YIELD MANAGEMENT STRATEGY IN KENYA’S TOWN HOTELS: OPPORTUNITIES AND SCOPE IN ROOM-STOCK MANAGEMENT

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A research report submitted in fulfillment of the requirements for the award of the degree of Doctor of philosophy in the School of Hospitality and Tourism of Kenyatta University.

- November, 2013 -
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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To my wife Catherine, my children Amos, Nelson, Symon, Lydia and Jonathan.
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TABLE OF CONTENTS

Declaration................................................................................................................ i
Dedication................................................................................................................ ii
Acknowledgement ................................................................. iii
Table of Contents ................................................................................................ iv
List of Figures......................................................................................................... vii
List of Tables ........................................................................................................ x
Abbreviations and Acronyms................................................................. xii
Operational Definition of Terms......................................................... xiii
Abstract ........................................................................................................ xv

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study ................................................................. 1
1.2 Problem Statement and Justification............................................... 5
1.3 Purpose of the Research................................................................. 6
1.4 Research Objectives......................................................................... 7
1.5 Statistical Hypotheses ........................................................................ 7
1.6 Significance of the Study ................................................................. 8
1.7 Assumptions....................................................................................... 9
1.8 Limitations ....................................................................................... 9
1.9 Conceptual Framework .................................................................... 10
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction ........................................................................................................... 12
2.1.1 Overview of YM Model and Application ....................................................... 12
2.2 Segmenting the Market ....................................................................................... 15
2.3 Occupancy Forecasting ....................................................................................... 18
2.4 Overbooking Policy ............................................................................................. 21
2.5 Setting up Systems and Procedures .................................................................... 23
2.5.1 Strategies and Tactics ...................................................................................... 24
2.5.2 Accommodation Product Pricing .................................................................... 27
2.6 Training and Building a YM Culture .................................................................... 29
2.6.1 Inculcating a New YM Culture ...................................................................... 31
2.7 Measuring YM Performances ............................................................................. 32
2.7 Literature Summary ............................................................................................ 34

CHAPTER THREE: METHODOLOGY

3.1 Introduction .......................................................................................................... 35
3.2 The Research Design ............................................................................................ 35
3.3 The Study Site ...................................................................................................... 35
3.4 Target Population ................................................................................................ 36
3.4 Sample Size Determination ................................................................................ 37
3.6 Sampling Procedure ............................................................................................ 37
3.7 Data Collection Instruments .............................................................................. 38
3.8 The Study Variables ............................................................................................. 39
3.8.1 Segmenting the Market .................................................................................. 40
3.8.2 Forecasting Future Occupancies .................................................................... 40
3.8.3 Designing Overbooking Profile ............................................. 41
3.8.4 Setting Systems Procedures and Tactics ................................. 41
3.8.5 Training and Inculcating YM Culture ....................................... 41
3.9 Pre-testing the Instruments ....................................................... 41
3.10 Data Collection Procedures ..................................................... 42
3.11 Data Analysis ................................................................. 43
3.12 Presenting the Performance Results ......................................... 44

CHAPTER FOUR: RESULTS AND DISCUSSIONS
4.1 Introduction ................................................................ 45
4.2 Demographic Characteristics of the Study Respondents .............. 45
4.3 The General Characteristics of Kenyan Town Hotels .................. 52
4.4 Market Segmentation ....................................................... 57
4.5 Occupancy Forecasting ....................................................... 77
4.6 Overbooking Policies and Profiles ........................................... 96
4.7 YM Strategies, Systems, Procedures and Tactics ....................... 114
4.8 Training and Building a YM Culture ......................................... 131
4.9 Determinants of Occupancy ................................................ 141

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
5.1 Introduction ................................................................ 148
5.2 Summary of Findings ......................................................... 148
5.4 Conclusions ................................................................. 156
5.5 Recommendations for Industry Practice ................................. 157
5.6 Implications and Suggestions for Further Research ......................... 160
5.7 Contribution to Knowledge ..................................................... 161

5.6 REFERENCES AND APPENDICES

References .......................................................................................... 163
Appendices .......................................................................................... 169

Appendix I: Questionnaire to YM Managers, Reservations and
Front Office Personnel ................................................................. 169

Appendix II: Focus Group Discussion Guide ..................................... 178

Appendix III: Kenyan Town Hotels as Classified by the Hotels and
Restaurants Authority, Kenya Gazette 13th June, 2003 .......... 179

Appendix V: The Gazetted Kenyan Town Hotels June 2012 as per
Completed Questionnaires ......................................................... 181
LIST OF FIGURES

Figure 1.1: Application of YM in Kenya’s town hotels:
Conceplual framework ........................................... 10

Figure 2.1: Necessary ingredients YM channel model .................. 14

Figure 4.1: Distribution of respondents by education levels ............ 47
Figure 4.2: Distribution of respondents’ education levels across
the star-rating hotels clusters ..................................... 48

Figure 4.3: Age of respondents ................................................................. 49

Figure 4.4: Distribution of work experience by gender ....................... 51

Figure 4.5: Distribution of sample hotels by star rating ...................... 53

Figure 4.6: Closing and opening lower rates to changing demand ....... 63

Figure 4.7: Impact of segmentation on revenue ................................. 65

Figure 4.8: Reviewing past performance ............................................. 79

Figure 4.9: Targeting market segmentation through the star clusters ...... 80

Figure 4.10: Occupancy on upstream forecasting .............................. 81

Figure 4.11: Overbooking policies and hotels performance levels ....... 99

Figure 4.12: Demanding deposits to confirm bookings ....................... 100

Figure 4.13: Dealing with ‘bumped’ guest ............................................. 101

Figure 4.14: Impact of overbooking on performance indicators ............ 102

Figure 4.15: Advance bookings ............................................................... 103

Figure 4.16: Distribution of hotels applying YM systems,
procedures and tactics ......................................................... 115

Figure 4.17: Distribution of hotels applying YM systems,
procedures and tactics by star rating ........................................... 116
Figure 4.18: Distribution of room rate discounting by staff ..........117

Figure 4.19: Distribution of last minute discounting tactic to avoid wasted room-nights ........................................ 118

Figure 4.20: Distribution of the use of it for YM in the different star clusters ............................................. 120

Figure 4.21: Distribution of staff allowed discounting to various limits ...................................................... 121

Figure 4.22: Distribution of YM training levels in Kenyas town hotels ...................................................... 133

Figure 4.23: Distribution of YM training across the star rating ...................................................... 134

Figure 4.24: The Kenyan town hotels’ YM outcome model .......... 145
LIST OF TABLES

Table 2.1: YM exploitation of different market segments characteristics….. 16
Table 3.1: The study population………………………………………………... 37
Table 4.1: Distribution of sample hotels across Kenya towns ………….. 46
Table 4.2: Distribution of gender across the star ratings……………….. 46
Table 4.3: Distribution of respondents across the star ratings and the hotel positions ………………………. 50
Table 4.4: Distribution of experience across the star ratings……………. 52
Table 4.5: Fixing the room rate levels ………………………………………. 54
Table 4.6: Channels of access the market ……………………………….. 55
Table 4.7: The main market segments of the Kenyan town hotels ………. 59
Table 4.8: Predicting the future booking pattern market segment………. 60
Table 4.9: Discriminating the lower rate segments …………………….. 64
Table 4.10: Usefulness of segmentation strategies and …………………. 67
Table 4.11: Cross-tabulation between the different star ratings of town hotels and the identification of the various market segments … 69
Table 4.12: Cross tabulation between hotels that have identified their various market segments and level of occupancy performance.. 71
Table 4.13: The Market Segmentation Model ………………………………. 76
Table 4.14: Methods of forecasting in the various star rating clusters………. 82
Table 4.15: Usefulness of forecasting future demand for rooms………….. 84
Table 4.16: The use of IT in occupancy forecasting………………………… 85
Table 4.17: Analyzing of past bookings……………………………………….. 86
Table 4.18: Forecasting future occupancies to star rating clusters……….. 88
Table 4.19: Cross tabulation between levels of occupancy performance
and the application of YM forecasting .......................... 89

Table 4.20: Occupancy and the elements of demand forecasting ........ 91

Table 4.21: Forecasting future occupancy regression model .............. 94

Table 4.22: Overbooking profiling by the different class ratings .......... 99

Table 4.23: Cross tabulation between town hotel’s star ratings
and their opinion on the practice of overbooking ............... 105

Table 4.24: A cross tabulation between occupancy performance
levels and overbooking profiling .................................. 106

Table 4.25: Postmortem analysis ....................................... 108

Table 4.26: A cross tabulation between occupancy and the
elements of overbooking beyond capacity .................... 109

Table 4.27: Overbooking beyond the hotels capacity model ........ 112

Table 4.28: Uses YM strategies, systems and tactics ................. 123

Table 4.29: Cross tabulation between occupancy and the elements
of procedures, strategies, systems and tactics .................. 124

Table 4.30: YM systems, procedures and tactics model .............. 131

Table 4.31: YM staff training and inculcation of YM
culture by star rating ............................................. 135

Table 4.32: A cross tabulation between occupancy and the elements
of training and culture inculcation .............................. 136

Table 4.33: YM training and culture inculcation model .............. 140

Table 4.34: YM ingredient-determinants of occupancy model ...... 143
## ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ARR</td>
<td>Average room rates</td>
</tr>
<tr>
<td>BAR:</td>
<td>Best Available Rate: communicates the day’s rate</td>
</tr>
<tr>
<td>COS</td>
<td>Cost of Sales</td>
</tr>
<tr>
<td>FRDL</td>
<td>The first room rate discount limit</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>NoRA</td>
<td>Number of Rooms Available</td>
</tr>
<tr>
<td>OCC</td>
<td>Occupancy</td>
</tr>
<tr>
<td>RevPAR</td>
<td>Revenue Per Available Room</td>
</tr>
<tr>
<td>RM</td>
<td>Revenue Management (RM)</td>
</tr>
<tr>
<td>RoI</td>
<td>Return on investment</td>
</tr>
<tr>
<td>TRE</td>
<td>Total rooms expenses</td>
</tr>
<tr>
<td>SRDL</td>
<td>The second room rate discount limit</td>
</tr>
<tr>
<td>TRDL</td>
<td>The third room rate discount limit</td>
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<tr>
<td>YM</td>
<td>Yield Management (YM)</td>
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OPERATIONAL DEFINITIONS OF TERMS

**Break even:** This is the point at which all expenses, *plus* all the costs and *all targeted profits* equal the sales revenue.

**Booking horizon:** The farthest bookings that could be accepted into the future.

**Cannibalizing:** Discounts that are taken up by a market segment that is ready to pay the higher room rates.

**CITY high, HOTEL high:** Communicates that the hotel is on rack rates, with the highest demand possible.

**Dynamic pricing / Flexible pricing:** Hotel with no rack rates and operating on BAR, the day’s best rates.

**Excess capacity:** Low demand, such that many rooms are empty.

**Excess demand:** Very high demand such that the capacity cannot satisfy the demand.

**Hoarding rooms:** Denying accommodation while rooms are still available. The rooms may be held back waiting expected higher rate paying guests.

**Holding out:** Refusing to book a guest in the hope that a better paying guest will arrive.

**Inventory unit:** The hotel room.

**Lead times/lead days:** Days between the booking date and the arrival date.

**No shows:** Guests who make firm room bookings but do not show up on the day of arrival.

**Overbooking:** Taking in bookings beyond the hotels capacity.

**Price sensitive:** Guests who are unwilling to pay rack rates. Applies specifically to leisure guests, who unlike business segment that is price insensitive.
**Rack rates:** The hotel’s asking rate. The hotel operates with a fixed rate from which discounts are made for the various discount segments.

**Room stock:** The total number of sellable rooms a hotel is holding.

**Time sensitive:** Applies to business guests who would rather pay more but get the product when they need or want it.

**Town hotels:** All hotels found in Kenya’s cities and towns. Fifty three of these units have been star rated by GoK, but the new ones are yet to be star rated as the last evaluation was in June 2003.

**Up-selling:** Quoting room rates starting from the highest rates and then decreasing according to customer resistant.

**Walk ins:** Guests who arrive without any booking and expects to be accommodated.

**Walking guests:** Booked and confirmed guests who cannot be accommodated because the hotel was “overbooked” and have to be accommodated elsewhere.

**YM fencing:** Rules or actions that stop customers from the higher market segment paying rates from the lower market segment by crossing over to the discounted rates.

**YM performance indicators:** Accommodation-space efficacy indicators of occupancy, RevPAR and average room rates.

**YM ingredients:** These are the ‘necessary’ tenets of YM through which YM operates such as forecasting, market segmenting, overbooking, YM systems and procedures application, YM training and YM culture inculcation.
ABSTRACT

Tourism in Kenya is not only cyclic, but suffers heavily from national and international politics. The result is an uncertain future for the country’s hotel-bed occupancy. Part of the bed-occupancy solution may be found in creating a Kenyan Yield Management (YM) culture. YM has established an impressive record of benefiting space constrained operations including airlines, tourism facilities, and sporting avenues during low demand periods and excess demand periods. The main objective of this study was, therefore, to investigate the scope and application of YM in Kenya’s town hotels, creating a room-stocks YM model for Kenya’s hospitality manager. Consequently, the approach was through an attempt at establishing the capacity-utilization efficiencies of using the various YM ingredients, through the performance indicators of occupancy. The study, therefore, sought to determine both the YM status of the town hotels population in Kenya and their occupancy performances. Literature was reviewed through the five YM ingredients with occupancy being confirmed as the appropriate measure for evaluating the sample hotels’ performances. The study’s sample size was 46 hotels of Kenya’s 53 registered town hotels; in effect a census was carried out on the total population of Kenya’s registered town hotels. Data were collected using structured questionnaires, and focus group discussions, while the validity and reliability of the instruments were enhanced by pre-testing the tools. Cross tabulation and Chi-square analyzed the YM applications and occupancy performances to establish the relationship between the two variables. The analysis revealed that a significant statistical relationship existed between all the five YM ingredient applications and occupancy performances (p<0.001 to p<0.047). The results suggested that the application of YM, improved the hotel’s occupancy performances, giving competitive advantage to hotels that had implemented YM and its ingredients. Moreover, multivariate regression analyses confirmed fourteen ingredient elements as the best occupancy predictors, making significant (p<0.001 to p<0.05) contributions to the town hotels occupancies. These determinant variables were assembled into an YM outcome model and presented as the most effective YM ingredient predictors for a hospitality facility. In addition, a leaner version of the model was also identified for the smaller hotel facilities and the budget constrained. A total of seven determinant variables with the biggest B coefficient values were identified and recommended as making the better contributions to occupancy. These predictor variables could then be implemented gradually starting with the variable with the highest impact (coefficient), increasing implementations as circumstances improve.
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study
The hospitality concept of ‘Yield Management (YM),’ also known as Revenue Management (RM) labels many approaches at maximizing revenue and profitability of a hospitality organization, by manipulating room-rate pricing and hotel space-booking policies. YM seeks to use the available hospitality saleable space in the most efficient way. Its purpose is simply to provide better management of a limited capacity, such as rooms, so as to maximize on income by applying a flexible pricing policy. Selmi & Dornier (2011), define YM as ‘A sophisticated way of managing supply and demand by acting simultaneously on the prices and the available capacity’.

The process could be summarized as determining policies of overbooking and allocating hospitality capacity to customers of different revenue generating potentials, through discriminatory pricing policies. It is a process of allocating the best service to the best customer at the best price and at the appropriate time. Kimes, (2000) describes the process as a method that sells the right inventory unit-space to the right customer, at the right time and for the right price.

YM appears to be an old hospitality management practice. Biblical Mary and Joseph, expecting their son Jesus may have been victims of a YM type practice (Ingold & Hyton, 1997). Sensing that the couple could not afford premium prices during a peak demand period, an YM strategic decision may have been made to deny them accommodation, in the ‘forecast’ hope that better business was forthcoming. The rumour that three gift-bearing, price-insensitive Kings would be visiting may have reached the facility’s management and impacted on their seasons’ room-allocation-
and-discounting-YM-strategy. Whatever the truth, this type of YM has always been practised by any good hotel manager. What is making the difference today is the formal re-organization of YM ideas into best practice-systems, that are assisting hotel managers make YM decisions that give their properties competitive advantage.

After the airline de-regulation of the early 1980s by the American Government, incumbent American airlines, faced with stiff domestic competition, pioneered in the modern application of YM. They were able to compete with the new low budget airlines and yet retain their high-end paying customers. They were so successful, that international airlines globally took up the concept (Meyer & de Wit, 1997; Ingold & Huyton, 2000; Jallat & Ancarani, 2008). Indeed, YM is now recognized as an essential tool for capacity management not only in airlines, but has slowly made inroads into capacity/space management of many other organizations, including the hospitality industry. Again, American hotels were in the lead, followed by the multinational chains of hotels. YM was so widespread that it was being used to manage such diverse space capacities as restaurants, cruises, cyber cafes and tourist attractions among others (Kimes & Mcguire, 2001). In the airline industry, YM led to the death of charter operations in the USA, (Jallat & Ancarani, 2008), as regular airlines competed successfully, on equal terms and basis with charter flights.

The key to YM is the recognition that there is always a market out there ready to consume any unused capacity, if the terms are attractive enough (Sarheim, 2008). It accepts that by selectively reducing the room-rate far enough, the excess capacity will be taken up by some segment of the market (Brotherton & Wood, 2008). The problem, therefore, is how low the reduction should be made to attract the next
segment generation, without hurting the business. It should be noted that as long as
the room-rate is above the small cost of remaking the room, any extra sale is
welcome, as it will contribute to the fixed costs of the hotel, especially if it does not
affect the regular standards and pace of business (Harewood, 2006; Coltman & Jagels,
2008).

During peak seasons, however, the problem is different. Due to lack of enough
saleable space, many hotels will have contracted themselves-out with earlier low-
season bookings, with heavy discounts, such that they are unable to achieve the
highest revenues possible, when the peak season arrives (Irandu, 2006). This is
especially so, if the industry is emerging from an extended low season, when the
operators of hotels were desperate for any business.

In the early days of YM, Kimes (1989) and Donaghy, McMahon-Bettie & McDowell
(1997) introduced the five key independent variables that represent the functional
aspects of YM, during implementation and its application. These early YM-
underpinning-elements continue to be cited by such other authors as Okumus (2004),
and Metters, Queenan & Mark (2008) among other recent YM authors. The presence
of any of these five elements otherwise referred to in this thesis as ingredients, are an
indication that some YM elements are in place in the operation. The five elements
include segmenting the market into its various sub-markets; forecasting the expected
occupancy loads; overbooking profiling; putting in place YM systems, procedures and
an YM-IT system; training and building an YM culture and continuously evaluating
operational performance. Wang & Bowie (2009) claim that YM application increases
revenue by between 3 to 7 per cent without significant additional capital expenditure.
Profitability in hotels is directly linked to its bed occupancy-demand. By the end of year 2003, a combination of adverse factors had reduced foreign tourist arrivals in Kenya to an all time low of just under 34% occupancy (GoK, 2005). At an average of 66% bed-nights lost daily, occupancy impacted heavily and negatively on the Kenyan hotel’s profitability and productivity. The industry’s performance measure by the ‘rule of thumb’ or industry standards accepts that bed-occupancy at an average of 70% occupancy is profitable, (Coltman & Jagels, 2008). Then the Kenya hospitality industry was operating at half the accepted minimum occupancy in 2003. If revenue collected in 2003 was Kshs. 25.8 billion, an equal amount or more may have been lost during this period, to make the minimum acceptable 70% occupancy. Between the years 2005 and 2007, there was a steady increase in bed occupancy, but when the post-election violence occurred in 2007/8, tourism and hotel-bed-demand again collapsed.

Eventually, when the low season changes into the high demand season, the emerging problem is usually of a different nature. The high season is normally a period when many hotels cannot meet the excessive demand. Those that were too ambitious end up with over-bookings and ‘walking guests,’ a painful experience to all involved, especially, during peak demand periods when most beds in the market have been taken up. This affects the ‘goodwill’ towards such hotels negatively. On the other hand, the high season, finds some hotels already blocked off to heavily discounted clients, hence heavy opportunity costs incurred as the hotel has to retain the low paying contracted guests and looses on the late booking higher rates-paying guests. Sheivachman (2011) confirms that during the high demand periods, many
inexperienced management teams regret having discounted rates so sharply in response to falling demand during the low demand periods. This study was, therefore, conducted to find out the coping strategies that different hotels have put in place, to deal with these issues and to establish the opportunities and scope in room-stock management.

1.2 Problem Statement

Kenya’s tourist low seasons are not only cyclic, but often experience booking cancellations and extended low seasons as a result of internal and external political manifestations (Irandu, 2006). Low seasons indicate fewer bed-nights, sometimes none at all for many nights in many hotels. Any ‘highly-debt-g geared’ operations tend to go out of business while others close and use the period for renovations and improvement of their products in anticipation for the next high season. These cyclic low tourist seasons reduce occupancies, sometimes, by up to 80% (GoK, 1998). In 1994, Kenyan hotels recorded a bed-occupancy-high of 15 million bed-nights, which, unfortunately, dropped by half to 8 million in 1998. (GoK, 1994; GoK, 1998). In 2002 bed occupancy in Kenya had dropped to less than 35% on average. This meant that 65% of Kenya’s hotel bed-nights remained unoccupied and went to waste. In addition, some Kenyan hotels, especially at the coast, are known to have failed and changed hands due to among other causes, extended low bed occupancies (GoK, 2005). In 2008 after the post-election violence, tourist arrivals took another major dip and hotels suffered another bout of low occupancy demands (GoK, 2009).

Adverse effects of seasonality and political manifestation will, thus, continue to impact on the Kenyan hospitality industry, denying the hotels stable occupancies and
opportunities of achieving the highest possible room-rates and revenues. This study, therefore, investigated whether these Kenyan occupancy problems could be ameliorated by the use of such modern intervention tools as YM.

1.2.1 Justification of the Study

The study problem was, therefore, concerned with investigating the scale and scope of YM application in Kenya’s hotels, its impact on the industry and the extent of the derived benefits by the various town hotels, applying the room stock management system. It was also concerned with investigating the capacity of YM to manage bedroom stocks in Kenyan hotels. Notably, formal YM application is made up of many aspects that are referred to as the basic YM ingredients. These YM elements include market segmentation, forecasting future occupancies, overbooking profiling, introduction of YM systems and procedures and YM training and culture inculcation (Kimes, 2000). Consequently, would the circumstances for Kenyan hotels require a fresh different approach?

1.3 Purpose of the Research

The purpose of this study was to investigate the extent of Yield Management implementation and application in Kenya’s town hotels, and establish whether the strategy of applying YM was assisting operators deal with the cyclic and debilitating effects of low accommodation demand in addition to increasing productivity during the higher demand periods.

1.4 Objectives of the Study
Literature suggests that YM is composed of five basic elements or ingredients. This study investigated the phenomenon through the use of these five ingredients as the study’s specific objectives, as follows:

1. To determine the use of market segmentation and its impact on performance in town hotels.
2. To establish the use of occupancy-forecasting and its influence on performance of Kenyan town hotels.
3. To investigate overbooking policies of town hotels and their influence on performance.
4. To establish the use of YM systems and procedures used in town hotels and their influence on performance of town hotels.
5. To determine the use YM training and the building of YM culture in town hotels and their effect on performance.
6. To develop an YM model that could assist hotel managers deal with excess capacity and excess demand, profitably.

1.5 Hypotheses

HO₁. There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of market segmentation and those hotels that have not implemented the YM-system ingredient.

HO₂. There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of occupancy forecasting and those hotels that have not implemented the YM-system ingredient.
HO3. There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of overbooking their capacity and those hotels that have not implemented the YM-system ingredient.

HO4. There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of implementing strategies, systems and procedures and those that have not implemented the YM-system ingredient.

HO5. There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of training and culture inculcation and those that have not implemented the YM-system ingredient.

1.6 Significance of the Study

The Kenyan hotel industry is generally conservative, slow to accept new ideas, and requires justification to invest in new or innovative methods of doing familiar chores (Okumus, 2004). In addition, Kenya’s hospitality problems of cyclic and sometimes extended low bed occupancies need a lasting solution. The solution may lie within the application of YM in Kenyan hotels. The results of this study may encourage the local hospitality industry towards the prudence of accepting YM as an essential, modern, best practice room-stock management tool. It is anticipated that this study will create an effective YM model that is easy to implement, cost-effective and appropriate to the local situation. In addition, it will sensitize the industry on missed opportunities that could make differences on their profitability. The findings may also be useful to other
researchers who may be interested in the implementation and performance of YM in Kenya’s town hotels.

1.7 Assumption

The application of YM improves bed occupancy and leads to the efficient use of accommodation-room-space in Kenya’s town hotels, precipitating better business performance.

1.8 Limitations of the Study

Hotels pride themselves in their various differences. They have different characteristics and base their marketing on their outstanding features that may not be found in other hotels. While some pride themselves in their unique locations, others on their unique character, others do so through their membership of particular international chains. So much deliberate variety and diversity will create difficulties in generalizing the results of any study. The results obtained from this study are, therefore, specific to Kenya town hotels and cannot be generalized to the entire Kenyan or other hotel industry.
1.9 Conceptual Framework

The framework is based on summaries and modifications of early work done on YM by Donaghy et al., (1997), in ‘Key Stages in a Formal YM Application’. This was coupled with recent work from Coltier (2001) and Aghazadeh (2007). The conceptual framework suggests that the application of YM may solve the problem of Kenya’s Town Hotels’ cyclic and extended low-bed occupancies that culminate in low earnings for investors, as shown in Figure 1.1. To accomplish this, the town hotels need to formulate operational policies for implementing YM ‘ingredients’ in the management of their accommodation product. Application of the right YM policy ingredients will lead to efficient use of the available accommodation room-stocks and

Figure 1.1: Application of YM in Kenyan Town

Source: Adapted from Donaghy et al. (1997), Coultier (2001) and Aghazadeh (2007)
improve on both occupancy and earnings. It may alleviate the negative effects of cyclic and extended low seasons and have a positive effect on high seasons, especially the efficient use of accommodation space. The key was to put the right ingredients together in a manner that comprises a model that is cost-effective and takes into consideration the peculiarities of the market segments, the hotels and the prevailing local circumstances.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Yield Management is claimed to solve the problems of excess capacity and excess demand by relying on the various “YM ingredients”. These ingredients are regarded by Donaghy et al. (1997), Coultier (2001) and Aghazadeh (2007) and others, as the ideal activities that ensure YM’s performance. This study investigated YM through the various individual ingredients to see how they came together to produce better performance. This chapter reviewed literature through the ingredients as follows: segmenting the market, forecasting demand, overbooking policies, YM systems and procedures, training and building an YM culture, performance review and feedback.

2.1.1 Overview of the YM Model and Application

Yield Management was a little known concept of the 1950s that lay dormant until the 1970s when the airline industry was de-regulated and the resulting intensive cut-throat competition required urgent innovation, by the incumbents, to survive (Meyer & de Wit, 1997; Ingold & Huyton, 2000). Prior to de-regulation, the incumbent airlines ruled the skies, protected by their governments and their own organization, the International Air Transport Association (IATA), such that all competition against them was regulated, stifled or denied (Ingold & Huyton, 2000). With such support they flourished, with inflated prices, despite, many of them being particularly inefficient.

In 1978, de-regulation laws took effect on the American skies and airports and the change for the incumbent airlines was traumatic (Ingold & Huyton, 2000). Many of
them, such as PanAm, could not survive the resulting price wars and stiff competition (Ingold & Huyton, 2000). A few of the incumbents then, pioneered into the little known YM concept and thrived. They were able to retain their high-price paying passengers, and at the same time compete on equal terms with the new cut-price airlines for the price-sensitive passengers (Donaghy et al., 1997). They were, in addition, able to win over, the price sensitive customers from other sectors of the transport industry, allowing the industry to thrive again, especially for the incumbents. This is the key to YM application: a system that not only allows the hotels to retain their current high price paying tourists and customers but have the ability to compete on all the other market segments on equal basis, whether they be domestic or international market segments. The system should also allow for the targeting and generation of new markets that may have shunned these hotels as ‘too expensive’.

The present study has limited itself to YM in the special area of ‘room accommodation’ as a subject of hotel’s space management efforts. Early approaches to YM addressed rooms-revenue only and it was much later that market segmentation and other factors were included. This approach was informal and fairly unscientific, something that appears to be happening in Kenya. Some managers in the focus groups, claim to have implemented YM, but their understanding of the issues involved are based on the dictionary meaning of the words yield and management, as some confessed.

In the early days of YM, there were many models of YM propositioned by the different YM writers. Each author appeared to concentrate on their angle of specialization, with the general areas spilling into each other, resulting in what Jones
Jones & Kewin (1997) called the duplications and fragmentations of YM literature. Jones & Kewin (1997) saw a need for outlining a clear practical model that could effectively be used to implement YM into the hotel’s operations. From the work of such YM authors as Donaghy, Mcmohan-Bettie & Mcdowell (1997), Jauncy, Mitchel & Slamet (1995) Jones & Hamilton (1992) Russel & Johns (1997), and, Jones & Kewin (1997), a 5-point integrated system emerged. It consisted of strategic decision-making systems, tactical decision-making systems, information systems, technological systems and human systems, as the basis for the various models available in YM literature. While, these YM early writers considered the 5-YM-point model, as the 'underpinning framework' of any YM model, Kimes (1998) and Kimes, (2000), on the other hand, identified and considered a different 5 points model as the necessary ingredients for the implementations of a successful YM system. The model covered the standard YM ground, simply and effectively, defining YM application process as that of the following, five ingredients:

Figure 2.1: A ‘Necessary Ingredients’ YM Channel Model
Adapted from Kimes (2000)
Thus Figure 2.1 defines the ingredients of a fully operational YM system with the basic and necessary ingredients for an YM model. This study borrowed and considered YM through the necessary ingredients by Kimes’ (2000) YM-underpinning-model, that continues to be cited by YM authors as Okumus (2004), Metters, Queenan & Mark (2008) and Breffni, Kelly & Kristin (2011), as having the most comprehensive ingredients of YM.

