 of 2 manager_report						
Last Year						
Room Class SUP						
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Protea Hotel Klerksdorp						
24-10-14						
Manager - Flash						
16:35						
					AUGUST	AUGUST
	JUNE 2013	JUNE 2012	JULY 2013	JULY 2012	2013	2012
Reservation Cancellations made Today	11	17	16	7	27	19
Room Nights Reserved Today	126	159	166	116	200	254
Today's Demand	250	138	198	236	228	238
Clean Rooms						
Dirty Rooms						
Doubles As Singles	231	134	180	101	216	222
% Beds Occupied	53.80	52.90	55.05	114.83	52.63	53.78
ADR	666.38	341.91	661.07	496.75	732.76	655.66
ADR minus Comp	674.47	341.91	688.91	496.75	739.25	655.66
ADR minus House	669.05	714.91	664.43	537.77	732.76	669.73
ADR minus Comp and House	677.21	714.91	692.55	537.77	739.25	669.73
Average Person Rate	619.31	323.18	600.42	216.30	696.12	609.56
Average Persons per Block Rooms	1.00	0.00	1.00	0.00	1.00	0.00
Average Revenue per Block Rooms	614.04	0.00	716.38	0.00	739.55	0.00
Average Room Revenue per Block Rooms	614.04	0.00	716.38	0.00	739.55	0.00
Room Revenue	166,594.30	47,184.12	130,892.18	117,233.58	167,069.61	156,048.12
Food And Beverage Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Other Revenue	623.25	0.00	115.79	220.18	1,431.15	0.00
Total Revenue	167,217.55	47,184.12	131,007.97	117,453.76	168,500.76	156,048.12
Block Revenue	3,684.24	0.00	27,938.64	0.00	59,903.23	0.00
Block Room Revenue	3,684.24	0.00	27,938.64	0.00	59,903.23	0.00
Individual Revenue	163,533.31	47,184.12	103,069.33	117,453.76	108,597.53	156,048.12
Individual Room Revenue	162,910.06	47,184.12	102,953.54	117,233.58	107,166.38	156,048.12
Member Revenue	20,374.65	2,824.55	24,152.69	3,201.77	11,569.30	2,877.18
Member Room Revenue	19,760.17	2,824.55	24,152.69	3,201.77	11,569.30	2,877.18
Total Revenue per Person	621.63	323.18	600.95	216.70	702.09	609.56
Payment	0.00	79,267.60	0.00	41,666.10	0.00	166,209.65
Maximum Revenue	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue for Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue %	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Revenue % per Rooms Occupied	0.00	0.00	0.00	0.00	0.00	0.00
Arrival Rooms for Tomorrow						
Arrival Persons for Tomorrow						
Departure Rooms for Tomorrow						
Departure Persons for Tomorrow						
% Rooms Occupied for Tomorrow						
% Multiple Occupancy						
% Rooms Occupied for the Next 7 Days						
% Rooms Occupied for the Next 31 Days						
% Rooms Occupied for the Next 365 Days						
Revenue per Available Room	277.66	78.64	211.12	189.09	269.47	251.69
Revenue per Available Room minus OOO	277.66	78.64	222.98	189.09	271.22	251.69
Individual Member Average Length of Stay	2.82	1.50	2.41	4.33	2.19	2.25
Block Member Average Length of Stay	0.00	0.00	2.00	0.00	2.00	0.00
Filter Calendar/Month 2013, 06 Page 2 of 2 manager_report						
Last Year						
Room Class SUP						
Net						