2.2 Segmenting the Market

Hotels serve many markets. There are the leisure tour groups, the business convention groups, the individual tourists or the individual businessmen. They are all different sub-markets for the hotel with different characteristics and needs. To serve the market well, every hotel facility makes every effort to identify each submarket’s or market segment’s needs and characteristics. Different hotel market segments behave differently under different circumstances. Rack rates may be too high for one market segment, while to another market segment the rates may be considered fair, while others may be willing to pay more than the indicated rates for the same product, if available (Middleton, 1994). This is the first key to YM. The YM manager is, therefore, called upon to fully understand the different market segments and take advantage of this phenomenon. Sarheim (2008) argues that segmenting the market is the most effective way to approach the different types of demand; each type of demand will have different room needs, room-rate tolerance and different lead time to bookings (Table 2.1). A good hotel Yield Manager understands the needs and characteristics of the different markets segments and uses them to ensure that the hotel garners the best rates and the best possible occupancies from the market-place.
Table 2.1: YM Exploitation of Different Segments Characteristics

<table>
<thead>
<tr>
<th>Leisure guest</th>
<th>Business guest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makes advance commitments</td>
<td>Unwilling to commit</td>
</tr>
<tr>
<td>Accepts varying quality levels</td>
<td>Desires High Quality</td>
</tr>
<tr>
<td>Destination flexible</td>
<td>Destination inflexible</td>
</tr>
<tr>
<td>Location flexible</td>
<td>Location inflexible</td>
</tr>
<tr>
<td>Prestige indifference</td>
<td>Prestige conscious</td>
</tr>
<tr>
<td>Price elastic</td>
<td>Price inelastic</td>
</tr>
<tr>
<td>Long stay</td>
<td>Short stay</td>
</tr>
</tbody>
</table>

Source: Hanks (1992)

Demand, therefore, needs to be segregated into its various levels. The easily identifiable ones include demand that is ‘time sensitive’ and willing to pay more, based on the time of the service while a second level is ‘price sensitive’ and only buys according to the level of discounts available (Chiang, Chen & Xu, 2007). These are the two major segments, the leisure and business segments of the hospitality market. The leisure, price sensitive demand starts the search for ‘good deals’ early, confirms their itinerary early, while the business demand does not only book late but is generally insensitive to price (Table 2.1). Based on these characteristics, management can apply strategies and tactics that use time and price-levers to attract the high paying, time-sensitive demand into the high seasons and can also use discount-lever to attract the price-sensitive demand, away from the high seasons into the shoulders or the low seasons.
The final scenario results in pushing price-sensitive customers away from the peak periods towards off-peak periods and attracting price-insensitive customers into prime time, at higher rates (Enz, 2001). To segment the market successfully, Bentley (2007) recognizes the need to fully identify the different segments’ special needs and peculiarities. A picture of how and when they would make reservations and what kinds of reservations they would typically make, is important for forecasting demand. From these data, the hotel can start forecasting on what prices to charge the different customers segments and at what periods. The two major different needs segments were originally identified by Hanks (1992), who suggested that hotels could give ‘segment targeted’ discounts and build fences against other segments from taking advantage, by offering benefits and corresponding restrictions, accordingly (Table 2.1).

Yelkur & Herbig (1997) suggested five steps that a firm must take to successful differential pricing. First the organization must select its target market and ‘go one step further’ to segment it into smaller market segments. Before a hotel segments its market, it may appear as one huge market with seemingly random demand fluctuations. The first goal of the hotel is, therefore, to segment its market into several fairly homogeneous sets of consumers that can then be served accordingly and profitably. The second step would then be to develop a service strategy for each level of these customer segments. That having been identified, the third step would be to move on to identifying the demand size for each segment before setting up or determining the price. Estimating demand for each customer segment can be analyzed from the market data that show the customers demand behaviour. This can be derived from past business records. Once the hotel has established the key function of
segmenting the market and mapped out their different layering needs and characteristics, the hotel can embark on forecasting the future loads within these different segment layerings.

2.3 Occupancy Forecasting

Detailed and accurate occupancy forecasts for the different market segments are key ingredients for any YM system. For the hospitality facility to plan its future, it is necessary to have a tentative mapping of the future occupancies and revenues. This is more so for YM as identifying possible future occupancies allows for the formulation of strategies that ensure that action is taken early for better occupancies, in the future. An in-depth study of past data on demand and booking patterns of every segment is essential. Most hotels have information on past sales patterns but may not have records on when and how customers made their reservations (Hanks, 1992). Zakhary et al. (2011) suggests the use of all historical data including such information as reservation arrivals, cancellations, length of stay, no shows, group reservations, seasonality, trend and so on. Without this type of information, it is almost impossible to make accurate, usable, booking forecasting.

The booking horizon and booking patterns for different market segments and facility types varies. Reservations made for resort hotels, on average, are made far in advance, while at airport hotels most of the bookings are received much closer to arrival dates and times (Sun, Gauri & Webster, 2011). With accurate information of when to expect what type of customer, it is possible for the manager to make objective decisions on which booking to accept, which bookings to keep on hold, and which
bookings to reject when accommodation is limited (Dabas & Manaktola, 2007; Chen & Kachani, 2007).

In the formative stages of hotel YM, Jauncy, Mitchel & Slamet (1995) made a comprehensive attempt at defining hotel YM by reviewing all the available YM application-vendor’s publications and interviewing over 18-London based front office hotel managers. He listed thirteen YM features, which kept cropping up during the various interviews. The most regular issue was ‘forecasting of demand patterns of the hotel’s market segments’ to the least mentioned of ‘constant feedback and support.’ The result was a YM ‘best fit’ definition derived from the analysis as follows: YM is ‘An integrated, continuous and systematic approach to maximizing room revenue through the manipulation of room rates in response to forecasted patterns of demand’ (El Gayar et al., 2011). Forecasting has been considered key to hotel’s YM application by most authors, including such authors as Bentley (2007), Sun, Gauri & Webster (2011) & Zakhary et al. (2011) among others.

Historical segmented demand analysis was also found to be a most repetitive feature as quoted by hoteliers. Most managers found demand analysis, a useful and necessary feature to establish the historical patterns of demand over time by the different market segments. This allowed for the ability to predict not only the possible future bookings but also identify the different segments that may be arriving at the hotel. Reservation inventory reviewing after forecasting was also found to be important, as actual patterns and volume of business could be observed as it materialized. Forecasting, allowed for “closing rooms” if any refurbishment was to be carried out, and ‘closing’ or ‘opening’ discounts, as new booking patterns emerged and the information viewed
against forecasted patterns. Besides record keeping, information gathering and analysis were found to be important especially on non-arrivals and cancellations. The analysis results would be used to adjust the levels of future forecast business, as well as gauging the various effects of the different decision models (discounts and restrictions) on each sector of market segmentation. Communication to all the sectors on the ideal mix of rates and restrictions according to forecasting, on the different segments was found to be of particular interest to all the stakeholders. A continuous information process that allowed all parties to access the rooms’ inventory including restrictions and rates as decisions were made making electronic information technology the most ideal for accomplishing the above functions seamlessly (Enz 2001; El Gayar et al., 2011).

Forecasting is a cornerstone for YM implementation. Zakhary et al. (2011) propose a YM forecasting system, that goes beyond predicting that 50 or so rooms will be sold at a certain date. To be of practical use the expected dates that these bookings are made will need to be known and included. The manager has to know when each of the predicted booking is expected to occur. For example, the information that 30% of ‘good’ bookings will be expected by day 45, another 40% by day 55 while 20% will be expected within 48 hours of the arrival date is useful information. This way, the manager can build responses and triggers to alert him when the booking pattern is not going according to plan. This allows time for early action against deviation, in advance of the arrival date. Tactical actions may include opening or closing the lower rates and ensuring that fences are in place when the lower rates are open. A key component of hotel room YM system is forecasting of expected occupancies on a daily basis. Inaccurate forecasts will significantly impact the performance of the YM
systems, because the load forecasts are the main reference for room allocation and discounting decisions. El Gayar et al. (2011) add that the airline industry estimates that a 20 per cent improvement in forecasting translates into a 1 per cent increase in sales revenue.

The hotel industry survives on very thin net profit margins and this way, forecasting will probably impact the net income in a much larger way. The practice of YM requires that hotels forecast their future segmented loads so that the facility can take advantage of the various needs and characteristics of the different market segments. How deep does the Kenyan town hotel industry forecast its occupancy loads? Do the facilities that practise forecasting future loads gain any competitive advantage? The knowledge on the behaviour of the market is not only key to the success of forecasting and segmentation but is also important for the concept of overbooking the facility's capacity.

2.4 Over-booking Policies and Operations

During the high demand season, the hotel would be expected to achieve as much as 100 per cent occupancy as very little effort is required to attract business. Yet, in very few occasions does the hotel achieve the goal of 100 per cent occupancy (Hwang & Wen, 2009). The challenge for the manager has been that the hotel did not record 100% occupancy, yet 100% of its rooms had been booked. This old hospitality problem is caused by guests not showing up on arrival days, for various reasons, or receiving last minute cancellation from guests near to the day of arrival. Other causes are guests who decide to leave the hotel earlier than their booking itinerary. To overcome these challenges, the hotel has to establish a policy of booking more guests
than the hotel can accommodate. This is referred to as ‘overbooking’ and the relative size of the overbooking is tagged to the hotel’s overbooking-policy, which is derived from the mean of previous ‘no shows’ experienced during similar periods (Fawcett, 2009).

The following example by Fawcett (2009) highlights and demonstrates the necessity for an overbooking policy to maximize the use of all rooms during the high seasons. It highlights the possible loss of revenue in one month when the hotel achieved 78% occupancy instead of 80% occupancy for 25 days. A 200 luxury hotel with an average room rate of 80 (USD), would make or lose an additional 8000 (USD) on a 2% occupancy on overbooking or by no-shows losses, during a 25 days period; a considerable amount (Fawcett, 2009).

With good historical data on the hotel’s market behaviour, overbooking can be fine tuned to such an extent that hardly any guests are ‘walked’ or room nights are wasted (Fawcett, 2009). US airlines have had long experience in overbooking and have improved it, into an art. In 2007, despite extensive overbooking, US airlines only ‘walked’ 9 passengers out of every 10000 (Fawcett, 2009). In spite of the extra occupancy and revenue overbooking can save, it should be applied with care to avoid negative perceptions by the ‘walked’ guests. In their research, Hwang & Wen (2009) conclude that customers who perceived a hotel’s overbooking and compensation policies to be unfair were less likely to be loyal to the hotel in the future. They also found that women were more likely than men to perceive the practice of hotel overbooking as unfair, especially, when it touched on them. Hardly any other factors in the hotel YM practices had such negative effects on customers’ perceptions of
fairness as overbooking. Kimes (1994), recommends that special IT efforts be made to ensure that the hotel’s overbooking operation resulted in occupancy that was as close to the hotel’s capacity as possible, to avoid the unfortunate incidences of ‘walking’ guests.

Literature confirms that overbooking the facility’s capacity is widely practised; from airlines to cruise ships and hotels. Operating an extensive YM is far too complicated for the human brain and yet too sensitive to be left to computers (Breffni, Kelly & Kristin, 2011). To successfully compute the overbooking profiles of the various days, weeks, seasons and segments, by the use of an IT systems that can handle the large data necessary to be considered, for each day of period was highlighted in this section. The key for a successful YM application is the balancing of the IT systems application and the use of strategies, procedures and tactics by the facilities team.

2.5 Setting up Systems, Strategies, Tactics and Procedures

Harewood (2006), points out that the manipulation of the above data, without an information technology application would be particularly difficult. An earlier study by Jauncy, Mitchel and Slamet (1995) on leading vendors of YM applications and on interviews with London-based front office managers listed and confirmed IT as an essential feature for a successful YM application.

The application must be able to forecast demand by not only analyzing past data, but also allowing the input of extra data from the YM controlling team (Metters, Queenan & Mark, 2008). The team’s information should, as well, add and enable the system to consider the evolving current information in the market place that the system has no
access to. The application will also need to record the days that the various bookings occurred to allow the manager know when to expect what bookings. This is necessary for the forecasting and room allocation function as all future dates and their bookings are reviewed constantly. With an IT system, the emerging demand patterns will also give early warning to the manager if something different is going on.

A good system should be able to run predetermined reports, with an integrated application system that will record the actual pattern of business as it occurs (Metters, Queenan & Mark, 2008). Future blocking of inventory for the better paying customers will thus be made possible by the system. The system should also be capable of analyzing the various scenarios, giving management recommendations for different actions, such as discounting and denying accommodation. The system may have recommended for low season’s discounts as per available data, but the situation on the ground may be different with delayed flights in a nearby airport, due to a changing weather. When the IT system runs its pre-determined reports, it will require staff to relate the recommendations to the long and short strategies of the company, before building them into the operation.

2.5.1 Strategies and Tactics

Sheivachman (2011) believes that YM provides ‘a treasure chest’ of commercial flexibility, operational tactics and a zest for competitiveness. Without YM operations’ tactics, advance bookings may easily lure hotels into booking too high a capacity of rooms to advance-booking-leisure-guests. If this were to happen, the business guest who is a late booker and is willing to pay the higher rate without prior commitment, may unfortunately find a full house. YM allows the hotel to take the risk of denying
accommodation to a certain segment of customers while many rooms are still available that are targeted to late ‘booking-forecast-customers’ willing to pay that higher rate.

Where more than one price for the same product is operational in an YM system, a need to stop clients from crossing over from the higher price segment to the lower price is necessary. Meissner & Strauss (2010) note the danger and call it ‘cannibalization’, when it happens. This refers to the number of rack or higher rate bookings that may be lost because customers have taken advantage of the discounted lower rates. To counter this danger, hotels have to avoid general discounting and only target all their discounts to particular segments with fences in place to stop cross-over’s Meissner & Strauss (2010). These fences should comprise sets of rules and conditions for making any purchases or bookings. As long as these conditions make sense to the customer, they are accepted gracefully since they come with benefits. Meissner & Strauss (2010) argue that the fences offer discounts on inventory that might not otherwise have been sold to customers who may otherwise not have purchased. The discounting conditions prevent ‘higher rates-willing-to-pay customers from taking advantage of any discount they did not seek or need. An example would be the often limiting of discounting in city hotel rates to weekends only. Business customers tend to book accommodation during the weekdays only and they are an inelastic market that is not price-sensitive. The leisure price-sensitive segments could, therefore, be encouraged to book over the weekend by weekend targeted discounts.

Metters, Queenan and Mark (2008) consider it as the challenge of offering differential prices for the same service and recommend a system of restrictions. For
the hotels, a typical restriction could be discounting on how far in advance customers book their accommodation. Business guests are not too concerned about price and tend to book their reservations very close to their day of arrival. Leisure travellers, on the other hand, are price-conscious and tend to plan and book early. However, restrictions have many downsides. Some restrictions are perceived unfair, especially where restriction segmentation is based on nationality race or ethnicity (Wang & Bowie, 2009). It is a common practice in Kenya and elsewhere to consider guests as either foreign or local and apply different prices. Other issues include creative business customers who find ways to circumvent the rules, negative customer perception and loss of goodwill due to differentiated prices, Metters, Queenan & Mark, (2008) especially where customers paying the higher prices discover that others are enjoying the same service and facilities at a much lower price.

On the application level, Metters, Queenan & Mark (2008) note that basing YM on past demand levels from the various segments, provide the receptionist or the reservation clerk with different discounts to offer to inquiring customers. During high demand dates, only higher rates will be offered and a wider range of offers will be available during the low demand dates, with of course differing fences (Kimes, 1989). In addition, different tactics will need to be exercised where repeat and valued customers are concerned. All the decisions will be based on the hotel’s IT system that can easily be communicated to the operators within and without the hotel. Integration between YM systems, and all the other communication systems within the hotel, such as customer databases and other house IT systems will be required in order to have a seamless YM IT functionality (Sigala, Lockwood & Jones, 2001). With an IT system
that is capable of producing YM usable reports, it should be possible to develop it into recommending room rates, including possible discounts.

2.5.2 Accommodation Product Pricing

Unlike most other industries, the intangibility factor of the service industries makes it more difficult to set up prices and discounts. Whereas most other industries have traditionally used costs as the basis of their pricing, service industries have continued to use estimates of costs to allow for profits (Zeithman, Parasuraman & Berry, 1985). Zeithman, Parasuraman & Berry (1985) found that that 63% of service industries use costs as the basis of their pricing while 36% have used competition pricing and willing to pay as the basis of their pricing and discounting. Kaplan & Anderson (2007b) suggest that willingness to pay or demand-based pricing may be more difficult to implement than costs-orientated pricing, as it does not guarantee that all costs will be met. YM is a service industry concept and it therefore bases its pricing on a demand-orientated-pricing-method called ‘differential pricing’ (Anderson & Xie, 2010). This involves charging different prices for the same product to different segments of the market according to the different demands. While this differential in pricing is not reflected by any additional costs in production or delivery of the product, it means extra revenue for the hotel (Phillip, 2005).

In the same vein, explaining differential rates for the same product, Anderson & Xie (2010), through their price discrimination model, explain why medical doctors charge different fees to different patients, for the same service. Similarly, lawyers relate their fees to the money involved rather than the work done. The effort is towards knowing ‘the demand curve of each customer’ and using this information to get paid maximum
amount from him or her. Whereas this may be true for professions like doctors, it has a limited use in hotels as the maximum price can only include the rack-rate.

A hotel operator has little power against the corporate travel manager’s demands to buy at the low demand prices for all time. Wang & Bowie (2009), recommend that this is the business sector that should be able to afford the higher prices and the hotel negotiator should be aware of the hotels hidden strengths when negotiating with them. These include each hotel’s product differentiation, its location, its image and its facilities. These are also powerful negotiating tools that may not be available elsewhere, packaged attractively.

It has been highlighted that a good YM system depends on data collected. From the collected data, the system can build reports on the most recent of the facility’s market segments, forecast the different market segments’ demands including the changing needs and characteristics of these markets. From these reports, many decisions can be made including discounting and denying accommodation can be made. For staff to understand these YM functions, making the right YM decisions when necessary, requires training and experience. A YM culture in the facility also enhances and underpins the training efforts. The study, therefore, endeavored, to establish whether an YM training and culture inculcation exists for Kenyan town hotels staff.

2.6 Training and Building an YM Culture

The accepted culture in the hospitality industry is geared towards treating and making every effort to ensure that all the guest’s needs are met. The new YM culture is different. It is geared towards ensuring the success of the facility’s financial
performance. This is focused on the facility’s wellbeing, so much so that the guest can be denied accommodation or can find confirmed booking at the destination already taken, despite holding a confirmation.

Selmi & Dornier (2011) reviewing problems experienced with the implementation of YM in the lodging and hotel industry, started by recognizing the vital element of human resource in the implementation of the YM, at the same time recognizing that the industry has a very conservative and a traditionally-driven culture. Accepting the limitation, Donaghy, McMahon-Bettie & McDowell (1997) set out to provide guidelines towards successful implementation of YM programmes into an accepted YM culture in a facility. The guidelines began by recognizing that a kind of unstructured YM already existed in hotels, in the first place, and followed it up by discussing the difficulties encountered by both managers and specialists when attempting to introduce structured YM. Donaghy, McMahon-Bettie & McDowell (1997) recommended a model that comprises 4 stages. The first stage consisted of preparing staff for change, the second is the transition stage and the third is the control stage with a final feedback stage that allows everyone in the loop to know how they have performed.

Selmi & Dornier (2011) on the other hand, believe that YM is the most important working tool available in the lodging and hospitality industry for business planning and space management. They believe that YM should be introduced through a 3 phase system change. First, use what Selmi & Dornier (2011) call unfreezing; emphasizing the need for change at the individual and organization level. Dissatisfy staff with the current way of doing business and encourage them towards change. The second stage
would consist of restructuring systems within, implementation of new YM policy, training and setting up marketing support systems. The third and final stage should be to refreeze the system so that it does not go backwards by continuously evaluating and appraising

Donaghy, McMahon-Bettie & McDowell (1997) while discussing the airline success at managing capacity through YM techniques, warn of the dangers of YM improving short-term profits at the expense of traditional ways. They recommend the improvement of profits through the tried methods of service improvement and other product improvement opportunities. Efforts should be made to ensure that the consumer does not perceive that the increased value benefits the hotel only, as YM prices appear to increase for no apparent reasons (Donaghy et al., 1997). Minimizing dissatisfaction by offering enough benefits to restrictions, having restrictions that are not too severe and giving timely and enough information on changes, would further enhance YM perceptions by the customer (Selmi & Dornier, 2011).

In conclusion, the very crucial role that is played by a trained and ‘YM cultured and inculcated staff’ cannot be underestimated. They have the responsibility of selling the same product at various prices to the various markets and sometimes to the same individual and market at different prices during the various seasons. The danger of customer dissatisfaction with YM is real. Besides, YM is heavily inclined towards ensuring the health of the facility’s fiscal performance, rather than the traditional hospitality ‘customer is king’ mentality.
2.6.1 Inculcating a New YM Culture

An YM system creates a formalized and efficient procedure for manipulating rates to optimize occupancy and revenue. To do this, the front office has to make many changes in the way the regular duties are performed. YM presents the hotel staff with an unfamiliar way of carrying out their basic duties. According to Selmi & Dornier (2011) an YM system represents a cultural change from regarding the customer as the central pillar of the business towards identifying the hotel facility as the central pillar of the business. The needs of the business organisation must be met first, before the needs of the guest are considered. This is not only unusual; it is different from tradition. It needs staff to change in attitudes towards both the guest and the organization. It also calls for change in their working procedures. An integral part of YM implementation, therefore, requires that managers, reservation clerks and booking staff be re-trained. The training and education process should focus on such key areas as computerized systems; yield management policies, processes, procedures, tactics and customer enlightenment programs.

Sanchez & Satir (2005) recognize that it is not easy to hold on to an empty room, while denying it to other guests in the hope that a higher paying customer will turn up. It is, therefore, necessary to re-train reservation clerks to say ‘no’ to lower rates and learn to ‘holding out’ for the higher rates. They will need to learn the techniques of ‘up-selling’ and to accept the lower rates if they perceive price resistance from guests, in the face of diminishing demand (Sanchez and Satir, 2005). The idea of the hotel being a highly organized establishment whose purpose is to make money for the owners seems far removed. The idea of paying different rates during the different
seasons or different rates when one arrives as a tourist or as a corporate guest is not customer friendly (Sanchez & Satir, 2005). It requires staff who are familiar and comfortable with YM techniques. Sanchez & Satir (2005) note that the implementations of YM require that all the staff be trained, to apply the various YM techniques. Specialist training will also be necessary for the staff working directly with guests. Managers will also require special training for both YM operational purposes and for the understanding of the processes.

This section has highlighted the need for training and cultural change for all staff, from management to customer contact staff. This is necessary as YM brings with it a new culture of focusing on the performance of the facility rather than the traditional hospitality way of focusing attention on the guest’s needs. As the YM focus is no longer on the customer but towards the facility’s performance, it is essential that YM’s performance be measurable so that the success of the application of various ingredients and actions can be gauged.

2.7 Measuring YM Performance in Hotels

While literature confirms that YM plays a role in the overall increase of hotel room performance, the study attempted to assess the impact of the various YM applications in Kenya’s town hotels. The suggested indicators used to measure performance dimensions include financial ratios, occupancy, room prices, RevPAR, sales growth, and customer satisfaction (Capiez & Kava 2004; Ruggero, 2011). However, Orkin (1998) and Barth (2002) had suggested a model that approaches the problem by proposing the use of three of Ruggero’s (2011) contribution-based-yield-statistics, as the hotel’s basic performance indicators. The model defined several ratios that
monitor and consider the different performance measures separately and holistically. These three defining ratios are: the room efficiency ratio (average room rates), the capacity utilization ratio (occupancy) and the earning optimization ratio (RevPAR), as follows:

Room rates efficiency: *Average room rate (ARR)* = Total revenue / number of rooms sold

Capacity utilization: *Occupancy (OCC)* = No. of rooms sold / number of rooms available

Earning optimization: *Revenue per available room (RevPAR)* = Total revenue / number of rooms available.

Add sales growth and customer satisfaction to these three ratios, and all the necessary indicators to compare performance of different hotels comprehensively, are in place (Ruggero, 2011). This study, however, focused on using the performance measures as per Barth’s (2002) Model of occupancy (OCC), average room rates (ARR) and revenue per available rooms (RevPAR).

While the original plan and intention was to use all the three performance indicators to measure performance across the various star rating clusters, it was, however, realized that while ARR and RevPAR were ideal for measuring performance longitudinally for the same hotel facility, they were not suitable at all for measuring performances across star rating clusters. The only suitable performance measure across star ratings was the capacity utilization measure of occupancy. This was because its measurement values were common-sized across the hotels and star ratings into percentages.
2.7 Literature Summary

There are two major gaps that this study attempted to address. The first gap was to establish the extent of YM application in Kenya’s town hotels, through the five YM ingredients. The study also attempted to measure the occupancy performance levels of hotels applying the YM system ingredients against those that were not applying the system ingredients. A fully IT operational YM system may be too elaborate, cumbersome and not cost-effective for the middle level and the smaller hotel operations (Sigala, Lockwood & Jones, 2001). Consequently, the study has attempted to create a model that could be combined into a best fit YM model, for the Kenyan town hotel market.
CHAPTER THREE

METHODOLOGY

3.1 Introduction
This chapter outlines the procedures that were used and followed in conducting this study. These includes; the description of the research design, the identification of the target population, sampling, sample size calculation and the sampling procedures used, dependent and independent variables, the study instruments, data collection procedure activities and finally the data analysis.

3.2 The Research Design
The study utilized a cross-sectional study design. The design allowed collection of both qualitative and quantitative data in order to determine the status of the population with respect to the study variables. The study included the description of the state of YM affairs that exists in town hotels, as well as comparing their significance and inferences to the larger hotel population (Buglear, 2004). The survey design has, thus, attempted to provide detailed insights into the extent of YM application in Kenya’s town hotels, including the hotels’ various performances on the different applications of YM. Attention to detail that may reveal relationships between variables that are important in stimulating YM and its performance in Kenya’s hotel industry, has been made by considering the individual ingredient’s impacts.

3.3 The Study Site
This study targeted the star rated registered town hotels cluster across Kenya. The cluster ranges from the one star hotel to the five star hotels. The targeting of town hotels was necessary because of the transient nature of their guests. YM has many
application possibilities in the fluid situations of transient town hotels, rather than vocational hotels or lodges that tend to serve one leisure segment of the market. The study included all the major Kenyan towns that had these up market star rated hotels, as shown on Appendix 4.

3.4 Target Population
The target population was the town hotels in Kenya. The Kenyan hotel population consists of three types of hotel clusters as detailed in the most recent evaluation in the Kenya Gazette No. 3976 of June, 2003. There are the town hotels, the vocational hotels and the lodges. The study limited itself and focused on the town hotel cluster whose population was indicated as 53, by the latest available hotel census in the Kenya gazette (2003). It also indicated that the one-to-five-star town hotels were spread throughout Kenya’s towns, from Mombasa, Nairobi, Nakuru, Eldoret to Kisumu and Nyeri. This cluster was selected because of the transient nature of town hotels that have the advantage of a wider spectrum of market segmentations. Literature considers YM applications to be more effective where a high number of potential market segments exist (Milla & Shoemaker, 2008). The sampling unit was the hotel, as represented by the sample on Table 3.1
Table 3.1: The study population

<table>
<thead>
<tr>
<th>Town Hotels’ Star Rating Population as per GoK June 2003</th>
<th>Town hotels’ Star Ratings Distribution on the Ground as at the time of data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Star</td>
<td>19</td>
</tr>
<tr>
<td>Two Star</td>
<td>16</td>
</tr>
<tr>
<td>Three Star</td>
<td>9</td>
</tr>
<tr>
<td>Four Star</td>
<td>0</td>
</tr>
<tr>
<td>Five Star</td>
<td>9</td>
</tr>
<tr>
<td>Total Hotels</td>
<td>53(6 Non participants)</td>
</tr>
</tbody>
</table>

3.5 Sample Size Determination

The Kenyan town hotels were the units of study in this research; in addition, the gazetted population of town hotel in Kenya totalled 53 in number, as per the Kenya gazette No. 3976, (2003). Consequently, a census was conducted. All the 53 hotels were visited to request for participation and only 47 hotels were willing to take part in the study. Six of the star-rated town hotels did not want to participate. Out of the 47 star-rated town hotels that accepted to participate, 46 of them responded giving a 98% response rate, as shown in Table 3.1. From these hotels, the study identified and established both their YM characteristics and operational performance levels.

3.6 Sampling Procedure

The gazetted star-rating clusters included: 7 five star-hotels; nil four-star hotels; 11 three-star hotels; 16 two-star hotels and 19 one-star hotels. It should be noted that there were no four star-rated hotels, yet many hotels prided themselves of being in the four-star cluster. Furthermore, the 2003 star rating evaluation was 10 years old and much had changed on the ground, with many of these hotels having refurbished their properties and upgraded to upper star-rating clusters. Consequently, the study
accepted each hotels declared star rating and giving the final star-rating cluster as follows: Five-star 10; four-star 7; three-star 19; two-star 10 and 3 one –tar hotels, as shown on Table 3.1.

The respondents were selected from reservation managers, yield managers or front office managers as directed by the general managers but sometimes the most senior manager in the institution agreed to participate. However, most general managers and managers were instrumental in directing the researcher to the staff likely to hold the relevant information on the hotel’s use of YM system. The selected respondents from the town hotels included one general manager, eight hotel managers, four marketing managers, thirteen reservation managers, four yield managers and sixteen front office managers. Each one of them played a leading role in the room stock management of their hotels. The most senior staff from the accounting department was also requested to give key financial performance indicators, while two general managers and four managers accepted to be part of an YM focus group discussion that gave valuable insights into town hotels YM operations.

3.7 Data Collection Instruments

The study employed a structured questionnaire to collect data from respondents and focus group discussion guides for a selected number of hotel managers. The identified reservations, front office or YM managers were given identical questions administered through a questionnaire. The questionnaire needed to close the literature gap on YM application in Kenya’s town hotels and its performance. Hence, the questionnaire was reduced to the 5 YM-easy-to understand ingredients that allowed the researcher to describe the YM characteristics of each hotel. In addition, the
questionnaire sought to identify the hotels performances by asking questions on occupancy and other performances indicators. The questions had pre-coded responses as shown on appendix 1. The study’s intention was to identify the town hotels’ characteristics and describe their various occupancies. The questionnaire method was ideal for this purpose.

The manager’s Focus Group Discussion Guide allowed for the development of ideas by inviting further contingent and unstructured questions and discussions. In addition it allowed for deeper insights and understanding of the other YM issues not included in the structured questionnaires. Some managers had deep understanding of the YM process while most of them tended to leave YM to ‘their experts’. Six managers from an identified group of 10 possibilities accepted invitation to the focus group study. The 10 had been selected on the basis of their hotels having been identified as formally practicing many of the YM ingredients.

3.8 The Study Variables
The independent variables of this study included the 5 YM ingredients. YM was an unfamiliar term to many respondents and the ingredients were used to unbundle the YM term and concept to familiar terms, such as market segmentation, occupancy forecasting and overbooking processes. This unbundling eliminated any misunderstandings on the meanings of YM. Data were thus collected through focusing on these five YM’s ingredients, whose meaning was familiar to the respondents. The cumulative effect of data collected on these ingredients, eventually, added up to the various YM applications that described the YM characteristics of each hotel. Distribution of the various levels of performances could then be attributed to
Yield Management and its ingredients should result in better performance of town hotels. A tool to measure the efficacy of YM application was required. The dependent variables of this study were, therefore, the efficiency performance indicators, that included occupancy (OCC), room-rate efficiency (RR) and room capacity utilization (RevPAR). The ingredient implementation levels were, thus, considered against the various levels of performance indicators as follows:

3.8.1 Segmentation of the Market
This variable was measured by asking the respondents whether the hotel had segmented its market into recognizable units, and if so, identified its various market segments. In addition, the study endeavored to establish whether the application of this and other ingredients improved performance. The performance measure of occupancy was used.

3.8.2 Forecasting Future Occupancies
This variable was measured by asking the respondents whether forecasting of levels of future business is carried out in the hotel. In addition, the study attempted to confirm whether the hotel used the information to plan and allocate future room-nights in advance according to forecasted segmented loads. The performance measure of occupancy was used as the dependent variables that measure the performance of hotels when the ingredient of forecasting future occupancies was applied.
3.8.3 Designing Overbooking Profiles

The study investigated whether the hotel had a policy on overbooking and their overbooking profiles for the various seasons. It also attempted to confirm the operator’s opinion on the usefulness or otherwise of booking more guests than the hotel’s capacity. The three dependent performance measures of ARR, occupancy and RevPAR were also used to measure overbooking application performance.

3.8.4 Setting up Systems, Procedures and Tactics

This variable was measured by asking the respondents whether they had any specific YM human systems (e.g. YM teams), or IT YM systems in place and if so, what they were and opinions on their usefulness. For the dependent variables, the performance measure of occupancy was used.

3.8.5 Training and Building a YM Culture

The study attempted to confirm whether there were any YM skill training courses or any deliberate efforts made to build a lasting YM culture in the sample hotels. The applications of the various YM ingredients confirmed the extent to which the various hotel managers had implemented YM. The more the ingredients of YM implemented, the deeper the application of YM. To measure the effectiveness of training, the dependent variables of the performance measure of occupancy was used.

3.9 Pre-testing the Instruments

The instruments were designated to reveal key YM in-depth information from the manager’s focus groups, while YM operational information from both the YM system operators and reservation managers was gleaned from the operator’s questionnaires.
To ensure validity and reliability, the instruments were discussed and approved by the supervisors. The instruments were also tested using two hotels that were not part of our 53 star rated town hotels. The pre-testing process found that YM-phrased-concepts caused confusion, yet some of the YM ingredients were in use at many front offices. The questionnaire was, therefore, adjusted towards using the familiar YM ingredients-terms and reduced the direct mention of YM and RM (Revenue Management, another term for YM), until towards the end of the questionnaire. Responses on questions of performance were of particular importance, due to the sensitivity of the subject. It was established that it was necessary to spend time with respondents to explain and gain rapport.

3.10 Data Collection Procedures

Hotel properties were the research population units. There were 53 classified and star-rated hotels in Kenya as per the last gazette. These were the population of study, from which we needed to identify characteristics and measure the performance of each unit. In an effort to garner as accurate data as possible, a deliberate decision had been made during the proposal writing that a census of the 53 study units was optimally representing the population for this study. All the hotels in the population were visited with 46 accepting to participate in the study. All the 46 units, all 46 were accessible, but 7 of the hotels were inaccessible and data from these hotels could, thus, not be collected.

Questionnaires were researcher-administered with permission and direction from the hotel’s general managers and managers. In only four of the five star hotels, the researcher was directed to professional yield managers, most of whom had been
purposely trained to perform YM duties at the hotel. In most other hotels, the managers directed the researcher to officers likely to have the relevant YM information.

Six managers met twice in a hotel in Nairobi, for the focus group discussion. In the first instance, it was during the data collection period and afterwards during the data analysis period to clarify emerging issues. During both meetings the researcher moderated the discussions.

3.11 Data Analysis

Data were cleaned for completeness, comprehensibility/consistency. The analysis, first, attempted to identify the different levels of YM that the sample hotels were operating. In addition, the study attempted to establish the various performance levels of the sample hotels, using one of the accepted performance indicator ratios as identified by Barth’s (2002) model, the capacity utilization ratio. These results allowed for not only descriptive analysis that was done and depicted on graphs and diagrams, clearly indicating the various implementation levels of YM and their applications by the various sample hotels, but also the statistical analysis on corresponding levels of performances and the levels of their association with the different YM applications in town hotels, as shown in chapter 4.

The independent variables for this research were represented by all the YM ingredients: segmenting the market; forecasting occupancy; overbooking; applying systems and procedures, strategies and tactics; staff training and YM culture inculcation. The dependent variable included the occupancy performance levels that
are experienced when the five versions and factor combinations of the independent (ingredients) variables are applied. Lastly, multivariate regression analysis was carried out to attempt explain the performances of occupancy through the 5 YM ingredients, in Kenya’s town hotels.

3.12 Presenting the Performance Results

The dependent variable that indicated the performance successes of the various YM ingredients implementation was occupancy. Both the applications and their performance indicators were presented in a tabular format, cross tabulated with the ingredients/elements before being analyzed through descriptive, cross tabulations, chi-square and multivariate statistical analysis.
CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction
This chapter presents and examines the findings of the study into Yield Management practices in Kenyan town hotels. The study was guided by objectives that sought to determine the correlation between the application of yield management and the levels of occupancy performance in town hotels, through the five ingredients, that informed on the study’s objectives. This chapter is divided into six sections. Section 4.1 is introduction. Section 4.2 presents the demographic characteristics of the respondents, while section 4.3 presents the general characteristics of the Kenyan town hotels. Section 4.4 deals with the application and implementation of market segmentation by town hotels in Kenya, while section 4.5 forecasting the future occupancy demand. Section 4.6 considers the different overbooking profiles, with section 4.7 the application of systems, strategies and tactics and section 4.8 YM training and inculcation of the YM culture. The different YM characteristics of town hotels were compared to the various occupancy performances, in an attempt to identify relationships between the various YM characteristics in town hotels and occupancy performance levels. The findings were analyzed and presented thematically according to the study objectives.

4.2 Demographic Characteristics of Study Respondents
The demographic characteristics of the respondents that were considered relevant to this study included: levels of education Figure 4.1, levels of professional training and lengths of work experiences. Trained and dedicated YM officers were only found in four of the five star-rated hotels, manning the YM process. All the other hotels left
the duty of YM to either the front office managers or the reservations managers. In some (8) of the one, two and three star-rated hotels, the hotel managers were found doubling-up as both the hotel managers and the front office managers.

### 4.2.1 Gender and Gender Education Levels of Respondents

The study found that there were generally more female respondents than males. This was particularly marked in four star hotels where there were 70% female respondents to 29% male respondents. All the hotels had a higher population of female respondents except the two star hotels. In contrast, the two-star hotels had 71% males to 29% females as shown in Table 4.1.

<table>
<thead>
<tr>
<th>Gender</th>
<th>One star</th>
<th>Two stars</th>
<th>Three stars</th>
<th>Four stars</th>
<th>Five stars</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1(33%)</td>
<td>5(71%)</td>
<td>8(42%)</td>
<td>2(29%)</td>
<td>4(40%)</td>
<td>20(44%)</td>
</tr>
<tr>
<td>Female</td>
<td>2(67%)</td>
<td>2(29%)</td>
<td>11(58%)</td>
<td>5(71%)</td>
<td>6(60%)</td>
<td>26(57%)</td>
</tr>
<tr>
<td>Total</td>
<td>3(100%)</td>
<td>7(100%)</td>
<td>19(100%)</td>
<td>7(100%)</td>
<td>10(100%)</td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Yield management is a human-driven process, MacMahon-Bettie, Ingold and Lee-Ross (2000). It is a process that requires the understanding of many dynamics involved in the pricing and buying decisions. The study revealed that 48% of the male respondents had diplomas as their highest qualifications, while 52% of the females had diplomas. At the degree level, more females (73%) than males (27%) had university degrees. This implied that the female gender is not only on its way to dominating the industry, but it is getting there better prepared than their male counterparts.
Figure 4.1: Distribution of respondents by education levels by gender (n=46)

The respondents’ education gaps between female (73%) degree holders and male (27%) degree holders and in addition 67% of the male respondents had entered the industry without either a degree or a diploma while only 33% of the female gender entered the industry in a similar manner, may also suggest that the female candidate has to have higher qualification to compete with the male counterpart to enter into the industry. ‘Others’ in the graph, applied to staff who had joined the industry with only secondary school education or with a professional certificate as their highest achievement in higher education or training as shown in Figure 4.1.

Distribution of education across the star-rating of hotels indicated that at the one-star level, the majority of staff did not have degrees or diplomas, as illustrated in Figure 4.2. It also revealed that at the upper end, notably, the five-star levels preferred diploma holders as demonstrated by the increase of diploma holders to 35% against 5% degree levels on the five star rated hotels, against 26% degree graduates at the four star level and only 12% diploma graduates at the four star level. At the three-star
level, the distribution between diploma graduates, degree graduates and other qualifications balances at between 35% and 45%, while at the two and one star levels, both the diploma graduates and degree graduates diminish to be replaced by other qualifications.

![Distribution of respondents’ education levels across the star rating in the study hotels (n=46)](image)

These findings possibly confirm the popularity of Utalii College management diploma holders at the five-star level of town hotels. Utalii diplomas have been the only popularly acceptable local hotel management diplomas at the five-star hotel clusters, according to interviewed managers. Utalii College is the oldest hotel training institution, established in 1969. Universities were late entrants on the hotel training scene, as most of these departments were established after the 1990s. Experience plays another major role in hospitality staff progress and consequently the lack of degree holders in top management positions of these hotels. The new and young degree graduates joining the industry are yet to have the necessary experience for
senior positions. The staff in the two and one star hotel clusters had no formal training and their major qualifications included long experiences. Most had challenges in completing the YM questionnaires due to their lack of formal hospitality education and training. Besides, they hardly received any advance bookings as most of their clients were go-shows and had no opportunities to practice some of the YM ingredients. At the three star levels, diploma-holders took the lead followed closely by degree-holders. From the three star levels upwards, most of the respondents were familiar with YM tenets and were able to complete and discuss the YM ingredients reasonably well. Figure 4.3 shows the distribution of respondents by working experience.

4.2.2 Age of Respondents

Over 75% of all respondents were under 39 years of age, 20% were over 40 years and only two per cent were over 50 years old, as shown in Figure 4.3. Is this an indication of the service industry’s preference for a relatively younger manpower? This would be an interesting subject for further research in the future, as per recommendation of this study in chapter 5.5.

![Figure 4.3: Distribution of age of respondents in town hotels (n=46)](image-url)
4.2.3 Distribution of Respondents’ Job positions Across the Star Ratings

The distribution of the respondents had the majority 16 (35%), found at the front office positions, as front office managers. Reservation managers took the second position with 13 (28%) of the respondents. Hotel managers took the third position with 8 (17%) respondents while there were 4 (9%) marketing and sales managers and 4 (9%) were yield managers. There was only one general manager, respondent attached to a two star hotel as per table 4.3.

Table 4.3: Distribution of respondents across the star ratings and the hotel positions

<table>
<thead>
<tr>
<th>Respondents Job Positions</th>
<th>One Star</th>
<th>Two Star</th>
<th>Three Star</th>
<th>Four Star</th>
<th>Five Star</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Office Managers</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>General Managers</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Yield Managers</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Marketing Officers</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Reservation Managers</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Hotel Managers</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>7</td>
<td>19</td>
<td>7</td>
<td>10</td>
<td>46</td>
</tr>
</tbody>
</table>

4.2.4 Respondents Related Work Experience

At less than 5 years of experience females were almost twice as many as (42.9%) the males (23.8%). At 5 to 10 years of experience, there was no noticeable between the males and females at 47.6% and 52.5% respectively. The last bar in Figure 4.4 indicates that after the 15 years experience threshold, there were no female respondents.
Figure 4.4: Distribution of staff experience by gender

Is it possible that the Kenyan hospitality industry is averse to elderly front of the house service givers of the female gender? Or is it that 15 years ago the industry had not embraced the feminine gender at the front offices? Furthermore, another answer may lie in the possibility that 15 years ago, the Kenyan culture had not evolved as much as today, consequently, the demands on child-bearing-mothers made it difficult to work the extended and anti-social hours that are demanded by working shifts at the front of the house. These are interesting areas of further inquiry in the future, as per recommendation of this study in chapter 5.5.

The results confirm that there are more ‘hospitality’ qualified females than males, Figure 4.2, presents that more females commit to the hospitality career earlier by seeking higher professional qualifications before joining the industry. Hence having decided and trained on a career path of their choice, they may stay on longer, as the industry matures, to produce different lengths of experience results.
Table 4.4: Distribution of experience across the star ratings

<table>
<thead>
<tr>
<th>Years of experience</th>
<th>One Star</th>
<th>Two Star</th>
<th>Three Star</th>
<th>Four Star</th>
<th>Five Star</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5yrs</td>
<td>1(33%)</td>
<td>1(14%)</td>
<td>9(47%)</td>
<td>4(57%)</td>
<td>5(50%)</td>
<td>20(43%)</td>
</tr>
<tr>
<td>5 – 10yrs</td>
<td>1(33%)</td>
<td>5(71%)</td>
<td>7(36%)</td>
<td>2(28%)</td>
<td>5(50%)</td>
<td>20(43%)</td>
</tr>
<tr>
<td>11 – 15yrs</td>
<td>0</td>
<td>0</td>
<td>2(10%)</td>
<td>1(14%)</td>
<td>0</td>
<td>3(6%)</td>
</tr>
<tr>
<td>Over 15yrs</td>
<td>1(33%)</td>
<td>1(14%)</td>
<td>1(5%)</td>
<td>0</td>
<td>0</td>
<td>3(6%)</td>
</tr>
<tr>
<td>Total</td>
<td>3(100%)</td>
<td>7(100%)</td>
<td>19(100%)</td>
<td>7(100%)</td>
<td>10(100%)</td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

The majority of respondents amongst the four and five star hotel classes were spread between 10 and less than 5 years of experience. Respondents with experiences of between 10 years and above were only found in one, two or three star hotels. This is understandable as the question had asked for the length of period the staff had held the position. The implication is that the mobility of staff is high whether vertically or horizontally to other hotels. Up to 10 years appears to be the acceptable period to remain in one position, as shown in Table 4.4, where only 6 staff appear to have had over 10 years experience out of 46 and only three beyond 15 years.

4.3 The General Characteristics of Kenya’s Town Hotels

4.3.1 Star Rating Of Kenya’s Town Hotels and the Nature of Hotels’ Room Rates

The only available formal layering of the hotel industry into their different star ratings was outdated. In the last publication (2003) there were no 4 star town hotels in Nairobi, yet many of the middle-range hotels in Nairobi, considered themselves to be of the four star rating levels. Furthermore, other hotel properties had renovated their facilities to position themselves into the next star rating scale, such that 7 hotels considered themselves to belong to the four star cluster.
Consequently, the 2003 gazette on the hotel star ratings at the time of reporting, the findings was considered to have been overtaken by development, and a deliberate decision was made to accept the sample hotels’ self-confessed star rating, as per each hotel’s declaration. As a result, the star ratings of the 53 hotels could only be established after the researcher’s visits, resulting in star-rating distribution as illustrated in Figure 4.5. Of the sampled hotels, 10 hotels (20%) were from the five-star rating, seven hotels (15%) were from the four-star clusters, and 19 hotels (43%) were from the three star ratings. Another 7 (15%) were from the two-star clusters and 3 (7%) were from the one-star layering.

The nature of fixing room rates was tabulated against the star ratings and the following findings were made: The three-star hotels had a majority of the hotels that had high and low season rates, at 50% distribution of each factor, while all the one-star hotel strata had the highest number of hotels (100%) that had fixed their rates.
until the next review date. For the four-star hotel, the system of fixing rates until the next review date (43%) appears important but the majority of these hotels varied between local and foreign prices (33%) and the ability to vary prices to the market segments being quoted (43%). The majority (63%) of the five-star hotels, on the other hand, tended to price their rooms with local and foreign market segments prices. A large portion of the two and three star hotels (33 and 39% respectively) had different discounts for identified and specific markets, suggesting that many of its guests were from contracted sources. The higher star rated hotels also appear to have a system of varying their rates to the individual markets they are quoting, at 43% for the four-star and 38% for the five-star. These findings are presented in Table 4.5.

It should be noted that the question on market channels had multiple choice answers and the respondent could chose more than one market access channel. This was because most hotels used more than one channel, a group of channels, or sometimes all the channels. The varied choice added to more than 100% due to multiple responses and thus, the percentages adding to beyond 100%.

**Table 4.5: Pricing the accommodation product (n=46)**

<table>
<thead>
<tr>
<th>Star rating of the hotel</th>
<th>One Star n=3</th>
<th>Two Star n=7</th>
<th>Three Star n=19</th>
<th>Four Star n=7</th>
<th>Five Star n=10</th>
<th>Total n=46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed until the next reviews</td>
<td>100%</td>
<td>33%</td>
<td>28%</td>
<td>43%</td>
<td>25%</td>
<td>36%</td>
</tr>
<tr>
<td>Low season and high season prices</td>
<td>0%</td>
<td>14%</td>
<td>50%</td>
<td>22%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>Local and foreign visitor prices</td>
<td>0%</td>
<td>14%</td>
<td>50%</td>
<td>33%</td>
<td>63%</td>
<td>36%</td>
</tr>
<tr>
<td>Varies according to the market being quoted</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
<td>43%</td>
<td>38%</td>
<td>19%</td>
</tr>
<tr>
<td>Fixed with different discounts to different identified market segments</td>
<td>0%</td>
<td>33%</td>
<td>39%</td>
<td>14%</td>
<td>13%</td>
<td>26%</td>
</tr>
</tbody>
</table>
4.3.2 The Room-rate Pricing Strategy

The study revealed that over 36% of town hotels had a fixed rack rate for at least a year or until the next review date. More than 36% of the hotels had fixed prices available for both the local and foreigner market segments while 26% of the hotels had fixed rack rates with different discounts for the different market segments, as shown in Table 4.5. In addition, most hotels had contract prices agreed with specific market players, such as those in the corporate sector, travel agents, tour operators or airlines for their crew and passenger lay-over’s. Among the most frequently mentioned reasons for deciding to purchase accommodation from a particular hotel were; i) location ii) price iii) quality of service iv) facilities and v) image (Sainaghi, 2011), ’The highest criteria is location followed by the room rate’. This implies that while the location is fixed and can hardly be changed, much can be done to accommodate the best rates and at the same time, maximize on occupancy. The practice of town hotels to use discounting room-rates as a tool for attracting demand concurs with Sainaghi’s (2011) conclusion that discounting room-rates is a tool for attracting demand.

Table 4.6 Channels of access to the market

<table>
<thead>
<tr>
<th>Star rating of the hotel</th>
<th>One Star n=3</th>
<th>Two Star n=7</th>
<th>Three Star n=19</th>
<th>Four Star n=7</th>
<th>Five Star n=10</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The internet</td>
<td>50%</td>
<td>60%</td>
<td>92%</td>
<td>83%</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td>Its chain booking system</td>
<td>0%</td>
<td>40%</td>
<td>17%</td>
<td>67%</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Travel agents/Tour companies</td>
<td>0%</td>
<td>100%</td>
<td>58%</td>
<td>100%</td>
<td>80%</td>
<td>77%</td>
</tr>
<tr>
<td>Own marketing staff</td>
<td>50%</td>
<td>40%</td>
<td>42%</td>
<td>83%</td>
<td>80%</td>
<td>57%</td>
</tr>
<tr>
<td>IT systems such as Oracle</td>
<td>0%</td>
<td>20%</td>
<td>17%</td>
<td>17%</td>
<td>50%</td>
<td>26%</td>
</tr>
<tr>
<td>Other means</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

4.3.3 Channels of Access to the Market
A cross tabulation was carried out between the star ratings of the hotels and the various channels to access the customer (Table 4.6). The internet is the most popular marketing channel (77%), with the one star at 50%, thus using internet to market its rooms as much as its own sales staff. The findings indicated that the majority of the three stars hotels preferred the internet (92%) to access their markets while the four and five stars hotels used the internet but preferred travel agents and tour companies in addition to using their own marketing staff in the local market. This is understandable as the local market is a major source of business clients in the form of meetings and conferences.

These hotels had also traditionally relied on travel agents and tour operators to provide them with both local and foreign guests. Consequently, it is reflected in the results with four star at 83% and the five star hotels at 80%. The two star hotels preferred travel agents (100%) and the internet (60%) to access their markets. The one star hotels also depended on their own salesmen and women (50%) and were also using the now ubiquitous internet at a high level (50%) of the one star rating.

It is apparent that the Kenyan town hotels have an educated and experienced staff, not only at their front office customer contact areas but also within their management stratas. YM is a human-driven process and the better the staff are informed the better the process will perform. The next section will investigate the YM characteristics of the Kenyan town hotels. One of the key ingredients of YM is YM training, skills and YM culture inculcation. Except for the one star hotels, all the other hotels appear to have the necessary capacity with their diploma and degree level staff to have successfully implemented the process. In addition, all the town hotels, with the
exception of one star hotels have relatively flexible pricing policies allowing for the practice of YM. The fixed room rates policies of the one star hotels would be a hindrance to the implementation of YM.

4.4 Market Segmentation

Hotels serve many markets, which include the leisure tour groups, the business convention groups, the individual tourists, the individual businessmen or the corporate. These are the different sub-markets or segments from which the hotel derives its business. These sub-markets have different characteristics that the hotel could exploit to gain a competitive advantage. The study recommends that every hotel facility make the necessary effort to identify their sub-market’s needs and characteristics. Different market segments behave differently under different circumstances. Rack rates may be too high for one market segment, while to another segment the rates may be considered fair. Others may be even willing to pay more than the indicated rates for the same product, if available (Middleton, 1994). A business executive may be willing to pay more when on a business trip than he will be willing to pay when on holiday. Thus, the business executive will belong to two different market segments that must be understood by the hotel management. Fully understanding each market’s segment, allows the manager to not only allocate rooms to the right guest but also to discount and charge the right room rates.

4.4.1 Identifying the Hotel’s Market Segments

From the study all the various star rated hotels had identified their market segments except the one star hotel strata. All the 5 star hotels had identified their market segments while none of the one star hotels had identified their market segments. Over
70% of the two and four star hotels had also identified their different market segments, with the three star strata recording a 90% identification of their market segments. The high identification of each hotel’s market segments implies that the Kenyan town hotels have made efforts to understand their different market segments and their ability to pay the different room rates. This concurs with Lee et al. (2009) who argues that hotels must allocate rooms to the different market segments according to both the ability to pay the higher price and the forecast demand. This way, the hotel can extract maximum value from the available market segments.

4.4.2 Commanding Different Room Rates

When asked whether the different market segments attracted different room rates, over 91% of the four and the five star hotels confirmed that they do. Over 82% of the three star hotels confirmed that they do while 67% of the two stars differentiated their market segments rates. Maintaining different room rates for the different market segments, gives the hotel the necessary allocating and discounting tools to deal with low and high demands profitably.

4.4.3 The Major Market Segments for Town Hotels

Findings of this study indicated that for the five star hotels, their major markets included the business segment (50%), the conferencing and conventions segment (50%), international tourists (33%) and domestic guests (17%) while the majority of the four star segments included international tourism (67%) and conferencing (67%). The three stars’ majority market segment were the regional visitors and conferencing both at 41% while international tourism was even better at (59%) while the two stars’ main market included the business segment (50%) and the domestic market at 33%.
The one star depended on the domestic market segment (100%) and the business segment (50%) as shown in table 4.7.

Table 4.7: The main market segments of the Kenyan town hotels (n=46)

<table>
<thead>
<tr>
<th>Market segments</th>
<th>Total</th>
<th>One Star</th>
<th>Two Star</th>
<th>Three Star</th>
<th>Four Star</th>
<th>Five Star</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>53%</td>
<td>33%</td>
<td>50%</td>
</tr>
<tr>
<td>Convention/Conferences</td>
<td>38%</td>
<td>0%</td>
<td>17%</td>
<td>41%</td>
<td>67%</td>
<td>50%</td>
</tr>
<tr>
<td>International Tourists</td>
<td>41%</td>
<td>0%</td>
<td>0%</td>
<td>59%</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Regional visitors</td>
<td>26%</td>
<td>0%</td>
<td>17%</td>
<td>41%</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Domestic guests</td>
<td>44%</td>
<td>100%</td>
<td>33%</td>
<td>41%</td>
<td>33%</td>
<td>17%</td>
</tr>
<tr>
<td>Others</td>
<td>74%</td>
<td>100%</td>
<td>67%</td>
<td>71%</td>
<td>67%</td>
<td>83%</td>
</tr>
</tbody>
</table>

Except for the one star hotels, most of the other hotels were clear about what their market segments were. This was especially so at the three, four and five star levels. The implication was that by understanding their different market segments, including the identification of the peculiar needs for the different segment, the hotels have the opportunity to design different products for the different market segments. The implication is that most of the different clusters of hotels have segmented their markets into identifiable market segments with homogeneous characteristics. This concurs with Lee et al. (2009) who pointed out that by understanding a market segment and its corresponding dynamics, hotel operators can segment their clients and create systems that can allocate rooms discriminatively, giving the hotel a competitive advantage.
4.4.4 Predicting the Future Booking Pattern of the Market Segments

The study found that except for the one and two star hotels, all the other hotels predicted the future booking patterns of their markets by segments. Over 30% of the five star hotels predicted their loads by segments in a continuous IT process. For the three-star hotels, the most popular forecasting process was daily (33%), monthly (33%), and continuous IT processing (17%), as shown in Table 4.8. The study found that the one and two star hotels do not use IT application systems for this process; besides, the one star hotels never make any booking prediction at all. In spite of using different time scales to forecast, it is clear that most of the hotels except the ones in the one and two star rating strata, segment their markets. This finding is similar to Kimes (1989) who concluded that segmenting the market to predict the future occupancy and booking patterns by the segment is a key rationale for market segmentation (Kimes, 1989). Advance awareness of the customers’ ability to pay the higher rates or the lower rates, assists the hotel operator allocate the right rooms to the right guests.

Table 4.8: Predicting the future booking pattern by market segments

<table>
<thead>
<tr>
<th>Star rating</th>
<th>Uses IT</th>
<th>Daily</th>
<th>Monthly</th>
<th>Never</th>
<th>Annually</th>
<th>Weekly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>3(100%)</td>
<td>0%</td>
<td>0%</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>0%</td>
<td>1(19%)</td>
<td>1(19%)</td>
<td>2(28%)</td>
<td>2(28%)</td>
<td>1(19%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>3(17%)</td>
<td>6(33%)</td>
<td>6(33%)</td>
<td>0%</td>
<td>0%</td>
<td>3(17%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>1(17%)</td>
<td>1(17%)</td>
<td>2(27%)</td>
<td>0%</td>
<td>0%</td>
<td>3(33%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>3(30%)</td>
<td>2(20%)</td>
<td>2(20%)</td>
<td>0%</td>
<td>0%</td>
<td>3(30%)</td>
<td>10(100%)</td>
</tr>
</tbody>
</table>

Total 46(100%)
4.4.5 Sharing of the Available Rooms-stocks to the Predicted Market Segments

When asked whether the hotel allocated its room’s inventory to its various market segments in advance, 55% of all the five-star respondents confirmed that they allocated to forecast, while 45% said that they did not. In the lower categories, over 71% of the four star hotels allocated their room stocks to forecasts while only 21% of the three star hotels allocated their room stocks in advance. None of the two and one star hotels allocated their room stocks to predicted forecast.

This confirmed that while the majority of the hotels have segmented their markets, they did not achieve the full benefits of a segmented market, especially at the two and three star levels. To achieve the full benefits of market segmentation, it is necessary to know, in advance, the size of the expected insensitive segment and thus allocate accommodation for it by reserving enough accommodation, in advance of any bookings. Without allocating rooms to this group in advance, it is likely that this group will find the hotel committed to cheaper paying guests most likely of the leisure segment known to book early and enjoy higher discounts. The business segment, on the other hand, tends to be relatively insensitive to room rates but makes accommodation booking nearer their arrival dates. Sampson (2009) argues that today’s hotelier must know the needs and characteristics of each demand segment and how to satisfy those tendencies in a way that maximizes profit, offering both solutions and discounts to encourage both arrivals and longer stays at the hotel.

This is where the investment in yield management pays off. The accepted and popular ‘first come first served’ bookings method is likely to deny the hotel the maximum benefits, its room sales could have fetched. A reactive approach is usually too late for
the hotel to have booked the ideal customer. To demonstrate this correct proactive approach, Brenda, (2004) gives an example where a large discounted group seeks booking early for a potentially busy period. Without having previously factored in the size of the demand from the higher-paying segment, the possibility of making a poor room allocation decision is apparent, with the better paying customer arriving to find all the rooms given to discounted guests.

The correct approach should be a pro-active one where the manager gathers advance statistics to be used for predicting the type of demand to be expected. Previous performances of the various market segments should inform the discriminative allocation of the rooms stock to identified potential market segments in advance. The four and five star hotels may be obtaining the full benefits of YM’s segmentation, by sharing their accommodation to the predicted occupancy, thus allowing for the identification of future gaps. This way, necessary work could be done to fill up the occupancy gaps or try to upgrade any unconfirmed bookings from the heavier discounted segment.

4.4.6 Closing and Opening Lower Rates to Changing Demand

Asked whether a system of closing and opening rates to the various segments existed, 56.6% of the five star respondents said they had such a system while over 71% of the four stars also said that they did. The two star-strata also performed well with 28.5% confirming that they had such a system while only 21% of the three star segments used such a system as illustrated in Figure 4.6. During the high demand periods, all the price sensitive segments are denied accommodation by such a system which relaxes as the demand is reduced.
4.4.7 Discriminating the Lower-rate Segments

A cross tabulation was carried out between the star rating of the hotels and the action of discriminating against the market segment with high room rate intolerance, as shown in Table 4.9. The one star hotel does not discriminate the price shy market and may not even have systems to do so, neither does 57% of the two star hotels. However, towards the up market end of the hotel industry, over 70% of the five star discriminates against the price-shy market, especially during the high demand period. This is done by closing and opening the lower rates according to demand.

Closing and opening the lower rates is a tactical move that allows for natural discrimination of low rates during high demand period. Middleton (1994) and Sarheim (2008) suggests that the purpose of market segmentation is to allow managers be proactive in distributing the room inventory to the right segments, for the right room price. Moreover, they can make decisions that ensure the hotel achieves
maximum revenue and occupancy (Aghazadeh, 2007). Enquiries for rooms are sometimes, 18 months into the future, 540 days within which a booking could be made. The amount of information that is needed to allow the making of instant decisions, sometimes on the telephone, for each of these days’ enquiry, requires an IT system for efficiency.

Table 4.9: Discriminating the lower rate segments

<table>
<thead>
<tr>
<th>Star rating</th>
<th>Does not discriminate</th>
<th>Discriminates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>3(100.0%)</td>
<td>0.0%</td>
<td>3(100.0%)</td>
</tr>
<tr>
<td>Two star</td>
<td>4(57.1%)</td>
<td>3(42.9%)</td>
<td>7(100.0%)</td>
</tr>
<tr>
<td>Three star</td>
<td>9(47.4%)</td>
<td>10(52.6%)</td>
<td>19(100.0%)</td>
</tr>
<tr>
<td>Four star</td>
<td>3(42.9%)</td>
<td>4(57.1%)</td>
<td>7(100.0%)</td>
</tr>
<tr>
<td>Five star</td>
<td>3(30.0%)</td>
<td>7(70.0%)</td>
<td>10(100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>46(100.0%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This concurs with Lee et al. (2009) who advised that by understanding each market segment and its corresponding dynamics, hoteliers can segment their clients and create systems that could allocate rooms discriminatively, giving the hotel some competitive advantage. At its best the YM system should ensure that all the necessary rooms are allocated to the price insensitive segments limiting the price sensitive segment to the ‘unsellable’ rooms. To get the best results, however, Lee et al. (2009) advises that the rooms must be shared in advance to the different market segments according to both the ability to pay the higher price and the forecasted numbers.
4.4.8 Improving Sales Revenue by Segmenting the Market

The respondents were asked whether segmenting the market improved their revenues and the results are presented in figure 4.7. Over half of the respondents (55%) confirmed that segmenting the market assisted improve their revenue by over 6%, while 3% thought the segmenting ingredient had no effect at all. None of the 55% positive respondents were definitive about reserving and protecting rooms for the forecast and identified segment of higher-paying bookings.

![Figure 4.7: Impact of Segmenting the Market on Revenue](image)

In fact, no hotel confirmed that it could deny accommodation to any paying client, for the above reason, and in particular to their repeat or regular price sensitive customers. The issue with Kenyan town hotels was the need for the payment of deposits for any accommodation to be blocked. Most hotels hardly reserved a booking without a deposit. The common challenge was how to deal with block bookings that had no advance deposits. Managers confirmed that such bookings had to have an
agreed cut-off date within which the deposit must be paid; otherwise the booking would be released into the market.

4.4.9 Use of Price Manipulations, Hoarding Rooms and Other YM Strategies

The respondents were asked whether they used price manipulations, hoarding of rooms and other booking strategies to garner better business during the low and the higher demand seasons and slightly less than quarter (25%) of the hotels did not use the YM strategy. This means that over three quarters (75%) of town hotels fully benefited from the concept of market segmentation. The implication is that by hoarding rooms, 75% of the hotels are able to hold back rooms awaiting the late booking better price paying guest and thus gaining competitive advantage. Lee et al. (2009) recommend that market segmentation especially in a high demand situation, allows for hoarding of rooms for the expected late-booking price insensitive market.

4.4.10 Usefulness of Segmentation Strategies and Tactics

Hospitality business is cyclic and the size of this market can easily be established by looking at previous performances. The manager who, for example, has a deeper understanding of their market segmentation dynamics is able to hold on to their rooms a little longer to allow for the prime-guests who are known to make the late, last minute bookings. Without understanding the hotel’s market segmentation-dynamics, such tactics as holding out rooms for the better paying clients could be risky business that may occasionally leave the manager holding unsold room-nights. Asked whether they found these tactics useful, their responses were as shown in Table 4.10.
Table 4.10: Usefulness of segmentation strategies and tactics

<table>
<thead>
<tr>
<th>Star rating</th>
<th>Do not know</th>
<th>Useful</th>
<th>Very useful</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>3(100.0%)</td>
<td>.0%</td>
<td>.0%</td>
<td>1(100.0%)</td>
</tr>
<tr>
<td>Two star</td>
<td>1(25.0%)</td>
<td>1(25.0%)</td>
<td>2(50.0%)</td>
<td>7(100.0%)</td>
</tr>
<tr>
<td>Three star</td>
<td>1(10.0%)</td>
<td>3(30.0%)</td>
<td>6(60.0%)</td>
<td>19(100.0%)</td>
</tr>
<tr>
<td>Four star</td>
<td>1(10.0%)</td>
<td>(30.0%)</td>
<td>4(60.0%)</td>
<td>7(100.0%)</td>
</tr>
<tr>
<td>Five star</td>
<td>.0%</td>
<td>1(16.7%)</td>
<td>5(83.3%)</td>
<td>10(100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>.0%</td>
<td>1(16.7%)</td>
<td>5(83.3%)</td>
<td>46(100.0%)</td>
</tr>
</tbody>
</table>

The study found that the one star hotel’s respondents did not know whether segmentation and its strategies were useful at all. It was, therefore, apparent that segmentation was not in application in these hotels. Over three quarters (83.3%) of the four star hotels considered segmentation very useful. Sixty per cent of both the four star and five star hotels considered segmentation and its strategies to be very useful. A quarter of the two star hotels did not know and were in the same class as the one star hotel while 50% thought that segmenting the market was a very useful strategy. The findings were also that 10% of both the four and three star hotels, 25% of the two star and all (100%) the one star rated hotels did not find segmenting the market of any use to their hotels, consequently the implication is that over 80% of understood the usefulness of segmentation while all the one star hotels did not. Seonah et al. (2009) concluded that for YM implementation to succeed, the managers needed to really know who their customers were.
4.4.11 Market Segmentation: YM Performance Indicators on Occupancy

The rule of thumb for acceptable ‘normal’ hotel occupancy is 70% (Coltman & Jagels, 2008). This means that at the 70% occupancy threshold, the hotel should be regarded as making acceptable returns on its investment. The study was, therefore, guided by the 70% occupancy barrier as the threshold to measure successful occupancy performance levels. The study, thus established two levels of occupancy performances: above the 70% ‘normal’ occupancy and below 70% occupancy. Application and implementation of the various ingredients of Yield Management were then cross tabulated against these two major levels of occupancy performance. The two levels allowed for the consideration of the objectives performance through the following hypothesis:

\[ H_{01} : \text{There was no significant difference in occupancy performance levels between town hotels that had implemented the YM ingredient of market segmentation and those hotels that had not implemented the YM-system ingredient.} \]

4.4.12 Segmenting the Market by the Star Rating Clusters

The study found that all (100%) of the five stars hotels had implemented market segmentation while the one star hotel had not segmented its markets at all. In contrast, over 29% of the two star hotels and 32% of the three star hotels had identified their various markets segments as shown in Table 4.11. In general, 66% of the hotels admitted that they had segmented their markets while fewer than 34% of the hotels were yet to segment their markets. As was expected, the study found that the YM ingredient of segmentation was in wide use by Kenyan town hotels at 66% distribution among town hotels. The implementation was also as expected with the one star and the two star hotels having the minimum application while the five star
were at the highest levels. This confirmed that the implementation of one of the most important YM tools of market segmentation was in place, in Kenya’s town hotels. This concurs with Yelkur & Herbig (1997) who concluded that one of the first goals of the hotel was to segment its market into several fairly homogeneous sets of consumers that can then be served accordingly and profitably.

Table 4.11: A Cross tabulation between the different star ratings of town hotels and the identification of the various market segments

<table>
<thead>
<tr>
<th>Star Rating</th>
<th>Has identified market segments</th>
<th>Has not identified market segments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0 (.0%)</td>
<td>3 (100.0%)</td>
<td>3 (100.0%)</td>
</tr>
<tr>
<td>Two star</td>
<td>2 (29%)</td>
<td>5 (71%)</td>
<td>7 (100.0%)</td>
</tr>
<tr>
<td>Three star</td>
<td>13 (68%)</td>
<td>6 (32%)</td>
<td>19 (100.0%)</td>
</tr>
<tr>
<td>Four star</td>
<td>5 (71.4%)</td>
<td>2 (28.6%)</td>
<td>7 (100.0%)</td>
</tr>
<tr>
<td>Five star</td>
<td>10 (100.0%)</td>
<td>0 (.0%)</td>
<td>10 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>46 (100.0%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square value=16.47; df 4; p value = .002; C=.514

Results of the chi-square analysis indicated that there was a statistical relationship between the different levels of star ratings and market segmentation by the hotels. This is confirmed by the chi-square significance p-value = 0.002 is less than the critical value of p>0.05 at a confidence level of 95%. In addition, the Contingency Coefficient value (C=0.514) shows that the relationship between identification of market segments and the different classifications of hotels is strong. This meant that a five star hotel was likely to have applied the YM ingredient of market segmentation than the one star hotel. This suggests that the application of market segmentation impacts on occupancy performance levels in a similar manner, benefiting those hotels that had implemented market segmentation. The star ratings above the three to five
star clusters seem to be drawing better occupancy benefits with segmentation as illustrated in table 4.12, where 40% of those who had identified and segmented their markets scoring beyond 70% on occupancy. Indeed, all (100%) those who did not identify and segment their markets, achieved below 70% on occupancy. This is in agreement with Sarheim (2008) who argues that segmenting the market is the most effective way to understand the different needs of the different market segments and thus garner the better rates and occupancies from the market place, by providing for the different segments’ needs.

4.4.13 Cross Tabulation Between Occupancy and the Market Segmentation Elements

To investigate market segmentation and have a deeper understanding of the market segmentations’ ingredient, various sub-elements of the ingredient were identified and cross tabulated against occupancy performance. The elements included identification of the various market segments of town hotels, segmenting markets to gain competitive advantage, allocating rooms in advance to forecast loads and the use of different room rates/discounts for the different market segments. The results were as are shown on Table 4.12.
Table 4.12 Cross tabulation between occupancy and market segmentation elements

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tenets implementation</th>
<th>Occupancy Under 70%</th>
<th>Occupancy Over 70%</th>
<th>Total</th>
<th>p value</th>
<th>Contingent Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Identification of market segment</td>
<td>Identified</td>
<td>12(40%)</td>
<td>18(60%)</td>
<td>30(100%)</td>
<td>0.003</td>
<td>.398</td>
</tr>
<tr>
<td></td>
<td>Not Identified</td>
<td>0(%)</td>
<td>16(100%)</td>
<td>16(100%)</td>
<td>.398</td>
<td></td>
</tr>
<tr>
<td>Segmenting and gaining competitive Advantage</td>
<td>Gains</td>
<td>11(29.7%)</td>
<td>26(70.3%)</td>
<td>37(100%)</td>
<td>0.254</td>
<td>.166</td>
</tr>
<tr>
<td></td>
<td>Does not gain</td>
<td>1(11.1%)</td>
<td>8(88.9%)</td>
<td>9(100%)</td>
<td>.166</td>
<td></td>
</tr>
<tr>
<td>*Allocating available room in advance</td>
<td>Allocates</td>
<td>12(44.4%)</td>
<td>15(56.6%)</td>
<td>27(100%)</td>
<td>0.001</td>
<td>.446</td>
</tr>
<tr>
<td></td>
<td>Does not allocate</td>
<td>0(0%)</td>
<td>19(100%)</td>
<td>19(100%)</td>
<td>.446</td>
<td></td>
</tr>
<tr>
<td>Uses different room rates and discounts for different segments</td>
<td>Differentiates rates</td>
<td>12(38.7%)</td>
<td>19(61.3%)</td>
<td>31(100%)</td>
<td>0.125</td>
<td>.251</td>
</tr>
<tr>
<td></td>
<td>Does not differentiate rates</td>
<td>0(0%)</td>
<td>4(100%)</td>
<td>4(100%)</td>
<td>.251</td>
<td></td>
</tr>
</tbody>
</table>

*Significance test Chi Square

4.4.14 The Element of Identifying the Various Market Segments

Identification of market segments implied that the facility that had identified its market segments was most likely to have implemented market segmentation in its operations. The results were cross tabulated against the hotel’s star rating-levels to identify the different levels of implementation of market segmentation and its occupancy performance.

The study revealed that those hotels that had an occupancy performance level of over 70% had identified their market segmentation in their operations. In contrast, all the hotels that had not identified their market segments had occupancies below the market average threshold of 70%, implying that hotels that identifying and segmenting the markets was likely to precipitate better performance in occupancy as illustrated in
Table 4.12. The analysis on chi-square test confirmed that there was a significant statistical relationship (p< 0.05) between the level of occupancy performance and the identification of the market segments. This was further vindicated by the contingency coefficient value (C= 0.398) that showed some strength in the relationship between occupancy performance and identification of market segments.

4.4.15 Gaining Competitive Advantage from Segmenting the Market

The study results indicated that of all the hotels that performed beyond 70%, over 90% believed that segmenting the market gained them competitive advantage. Less than 10% were of the opposite opinion, as illustrated in table 4.12. The analysis on chi-square test revealed that there was no significant relationship (p< 0.254) between the level of occupancy performance and the segmentation of the market, to gain competitive advantage. However, the contingency coefficient value (C= 0.166) indicated that some weak relationship between occupancy performance and segmenting the market to gain competitive advantage.

4.4.16: Allocating the Available Rooms-Stocks to Forecasted Loads by Segment

Findings showed that 90% of those hotels that allocated their rooms in advance had a high occupancy performance of over 70%. In contrast, about all (100%) of those who did not allocate their rooms in advance to forecast segments had an occupancy level below 70%, as illustrated in table 4.12. The analysis on chi-square test revealed that there was a significant relationship (p< 0.05) between the level of occupancy performance and distributing available stock of rooms in advance to the load forecasts. The contingency coefficient value C=0.446, further, showed that the relationship is not only significant but is also strong.
4.4.17 Different Room Rates for the Different Market Segments

The study results indicated that all (100%) of the hotels that performed beyond 70%, used different room rates for their different market segments, as illustrated in Table 4.12. The analysis on chi-square test indicated that there was a weak relationship (p<0.125) between the level of occupancy performance and the use of different room rates for the different market segments. The contingency coefficient value (C=0.251) further indicated that strength of the relationship between occupancy performance and the use of different room rates and different discounts for the different segments is not very strong.

In conclusion, it is apparent that there was a statistically significant (p<0.05) difference in occupancy performance between Kenyan town hotels that had adopted YM segmentation of their markets from those hotels that were non-adopters. The implication is that segmenting the market allows the manager to intimately understand the different market and their needs. Thus, the hotel is able to create products for the different market segments, consequently gaining competitive advantage. This was supported by Jarvis, Lindh & Jones (1997) in their earlier study on the adoption of YM by UK hotels, which concluded that there was a significant statistical difference in performance between UK hotels that had implemented market segmentation and those who had not adopted the variable, when measured by the hotel’s occupancy demand.

In accordance with these findings, the null hypothesis that there was no difference in occupancy performance between hotels that have implemented the YM ingredient of
segmenting the market and the non-implementers was rejected. Harewood (2006) asserts that the most successful YM applicators have similar characteristics. One such similarity is the ability to segment the market, allowing the hotel to market the same hotel room to different market segments at different prices, gaining at both the occupancy and the revenue performance levels. Consequently, the hotels that had higher market segmentation were enjoying the higher mean occupancy.

4.4.18 Multiple Regression of the Segmentation Elements Influencing Occupancy in Town Hotels in Kenya

The study was also interested in determining which market segmentation elements best predicted the higher occupancy among the ingredients’ various tenets. This was in the study’s effort to understand factors that influence occupancy. It was noted, however, that the elements could only influence or correlate but not cause the higher occupancy. Multiple regression analysis was used because of the number of variables in this study, varied in number, with every ingredient. In this section, efforts were made to try and identify variables (YM ingredients’ sub-ingredients, tenets or elements) that may determine the levels of occupancy in town hotels. The rationale behind using multiple regressions included the consideration of specific variables without the effect of other variables and elements in the model (Fields, 2005). It allows for the evaluation of each variable from a set of given variables, in explaining the performance and contribution of the specific variables.
4.4.19 Determinants of Occupancy
The five objectives of the study sought to identify the YM determinants of occupancy differences among Kenyan town hotels. There were three alternatives regression processes that generally lead to the same results. These were the backward elimination method, forward selection and stepwise regression methods. Backward elimination was selected for its simplicity.

4.4.20 Backward Elimination
All the predictors (YM ingredient elements or tenets) were placed in the model for consideration. These predictor variables were eliminated one at a time until the remaining variables in each model were shown to make significant contributions to predicting occupancy. The variable eliminated at each stage was the one that was least significant, having the largest p-value. The sequence of backward elimination included placing all potential explanatory variables in the regression model. Where all the predictor variables made significant contributions at p-value<0.05, then that model was retained as the final one, otherwise, the variable having the largest p-value was removed (Fields, 2005). Hence, the process continued until each of the remaining predictor variables explained a significant partial amount of occupancy. The final results were presented for every objective’s (ingredients) model. Table 4.13 is such a model identifying the best predictors of occupancy for the YM market segmentation model.
Table 4.13: The Market Segmentation Model

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.52</td>
<td>9.398</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Identifying and segmenting the market</td>
<td>0.713</td>
<td>.76</td>
<td>3.854</td>
<td>.001</td>
</tr>
<tr>
<td>Allocating rooms in advance to forecast demand by segments</td>
<td>0.401</td>
<td>.448</td>
<td>3.192</td>
<td>.003</td>
</tr>
<tr>
<td>Possessing a system of closing and opening lower rates as per changing demand</td>
<td>0.51</td>
<td>.565</td>
<td>3.065</td>
<td>.004</td>
</tr>
<tr>
<td>Manipulating prices and room allocations to target the different market segments</td>
<td>0.145</td>
<td>.141</td>
<td>1.002</td>
<td>.323</td>
</tr>
<tr>
<td>Offering different room rates and discounts to different market segments</td>
<td>0.03</td>
<td>.029</td>
<td>0.242</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Dependent Variable: Occupancy; R Square = .474

4.4.21 Identifying and Segmenting the Market

The occupancy predictors from the market segmentation ingredient model, as shown in able 4.13, indicates that the model could only account for 47.4% of the observed occupancy, leaving out 52.6% unaccounted for. This implied that over 50% of the observed room rates were due to other factors. The study also found that out of the five independent variables regressed against the dependent variable of occupancy levels, only 3 variables were significant: Identifying and thus segmenting the market p=0.001; allocating rooms in advance to forecasted demand by segments p=0.003; possessing a system of closing and opening lower rates as per changing demand p=0.004), with a p value of less than 0.05, on a confidence level of 95%, table 4.13.
Furthermore, the Beta weights identified segmenting the market as the best predictor of occupancy (Beta 0.76) while the regression coefficient (b = 0.713) indicated that implementing market segmentation would increase occupancy to over 71.3%. Besides, the t value was the largest (t= 3.398), also confirming the greater contribution of this predictor to the model. Fields, (2005) argues that the larger the value of t, the greater the contribution to the model.

These findings confirm that segmenting the market allows the hotel to gain competitive advantage. This was confirmed by the chi-square tests that demonstrated that not all the hotels that had implemented the various elements of segmenting the market achieved occupancy above the 70% level. Many of them operated on occupancy below 70%. What was defining was the fact that all the hotels that had occupancy above 70% had implemented the YM segmenting element, except for one hotel. In addition, segmenting the market ensures that the managers really know their markets. Arguably, the managers who identify and segment their markets, tend to have deeper understanding of the different needs of their different market segments, confirming the observation by Kimes & Mcguire (2001) that segmenting the market allows the facility to sell the right product at the right time, to the right customer for the right price. For segmenting, the Kenyan market three predictor variables have come out strongly as the elements with the highest influence on occupancy.

4.5 Occupancy Forecasting

In this section, the study sought to establish the extent of the application of occupancy forecasting and its impact on management operations in town hotels. Occupancy forecasting is an important cornerstone of YM as it is from forecasting segmented
market’s future occupancies, that a hospitality facility is able to identify the sizes and types of future occupancy gaps. With such knowledge, the manager can balance the room demand and room rates to maximize on occupancy ensuring that the hotel achieves the best possible ARR. Where an occupancy performance gap is identified, the manager can then plan the necessary activities to fill the identified occupancy gaps with the most productive market segment guests. In addition, the study sought to confirm whether there is a relationship between the hotels’ YM characteristics of forecasting and the occupancy performance of the hotel facility.

Consequently, the study sought to establish the occupancy forecasting-characteristics of each hotel and compare and relate the data to the different occupancy performances. This allowed for the identification of associations between the application of occupancy forecasting and the different occupancies of these hotels. Chi-square was used to test the hypothesis while regression analysis was used to identify the best occupancy predictor variables for the hotel’s occupancy forecasting model that will give the best predictors of occupancy.

4.5.1 Reviewing Past Performance

Reviewing the hotel’s booking performance is a primary activity in YM forecasting. Feedback and past performance underpin forecasting and can give an indication of the future performance status, especially in a cyclic environment, such as that of the hospitality’ industry. The study confirmed that the one and two star rated hotels did not analyze their past performance to forecast their future occupancy loads. It indicated that all the 5 star hotels analyzed their past performance in occupancy loads, while 71.43% of the four stars hotels and 47.37% of the 3 star hotels analyzed their
past performance as well as forecasting their future loads. This is presented in Figure 4.8.

![Figure 4.8: Reviewing Past Performance](image)

Similarly, the study found that 46% of the hotels did a post-mortem analysis of their past booking performances on a daily basis; another 12% did their booking post-mortems on a monthly basis while 10% of town hotels did their analysis on a weekly basis. Conversely, over 20% confirmed that they never did any post-mortems on their occupancy-booking and performance operations. A small margin of 8% had an IT system that continuously availed past performance reports and gave results for continued decision-making on the go.

### 4.5.2 Forecasting Future Occupancy Loads

All the five star hotels forecast their future loads in advance of any actual bookings. In contrast, the one and two star hotels did not forecast their future loads, at all. Over 82% of the four stars hotels carried out the exercise of forecasting the future loads
while only 62% of the 3 star hotels forecasted their future loads, as shown in 4.9. The one star hotels did not forecast while over 85% of the five star hotel forecast to their market segments.

![Figure 4.9: Targets markets through segments clusters; distribution by class](image)

Overall 76% of all respondents confirmed that their hotels forecast future occupancies detailing out the expected different market-segments-occupancy-loads. Many town hotels (41%), considered only one month upstream in their forecasting, while 23% reported to forecasting beyond 6 months and 11% forecast beyond the one year, as shown in Figure 4.10. Forecasting should ideally be a continuous IT driven process that projects and encompasses at least 30 to 60 days and sometimes up to 180 days upstream (Ingold & Hyton, 2000). As bookings are received, they find an YM team that is “fully” advised of the future possibilities and can quickly make decisions on room allocation and rate discounting, based on forecast statistics.
Writing a forward for Ingold & Hyton (2000) book entitled ‘Principles of Yield Management’, Sir Michael Bishop, a YM practitioner from British Midlands Airways wrote, Accurate forecasting means higher loads and less waste. The same could be said for the Kenyan hotel industry where 76% had confirmed to be forecasting their occupancy loads. The more accurate the forecasting, the more efficient it will be to align room allocations and room rates discounting to the different market segments, and gain competitive advantage.

4.5.3 Forecasting to Market Segments

The respondents were asked to state how forecasting is accomplished at their hotels and the findings were as shown in Table 4.14. A respondent could pick more than two answers thus increasing the totals to beyond 100%. Analyzing future expected business was considered the most important factor by most hotels with the higher occupancy rates. The four and five star hotels considered analyzing past occupancy performance levels as the most important factors (100% and 80%) for improving
occupancy, followed by analyzing the expected business (80% and 86% respectively) in the future. Both the two star and three star hotels agreed that analyzing past business was the best way to forecast future occupancy, while the one star hotel did not find it useful to forecast its occupancy loads.

Table 4.14: Methods of forecasting in the various star rating clusters and occupancy

<table>
<thead>
<tr>
<th>Methods of forecasting</th>
<th>Total (n=46)</th>
<th>One Star (n=3)</th>
<th>Two Star (n=7)</th>
<th>Three Star (n=19)</th>
<th>Four Star (n=7)</th>
<th>Five Star (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By guessing and estimating</td>
<td>18%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Analyzing the past demand</td>
<td>77%</td>
<td>0%</td>
<td>100%</td>
<td>63%</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>Analyzing future business</td>
<td>50%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>83%</td>
<td>80%</td>
</tr>
<tr>
<td>It is not done at all in this hotel</td>
<td>9%</td>
<td>100%</td>
<td>0%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Among the answers given by the respondents on the use of forecast loads, only 2% of the respondents related the forecast loads to attempts by the hotel to determine the landscape of future demands and booking patterns. To be useful, forecasting should target each individual market segment. The implication is that the hotel will need to fully understand every segment’s booking characteristics, patterns and other dynamics. By understanding every market in detail, the manager is in a superior position to tailor discounts and allocate future rooms, knowledgeably (Dabas & Manaktola, 2007). Unfortunately, the majority used the forecast loads for other operational functions such as budgeting, staff allocation and determining room rates. Most of the three star, four star and five star hotels not only analyzed their past occupancies and demand but at the same time looked into the future by predicting
future demand and thus the wholesome of their expected business. (Dabas & Manaktola, 2007) argue that with accurate information of when to expect what type of guest, it is possible for the manager to make objective decisions on which booking to accept, which bookings to keep on hold, and which bookings to reject when accommodation is limited.

4.5.4 Usefulness of Forecasting Future Demand for Rooms

The respondents were asked their opinions on the usefulness of forecasting future room demand for their operations. It was found that all the one star hotels did not fully understand the concept and did not practise it. One quarter (25%) of the two star hotels found forecasting to be very useful while over half (58%) of the two star found forecasting to be just useful. About half of the three star hotels (48%) found forecasting to be just useful while the other half (52%) found forecasting to be very useful. One third (29%) of the four star hotels found forecasting to be just useful while almost three quarters (71%) found forecasting future loads to be very useful. All (100%) five star hotels found forecasting future occupancy loads to be very useful as shown in Table 4.15.
4.5.5 Using the Forecast Occupancy Demand

The YM rationale for forecasting is to identify the future occupancy gaps, so that they can be dealt with early. In contrast, when asked to explain the use of their occupancy-forecast-data, most of the Kenyan town hotel’s rationale for forecasting included: planning to have enough staff for the expected occupancy loads; enough supplies and needs in the catering areas; to create enough accommodation and conferencing facilities; to determine the different segment discounts and room rates to charge, according to demand and that forecasting is necessary for finance and for creating departmental budgets and so on. None of the town hotels in Kenya confirmed that they use occupancy forecasting to identify the occupancy gap between forecast occupancy load and the available rooms. The focus group discussion was of the same opinion, that ‘the inventory of sold rooms (booked rooms) against unsold rooms was the more important because it was factual.’ This is because it informed on booked and un-booked rooms, ‘occupancy forecasting was imagined and reality could be totally different’.

Table 4.15: Usefulness of forecasting future demand for rooms

<table>
<thead>
<tr>
<th>Hotel star rating</th>
<th>Don't know</th>
<th>Not useful</th>
<th>Useful</th>
<th>Very useful</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>3 (100%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>3 (100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>1 (17%)</td>
<td>0%</td>
<td>4 (58%)</td>
<td>2 (25%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>0%</td>
<td>0%</td>
<td>9 (48%)</td>
<td>10 (52%)</td>
<td>19 (100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>0%</td>
<td>0%</td>
<td>2 (29%)</td>
<td>5 (71%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>10 (100%)</td>
<td>10 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46 (100%)</td>
</tr>
</tbody>
</table>
4.5.6 The Use of IT in Occupancy Forecasting

The study revealed that only up to 14% of the five star hotels had an IT system that could make forecasting a continuous IT process. Up to 40% of those in the two star categories and 11% of those in the three stars classes analyzed their occupancy on a daily basis. The majority of the four stars (66.7%) analyzed their past bookings on a daily basis. Forty two percent of the five star hotels analyzed their occupancies on a weekly basis (42.9%). This is unfortunate as forecasting is a central pillar of YM and information is best gathered in a continuous manner to allow for quicker decision-making in an unfolding situation, especially in a high demand situation. These findings are presented in Table 4.16.

Table 4.16: Blocking rooms early and the use of IT in occupancy forecasting

<table>
<thead>
<tr>
<th>Hotel star ratings</th>
<th>continuous process IT</th>
<th>Daily</th>
<th>Monthly</th>
<th>Once a year</th>
<th>Never</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>3(100%)</td>
<td>3(100)%</td>
</tr>
<tr>
<td>Two star</td>
<td>0%</td>
<td>4(40%)</td>
<td>1(20%)</td>
<td>1(20%)</td>
<td>1(20%)</td>
<td>7(100)%</td>
</tr>
<tr>
<td>Three star</td>
<td>0%</td>
<td>7(33%)</td>
<td>4(22%)</td>
<td>4(22%)</td>
<td>4(22%)</td>
<td>19(100)%</td>
</tr>
<tr>
<td>Four star</td>
<td>0%</td>
<td>5(67%)</td>
<td>1(17%)</td>
<td>1(17%)</td>
<td>0%</td>
<td>7(100)%</td>
</tr>
<tr>
<td>Five star</td>
<td>1(14%)</td>
<td>3(29%)</td>
<td>3(29%)</td>
<td>3(29%)</td>
<td>0%</td>
<td>10(100)%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46(100)%</td>
</tr>
</tbody>
</table>

Blocking rooms in advance for the different forecast market segments is an exercise practised by some hotels to ensure their preferred guests do not miss accommodation. The preferred guests are usually guests who pay the better price or those who book for long stays. Fourteen per cent (14%) of the five star hotels allocate their rooms as a
continuous IT process, such that adjustments are carried out continuously according to the unfolding bookings and changing demands. The other 5 star hotels did their allocations equally on a daily, monthly or yearly basis at (30%) each method. The majority of the four star hotels (67%) allocated their room in advance on a daily basis, while 33% and 40%, respectively, of the three star and the four star hotels allocated their rooms in advance and daily to their different market segments, as shown in Table 4.16.

Table 4.17: Analyzing of past bookings

<table>
<thead>
<tr>
<th>Hotel star rating</th>
<th>Daily basis</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Once a year</th>
<th>Never</th>
<th>An IT process</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Two stars</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>Three stars</td>
<td>11%</td>
<td>33%</td>
<td>11%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Four stars</td>
<td>67%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Five stars</td>
<td>6%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Analyzing past bookings allows the manager to have a clearer picture of the future occupancy possibilities. With the knowledge of future occupancy possibilities, the manager can use the available bookings to take stock of future loads and compare them to the available room stocks to make marketing and other operational decisions. This allows hotel managers gauge their possible future performances and plan for activities to close any perceived gaps. The one star hotels, never analyze their past performance and bookings while 40% of the two star hotels do not consider their past bookings. The majority of the three to five star hotels analyze their past bookings with all the five star hotels analyzing their past performance to plan the future, as illustrated in Table 4.17. The implication is that the hotels that do not use past
bookings to forecast future loads may not be using the ingredient of forecasting future occupancy at all. In addition, forecasting could be done manually in batches, on a daily, weekly or monthly basis in the smaller hotels, but it is best done through a continuous and automatic IT process, that would give more accurate results. The majority of the five star hotels use IT for this purpose. Sigala, Lockwood & Jones, (2001) while commending the use of IT, concluded that a good IT system should have inbuilt the necessary YM strategies, conditions and tactics, such that closing and opening rates to discounted guests could be done continuously to emerging loads, as necessary.

4.5.7 Application of YM Forecasting and Occupancy Improvement

Cross tabulation of opinions of the five star ratings-strata between the applications of YM forecasting and occupancy improvement was carried out. The study found that all (100%) the one star hotels felt that forecasting future loads had no effect on their occupancy. Over 80% of the four star hotels felt that forecasting had an occupancy improvement of over 6%, while 50% of both the two star and the three star hotels felt that forecasting had the same effect of over 6% occupancy improvement. Eighty-eight per cent of the five star hotels felt that forecasting had a 4% to over 6% occupancy improvement on the application of forecasting. Except for the one star hotels, all the other hotels forecast their future occupancy loads. Forecasting was cross tabulated against performance to identify differences as per the following hypothesis:
$H_0^2$: There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of occupancy forecasting and those hotels that have not implemented the YM-system ingredient.

4.5.8 Forecasting Future Occupancies by the Star Rating Clusters

The majority (90%) of the five star hotels forecast their future occupancies in advance of any bookings while 86% and 63%, of the four and three star hotels, respectively, forecast their loads in advance, as shown in Table 4.18. Surprisingly, over 71% of the two star hotels forecast their occupancy in advance of bookings, while the one star as expected, does not forecasting its occupancy in advance. The chi-square test indicated that there is no significant statistical linear association between the variables on a $p$-value = 0.268 at a confidence level of 95%. However, the contingency coefficient $C=0.318$ also indicated a strong relationship. The findings agree with Bentley (2007) who stated the need to forecast future demand in order to build a picture of how and when and what reservations to expect. This way, the hotel can organize the rates to charge the different segments and in what periods.

Table 4.18: Forecasting future occupancies to star rating clusters

<table>
<thead>
<tr>
<th>Star ratings</th>
<th>Forecasts future occupancies</th>
<th>Does not forecast future occupancies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0</td>
<td>3(100%)</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>4(57%)</td>
<td>3(43%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>12(63%)</td>
<td>7(37%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>5(86%)</td>
<td>2(14%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>9(90%)</td>
<td>1(10%)</td>
<td>10(100%)</td>
</tr>
<tr>
<td>Total</td>
<td>46(100%)</td>
<td></td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=5.192(a); df=4; $P$-value=0.268; $C=0.318$
4.5.9 Opinion of the Different Star Ratings-Strata on the Application of YM Forecasting

Cross tabulation between levels of occupancy performance and opinions of the different star rated hotels on the application of YM forecasting. Findings in Table 4.19, indicate that all (100%) of the one star hotels believe that forecasting has no effect at all. In contrast, all (100%) of the three-star hotels, four-star hotels and five-star hotels believe that YM forecasting had improved their levels of performance to between 1 – 6%. Over 75% of the two-star hotels believe that YM forecasting has improved their performance by 1 – 6%, while 25% of hotels from this stratum believe that YM forecasting has no effect on performance improvement at all.

Table 4.19: Cross tabulation between levels of occupancy performance and opinions of the different star rated hotels on the application of YM forecasting

<table>
<thead>
<tr>
<th>Levels of occupancy</th>
<th>No effect</th>
<th>1-3%</th>
<th>4-6%</th>
<th>Over 6%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Star</td>
<td>3(100%)</td>
<td>(0%)</td>
<td>(0%)</td>
<td>(0%)</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two Star</td>
<td>2(25%)</td>
<td>2(25%)</td>
<td>(0%)</td>
<td>3(50%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three Star</td>
<td>(0%)</td>
<td>(0%)</td>
<td>8(43%)</td>
<td>11(57%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four Star</td>
<td>(0%)</td>
<td>1(20%)</td>
<td>(0%)</td>
<td>6(80%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five Star</td>
<td>(0%)</td>
<td>1(13%)</td>
<td>5(50%)</td>
<td>4(38%)</td>
<td>10(100)</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=21.787(a); df=12; P-value=0.040; C=.682

Cross tabulation also indicated that there was a statistical significant linear relationship between hotels that had implemented the ingredient of YM forecasting across the star rating strata. At p=0.040, it was less than the critical value of p=0.05 at a confidence level of 95%. The contingency coefficient value (C= 0.682) further indicated that the strength of the linear relationship between occupancy performance and the use of different room rates and different discounts for the different segments.
is strong. The implication is that the majority of those hotels who forecast their future occupancy loads had a competitive advantage over the non-adopters of this variable. Forecasting allows the hotel to focus in advance on both the possible high demand periods and the low demand periods. This allows for such activities as making efforts to move excess demand to low demand periods while discounting to attract occupancy during the low demand periods. This is supported by El Gayar et al. (2011) in a case study where they simulated the reservations arrivals, cancellations, length of stays, no shows, group reservations, seasonality trends in an effort to forecast rooms demand for the Plaza Hotel, Alexandria, Egypt. They concluded that forecasting gives superior results compared to other existing approaches.

4.5.10 Town Hotel’s Occupancy and Elements of Future Demand Forecasting

To investigate the YM ingredient of ‘forecasting future demand’ and have a deeper understanding, the variable and its influence on occupancy and the ingredient’s sub-elements were identified and cross tabulated against occupancy performance. The elements included forecasting the hotels’ future occupancy loads, using historical demand analysis as part of forecasting strategies, forecasting considering the different market segments, as shown in Table 4.20:
**Table 4.20 Cross tabulation between occupancy and the elements of demand-forecasting**

<table>
<thead>
<tr>
<th>Variables</th>
<th>The hotel:</th>
<th>Occupancy</th>
<th>Total</th>
<th>Sig. p values</th>
<th>Contingent Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Over 70%</td>
<td>Under 70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Forecasts future occupancy</em></td>
<td>Forecasts</td>
<td>12(40%)</td>
<td>18(60%)</td>
<td>30(100%)</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Not forecast</td>
<td>0(0%)</td>
<td>16(100%)</td>
<td>16(100%)</td>
<td>0.398</td>
</tr>
<tr>
<td><em>Uses historical demand analysis as forecasting basis</em></td>
<td>Uses</td>
<td>11(29.7%)</td>
<td>26(70.3%)</td>
<td>37(100%)</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Does not use</td>
<td>1(11.1%)</td>
<td>8(88.9%)</td>
<td>9(100%)</td>
<td>0.466</td>
</tr>
<tr>
<td>Forecasting considers the different market segments</td>
<td>Considers</td>
<td>7(31.8%)</td>
<td>15(68.2%)</td>
<td>22(100%)</td>
<td>0.445</td>
</tr>
<tr>
<td></td>
<td>Does not consider</td>
<td>5(21.7%)</td>
<td>18(78.3%)</td>
<td>23(100%)</td>
<td>0.113</td>
</tr>
</tbody>
</table>

*Significance test: chi-square

**4.5.11 Forecasting the Hotels’ Future Occupancy-Demand**

A cross tabulation was carried out between hotels that forecast future occupancy loads in advance of any bookings and their occupancy performance levels as shown in Table 4.20. Findings indicate that all (100%) of the hotels that did not forecast their future occupancies in advance of bookings only achieved the lower mean occupancy of under 70%. In contrast, all (100%) of the hotels that had an average occupancy above 70% had forecast their occupancies. It should, however, be recognized that not all hotels that forecast their occupancy loads achieved over 70% occupancy as other forces were at play, and only 40% of those who forecast their loads achieved beyond 70% occupancy.
Results of the chi-square analysis indicated that there was a statistical linear relationship between the performances of hotels that forecast their future loads from those that did not. The chi-square indicates that there was a significant statistical difference between the variables with a $p = 0.003$. In addition, the contingency coefficient value ($C = 0.398$) further indicated that strength of the relationship between occupancy performance and the use of future forecasting performance is relatively strong. The implication is that implementing the ingredient of forecasting while using the forecast information to allocate available hotel rooms and to vary room rates to cover forecast gaps, does allow hotels not only increase their occupancies but improve on other fiscal performance measures. Bentley (2007) confirms the need to forecast future demand in order to build a picture of how and when and what reservations to expect. This way, the hotel can organize the rates to charge the different segments and at what periods.

4.5.12 Uses Historical Demand Analysis as Part of Forecasting Strategies

The results of the cross tabulation indicated that all the hotels that achieved a mean occupancy above the 70% threshold, had used historical demand for forecasting basis. A minority of 11% of the hotels that did not use the element of historical demand scored above 70% in occupancy. The majority (88%) of those who did not use historical demand analysis achieved a mean occupancy of below 70%, as shown in Table 4.20.

Results of the chi-square analysis indicated that there was a statistical linear relationship between hotels that used historical performance analysis and those who did not. At the $p=0.0029$. The contingency coefficient value ($C = 0.446$) further
indicated that strength of the relationship between occupancy performance and the use of different room rates and different discounts for the different segments is fairly strong, as illustrated in Table 4.20. As a consequence of these findings, we reject the null hypothesis that there is no difference in occupancy performance between hotels that have implemented the YM ingredient of forecasting future occupancy loads and the non implementers. These findings agree with Sigala et al. (2011) who concur that forecasting is a cornerstone of YM implementation, where YM must go beyond predicting occupancy but include the date that the different forecasted occupancies expect to be sold.

The results from the various cross tabulations identified several forecasting elements/factors that had significant influence on occupancy in Kenya’s town hotels. The study was interested in determining which of these elements/factors best predicted Kenya’s town hotel occupancies. Multiple regressions were used because the number of variables that needed to be analyzed per set were beyond 2.

4.5.13 Multiple Regressions: YM Elements of Forecasting Future Occupancy Demand in Town Hotels in Kenya
The study was interested in determining which ‘occupancy forecasting’ elements best predicted occupancy among the ingredient’s various elements. This was in an effort to further understand demand forecasting’s elements that influence occupancy. The study was interested in determining which of the elements in forecasting future demand best predicted the higher occupancies among the ingredients’ various elements.
Table 4.2: Forecasting future occupancy regression model

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.989</td>
<td>214</td>
<td>9.284</td>
<td>.001</td>
</tr>
<tr>
<td>Analyzing historical demand as part of forecasting strategies</td>
<td>.926</td>
<td>1.026</td>
<td>5.637</td>
<td>.001</td>
</tr>
<tr>
<td>Considering the different market segments, when forecasting</td>
<td>.597</td>
<td>.675</td>
<td>3.686</td>
<td>.001</td>
</tr>
<tr>
<td>Forecasts future occupancy loads, in advance of any bookings</td>
<td>.266</td>
<td>.266</td>
<td>2.409</td>
<td>.021</td>
</tr>
</tbody>
</table>

Dependent Variable: Occupancy; R Square = .525

The three occupancy predictors from forecasting demand ingredient model indicate that the model could only account for 52.5% (R Square = .525) of the observed occupancy, leaving 47.5% unaccounted for. This implied that close to half (47.5%) of the observed room rates were due to other factors other than forecasting demand. From Table 4.21 analyzing historical demands is presented as the best predictor of occupancy with a high t value (t= 5.637), and p>0.021 indicating that this predictor is making a significant contribution to the model of forecasting future occupancy in hotels. The study also found that every unit of analyzing historical demand influenced levels of occupancy by (b = .926) units.

In addition, the last predictors of forecasting future loads as a preliminary to allocating rooms to the different segments have similar significant results with a b value (b=0.266) and a significant p value (p=0.021), indicating that forecasting occupancy loads in advance of any bookings allow managers to lay out strategies to ensure that better occupancies are achieved. The element of considering the different market segments when forecasting had surprising results in view of its chi-square
performance. It indicated that the element of considering the different segments when forecasting is statistically significant at predicting occupancy at the p< 0.005. Sigala et al. (2001) go further and conclude that for hotels to be successful today, forecasting must be used to identify and offer tailor-made products for both the individual market segments and the individual. Forecasting allows the management to not only identify the future occupancy gaps but also market segment from which the guest will originate. This is important intelligence, as it allows the manager, not only to make all efforts to fill the identified occupancy gap in advance, but also gives the manager an opportunity to create the right products for the expected guests.

The study also found that forecasting was an important element of YM. Every one of the five objectives included some element of forecasting. As well as using the suggested set of predictor elements, Kenyan town hotels need re-examine the use of the ingredient of forecasting. Forecasting is the main driver of YM as per El Gayar et al. (2011). It is not forecasting per se that drives occupancy but the way the data collected therein, is used. Asked what use the hotels made of the forecast data, the hotels gave varying operational answers such as general budgeting, planning resources to cover expected loads or deploying staff to serve the expected numbers in the various departments. None of the hotels discussed the critical use of forecasting to identify future occupancy gaps. Prodded further, many of the hotels worked with ‘booked’ rather than ‘forecasted’ occupancies to identify their ‘un-booked gaps’. Booked loads allow managers to work with actual known customer numbers, without examining their different discounts, thus missing the key point of choosing from the better of the different forecasted segments layers. Workings with segmented and
forecasted loads allow managers to block and reserve accommodation for 'the better paying but late booking customers.'

The key to achieving the highest occupancies is therefore, to forecast future occupancy demands and allocate rooms to these forecast demand segments, in advance. The balances of the rooms that have not been taken-up represent the occupancy gaps that may remain unsold if no action is taken. Early efforts must then be made to close these occupancy gaps by committing these rooms, early, to targeted price-shy non-traditional-markets, through targeted discounting. Targeting discounting is important to avoid cannibalizing the hotel’s prime market. When this is accomplished in full, the forecast traditional market segments should then be managed with TLC, Tender Loving Care to commit to their allocated space and thus achieve the highest occupancies possible for the hotel.

4.6 Overbooking the Hotel Accommodation Product

Overbooking is a hospitality concept that denotes the accepting of more bookings than the facility’s capacity can accommodate. Hotel guests may book and confirm hotel accommodation and then fail to turn up on the expected arrival dates. This is expensive for any hotel operation, and a constant challenge to management. Consequently, YM recommends a policy of accepting calculated over-bookings that could compensate for the no shows (Hwang & Wen, 2009).

With an effective forecasting system underpinned by accurate past performance data, it is possible to make fairly accurate over bookings, without overrunning the capacity, on arrival dates (McMohan-Bettie, Ingold & Lee-Ross 2000). Overbooking can
maximize both occupancy and revenue impacting positively occupancy and eventually on profits, and in the process benefiting customers with reduced rates and other offers (Fawcett, 2009). Overbooking has been with the industry for so long, that the question of its ethical basis is no longer considered relevant. The ethics of confirming bookings with the full knowledge that these rooms are not or may not be available has yet to be settled (Fawcett, 2009).

This study sought to establish the overbooking beyond-capacity-characteristic of each hotel to compare and relate the data to the different occupancy performances. This allowed for the identification of associations between the application of overbooking and the different occupancies of these hotels. Chi-square was used to test the hypothesis while regression analysis was used to identify the best occupancy predictor variables for the hotel’s overbooking model that would give the best predictors of occupancy.

Over 70% of town hotels investigated admitted to using this popular tool of overbooking to increase their occupancy during the high demand periods. All the five star hotels regularly overbooked beyond their capacity while only 33% of the one star hotels overbooked their capacity. Over 85% of the four star hotels, 71% of the two stars hotels and 61% of the three star hotels also overbooked beyond their capacity. The results are presented in Figure 4.11. Overbooking appears to be a popular YM capacity management tool within every star rating hotel in the Kenyan town hotels, as distribution of this practice ranged from 33% in the one and two star-rated hotels to 85% in the four star-rated hotels.
4.6.1 Overbooking Profiling by Class Rating

The size of each hotel’s overbooking profile varies according to each facility’s management attitude towards overbooking. It also depends on the season, the origin of the expected guests and other factors such as how early the booking was made, the room rates charged and the mode of payment. Others depended on decisions derived from past no shows and early departure statistics. When asked what their maximum overbooking profiles were, the following findings were made, as shown in Table 4.22. All the one star hotels confirmed that their overbooking profile was less than 3% with 80% of the two star hotels being of the same opinion. Over 70% of the four star hotels’ overbooking ranged between 5 and 10% with 50% of the 5 star hotels being in the same overbooking range of 5 to 10%.
Table 4.2: Overbooking profiling by the different class ratings

<table>
<thead>
<tr>
<th>Star rating</th>
<th>Profiles less than 3%</th>
<th>5-10%</th>
<th>11-20%</th>
<th>21-30%</th>
<th>Over 30%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>3(100%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3(100)</td>
</tr>
<tr>
<td>Two star</td>
<td>6(80%)</td>
<td>0</td>
<td>0</td>
<td>1(20%)</td>
<td>0</td>
<td>7(100)</td>
</tr>
<tr>
<td>Three star</td>
<td>13(63%)</td>
<td>2(13%)</td>
<td>0</td>
<td>0</td>
<td>4(25%)</td>
<td>19(100)</td>
</tr>
<tr>
<td>Four star</td>
<td>0</td>
<td>5(71%)</td>
<td>1(14%)</td>
<td>0</td>
<td>1(14%)</td>
<td>7(100)</td>
</tr>
<tr>
<td>Five star</td>
<td>1(10%)</td>
<td>5(50%)</td>
<td>1(10%)</td>
<td>0</td>
<td>3(30%)</td>
<td>10(100)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46(100)</td>
</tr>
</tbody>
</table>

4.6.2 Demanding Deposits with Bookings

Conversely, 67% of the one star hotels did not demand for deposits. This is understandable as one star hotels hardly received any advance room bookings, as their clientele were basically go-shows. The results also indicated that 72% of the two star class demanded deposits with any advance bookings, while 80% of the four star cluster and 100% of the five star clusters demanded deposits to confirm any booking. These findings are presented in Figure 4.12. This suggests that in Kenyan town hotels, the higher the class of star rating, the more likely it was to demand a deposit before a booking was confirmed. It is interesting to note that these percentages may also be indicative of the size of the hotels’ go-shows. Very high go-shows for the one star hotels while nil for the five star hotels.

As an alternative solution to guests not showing up on arrival dates, over 67% of town hotels in Kenya demanded a deposit before committing to any firm bookings, Figure 4.12. In the majority of hotels, bookings without deposits are ‘accepted but not confirmed’, until a deposit has been paid, (McMohan-Bettie, Ingold & Lee-Ross
2001). The guest in the meantime risks losing the booking if another guest makes a new booking backed with a deposit in a high demand situation. YM deals with the problem of no-shows by recommending ‘calculated overbooking’ as a solution, (McMohan-Bettie, Ingold & Lee-Ross 2001). This is done on the calculated forecast of the number of booked guests that may not turn up, on the arrival day.

![Figure 4.12: Demanding a deposit to confirm bookings](image)

**Figure 4.12: Demanding a deposit to confirm bookings**

### 4.6.3 Overbooking Profiles

Over 70% of town hotels investigated admitted to using this popular tool of overbooking to increase their occupancy during the high demand periods. The overbooking profile for 42% of these hotels was at an average of just under 3%, while 9% was between 5-10% of the hotel’s available capacity. Over 67% of all the hotels sampled had some kind of overbooking policy that gave guidelines to staff on what degree of overbooking was allowed for what period. All the five star hotels practised the concept of overbooking while only 33% of the one star hotels overbooked at all.
Over 85% of the four stars, 71% of the two stars and 61% of the three stars hotels overbooked beyond their capacity.

4.6.4 Dealing with ‘Bumped or Walked’ Guests

Overbooking sometimes resulted in guests turning up beyond the hotel capacity. This meant that some of the guests had to be moved to other similar facilities. This is referred to as ‘walked or bumped’. The study revealed that 82% of town hotels had some method of dealing with “bumped” or “walked” guests. Some had arrangements with all the nearby hotels of similar standards, while a few used their available sister chain hotels within the same vicinity, Table 4.13.

![Figure 4.13: Dealing with ‘bumped’ guest](image)

Other hotels used compensation and ensured that all the extra costs suffered by the guests were borne by the hotel and that the guests were as satisfied with the new arrangement as was possible. Some hotels went as far as paying for all the costs the guest incurred, as long as accommodation was not available at the booked hotel, at
times giving the guest ‘a free holiday’. Lanz, Shapiro & Fischhof (2009) concur that overbooking as one of YM’s smart rooms-stock management techniques. Extra efforts should be made to get the overbooking as close to reality as possible together with making it up for the guest, when the hotel got it wrong. All the five star hotels had some system of dealing with ‘bumped’ guests. This was not so with the one star hotel which did not have a policy of dealing with bumped guests, at all. Less than 90% of the four stars and 57% of the three star hotels had some policy for dealing with bumped guests.

4.6.5 Benefits of Overbooking

Opinions on the application of overbooking varied with a minority of 3% of the hotels suggesting that overbooking could be detrimental to the reputation of the hotel while 27% believed that overbooking improved occupancy by over 6%. Over 24% of the respondents believed that overbooking improved occupancy by only 1-3% while 20% believed the improvement was less than 1% as shown in Figure 4.14.

![Figure 4.14: Impact of overbooking on Performance Indicators](image-url)
The study also established other challenges that come with applying the concept of overbooking. They include disappointing customers who may have travelled long distances in order to stay at the hotel; customers rejecting alternative hotels and threatening legal action; lack of alternative accommodation in the same area could also be a challenge as high demand is likely to have affected the same general area and class of hotels. In one group discussion, a manager spoke of how the hotel had to deal with a customer ‘accepting’ a similar hotel offer, 500 kilometers away. The hotel had to foot not only the bill of flying them there and back, including all other charges.

4.6.6 Advance Booking of Rooms

Over 33% of all town hotels in the sample received bookings of beyond 6 months upstream while less than 26% book within a timescale of 6 months. Over 15% of the hotels confirmed that they rarely had any prior bookings before the arrival of the guests while 10% of the hotels expected no prior booking at all and customers pay as they check in. These findings are presented in Figure 4.15. The graph indicates that almost 25% of all guests in town hotels are go-shows, (sum of last 2 columns).

![Figure 4.15: Advance Room Bookings](image-url)
This information is important for YM implementers, as it allows the go-show segment to be exploited in two spheres. The information indicates to the manager the size of the expected go-shows at 25% in this instance. If the go-show guests are from the business segment, then a proactive manager may want to reserve rooms accordingly, and sell to them at the highest rate, the rack rate. Conversely, instead of being go-shows they can also be last minute bookings that should be treated as last minute go-shows. Sarheim (2008) suggests that there are two main segments in the hotel business: The business segment that is unwilling to commit early but is price insensitive, and a leisure segment that commits early and is price-sensitive. Go-shows would, therefore, be expected to pay the higher rates or the rack rates.

The one and two star hotels hardly received any advance bookings and therefore, did not have an elaborate booking system, most of them operated on a two-rack rates model: with single room rates and double room rates. As their customers arrived without prior bookings, they paid the rack rate with no opportunity to negotiate. This was a simple, unusual but an effective YM system. During the high demand period, the single room rate was closed and no single rooms were available as all rooms were sold at double-room rates whether the guest arrived as a single guest or not. The guest was simply told that there were no single rooms available. Nevertheless, during the low demand periods, the single room rate was open and available, and the double rooms could even be negotiated and sold at the price of a single room rate to a price-sensitive couple.
HO$_3$: There is no significant difference in the performance levels between town hotels that have implemented the YM ingredient of overbooking and those hotels that have not implemented the YM-system ingredient.

### 4.6.7 Overbooking and YM Implementation Across the Star Ratings

A cross tabulation between town hotels star rating levels and their opinions on the practice of overbooking was carried out as shown in Table 4.23. The study found that all the one-star-hotels hardly found overbooking to be beneficial. In addition, over 67% of the two star hotels, 75% of the three star hotels, all the four stars hotels and 88% of the five star hotels thought that overbooking was either beneficial or most beneficial. In contrast, 33% of the two stars and 17% of three stars thought that overbooking was detrimental to the hotels reputation.

#### Table 4.23: A cross tabulation between town hotel’s star rating levels and their opinion on the practice of overbooking

<table>
<thead>
<tr>
<th>Opinion on overbooking</th>
<th>Most beneficial</th>
<th>Beneficial</th>
<th>Hardly any benefits</th>
<th>Detrimental to hotel’s reputation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Star</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>3(100%)</td>
<td>0(0%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Two Star</td>
<td>1(16.7%)</td>
<td>3(50%)</td>
<td>0(0%)</td>
<td>2(33%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three Star</td>
<td>8(41.7%)</td>
<td>7(33%)</td>
<td>1(8.3%)</td>
<td>3(16.7%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four Star</td>
<td>6(84.6%)</td>
<td>1(14.3%)</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five Star</td>
<td>5(50%)</td>
<td>4(37.5%)</td>
<td>1(12.5%)</td>
<td>0(0%)</td>
<td>10(100%)</td>
</tr>
<tr>
<td>Total</td>
<td>21(47.1%)</td>
<td>15(32.4%)</td>
<td>5(8.8%)</td>
<td>5(11.8%)</td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=20.831(a); df=12; P-value=0.048; C=.616

These findings and sentiments concur with El Gayar et al. (2011) who assert that an overbooking profile should be considered and determined early to ensure both the reduction of the loss of revenue brought about by empty room-nights due to no shows, and minimizing customer dissatisfaction by reducing instances of ‘walking’ guests.
**4.6.8 Cross Tabulation between Room Bookings Procedures and Star Ratings**

The majority of the hotels above the three star rating (67%) receive their bookings at least 6 months in advance, whereas only 40% of the two star hotels receive their bookings at least 6 months in advance. The findings indicated that those hotels that received their bookings within and beyond the 6 month barrier had better occupancies above 70% while the hotels that had a balanced mixture of below and within 6 months had occupancy below 70%. The one star hotels were in a special position as all of them (100%) received no prior bookings, and all had performance below 70% occupancy.

**4.6.9 Overbooking Profiling**

A cross tabulation was carried out between occupancy performance and overbooking profiling, shown in table 4.24. The study results indicated that those hotels with an overbooking profile of between 5 and 10% had a high occupancy of beyond of 70%, In contrast, all hotels that had an overbooking profile of below 3%, (mostly no overbooking) under-performed at below 70% occupancy.

**Table 4.24: A cross tabulation between occupancy performance levels and overbooking profiling**

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Profile below 3%</th>
<th>5-10%</th>
<th>11-20%</th>
<th>21-30%</th>
<th>More than 30%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 70%</td>
<td>1(10%)</td>
<td>0</td>
<td>10(70%)</td>
<td>0</td>
<td>3(20%)</td>
<td>14(100%)</td>
</tr>
<tr>
<td>Under 70%</td>
<td>1(5%)</td>
<td>1(5%)</td>
<td>3(10%)</td>
<td>20(61%)</td>
<td>6(16%)</td>
<td>32(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=15.492(a); df = 4; P-value=0.004; C=.388
Results of the chi-square analysis indicate that there was a statistical relationship between the different levels of occupancy and the hotel overbooking profiling. The chi-square with a significance p-value=0.004 is less than the critical value of p<0.05 at a confidence level of 95%. In addition, the contingency coefficient value (C=0.388) further confirmed that the relationship between overbooking and occupancy was fairly strong. According to the findings, the null hypothesis that there is no difference in occupancy performance between hotels that have implemented the YM ingredient of overbooking and the non-implementers is therefore rejected. In agreeing that overbooking is the centerpieces of YM, Kimes & McGuire (2001) confirmed that since the hotel room is a perishable inventory and that many bookings will not be honoured hence risking wasted room-nights, the accepted solution by the industry is the overbooking of the facility beyond capacity.

4.6.10 Feedback on Overbooking and Occupancy Performance

To collect data so that both forecasting and overbooking profiling can be accurately performed in hotels, the respondents were asked whether they carried out post-mortem analysis on their bookings, occupancies, denials, no shows and room rate performances. A cross tabulation was carried out between the star ratings and the periodic time scales that the process is carried out. The findings indicated that the one star hotel does not carry out any post-mortem processes on its occupancy performance. Conversely, 20% of the five star hotels and 14% of the four star hotels were on an IT continuous process of collecting and processing accommodation data, such that all new decisions will be made based on current feedback. Monthly post-mortems were the most popular for all the hotels except the one star rated hotels.
In general all the hotels carried out some past performance analysis, as shown in Table 4.25. Sigala et al. (2001) concluded that IT system is necessary for collecting the huge data involved in storing them and analyzing the hotels’ past occupancy performance data for use in forecasting the future demand. Consequently, occupancy forecast assists in the charting out the future discounting and room allocation route that hotels should take in an uncertain and varying demand environment. This assists in directing capacity, towards the higher rates, during the expected high demand periods and better occupancies during the low demand periods by releasing rate-controls and discounting over any expected low-demand period (Barth, 2002).

Table 4.25: Postmortem analysis

<table>
<thead>
<tr>
<th>Star rating</th>
<th>Daily</th>
<th>IT process</th>
<th>Monthly</th>
<th>Never</th>
<th>Weekly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
<td>3(100)%</td>
<td>.0%</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>1(14%)</td>
<td>1(14%)</td>
<td>1(14%)</td>
<td>4(57%)</td>
<td>.0%</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>4(21%)</td>
<td>1(5%)</td>
<td>7(36%)</td>
<td>5(26%)</td>
<td>2(11%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>1(14%)</td>
<td>1(14%)</td>
<td>2(28%)</td>
<td>2(29%)</td>
<td>1(14%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>2(20%)</td>
<td>2(20%)</td>
<td>4(40%)</td>
<td>0%</td>
<td>2(20%)</td>
<td>10(100%)</td>
</tr>
<tr>
<td>Total</td>
<td>46(100%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-square value=16.139(a); df=16; P-value=0.443; C=.510

4.6.11 Town Hotel’s Occupancy and the Elements of Overbooking the Hotel’s Capacity

To investigate the YM ingredients of ‘overbooking the hotel capacity’ and having a deeper understanding of the variable elements and their influence on occupancy, the ingredient elements were identified and cross tabulated against occupancy performance. The elements included hotel overbooking beyond its accommodation
capacity on busy nights, the hotel having a policy of handling ‘bumped’ guests, and the hotel having a calculated overbooking profile. The results were as are shown in Table 4.26:

Table 4.26: A cross tabulation between occupancy and the elements of overbooking beyond capacity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tenets implemented</th>
<th>Occupancy</th>
<th>Total</th>
<th>*Sig. P values</th>
<th>Contingent Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Overbooks busy nights</td>
<td>Overbooks</td>
<td>6(54.5%)</td>
<td>5(45.5%)</td>
<td>11(110%)</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>Not overbook</td>
<td>6(17.6%)</td>
<td>28(84.8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Have policy on ‘bumped’ guests</td>
<td>Have policy</td>
<td>11(42.3%)</td>
<td>15(57.7%)</td>
<td>26(100%)</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>No policy</td>
<td>1(5%)</td>
<td>19(95%)</td>
<td>20(100%)</td>
<td></td>
</tr>
<tr>
<td>*Overbooking profiling</td>
<td>Less than 5%</td>
<td>0(0%)</td>
<td>13(100%)</td>
<td>13(100%)</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>5 – 10%</td>
<td>7(77.8%)</td>
<td>2(22.2%)</td>
<td>9(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 – 20%</td>
<td>1(50%)</td>
<td>1(50%)</td>
<td>2(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 – 30%</td>
<td>0(0%)</td>
<td>1(100%)</td>
<td>1(100%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over 30%</td>
<td>2(33.3%)</td>
<td>4(66.7%)</td>
<td>6(100%)</td>
<td></td>
</tr>
</tbody>
</table>

*Significance test Chi Square

4.6.12 Hotel Overbooks Beyond its Capacity on Busy Days

A cross tabulation was carried out between occupancy levels and overbooking beyond the hotel accommodation capacity, on busy nights as shown in Table 4.26. Findings indicate that all (84.8%) of the hotels that did not overbook their capacity achieved only the lower mean occupancy of under 70%. In contrast, all (54.5%) of the hotels that had an average occupancy above 70% had overbooked beyond their capacities. The implication is that implementing the ingredient of overbooking beyond capacity, allows hotels not only increase their occupancies but improve on other performance measures.
Results of the chi square analysis indicated that there was a statistical relationship between the performances of hotels that overbooked beyond their capacities from those that did not. The chi-square indicates that there is a significant statistical difference between the variables with a p-value = 0.016 which is less than the critical value of P<0.05 at a confidence level of 95%. In addition the contingency coefficient value (C= 0.338) further indicated the strength of the relationship between overbooking beyond capacity and the use of future forecasting performance is relatively strong.

The results of the cross tabulation indicated that all the hotels (95%) that did not achieve a mean occupancy above the 70% threshold, had no policy on handling ‘bumped’ guests. A minority of 5% of the hotels that did not use the variable scored above 70% in occupancy. A majority (57.7%) of those who did have these policies on handling ‘bumped’ guests in place achieved a mean occupancy of above 70%. As illustrated in Table 4.26.

The results of the chi-square tests indicated that there was a statistical difference between hotels that had policies of handling ‘bumped’ guests and those who did not as the P-value = 0.004, was less than the critical value of P>0.05 at a confidence level of 95%. In addition the contingency coefficient value (C= 0.388) indicated that the strength of the difference in occupancy between hotels that had policies on handling ‘bumped’ guests and those who did not have is fairly strong. These findings and sentiments find resonance with El Gayar et al. (2011) who assert that an overbooking profile should be considered and determined early to ensure both the reduction of the loss of revenue brought about by empty room-nights due to no shows, and minimizing
customer dissatisfaction by reducing instances of ‘walking’ guests. As a consequence of these findings, the null hypothesis that there is no difference in occupancy performance between hotels that have implemented the YM ingredient of overbooking beyond capacity and those hotels that do not overbook has been rejected.

The results from the cross tabulations, the study identified several forecasting overbooking elements/factors that had significant influence on occupancy in Kenya’s town hotels. Consequently the study was interested in determining which of these overbooking elements/factors best predicted Kenya’s town hotel occupancies. Multiple regressions analysis was used because the number of variables that needed to be analyzed per set were many.

4.6.14 Multiple Regression: Elements of Overbooking Beyond the Hotels Capacity Model
The study was interested in determining which overbooking elements best predicted the higher occupancy among the ingredients various elements. This study sought to investigate factors that influence occupancy. The occupancy predictors (R. square = .525) from the overbooking capacity ingredient model, indicated that the model could only account for 52.5% of the observed occupancies, leaving out 47.5% unaccounted for. This implied that close to half (47.5%) of the observed room rates were due to other factors than ‘the overbooking beyond capacity’ ingredient. Having a formal method of dealing with guests that are ‘bounced’ appears to be the most beneficial factor in overbooking beyond the hotels capacity, as illustrated in Table 4.27.
Table 4.27: Overbooking beyond the hotels capacity model

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.048</td>
<td>0.737</td>
<td>9.945</td>
<td>0.001</td>
</tr>
<tr>
<td>Having a formal method of dealing with guests forced to 'walk'</td>
<td>0.737</td>
<td>0.828</td>
<td>6.498</td>
<td>0.001</td>
</tr>
<tr>
<td>Booking more guests than the hotel can accommodate during busy periods</td>
<td>0.615</td>
<td>0.644</td>
<td>4.987</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Dependent Variable: Occupancy; R Square = .525

The statistical significant level (p = 0.000) shows that the predictor variable is making significant contributions to the model. The regression coefficient indicates that apart from the positive relationships in the significance contribution, the predictor is also showing that the availability of methods of dealing with ‘walked’ guests in an overbooked situation influences occupancy by (B = .737) units. Finally, a high t value (t = 6.498) indicates a high contribution of predictor variable. This implies that hotels that overbook their available rooms do well on occupancy performance. It is evident from the study that the hotels will do even better, if in their efforts to overbook, they overshoot their overbooking, but are still able to handle their ‘walked’ guests, acceptably.

In agreement, Hwang & Wen (2009) conclude that while accepting that overbooking alienates customers who perceive the practice as unfair, accepts that the hotel’s compensation policy to “walked” guests, can keep customers coming back. This keeps the hotel winning on both fronts. Taking the risk and getting compensated on no
shows, while at the same time keeping the custom from the displaced guest, when it does not work.

The predictor variable allowed for the maintaining of a full house during the busy periods, yet retaining all those customers who were affected by the hotel taking the overbooking-risk. The other predictor variable in this model is booking more guests than the facilities can accommodate, which has similar contributions into the model, in addition to being the central pillar of the model.

4.7 Use of YM Systems, Strategies, Procedures and Tactics

YM requires the storage of vast amounts of information on a daily basis. It also requires data collection, on the behaviour of every booking, every day of the year to support its ability to make predictions on possible future occupancies among other reports. This is in addition to the opening and closing of the different room-rates, every day of the year, up to and sometimes beyond the 180 days booking-horizon. For accurate demand forecasting, the necessity of continuously comparing the actual demand as it unfolds with the forecast demand is essential (Metters, Queenan & Mark, 2008). Recent booking history is especially important for each of the 180 lead days, as the bookings continue to be opened and restricted daily, according to the market behaviour. Manipulating such data without an IT system is daunting. Jauncy, Mitchel & Slamet (1995) listed IT as an essential feature of YM application.

In addition, Sarheim (2008) points out that strategies and tactics are basically about price manipulation, allocations and denial of rooms and room stock management, in general. YM decisions answer two questions, what prices to charge the various
segments and who to allocate the available accommodation (Sarheim, 2008). When one price is on offer, some customers will not buy, as it will be too expensive for them, while others could have paid a higher price. The strategy starts by offering to the market a price that is targeted to the highest price paying demand-segment available and then works down to the discounted segments. Sarheim (2008) suggests that when the demand in the market is at its peak, the industry’s tradition is to increase rates as much as the market will bear and sell the available rooms at a premium. Sarhiem (2008) argues that the fewer the rooms are available in the market place the higher the price a hotel should charge. In this respect, being able to hold out rooms and be the ‘last to sell’ will give the hotel competitive advantage as the sale of the remaining rooms can be sold at the rack rate or such other higher prices.

In this section, the study sought to establish the YM strategies, systems and tactics-characteristic of each hotel and compare and relate the data to the different occupancy performances. This allowed for the identification of associations between the application of YM strategies and tactics and the different occupancies of these hotels. Chi-square was used to test the hypothesis while regression analysis was used to identify the best occupancy predictor variables for the hotel’s strategies and tactics model that will give the best predictors of occupancy.
The study found that over two thirds of town hotels (67%) were using the variable of YM procedures system and tactics. This dependent variable is invaluable to YM as most of the ingredients find their way into implementation, through YM strategies, systems, procedures and tactics application. Without the application of this variable, the possibility of occupancy cannibalization and other misapplications of YM ingredients may reduce YM’s effectiveness (Meissner & Strauss, 2010). Further, the study found that none of the one star hotels considered the application of YM systems procedures or tactics as important in their rooms operations, yet over 29% of the four stars, 47% of the three stars and 43% of the two star hotels used YM systems, procedures and tactics in their rooms operations, as shown in Figure 4.17.
Many town hotels were reluctant to allow room rate discounting by their front of house staff. They only allowed minimum discounting at the front of house desk where management was not in complete control. Majority of discounts were negotiated early, before the bookings were confirmed thus removing negotiation from operations on to sales and senior management. The study revealed that all the one star hotels did not allow any discounting by staff. The one star hotels operated very simply: you were quoted the hotel rack rate and you took it or left. The front desk had no authority to negotiate any discounting. These findings are presented in Figure 4.18.

**Figure 4.17: Distribution of hotels applying YM systems, procedures and tactics by star rating**
For groups or long stays, it was necessary to call in the manager to negotiate and make the discounting decisions. The two star hotels seemed to allow a lot of discounting independence at the front office desk. Figure 4.18 shows over 80% of the front office desks had authority to give some discounting while only 50% of the 3 star front office desks were allowed the same. At the four star level just over 70% were allowed to give discounts while at the 5 star level, only 66% of the front desks were allowed to give discounts. The two star hotel’s un-usual discounting authority for the front office desk and the denial of authority to front offices of the higher star rated hotels can be explained by the different management styles. The four and five star hotels have a full complement of management on a 24-hour basis, with nights, Sundays and holidays covered by duty managers. These senior officers carry the authority to make discounting decisions. The managers in the two star hotels were intimately involved in the front office operations. Some of them were stationed at the front office, thus allowing the front office to make such discounting decisions.
To avoid last minute wasted room nights, due to no shows, some hotels allowed last minute discounting by front office staff, to attract clients. The five stars had the highest distribution of staff allowed to discount at the last minute; while the one star had none at all, as shown in Figure 4.19.

![Figure 4.19: Distribution of last minute discounting tactic to avoid wasted room nights](image)

4.7.1 Long-term YM Strategies

To apply long-term YM strategies and tactics, it is necessary to have the systems and procedures in place so that staff can use them as reference points for actions and decisions. Asked whether they could deny bookings to await better rates according to forecasting, 46% respondents said they could take the risk. The systems procedures and tactics in place should be targeted at informing the employee how to make the best possible booking decisions. The crucial decisions that the booking staff must constantly make, can be summarized as accepting a booking at a given price or rejecting it, to wait for a higher offer. Whatever the decision, there will always be some risk. If the hotel rejects the offer, it risks wasting the room night if no other
customer comes along and if it accepts the offer, it risks losing a late customer who would have paid a better room rate. Lanz, Shapiro & Fischhof (2009) accept the risk as part of smart YM techniques. An IT system can be very useful here, not only to assist in applying the various tactics and strategies of YM, but also for allocating rooms and for closing and opening the different room rates. It can also be used for applying the built in YM strategies on discounts for the various segments.

4.7.2 The Use of IT Systems in YM Applications

More than 58% of all the responding hotels confirmed that they did not use an IT system that is capable of opening and closing room rates to hotel policy as a basic minimum requirement. One, two and four star clusters admitted that they had no IT system capable of discounting or assist in room allocation decisions. A sophisticated Yield Management IT system can be able to allocate rooms in advance to the various segments according to hotel policy. The need to use YM IT systems has been emphasized by many YM authors. According to Selmi & Dornier (2011) the use of IT in hotel capacity management cannot be overemphasized. It has increased levels of skills, responsiveness and efficiency of hotel capacity management. According to this author, YM has to consider too many variables and only an IT system is capable of processing the huge data necessary to make accurate forecasting and thus efficient real-time management of capacity and rates. Enz (2001) on the other hand emphasizes the use of strategic levers to match demand to availability of accommodation. The levers include such tactics as pricing and discounting the room product, controlling time of arrival and allocating of capacity. Just over 22% of the three star rated and 78% of the 5 star clusters claimed to have IT systems, capable of yield managing their room stock, as illustrated in Figure 4.20.
Special operational strategies that included offering discounts during low demand seasons, discounting according to the guests ability to pay, overbooking and up-selling to inquiries were applied in different degrees by the different hotels. Over 67% of the hotels operated some strategies including blocking of rooms to specific expected markets. Whenever a major event was expected, such as trade fairs, international conferences or management forecast of an expected high demand period, 64% of all respondents confirmed that they restricted discounting during this period.

**4.7.3 Short Term YM Tactics**

Most hotels, however, allowed some structured discount negotiations by their front office staff. The study revealed that 56% of hotels allowed their staff to give discounts that vary from 10% to 20%, under certain conditions. Some 45% of these hotels allow their staff to give up to 10% discounts, while 11% of the hotels allow their staff to give higher discounts, sometimes up to 20%. Other tactics in use included

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**Figure 4.20: Distribution of the use of it for YM in the different star clusters**

[Bar chart showing distribution of the use of it for YM by star ratings]
restricting discounting during the high demand days, even though rooms for sale were still available. This was a difficult task for staff especially having to deny previously discounted regular guest, with the knowledge that rooms were still available. Yet over 66% of respondents confirmed that they used these tactics as part of the overall YM procedures, systems and tactics. These findings are shown in Figure 4.21.

![Figure 4.21: Distribution of staff allowed discounting to various limits.](image)

At the end of the day, when no more check-ins or bookings were expected, every hotel ran the risk of wasting rooms that had not been sold for the day. Literature accepts that any price beyond the variable cost of operating the room-night is welcome revenue that would add to the profits by reducing the overhead expenses. When respondents were asked whether they could give discounts to fill the hotel at the end of the day, only 48% admitted that they had the authority to do so. During the low demand periods, efforts are made to increase occupancy by using such tactics as highly discounting domestic and leisure guests and increasing offers with higher discounted rates with increased benefits. Overall 45% said that these tactics and
strategies had improved their occupancies and revenue by over 6%, while 22% claimed that there was a 1 to 3% improvement. Selmi & Dornier (2011) again confirm the need for the use of YM systems, tactics and strategies. The Author, however, adds that to generate real increase in earnings, it is not only necessary to build the strategies and tactics into the YM IT system, but the hotels must understand that the recommendations by the YM IT system must be managed by employees. This is because an IT system does not have the capacity to decide on such matter as quantifying the priority for a regular customer, from the neighborhood. In the next chapter the study tested the hypothesis on the use of YM strategies and tactics as follows:

**HO_4:** There is no significant difference in the performance levels among town hotels that have implemented the YM ingredient of implementing strategies, systems and procedures and those that have not implemented the YM-system ingredient.

### 4.7.4 The Use of YM Strategies by Town Hotels in the Different Star Ratings

Another cross tabulation between the different star levels and the use of YM operational strategies, systems and tactics was performed and the results indicated that less than half of the hotels (between 29 and 47%) used YM strategies, systems and tactics. No hotel in the one star ratings used this ingredient, while only 43% of the two star-rated hotels admitted to using the ingredient as normal part of running their business. The majority (between 53 and 100%) of the different hotel classes admitted, not to using the system, while less than half of all the other star ratings confirmed that they used the system ingredient, as illustrated in Table 4.28.
<table>
<thead>
<tr>
<th>Star rating</th>
<th>Uses YM tactics systems and strategies</th>
<th>Does not Uses YM tactics systems and strategies</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0</td>
<td>3(100%)</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>3(43%)</td>
<td>4(57%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>9(47%)</td>
<td>10(53%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>2(29%)</td>
<td>5(71%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>4(40%)</td>
<td>6(60%)</td>
<td>10(100%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=2.482(a); df=4; P-value=0.443; C=0.241

The chi-square analysis indicated that there was no statistical relationship (p>.05) at a confidence level of 95%, between the different levels of hotel’s star ratings and the use of YM strategies, systems and tactics. However, from Table 4.33, it was found that most (90%) of the hotels that used YM strategies, systems and tactics scored over 70% on occupancy. This meant that most (90%) of those hotels from the different star ratings that had scored between 29% and 47% in the use of YM systems had also maintained a 70% occupancy, as shown in Table 4.28.

4.7.5 Cross Tabulating Town Hotel’s Occupancy and the Elements of YM Procedures, Strategies, Systems and Tactics

To further investigate the YM ingredient of using procedures, strategies, systems and tactics and have a deeper understanding of the variable’s elements and their influence on occupancy, the ingredient’s elements were identified and cross tabulated against occupancy performance. These elements included the use of YM operational strategies, systems and tactics, having a reference framework for use by staff to discount, the use of IT systems capable of closing and opening room rates, reserving
rooms for expected markets on specific dates. The results were as are shown on Table 4.29:

Table 4.29: Cross tabulation between occupancy and the elements of procedures, strategies, systems and tactics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tenets implemented</th>
<th>Occupancy</th>
<th>Total</th>
<th>*Sig. p values</th>
<th>Contingent Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of YM procedures, systems and tactics</td>
<td>Used Did not use</td>
<td>Over 70% Under 70%</td>
<td>8(44.4%) 10(55.6%)</td>
<td>18(100%)</td>
<td>0.001 0.430</td>
</tr>
<tr>
<td>Using IT system to close and open rates</td>
<td>Uses IT Does not use</td>
<td></td>
<td>11(39%) 17(60.7%)</td>
<td>28(100%)</td>
<td>0.018 0.336</td>
</tr>
<tr>
<td>Reserves off rooms for specific markets</td>
<td>Reserves Does not reserve</td>
<td></td>
<td>12(40%) 18(60%)</td>
<td>30(100%)</td>
<td>0.003 0.398</td>
</tr>
<tr>
<td>Having a reference framework for discounting by staff</td>
<td>Has frame work Does not have</td>
<td></td>
<td>10(35%) 18(64.3%)</td>
<td>28(100%)</td>
<td>0.078 0.254</td>
</tr>
</tbody>
</table>

*Significance test Chi Square

4.7.6 The Use of YM Operational Strategies, Systems and Tactics

A cross tabulation between occupancy performance levels and the use of YM operational strategies, systems and tactics was carried out and the results are presented in Table 4.29. The table shows that (100%) of those hotels that did not use the concept of YM operational strategies, systems and tactics scored under 70% occupancy, while 42.9% of those who used the variable concept scored over 70% occupancy.
4.7.7 Having a Reference Framework for use by Staff to Discount

Another cross tabulation between occupancy and having a reference framework for use by staff for discounting decisions, the results indicated that less than 36% of all the hotels that had installed a decision-making framework scored occupancy beyond 70%. A paltry 12% of the hotels that had not installed this framework had also scored occupancy of beyond 70%. However, the majority (88%) of those who had not instituted the process scored less than 70%. The analysis on chi-square test revealed that there was no significant relationship (p< 0.078) between the level of occupancy performance and the use of YM operational strategies, systems and tactics, however, the contingency coefficient value (C= 0.254) confirmed that the relationship was fairly strong, as shown in Table 4.29.

4.7.7.1 The Discounting Challenge

The focus group discussion guide sought to investigate how Kenyan town hotels’ managers dealt with the low demand and excess demand periods. The discussion group indicated that the majority of the three, four and five star hotels “discounted their room rates on a daily basis to prevailing market circumstances”. The situation found the managers “constantly seeking out their competitor’s average Best Available Rates (BAR), in an effort to benchmark their hotels discounting levels. From the BAR, the experienced operators were able to read their competitors’ discounting activities and the city’s room demand levels. From the obtained information, the operators ‘discounted their room rates accordingly’ one of the managers said. Another manager claimed that “all that a manager needed to do was to discount according to the accessible BAR average,” to succeed. The BAR benchmark was, therefore, the easiest
way out of setting discounting rates. The BAR acted as the guide for most managers’ daily discounting decisions. It was convenient because most town hotels were concentrated in the city of Nairobi, and communication between the hotels was easy and efficient. Unfortunately, this benchmark did not have the capacity to indicate the financial impact on the hotels’ revenue goals or the profitability that any discounting action would precipitate. Besides, it did not ensure that the hotel achieved the ideal performance levels in both occupancy and profitability. The managers needed some confidence boosting information or model, to break away and make informed discounting decisions, when necessary.

Consequently, in spite of all the YM efforts appearing to be in place in the Kenyan town hotel scene, the mean occupancy of all town hotels still lingered at the low end of 60%. The hotels do segment their markets; they also forecast their future expected loads and use most of the recommended YM tools; even so, the YM tool of deeper discounting to attract the price shy guest does not appear to have been fully utilised. The focus group agreed that the ‘Kenyan town hotels did not discount deep enough to attract the ‘elastic price sensitive market’ to fill up the hotels, consistently. The managers indicated that there was a strong culture of ‘hotels discounting within their star rating, the BAR. To discount beyond the hotel’s own star rating, raised many management issues requiring a chain of approvals for each such decision’. Other issues included the need ‘to retain the image of the hotel’s star rating level, as deep discounting may suggest that the hotel’s classification had dropped.’ Other considerations included ‘the avoidance of price wars that may negatively impact on the various star rating classes, reducing their earnings and impacting the general hospitality industry in Kenya’.
Some managers in the discussion group felt that ‘The lack of information and knowledge on how to assess the impact of every deep discounting decision on revenue, profitability and the expected owners returns’ discouraged managers from venturing out into deeper discounting. Town hotels, therefore, discounted their room rates within the general range of their peers on the same star rating cluster, even though the occupancy indicated that deeper discounting would have attracted further business and better occupancy. “Moreover, when there was a general low demand period, particularly an extended one, general discounts were issued”. Deep targeted discounting that should be aimed at achieving full occupancy, consistently, did not seem to be much in application, such that, in an odd way, the hotels appeared to accept empty room-nights, within their star rating rather than compete with peer hotels for guests, from deeper discounting! The study’s outcome model suggests a new combination of YM predictor elements that are likely to produce higher occupancy performances with increased profitability, when applied. This is illustrated in Table 4.24 (in black).

4.7.8 The Use of IT Systems to Close and Open Lower Room Rates

A cross tabulation was carried out between occupancy performance levels and the use of IT system capable of closing and opening rates to YM operational needs, table 4.29. The table shows that only 6.3% of those hotels that did not use YM IT systems scored over 70% occupancy while 39.3% of those who used the ingredient’s element scored over the 70% occupancy threshold. Thus, the use of IT systems is significantly (p<0.05) associated to higher occupancy rates. Supporting the finding by Sigala, Lockwood & Jones, (2001) that since demand for hotel rooms is variable and
uncertain but cyclic most of the time, YM exploited this property with modern information technology, collecting, storing and analyzing past data to forecast the future demand. With the data, the IT systems chart out the future room-allocation and discounting route that the hotel should take. In the meantime, IT controls the evolving capacity, towards higher occupancy and better average rates, during the higher demand periods and releases control over the expected low demand periods, Sigala, Lockwood & Jones, (2001). The analysis on chi-square test revealed that there was a significant relationship (p< 0.05) between the level of occupancy performance and the identification of market segments. In addition, the contingency coefficient value (C=0.336) further confirmed that the relationship was fairly strong.

In general, there was a significant difference in occupancy performance, between hotels that applied the ingredient of YM systems strategies, procedures and tactics and the non-applicators, which was in agreement with Barth (2002) who concluded that using the right YM tools, is not only possible to shift demand from peak to slow periods, but also allocate capacity with a nested pricing strategy that considers the price insensitive guests, with priority.

According to these findings, the null hypothesis that there is no difference in occupancy performance between hotels that have implemented the YM ingredient of YM operational strategies, systems and tactics and the non-implementers was rejected. Jauney, Mitchel & Slamet (1995) supporting the finding concluded that when demand levels fluctuate, YM systems, strategies and tactics can provide the receptionist or the reservation clerk with a range of strategies, tactics and alternatives to offer inquiring customers. During high demand dates, only higher rates will be
offered, while a wider range of offers would be available during low demand dates, within tactical fences. Different strategies will, therefore, be applied to deal with the different demands for different market segments. The overall effect will be to move the price sensitive towards the shoulders while attracting the available market segment into the low demand periods. These strategic and tactical moves will ensure increased occupancy throughout the year with minimum dips and troughs.

**4.7.9 Reserving Rooms for Expected Markets on Specific Dates**

Findings indicated that all (100%) the hotels that performed well with an occupancy above the 70% level, reserved rooms for the expected market segment. In contrast, all the hotels that did not apply the ingredient factor were under performing (occupancy below 70%), as illustrated in Table 4.29. Results of the chi-square analysis indicated that there was a statistical relationship between occupancy levels and the application of segment-market-mix on low demand days. The chi-square had a significance \( p=0.003 \), and the contingency coefficient value (C= 0.398) confirmed that the linear relationship was strong.

**4.7.10 The YM Systems, Strategies, Procedures and Tactics Model**

The five occupancy predictors from the YM systems, procedures and tactics ingredient model, indicates that the model could only account for 52.5% of the observed occupancy (R Square =0.525), leaving out 47.5% unexplained. This implied that close to half (47.5%) of the observed room rates were due to other factors other than the practice of YM systems, procedures and tactics ingredient. From Table 4.30, the study also found that having formal YM procedures, systems and tactics for dealing with booking enquiries has been presented as the best predictor of occupancy
performance in this section. The study indicates that this predictor influenced the levels of occupancy by a factor .882 (b=.882) units, for every one unit of predictor application. Similarly, the significance p values (P=0.000) indicate that applying the predictor variables of YM systems, procedures and tactics is also making significant contribution to the model. In addition, the next predictors of having an IT system that can open and close lower room rates according to demand have similar results with a high b value (b=.840). The significant p values (P= .005) indicate that the predictor variable’s contributions towards achieving better occupancy for the model is also high.

Finally, both predictors have a value of $t = 8.878$ and 10.672 confirming their contribution to the model’s efforts towards achieving better occupancy. The implication is that having properly thought out procedures, tactics and systems are essential for a successful YM application. This is in addition to having YM IT system that opens and closes the lower rates whenever necessary, influencing occupancy performance, accordingly. The rationale is that when demand is low, the IT system can open up lower room rates or higher discounts to stimulate demand. When demand is high, the lower room rates are closed to enhance average room rates. The next two predictors allowing staff to give discounts according to their levels of seniority and allowing late night staff to negotiate and give discounts to ensure that the late night empty beds are sold. Therefore, the evening staff should have clear mandate to give the necessary discounts to ensure that all beds are sold for the night. The findings agree with Sheivachman (2011) who confirms that YM provides ‘a treasure chest’ of commercial flexibility, operational systems, strategies, tactics and a zest for competitiveness. The author argues that without properly coordinated YM procedures
and strategies, advance bookings may easily lure hotels into booking too high a capacity of rooms to advance-booking-leisure-guests and miss out on the late bookings of higher value customers.

Table 4.30: YM systems, procedures and tactics model

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>p- Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>20.32</td>
<td></td>
<td>7.740</td>
<td>0.000</td>
</tr>
<tr>
<td>Having YM procedures and tactics for dealing with booking enquiries</td>
<td>.882</td>
<td>964</td>
<td>8.878</td>
<td>0.000</td>
</tr>
<tr>
<td>Having an IT system that can open or close lower room rates according to demand</td>
<td>.840</td>
<td>907</td>
<td>10.672</td>
<td>0.005</td>
</tr>
<tr>
<td>Giving discounts by staff according to levels of seniority</td>
<td>.065</td>
<td>071</td>
<td>.829</td>
<td>0.413</td>
</tr>
<tr>
<td>On high demand days, discounts restricted though rooms remain unoccupied</td>
<td>.052</td>
<td>057</td>
<td>.772</td>
<td>0.445</td>
</tr>
<tr>
<td>Reception staff allowed late night negotiate/give discounts to ensure no room-nights lost</td>
<td>.021</td>
<td>023</td>
<td>0130</td>
<td>0.897</td>
</tr>
</tbody>
</table>

Dependent variable: occupancy; R Square =0.525

4.8 YM Training and the Building of YM Culture

Training is the most direct method of building long term culture in any discipline. An established YM culture focuses staff towards the maximization of benefits from the prevailing market environment. It also ensures sustained efforts towards retaining high occupancies and revenues on the available capacity through high and low demand periods. According to Selmi & Dornier (2011), the implementation of an YM system represents a cultural change on two levels; a change in staff attitudes and a change in their working procedures. The change in attitude was dramatic because previous to the change, the customer had been regarded and treated as the ‘king’ to whom every effort was made to meet their every desire and need. The new culture and
attitude required staff to re-focus their efforts towards meeting the facility’s needs first, before the customer’s needs are considered. The new focus is towards doing all that is necessary to ensuring that the maximization of occupancy, average room rates and the hotels’ RevPAR are the prioritized. This is a different culture from previous trainings and can only be done through more training, induction and similar efforts that would lead to changing the staff into ‘a new facility-focused culture and attitude’.

In this section (4.8), the study sought to establish the YM training and culture inculcation-characteristic of each hotel and compare and relate the data to the different occupancy performances. This allowed for the identification of associations between the YM training and culture inculcation and the different occupancies of these hotels. Chi-square was used to test the hypothesis while regression analysis was used to identify the best occupancy predictor variables for the hotel’s training and culture inculcation model that will give the best predictors of occupancy. The study revealed that over 35% of the front office staff have attended some form of YM training, 16% have been trained on the job while 38% have never heard of training in YM, as illustrated in Figure 4.22.
The study further found out that 52% town hotels claimed to operate some kind of YM system while 48% either did not understand YM or did not operate any formal YM system. From the earlier part of the questionnaire, it had been established that the different ingredients of YM had been implemented to a higher degree (between 67% and 81%) than the 52% finding of YM application indicated by this variable. While some hotels may have had many YM tenets in operation, the direct question on yield management (YM) was a technical term that may have reduced the distribution of applicators where the meaning was not quite clear. All staff in the five star hotels had either been formally trained on the implementation and application of YM, or had been informally inducted into YM on the job and the YM terms were clear. Conversely, there was no YM training or YM culture inculcation in any of the one star rated hotels. Half (49%) of both the two and three star hotels indicated that they had not had any formal training, while 42% of the four star hotels also claimed to have had no formal YM training, as shown in Figure 4.23. These staff would have had

Figure 4.22: Distribution of YM training levels in Kenya’s town hotels
issues answering the question on YM application. However, distribution of hotels with staff who had attended formal YM training increased in tandem with the star rating. At the one star level, there were no hotels that trained their staff on YM. At the two star level 22% formally trained their staff on YM while at three and four star levels, 30% and 42% respectively, formally trained their staff on YM operations.

![Figure 4.23: Distribution of YM Training across the star rating](image)

**H 5:** There is no significant difference in occupancy performance levels among town hotels that have implemented the YM ingredient of training and culture inculcation and those that have not implemented the YM-system ingredient.

### 4.8.1 YM Training and Culture Inculcation

A cross tabulation was carried out between the hotel classification and YM training and culture inculcation in town hotels. All the one star hotels did not carry out any YM inductions and training, while most (80%) of the five star hotels had YM training and inductions. Over 40% of the four star hotels and 30% of the three star hotels confirmed that they carried out the YM training function. The two star hotels had
surprising results as over 40% of their members carried out YM training in their hotels. This was more than the three star hotels. The findings are shown in Table 4.31.

<table>
<thead>
<tr>
<th>Star ratings</th>
<th>Had some YM training and YM induction</th>
<th>Had no YM training and induction</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>One star</td>
<td>0%</td>
<td>3(100%)</td>
<td>3(100%)</td>
</tr>
<tr>
<td>Two star</td>
<td>3(43%)</td>
<td>4(57%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Three star</td>
<td>6(32%)</td>
<td>13(64%)</td>
<td>19(100%)</td>
</tr>
<tr>
<td>Four star</td>
<td>3(43%)</td>
<td>5(57%)</td>
<td>7(100%)</td>
</tr>
<tr>
<td>Five star</td>
<td>8(80%)</td>
<td>2(20%)</td>
<td>10(100%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>46(100%)</td>
</tr>
</tbody>
</table>

Chi-square value=8.832(a); df=4; p-value=0.065; C= .401

The chi-square test revealed that there was no significant relationship (p> 0.065) at the confidence level of 95% between the levels of star ratings and the YM induction of staff. It indicated that over three quarters (75%) of all those hotels that conducted YM induction training, scored over 70% on occupancy. This implies that the five star hotels that have high (80%) instances of inducting their staff into YM, have better chances (75%) of achieving the higher rates in occupancy.

4.8.2 Cross Tabulation between Occupancy and YM Training and Culture Elements

To further investigate the YM ingredient of YM training and culture inculcation and have a deeper understanding of the variable’s other elements and their influence on occupancy, the ingredient’s elements were identified and cross tabulated against occupancy performance. The elements included YM training and staff induction, staff
YM literacy, creating an YM culture at the front offices and YM specifics that every new employee must learn. These were cross tabulated against occupancy as shown in Table 4.32:

Table 4.32: Cross tabulation between occupancy and the elements of YM training and elements culture inculcation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tenets implemented</th>
<th>Occupancy</th>
<th>Total</th>
<th>Sig. p values</th>
<th>Contingent Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>YM induction takes place in hotel</td>
<td>Takes place</td>
<td>9(45%)</td>
<td>11(55%)</td>
<td>20(100%)</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>Does not</td>
<td>3(11.5%)</td>
<td>23(88.5%)</td>
<td>26(100%)</td>
<td></td>
</tr>
<tr>
<td>Staff are YM literate</td>
<td>Literate</td>
<td>11(37.9%)</td>
<td>18(52.1%)</td>
<td>29(100%)</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>Not literate</td>
<td>1(5.9%)</td>
<td>16(94.1%)</td>
<td>17(100%)</td>
<td></td>
</tr>
<tr>
<td>An IT YM system available to assist decision making</td>
<td>Available</td>
<td>12(60%)</td>
<td>8(40%)</td>
<td>20(100%)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Not available</td>
<td>0(9%)</td>
<td>26(100%)</td>
<td>26(100%)</td>
<td></td>
</tr>
<tr>
<td>Hotel has a YM culture</td>
<td>Has YM culture</td>
<td>12(33.3%)</td>
<td>24(66.7%)</td>
<td>36(100%)</td>
<td>0.034</td>
</tr>
<tr>
<td></td>
<td>Does not have</td>
<td>0(0%)</td>
<td>10(100%)</td>
<td>10(100%)</td>
<td></td>
</tr>
<tr>
<td>Have enough YM skills to make decisions on phone</td>
<td>Have YM skills</td>
<td>12(75%)</td>
<td>4(25%)</td>
<td>16(100%)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Do not have</td>
<td>0(0%)</td>
<td>30(100%)</td>
<td>30(100%)</td>
<td></td>
</tr>
<tr>
<td>Staff have YM specifics they must learn</td>
<td>Have YM specs</td>
<td>7(87.5%)</td>
<td>6(28.6%)</td>
<td>13(44.8%)</td>
<td>0.254</td>
</tr>
<tr>
<td></td>
<td>Don’t have</td>
<td>1(12.5%)</td>
<td>15(71.4%)</td>
<td>16(55.2%)</td>
<td></td>
</tr>
</tbody>
</table>

*Significance test: Chi Square

4.8.3 Occupancy Performance on YM Training and Staff Induction

A cross tabulation between occupancy performance levels and induction into YM procedures and processes on engagement at the hotel was carried out as shown in
Table 4.32. The findings indicated that 75% of the hotels which trained and inducted their staff into YM on engagement had an occupancy level of above the 70% level. On the other hand, 70% of the hotels that were under performing (occupancy below 70%) had no YM induction and training processes for staff on engagement. Chi-square tests indicate that there was a statistical relationship between occupancy levels and staff YM induction and training. The chi-square showed a significance $p = 0.009$. In addition the contingency coefficient value ($C= 0.353$) further confirmed that the relationship was fairly strong.

### 4.8.4 Staff YM Literacy and Occupancy Performance

A cross tabulation between occupancy performance levels and the staff’s YM literacy in town hotels was carried out. The findings are presented in Table 4.32. The findings show that 87.5% of those hotels that had YM literate staff scored over 70% occupancy, while 63.2 of the hotels that scored under the 70% occupancy threshold indicated that they did not have a YM literate staff. These results, concur with Kimes (1997) who argued that YM literate staff have the capacity to deal with the hotel’s fluctuating demand. When demand exceeds the number of rooms, they know how to use YM tools to deal with the situation rather than turn away the guests. When on the other hand, the demand is low and they cannot reduce the number of rooms to decrease fixed costs, they know the proper YM tools to deal with different situation.

The analysis on chi-square test revealed that there was a significant relationship ($p=0.017$) between the level of occupancy performance and having an YM literate staff. In addition, the contingency coefficient value ($C= 0.336$) further confirmed that the relationship was fairly strong.
4.8.5 Creating a YM Culture at the Front Offices

A cross tabulation between occupancy performance levels and the creating of a YM culture in the dealings at the front of house offices was carried out and the results are presented in Table 4.32. The findings show that 87.5% of those hotels that created an YM culture at the front offices scored over 70% occupancy, while 66.7% who did not have an YM culture at the front offices scored below 70% on occupancy. The analysis on chi-square test revealed that there was a significant relationship (p=0.034) between the level of occupancy performance and the creation of an YM culture at the front offices. The contingency coefficient value (C= 0.299) indicating that the relationship was not fairly strong.

4.8.6 Use of YM IT System to Assist in YM Decision-Making

Another cross tabulation between occupancy and the use of YM IT system to assist in YM decision-making was carried out. The results indicated that all hotels (100%) that did not use YM IT system to assist in YM decision-making achieved occupancies below the 70% threshold. In contrast 60% of all hotels that achieved occupancy beyond the 70% occupancy level had some YM IT system to assist in YM decision-making, as shown in Table 4.32. The chi-square test indicated that there was a significant relationship (p= 0.001), at the confidence level of 95%, between the level of occupancy performance and the implementation of the use of YM IT system to assist in YM decision making. The contingency coefficient value (C= 0.561) indicated that the relationship was also very strong.
Table 4.8.7 Having YM Specifics that Every New Employee Must Learn

Findings indicated that 85.5% of the hotels that performed above the occupancy threshold of 70% had implemented YM specifics that every new employee had to learn. In contrast, 71.4% of the hotels that were under performing (occupancy below 70%) had not implemented the YM specifics for their new staff, as shown in Table 4.32. This indicated a strong relationship between occupancy and the variable. However, Chi-square test indicated that there was no significant relationship (p = 0.166, at the confidence level of 95%) between the level of occupancy performance and the implementation of element of YM specifics that every new employee had to learn. The contingency coefficient value (C = 0.166) indicated that the relationship was also weak.

4.8.8 Have Enough YM Skills to Make Pricing and Discounting Decisions on the Phone

A cross tabulation between occupancy performance levels and having enough YM skills to make pricing and discounting decisions on phone was carried out and the results presented in Table 4.32. The table shows that 75% of those hotels whose staff have enough YM skills to make pricing and discounting decisions on phone achieved over 70% occupancy, while 100% of the staff that did not have enough YM skills to make pricing and discounting decisions on phone at the front offices achieve below 70% on occupancy. The chi-square test revealed that there was a significant relationship (p=0.001) between the level of occupancy performance and staff who have enough YM skills to make pricing and discounting decisions on phone at the front offices. The contingency coefficient value (C = 0.631) indicating that the relationship was strong.
4.8.8 Training and Building the YM Culture Model

The five occupancy predictors from the YM training and culture inculcation ingredient model, indicate that the model could only account for 82.9% of the observed occupancy (R Square = 0.829), leaving out only 17.1% unexplained. This implied that less than one fifth (17.1%) of the observed room rates were due to other factors other than training and YM culture inculcation ingredient, emphasizing the importance of YM training and culture inculcation. From Table 4.33, the study also showed that having the necessary room rate pricing knowledge to make room rate and discounting decisions on the go, as the best predictor of occupancy in this model. The regression coefficient (b = 0.558) indicated that for every one unit increase of this predictor, there was an increase of 0.558 extra units of occupancy. Furthermore, the statistical significance value (p=0.001) indicated that this predictor variable was also making significant contribution to the market training and culture building model, as illustrated in Figure 4.33.

Table 4.33: Training and YM culture inculcation model

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.703</td>
<td>7.476</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Have necessary room rate pricing knowledge to make pricing and discounting decisions on the go</td>
<td>.558</td>
<td>.605</td>
<td>7.395</td>
<td>0.000</td>
</tr>
<tr>
<td>Have IT system that compliments YM decisions</td>
<td>.277</td>
<td>.313</td>
<td>3.226</td>
<td>0.003</td>
</tr>
<tr>
<td>Hotel identified as having a YM culture at the front offices</td>
<td>.241</td>
<td>.226</td>
<td>3.104</td>
<td>0.004</td>
</tr>
<tr>
<td>New employees have YM specifics that they must learn</td>
<td>.154</td>
<td>.140</td>
<td>1.921</td>
<td>0.062</td>
</tr>
<tr>
<td>The hotel operates a YM system</td>
<td>.082</td>
<td>.077</td>
<td>.173</td>
<td>.392</td>
</tr>
</tbody>
</table>

Dependent Variable: Occupancy; R Squared .829
Besides the t value was the large (t= 7.395), further confirming greater contribution of this predictor to the model. It is, therefore, evident that managers who train their staff and build a general culture of YM practices tend to have staff with deeper understanding of room allocation and market pricing dynamics, thus are able to take advantage of the evolving market circumstances on the go. If the knowledge is complemented by an YM culture at the front offices and a seamless IT functionality the benefits increase, Sigala et al. (2001). Again, the regression coefficient (b=.277) indicated that for every unit of IT application, there was an increase of 0.277 extra units of occupancy. Similarly for every unit of IT YM culture inculcation, there was an increase of 0.241 extra units of occupancy. Moreover, a t value (t = 3.226 and 3.104, respectively) indicates a high contribution of the two predictor variables to the performance of occupancy. Finally, a significance value of (p=0.003; p=0.004) respectively, indicates that the predictor variables of YM training and culture inculcation at the front offices’ contribution to the model in achieving better occupancy, is high.

4.9 Determinants of Occupancy

The study sought to identify the determinants of the occupancy differences among Kenyan town hotels. There were three alternative regression processes that generally led to the same results. These were backward elimination, forward selection and stepwise regression. Backward elimination was selected for its simplicity.

4.9.1 Backward Elimination

All of the predictors were placed in the model for consideration. These predictor variables were eliminated one at a time until the remaining variables in each model
were shown to make significant contributions to predicting occupancy. The variable deleted at each stage was the one that was least significant, having the largest p-value. The sequence of backward elimination included placing all potential explanatory variables in the regression model. Where all the predictor variables made significant contributions at p-value<0.05, then that model was the final one. Otherwise, the variable having the largest p-value was removed. The model was again regressed and if the variables were all statistically significant, that model was retained as the final model. Otherwise the process continued until each of the remaining predictor variables explained a significant partial amount of occupancy. The final results are presented in Table 4.34.
### Table 4.34: YM ingredient-determinants of occupancy model

#### Segmenting the market:

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.52</td>
<td></td>
<td>9.398</td>
<td>0.000</td>
</tr>
<tr>
<td>Identifying the various market segments</td>
<td>0.713</td>
<td>0.76</td>
<td>3.854</td>
<td>0.000</td>
</tr>
<tr>
<td>Allocating rooms in advance to forecasted demand by segments</td>
<td>0.401</td>
<td>0.448</td>
<td>3.192</td>
<td>0.003</td>
</tr>
<tr>
<td>Possessing a system of closing and opening lower rates as per changing demand</td>
<td>0.51</td>
<td>0.565</td>
<td>3.065</td>
<td>0.004</td>
</tr>
</tbody>
</table>

#### Forecasts future occupancy loads:

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.989</td>
<td>214</td>
<td>9.284</td>
<td>0.000</td>
</tr>
<tr>
<td>Analyzing historical demand as part of forecasting strategies</td>
<td>0.926</td>
<td>1.026</td>
<td>5.637</td>
<td>0.000</td>
</tr>
<tr>
<td>Considering the different market segments, when forecasting</td>
<td>0.597</td>
<td>0.675</td>
<td>3.686</td>
<td>0.001</td>
</tr>
<tr>
<td>Forecasts future occupancy loads, in advance of any bookings</td>
<td>0.266</td>
<td>0.266</td>
<td>2.409</td>
<td>0.021</td>
</tr>
</tbody>
</table>

#### Overbooks on forecast busy nights:

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.048</td>
<td></td>
<td>9.945</td>
<td>0.000</td>
</tr>
<tr>
<td>Having a formal method of dealing with guests forced to ‘walk’</td>
<td>0.737</td>
<td>0.828</td>
<td>6.498</td>
<td>0.000</td>
</tr>
<tr>
<td>Booking more guests than the hotel can accommodate</td>
<td>0.615</td>
<td>0.644</td>
<td>4.987</td>
<td>0.001</td>
</tr>
<tr>
<td>Overbooks on forecasted busy nights</td>
<td>0.274</td>
<td>0.266</td>
<td>2.577</td>
<td>0.014</td>
</tr>
</tbody>
</table>

#### Procedures systems and tactics:

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>20.32</td>
<td></td>
<td>7.74</td>
<td>0.000</td>
</tr>
<tr>
<td>Having YM procedures and tactics for dealing with booking enquiries</td>
<td>0.882</td>
<td>0.964</td>
<td>8.878</td>
<td>0.000</td>
</tr>
<tr>
<td>Having an IT system that opens or closes lower room rates to demand</td>
<td>0.84</td>
<td>0.907</td>
<td>10672</td>
<td>0.005</td>
</tr>
</tbody>
</table>

#### Training and culture incultation:

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.703</td>
<td></td>
<td>7.476</td>
<td>0.000</td>
</tr>
<tr>
<td>Have necessary room rate pricing knowledge to make pricing and discounting decisions on the go</td>
<td>0.558</td>
<td>0.605</td>
<td>7.395</td>
<td>0.000</td>
</tr>
<tr>
<td>Have IT system that complements YM decisions</td>
<td>0.277</td>
<td>0.313</td>
<td>3.226</td>
<td>0.003</td>
</tr>
<tr>
<td>Hotel has a YM culture at the front offices</td>
<td>0.241</td>
<td>0.226</td>
<td>3.104</td>
<td>0.004</td>
</tr>
</tbody>
</table>

### 4.9.2 The Kenyan Town Hotels’ YM Statistical Outcome Model

This study identified determinants of occupancy in Kenyan town hotels were developed into a model that identified the variables with the most significant contributions across the five objective ingredients. Fields (2005) had observed that the smaller, the value of sig. (p-value) and the larger the t value the greater the
contribution of the predictor to the model. For segmenting the market, identifying the market segments (p=0.000), allocating rooms in advance (p=0.003) and possessing a system capable of opening and closing rates to different segments (p=0.004) were identified as the variable with the most significant predictor of occupancy in the market segmentation model. From the magnitude of t-statistics, these variables were also identified as having the highest impact on occupancy with identifying the various segments leading to (t=3.854) with the other two variables having less impact (t=3.192, t=3.065). All the other objective-ingredients had similar results with two or three predictors having the highest impacts as shown in Table 4.34. This information was used to create the final YM Outcome Model for Kenya’s town hotels. The model includes both the ingredients elements that were found to predict occupancy and those that did not predict occupancy as much, at a significant P value < 0.05. The most effective predictors in the model are presented in black while the predictors with the lower effects are presented in red, as illustrated in Figure 4.24.
Figure 4.24: The YM Statistical Outcome Model for Kenyan Town Hotels

Source: Author, 2012
From the 5 YM ingredients, the elements that influenced occupancy performance of the Kenyan town hotels were identified as the occupancy determinants. From every ingredient’s hypothesis the results indicated that there was a significant (P value < 0.05) relationship between the identified determinants and occupancy. The variables presented in black in the model included:

- Identifying and segmenting their markets.
- Allocating their rooms to identified segments in advance to forecasted demands.
- Installing IT systems to assist manage the discounting process.
- Analyzing historical demand as part of forecasting strategies
- Forecasting through the different market segments
- Forecast future loads in advance of any bookings
- Booking more guests than the hotel can accommodate
- Having a formal system of dealing with guests forced to walk
- Having YM procedures and tactics for dealing with booking enquiries
- Having an IT system that can open or close lower room rates according to demand
- Having the necessary room rate pricing knowledge to make pricing and discounting decisions on the go.
- Having an IT system that complements the YM decision-making process
- The identification of the hotel as having implemented a YM process

These ingredients stood out to be among the most important determinants of occupancy in town hotels. The model had thus identified those YM ingredients/occupancy-determinants across Kenyan town hotels that had the highest impact (most significant P<0.05) on occupancy. The implication was that managers
practising a combination of these YM ingredients’ predictor elements were likely to have better occupancies.
CHAPTER 5
Summary, Conclusions and Recommendations

5.1 Introduction
This chapter summarizes the study findings as presented in the preceding chapters. Conclusions are highlighted through the five study objective-themes, including the outcome variable model and recommendations for policy changes and further research are also made.

5.2 Summary of Findings
5.2.1 The YM characteristics and Occupancy Performance of Town Hotels
The study’s objectives formed the basis of investigating the YM characteristics and performance of Kenya’s town hotels. The YM character of town hotels revealed the minimum application of YM tenets at the lower star rated hotels and its gradual increase in application as the hotels graduated to the higher star ratings. The study also revealed that there was a significant (p<0.05) relationship between the application of YM and occupancy performances. In the majority of the ingredient element performance tests, it was revealed that all the hotels that had occupancy performances beyond 70% had applied some YM ingredient elements. YM was therefore a key determinant of occupancy.

5.2.1.1 Objective 1: YM Market Segmentation Characteristics and Performance of the Study Hotels
The study revealed that there was no application of market segmentation at the one star hotel. The other star rated hotels, segmented their markets at different levels, graduating to full segmentation at the five star hotel level. All hotels with occupancies
beyond 70% had segmented their markets, similarly, the study’s first objective also examined the relationship between market segmentation and occupancy and found that a significant (p=0.047) and positive relationship existed between the application of market segmentation and occupancy performance. The findings were consistent with Sarheim’s (2009) conclusion that the most effective way to fill rooms profitably ‘is to segment the customer demand-base into their different needs.’

5.2.1.2 Objective 2: YM Forecasting Occupancy Demand

The study revealed that all the five star hotels forecasted their occupancy demands in advance, while no demand forecasting was carried out at the one star hotels. All hotels with occupancies beyond 70% had forecasted their future occupancy demands. In addition objective two examined the relationship between demand forecasting and occupancy performance and found that a significant (p=0.002) and positive relationship existed between the application of occupancy demand forecasting and occupancy performance. This was consistent with findings by El Gayar et al. (2011) that forecasting was the main driver of room pricing and rooms’ allocations. On the contrary, some managers in the focus group discussion were guided by their evolving advance bookings instead of forecasts, to open and close their lower rates. Some of the managers also insisted that it was not possible to allocate rooms in advance without actual bookings.

5.2.1.3 Objective 3: Overbooking Profiling

The overbooking characteristic of the town hotels was gleaned through the respondents’ opinion of overbooking. The results were surprising for such a popular hospitality space management tool. At the one star hotel the opinion was that there
were no benefits from overbooking their capacities. At the two star hotel 50% of the hotels said that overbooking was beneficial, while 33% believed that overbooking was detrimental or injurious to their reputation. At the three star hotels 41% claimed that overbooking was most beneficial while 17% thought that overbooking was detrimental. The rest of the star ratings opinion on overbooking was divided between most beneficial or just beneficial.

Over 80% of all town hotels with occupancies beyond 70% overbooked their capacities. The ingredient of overbooking beyond capacity was, therefore, an important factor for occupancy performance. Fawcett (2009) had found that with good historical data overbooking could be fine-tuned to such an extent that few guests are ‘walked’. American airlines walked only 9 passengers out of 10,000 in 2007 in spite of extensive overbooking (Fawcett 2009).

5.2.1.4 Objective 4: The Use of YM Strategies, Systems and Tactics

Cross tabulation revealed that the use of YM strategies was lowest at the one star level and spread out evenly between the other star ratings. All Hotels with occupancies beyond 70% had used these strategies. In addition objective three examined the relationship between the application of YM strategies and occupancy and found that a significant (p=0.003) and positive relationship existed between the application of YM strategies and occupancy. The findings support Sheiverman (2011) who found YM a treasure chest of commercial flexibility systems, strategies and tactics with a zest for competitiveness.
5.2.1.5 Objective 5: Use of YM Training and Culture Inculcation

Cross tabulation on training characteristics indicated highest application at the five star hotels and no application at the one star hotels. 75% of all the hotels that had occupancies beyond 70% had trained their staff into YM. In addition objective five examined the relationship between YM training and occupancy and found that a significant (p=0.030) and positive relationship existed between the application of YM training and occupancy. Selmi & Dornier, (2011), recognized that YM literate staff were more likely to make the right room allocation decisions. In addition the focus discussion group confirmed that for YM to flourish, YM training was carried out in the hotels they represented.

5.2.2 Introduction: YM ingredient-determinants of occupancy

The study identified the predictor variables that influenced occupancy performance of Kenya’s town hotels. All the occupancy determinants with significant values (p<0.05) that revealed a positive relationship between the variables and occupancy performances were constructed into the study’s outcome model. A further leaner graduated model for the smaller or budget constrained hotel properties was also identified. The leaner model should be easier to implement, cost effective and less cumbersome. It consists of the seven variables with the highest coefficients, that translate into the higher influence on occupancy. The suggestion was for the budget constrained practitioner to implement the predictors with the highest impacts first (highest coefficient B values), before graduating to other variable predictors in the model.
5.2.2.1 Objective 1: The Market Segmentation Model

The partial regression coefficient showed that a unit increase in the elements of market segmentation influenced occupancies by a factor of the B values (Fields 2005). Table 4.13 presented the predictor variables with significant p values (p<0.05) indicating their higher contributions to the model. This implied that hotels that identified and segmented their markets, allocated their rooms to forecasted demand, had an IT system that assisted manage the rooms allocations and the discounting process, influenced their occupancies positively. If town hotels could identify their different segments, they could allocate the right guests to the right rooms for the right price at the right time (Kimes, 1989), across the different demand seasons, influencing their occupancies positively.

5.2.2.2 Objective 2: The YM Forecasting Regression Model

Three predictor variables in the model were presented as the best occupancy predictors (Table 4.21), making significant contributions to the occupancy (p<0.002). This implied that hotels that analyzed their historical occupancy demands, forecasted occupancies by the different market segments, forecasted their future demand in advance of any bookings, influenced their occupancies positively. In addition the predictor variable of analyzing historical occupancy demand, had the highest coefficient as shown on the B values on Table 4.21, indicated it’s bigger influence on occupancies. The explanation for the higher occupancies could probably be explained by the fact that if demand forecasting were properly applied, the hotel could predict its future occupancy gaps and take early corrective action, to achieve higher occupancies.
5.2.2.3 Objective 3: The Overbooking Regression Model

Two predictor variables in the model were presented as the best occupancy predictors in the model. (P<0.001). This implied that hotels that booked more guests than it could accommodate, hotels that had a formal system of dealing with guests forced to walk positively influencing their occupancies. This could be explained by the fact that since overbooking increases occupancies by eliminating no shows and booking cancellations, if the hotel could ameliorate the pain of being walked, it could make occupancy gains from calculated overbooking.

5.2.2.4 Objective 4: The YM Strategies Regression Model

Two predictor variables in the model were presented as the best occupancy predictors in the model; in addition, the two ingredient elements had the highest coefficient as shown on the B values (Table 4.30). The significant value below (P<0.003) indicated that they were making significant contribution to the model implying that hotels that had YM procedures and tactics for dealing with booking enquiries, hotels that had an IT system that could open and close lower room rates according to demand positively influenced their hotel’s occupancies. This could probably be explained by the fact that if booking enquiries, room allocations and room-rates discounting were handled within YM tenets, occupancy could be enhanced.

5.2.2.5 Objective 4: YM Training Regression Model

Three training predictor variables in the model were presented as the best occupancy predictors of the model. The significant values (P<0.005) indicated that they were making significant contribution to the model, implying that hotels with staff that had the necessary room rate pricing and discounting knowledge, hotels that had an IT
system that complemented the YM decision-making process, hotels that were identified as having a YM culture; positively influenced their hotels’ occupancies. This could probably be explained by the fact that YM-trained-staff are more likely to include the YM-decision-making-tools into their operations.

5.2.3 The Yield Management Statistical Outcome Models for Kenya’s Town Hotels Model
The predictor variables were summarized into an YM occupancy ingredients’ determinants model as per Figure 4.24. The model presented the ingredients that best influenced occupancy performances in the study. The 14 occupancy predictors were therefore developed into a model with the most significant contributions across the five objective ingredients, implying that managers and hotels using these ingredients, stood to make better gains from occupancy and revenue improvements Figure 4.24 and as summarized on Chapter 4.9.2.

The second outcome model involved the higher B coefficients in the model. The occupancy predictor variables influenced occupancies by a factor of the B values in the various models, the higher the B values, the higher the influence on occupancy performance (Fields, 2005). For a hotel that is budget constrained it would be prudent to implement YM in piecemeal by putting its assets where it could draw the better returns. The higher B value coefficients provided the most effective predictor variables with the highest occupancy impacts. These key variable elements included:
Analyzing historical demand as part of forecasting strategies 0.926
Having YM procedures and tactics for dealing with YM enquiries 0.882
Having an IT system that opens and closes lower room rates 0.840
The hotel regularly books more guests than the available rooms 0.737
The hotel has a formal method of dealing with ‘walked’ guests 0.736
Identifying and segmenting the market 0.713
Staff having the necessary knowhow to price and discount room rates 0.558

The implementation of these variables that are derived from each of the five ingredient models, carry the highest occupancy possibilities. The model implies that room allocations and discounting decisions based on future occupancy predictions derived from analyzed historical demand gives the higher benefits. Implementing YM procedures and tactics allow staff to operate in a controlled and thought-out business environment. It gives staff established standards to deal with enquiries and other room stock management issues. Installing an IT system gives the hotel control on the opening and closing of lower rates according, to designed systems and policy. It gives the operation the added advantage of mechanically assisting the YM managers in YM decision making by raising alarms when necessary, such as when the demand in a future booking date is too high and yet the discounts are still available. A segmented market also allows the staff to target discount market segments and allocate on price sensitivity, key to YM. Finally an YM knowledgeable staff will negotiate and offer the right room to the right customer for the right price at the right time.
5.4 Conclusions

The first aim of this study was to describe the YM characteristics of town hotels in Kenya and identify their different occupancy performances. From the findings of this study, it can be concluded that YM was applied to a higher degree at the five star hotels, gradually reducing to a minimum application at the one star hotel. Across the five objectives, it was also observed that the YM ingredients elements were applied to a higher degree at the five star hotels and to a minimum degree at the one star hotels. Similarly, in 75% of all the hotels with occupancy performances beyond 70%, YM had implemented some YM ingredients. The study revealed that better occupancy performances were being achieved by all hotels that had implemented the YM process. In addition four of the objectives verified that a significant (p<0.05) and positive relationship existed between the applications of YM and occupancy. These findings supported those of Sarheim (2008) conclusions that YM increases occupancy and revenue in particular, by between three and seven percent.

Through backward elimination the study identified fourteen of the most significant ingredient element-predictors of the YM model. These predictor variables were presented in the model on Figure 4.24, as having the better contributions to occupancy performance. Furthermore, within these ingredients a further seven ingredient elements were identified as having the higher coefficients (B values) and thus the higher positive influence on occupancy as listed in Chapter 5.3.6. In effect, the implementation and application of these variables influenced occupancies positively, giving competitive advantage to the hotel.
5.5 Recommendations for Policy and Industry Practice

Based on the above conclusions, the study recommends the following actions at both the industry and policy levels:

With the YM occupancy determinants model, the Kenyan hotel management and sales teams could create clear road maps to success. Continuous comparison of the evolving future bookings; the predicted forecast of possible future bookings and the available room-nights will continuously open-up possibilities of identifying the all important future performance gaps. The model’s first step will therefore, be to identify the market segments and identify the hotel’s future occupancy demand sizes and allocate the available rooms within the YM tenets. This way, the future unallocated rooms (occupancy gaps) will be apparent, early. The management’s first task will, therefore, be to deal with these identified gaps, in advance. In conjunction with the sales team, the management will need to commit these rooms to the best available market segments, however deep the required discounting. These targeted discounts will of course be conditional, with both boundaries and advance commitment clauses. Thus, the demand gap will be profitably closed in advance, while careful management is made of the available and prevailing forecasted regular demand.

Profitability levels are the key performance measures of success in any business undertaking. At the centre of YM strategy lays the concept of maximizing profits by achieving the highest possible levels of occupancy, in a given market. Hotels with the higher occupancies are more profitable across all categories, Iyengar (2010). Increasing occupancy is an appropriate strategy for remaining profitable. However,
focusing on occupancy performance indicator alone as the only goal may be counter productive, especially where managers strive to achieve the higher occupancy by sacrificing room rates and ignoring profitability. Nevertheless, YM endeavors to achieve the highest occupancy in addition to ensuring the ‘right market segment’ (the market offering the highest-rates-possible from the evolving market segments), is allocated the available accommodation (Kimes 2001). Circumstances may be such that the available segment can only be accessed through deep discounting; this is still acceptable as long as the discounted rates makes some contribution towards financing, fixed and other expenses.

The study recommends the adoption of this model in the industry. The model allows the manager to concentrate on fewer identified but effective occupancy determinants. Besides, YM is a human-driven activity; consequently, it can only succeed through the hotel facilities’ staff. The traditional training and culture in most hotels is about the guest. It is about making every effort to ensure that the customer’s needs are met, first, and as much as possible, constantly focusing on the guest. YM changes all that in the new paradigm. While every effort should still be made to meet the guests’ needs, the central focus has shifted towards meeting Kenya’s hotel’s performance needs first Fawcett (2009). Consequently, the author makes the following recommendations:

5.5.1 The Hospitality Industry:

All hospitality training facilities should include YM training units in their curriculums. The units should contain both the general YM training specifics and the identified Kenyan YM models. Workshops should be carried out throughout the
industry to sensitize and encourage the hotel operators on the benefits of implementing YM in their hotels. As a result of these efforts, a new YM culture will be created for a seamless implementation and application of YM.

5.5.2 The Government, the Ministries of Tourism and Education

Yield Management is such an important area of hotel management that it is surprising most Kenyan hotel schools and universities do not include it as part of their hotel training curriculum. Leading world hospitality training universities, such as Cornell University, have not only emphasized research on this important subject but have embraced it in all their hospitality management training programmes. The relevant Kenyan ministries should be encouraged to adopt not only the authors YM models but the YM concept and embrace it as part of the hospitality training, country-wide. Yield Management can only be implemented and properly introduced into the industry through a knowledgeable human resource. It is an all year intervention tool that produces good results not only during the low demand periods but also during the high demand periods.

5.5.2 YM IT System Application in Town Hotels:

There is need for town hotels to invest in YM IT systems. An efficient YM IT system will not only enhance room stock management efficiency but should create enough benefits to justify the costs involved. The use of IT facility as a predictor of occupancy has appeared more than once in the new YM implementation model. The booking time scales of most hotels extend sometimes up to and beyond 6 months. Within this time span, YM has too many variables to consider amongst the individual days, to be efficiently managed, manually. To enhance bookings and rooms allocation
and discounting decision making, it is necessary to have an IT system that is capable of processing the huge data necessary to make accurate, rooms demand-segmented-forecasting to enhance efficient real-time management of capacity and room rates. This allows for a system of closing and opening room rates according to evolving market circumstances. Today, a system that is capable of closing and opening room rates to the hotel policy should be the minimum IT requirement for a town hotel. An efficient system should be able to assist the hotel manager forecast future demand, identify occupancy gaps, allocate rooms in advance and open and close suggested rates in an effort to close future demand gaps. The new model allows for the creation of policies to drive the town hotels’ YM IT.

5.6 Implications and Suggestions for Further Research

The study’s findings have given the Kenyan town hotel industry and any future YM implementation investigator, baseline data for further research into the study of efficiency in room stock management. This study suggests that it is possible to increase occupancy and revenue from a seemingly exhausted occupancy situation, by the application of new and innovative ideas such as YM. Further studies should include:

1. A longitudinal research to compare the performance of Kenya’s town hotels before and after YM model application should be made. The results should further confirm the efficacy of YM and the recommended model.

2. The longitudinal research should now include other performance measures such as ARR and RevPAR. The implication of applying YM and the
suggested model is that the hotels will not only have performance improvement in occupancy but also in the other two performance indicators of ARR and RevPAR.

3. YM is applicable in other areas of the hotel with constrained space, such as hotel dining rooms and conference rooms and other spaces. A similar study should be extended to these areas, in the Kenyan context.

5.7 Contribution to Knowledge

Unique findings of this study were the identification and development of an YM model as shown in figure 4.24, from the results of the first five objectives. This model could assist hotel managers’ deal with excess capacity and excess demand, profitably. By identifying the YM key characteristics of the successful Kenyan town hotels, it was possible to isolate the successful YM’s ingredients’ tenets and use them to create an YM model, unique to Kenya’s town hotels.

The model identifies 14 occupancy determinants that will make the performance differences for the Kenya’s town hotels both in occupancy and revenue. These determinant variables were assembled into an YM outcome model and presented as the most effective occupancy predictors for a hospitality facility. Furthermore, a leaner version of the model was also identified for the smaller hotel facilities and the budget constrained properties. A total of 7 determinant variables with the biggest B coefficient values were identified and recommended as making the better contributions to occupancy. These predictor variables could then be implemented gradually starting with the variable with the highest impact (coefficient). Through this
model (Figure 4.24), this study has contributed to knowledge by generating re-
evaluating variables that are key tenets of better understanding of Yield Management.
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Appendix 1
QUESTIONNAIRE TO YIELD MANAGERS, RESERVATIONS OR FRONT OFFICE PERSONNEL

‘Yield Management Strategy in Kenya’s Registered Town Hotels: Opportunities and Scope in Room-Stock Management.’

QUESTIONNAIRE NO: ……………………………………………

A. GENERAL INFORMATION

1. Research TOWN……………………………………….

2. Gender of Respondent
   1. Male [ ] 2. Female [ ]

3. Highest level of education attained by respondent
   1. Diploma [ ] 2. Degree [ ] 3. Other [ ]

4. Age of Respondent
   1) 22-29 years [ ] 2) 30-39 years [ ]
   4) 40-49 years [ ] 3) 50-59 years [ ]

5. What is the title of your job position …………………………………………

6. How long have you been in this position?
   1. Less than 5 years [ ] 3. 11-15 years [ ]
   2. 5-10 years [ ] 4. Over 15 years [ ]

B. GENERAL HOTEL INFORMATION

7. Name of the Hospitality institution (Optional)……………………………
   ……………………………………………………………

8. What is your star rating?
   1) One star [ ]
   2) Two star [ ]
   3) Three star [ ]
   4) Four star [ ]
   5) Five star [ ]

9. How are your room rates?
   1) Fixed until the next reviews. [ ]
   2) Low season and high season prices. [ ]
   3) Local and foreign visitor prices. [ ]
   4) Varies according to the market being quoted. [ ]
   5) Fixed with different discounts to different identified market segments. [ ]
   6) Other system of room-rates. [ ]
   Explain ……………………………………………………………
10. What channels does the hotel use to access its customers bookings and contacts?
   1. The internet [ ]
   2. Its own chain booking system [ ]
   3. Travel agents/tour companies [ ]
   4. Own marketing staff [ ]
   5. IT switches and bookings systems such as Oracle [ ]
   6. Other means .................................................................
      ....................................................................................
      ...

11. What is the annual average occupancy of the hotel? ..................

C. MARKET SEGMENTATION

12. Has this hotel identified its various market segments?
   1. Yes [ ] 2. No [ ]

13. Do the various market segments command different room rates?
   1. Yes [ ] 2. No [ ]

14. What do you regard as the main market segments of this hotel?
   1) Business [ ]
   2) Convention/conferencing [ ]
   3) International tourist [ ]
   4) Regional visitors [ ]
   5) Domestic guests [ ]
   6) Others [ ] Specify .........................................................

20. What would you say was the proportion of your guests make up?

15. Do the various segments command different room rates or different discounts?
   1. Yes [ ] 2. No [ ]

16. Does segmenting the market help the hotel gain any competitive advantage?
   1. Yes [ ] 2. No [ ]

17. The hotel predicts the future booking patterns of each market segment.
   1. Daily [ ]
   2. Weekly [ ]
   3. Monthly [ ]
   4. Once a year [ ]
   5. Never [ ]
   6. It is a continuous process thro’ the hotels IT. [ ]
18. Does the hotel share out its stock of available rooms in advance, to the market predictions, budget like?
   1. Yes [ ] 2. No [ ]

19. Do you have a system of closing and opening the lower rates to the changing demand in the market and as the bookings progress?
   1. Yes [ ] 2. No [ ]

20. Is there a booking policy of discriminating various segments during certain periods? (i.e. rooms are available but are reserved for a predicted, but better paying market that is expected to book) 1.
   1. Yes [ ] 2. No [ ]

21. Overall, how much would you say segmenting the market and handling the different markets individually, has improved your revenue?
   1. Below 1% [ ]
   2. 1-3% [ ]
   3. 4-6% [ ]
   4. Over 6% [ ]
   5. No effect at all [ ]

22. Does your hotel use price manipulations and other price and booking strategies to target the different market segments?
   1. Yes [ ] 2. No [ ]

23. Do you consider these manipulations and other strategies
   1. Very useful [ ]
   2. Useful [ ]
   3. Not useful at all [ ]
   4. Don’t know [ ]

D. FORECASTING

24. Is historical demand analysis part of your forecasting strategies?
   1. Yes [ ] 2. No [ ]

26. Does the hotel forecast its future occupancy loads, in advance of any bookings?
   1. Yes [ ] 2. No [ ]

27. How does the hotel use the forecast loads?
   .................................................................................................................................
   .................................................................................................................................
   ..............................................................

28. How is ‘room occupancy forecasting’ performed in your hotel?
   1. By guessing and estimating [ ]
   2. Analysing the past occupancies and demand [ ]
   3. Analyzing future expected business [ ]
4. It is not done at all in this hotel. [ ]
5. Other methods
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

29. How far into the future does your hotel forecast and plan its expected loads?
   1. Next day [ ]
   2. Next week [ ]
   3. Next month [ ]
   4. Over 6 months [ ]
   5. Over one year [ ]
   6. Other [ ]

30. In your opinion, how useful is forecasting future room demand
   1. Very useful. [ ]
   2. Useful. [ ]
   3. Not useful [ ]
   4. Don’t know. [ ]

31. Does forecasting consider the different market segments?
   1. Yes [ ] 2. No [ ]

32. Is inventory of sold rooms against unsold rooms done?
   1. Daily [ ]
   2. Weekly [ ]
   3. Monthly [ ]
   4. Once a year [ ]
   5. Never [ ]
   6. It is a continuous process through IT [ ]

33. Are rooms allocated and blocked ready for the different market segments in advance?
   1. Daily [ ]
   2. Weekly [ ]
   3. Monthly [ ]
   4. Once a year [ ]
   5. Never [ ]
   6. It is a continuous process through IT [ ]

34. Overall, how much would you say forecasting, has improved your occupancy performance?
   1. Below 1% [ ]
   2. 1-3% [ ]
   3. 4-6% [ ]
   4. Over 6% [ ]
   5. No effect at all[ ]

**E. OVERBOOKING POLICY AND PROFILING**
35. Does your hotel sometimes book more guests than it can accommodate in the rooms available?
   1. Yes [ ] 2. No [ ]

36. How far in advance (into the future) do your customers make their room bookings?
   1. The large number books at least 6 months in advance [ ]
   2. The large number books within 6 months lead time [ ]
   3. It’s a balanced mixture, some beyond 6 months others within 6 months [ ]
   4. Rarely. The facility is there but hardly any prior booking [ ]
   5. No prior bookings received or expected. Customers just come in pay and stay [ ]

38. What is your overbooking profile?
   1. Less than 3% [ ]
   2. 5-10% [ ]
   3. 11-20% [ ]
   4. 21-30% [ ]
   5. More than 30% [ ]

35. Does the hotel demand some deposit with the bookings?
   1. Yes [ ] No [ ]

39. Do you have a formal method of dealing with ‘bumped’ guests that are forced to walk? (i.e. to find alternative accommodation elsewhere due to overbooking?)
   1. Yes [ ] 2. No [ ]

40. What is your opinion about overbooking?
   1. Most beneficial[ ]
   2. Beneficial[ ]
   3. Hardly of any benefit[ ]
   4. Overbooking is detrimental to the hotels reputation[ ]

41. How much would you say overbooking has improved your room’s occupancy?
   1. Less than 1% [ ]
   2. 1-3% [ ]
   3. 4-6% [ ]
   4. More than 6% [ ]
   5. Has no effect [ ]
   6. It is detrimental to the hotels reputation [ ]

41. How far in advance (into the future) do your customers make their room bookings?
   1. The large number books at least 6 months in advance [ ]
   2. The large number books within 6 months lead time [ ]
   3. It’s a balanced mixture, some beyond 6 months others within 6 months [ ]
4. Rarely. The facility is there but hardly any prior booking [ ]
5. No prior bookings received or expected. Customers just come in pay and stay [ ]

42. Are there any periodical postmortems done on your bookings, occupancy and room rate performances?
   1. Daily [ ]
   2. Weekly [ ]
   3. Monthly [ ]
   4. Once a year [ ]
   5. Never [ ]
   6. It is a continuous process through IT [ ]

F. SYSTEMS AND PROCEDURES

43. Does the hotel have specific procedures and tactics for dealing with booking enquiries, especially dealing with room availability and room rates? (Such as discounting procedures, quoting the highest price and negotiating downwards into other offers, so that the hotel can achieve the optimum room rate, (e.g. up-selling or discounting)?

   1. Yes [ ] 2. No [ ]

44. What is your opinion on these procedures for dealing with booking enquiries?
   1. Very useful. [ ]
   2. Useful. [ ]
   3. Not useful [ ]
   4. Don’t know. [ ]

45. Does your hotel have any special operational strategies or tactics in place to help achieve the highest occupancy and the highest possible average room rates?
   1. Yes [ ] 2. No [ ]

46. What is your opinion on room-rate manipulations, targeted discounts and booking strategies that discriminate different market segments?
   1. Very useful. [ ]
   2. Useful. [ ]
   3. Not useful [ ]
   4. Don’t know. [ ]

47. Does the hotel use an IT reservations system that is capable of closing and opening lower room rates, according to demand and other considerations?
   1. Yes [ ] 2. No [ ]

48. Do you sometimes have rooms closed off awaiting future bookings from specific market segments?
   1. Yes [ ] 2. No [ ]
49. Is there a policy in place for room-rate discounts or negotiations by the front office or booking office?
   1. Yes [ ] 2. No [ ]

50. Do you have a reference framework for decisions that you need to make?
   1. Yes [ ] 2. No [ ]

51. Are you allowed to give discounts according to your different levels of seniority?
   1. Yes [ ] 2. No [ ]

52. On high demand days, do you restrict discounts and low spenders, although the rooms remain unoccupied?
   1. Yes [ ] 2. No [ ]

53. Could you restrict and deny bookings in advance though you still have un-booked and unoccupied rooms?
   1. Yes [ ] 2. No [ ]

54. If rooms are still available at night when no more guests are expected to check-in, are reception staff allowed to negotiate/give discounts to ensure no room-night is lost?
   1. Yes [ ] 2. No [ ]

55. On low demand days, do you apply a segments market mix in taking lower rate bookings, to maximize on occupancy and average rates? (Keeping your regular high paying customers at their high rate yet taking lower rates to fill hotel)
   1. Yes [ ] 2. No [ ]

56. Overall, how much would you say these tactics, have improved your occupancy performance?
   1. Below 1% [ ]
   2. 1-3% [ ]
   3. 4-6% [ ]
   4. Over 6% [ ]
   5. No effect at all[ ]

G. TRAINING AND BUILDING THE YM CULTURE

Yield Management (YM) operational definition: The hospitality term ‘Yield Management’ (YM) or Revenue Management (RM), labels many approaches at maximizing revenue and profitability of a hotel, through the manipulation of room rates and booking room-allocations. YM seeks to use the available hotel beds in the most efficient way, sometimes allocating bed capacity to customers of different revenue generating potentials through discriminatory pricing policies. It is especially useful when hotels are facing situations of either excess demand or excess capacity.

58. Have you been formally trained on the application of YM?
   1. Yes, attended training session. [ ]
   2. Yes, trained on the job. [ ]
3. Found it being applied and got on with it. [ ]
4. Did not need training. [ ]
5. No, never had any YM training. [ ]

57. Is Yield management (YM) formally practiced in your hotel?
   1. Fully [ ]
   2. Slightly [ ]
   3. Have heard the expression but do not understand the meaning [ ]
   4. Never heard of the term, before today [ ]

63. Are you YM literate?
   1. Yes [ ] 2. No [ ]

62. Were you inducted into YM procedures and processes when you joined the department?
   1. Yes [ ] 2. No [ ]

64. Please tick one response in relation to the YM statement below.
YM induction and training is carried out in this facility.
   1. Regularly/whenever we have new staff. [ ]
   2. Often. [ ]
   3. Rarely. [ ]

65. Do you identify this hotel as having a YM culture in its dealings at the front of house offices?
   1. Yes [ ] 2. No [ ]

66. How much do you feel part of the YM culture at the hotel?
   1. Very much so. [ ]
   2. Not very much. [ ]
   3. Not at all. [ ]
   4. Don’t know. [ ]

71. The YM culture at this hotel is:
   1. Very strong. [ ]
   2. Strong. [ ]
   3. Weak. [ ]
   4. Don’t know [ ]

67. Are there any specifics on YM that a new employee must learn?
   1. Yes [ ] 2. No [ ]

60. Does the hotel operate a YM (Yield Management) system at the front of house offices?
   1. Yes [ ] 2. No [ ]

61. How much would you say YM application has increased your rooms’ occupancy?
1. Less than 3% []
2. 5-10% []
3. 11-20% []
4. 21-30% []
5. More than 30% []

62. What is the annual average occupancy of this hotel?........................

63. What is the total number of rooms in this hotel?............................... 

64. What were your average room-rates for last year. Kshs........per room
   (Total sales revenue (rooms only) divided by number of rooms)

Thank you for your patience and diligence!

Appendix 2
FOCUS GROUP DISCUSSION GUIDE

YM Managers and YM Team Leaders

1) Discuss the study results along the lines of the following ingredients:
   a. Segmenting the hotels market
   b. Forecasting bookings and occupancy
   c. Overbooking profiling
   d. YM systems procedures and tactics
   e. YM training and culture inculcation

2) Discuss the various performance indicators:
   a. RevPAR
   b. ARR
   c. Occupancy

3) Issues on YM implementation and application
Appendix 3
THE TOWN HOTEL POPULATION

Kenyan town hotels as classified by the Hotels and Restaurants Authority,

**Five Star Town Hotels**

1. Hotel Intercontinental  
   Nairobi
2. Grand Regency Hotel  
   Nairobi
3. Hilton Hotel  
   Nairobi
4. The Norfolk Hotel  
   Nairobi
5. Nairobi Serena Nairobi  
   Nairobi
6. The Stanley  
   Nairobi
7. Safari Park Hotel  
   Nairobi

**Three Star Town Hotels**

8. The Bounty Hotel  
   Nairobi
9. Fair View Hotel  
   Nairobi
10. Marble Arch Hotel  
    Nairobi
11. Landmark Hotel  
    Nairobi
12. Holiday Inn Hotel  
    Nairobi
13. Utalii Hotel  
    Nairobi
14. Outspan Hotel  
    Nyeri
15. Ambassadeur Hotel  
    Nairobi
16. Sportsman Arms Hotel  
    Nanyuki

**Two Star Town Hotels**

17. Panafric Hotel  
    Nairobi
18. Silver Springs Hotel  
    Nairobi
19. Midland Hotel  
    Nakuru
20. Tea Hotel  
    Kericho
21. Hotel Sirikwa  
    Eldoret
22. Hotel Kunste  
    Nakuru
23. Hotel Boulevard  
    Nairobi
24. Eel Hotel  
    Elburgon
25. Six Eighty Hotel  
    Nairobi
26. Sports View Hotel  
    Nairobi
27. Kakamega Golf Hotel  
    Kakamega
28. Lotus Hotel  
    Mombasa
29. Hotel Genevieve  
    Nakuru
30. Lakeside Tourist Hotel  
    Naivasha
<table>
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<th>No.</th>
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<td>Thika</td>
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<td></td>
<td><strong>One Star Hotels</strong></td>
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<td>36</td>
<td>Fig Tree Hotel</td>
<td>Nairobi</td>
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<td>37</td>
<td>Milimani Hotel</td>
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Appendix 4

THE KENYAN TOWN HOTEL POPULATION

The gazetted Kenyan town hotels June 2012 (Star ratings represented the self-declared rating clusters, as per completed questionnaires).

Five Star Town Hotels

1. Hotel Intercontinental Nairobi
2. Grand Regency Hotel Nairobi
3. Hilton Hotel Nairobi
4. The Norfolk Hotel Nairobi
5. Nairobi Serena Nairobi Nairobi
6. The Stanley Nairobi
7. Safari Park Hotel Nairobi
8. Nairobi Safari Club Nairobi
9. Panafric Hotel Nairobi
10. Holiday Inn Hotel Nairobi

Four Star Town Hotels

1. Fair View Hotel Nairobi
2. Windsor Golf Club Nairobi
3. Landmark Hotel Nairobi
4. Sportsman Arms Hotel Nanyuki
5. Utalii Hotel Nairobi
6. Silver Springs Hotel Nairobi
7. Outspan Hotel Nyeri

Three Star Town Hotels

1. The Bounty Hotel Nairobi
2. Marble Arch Hotel Nairobi
3. Hotel Sirikwa Eldoret
4. Hotel Boulevard Nairobi
5. Six Eighty Hotel Nairobi
6. Tea Hotel Kericho
7. Garden Hotel Machakos
8. Lakeside Tourist Hotel Naivasha
9. Ambassadeur Hotel Nairobi
10. Sunset Hotel Mombasa
11. Milimani Hotel Nairobi
12. Milimani Resort Kisumu
13. Izak Walton Hotel Embu
14. Midland Hotel  
15. Hotel Kunste  
16. Imperial Hotel  
17. Sports View Hotel  
18. Hotel Southern Blue

Two Star Town Hotels

1. Kakamega Golf Hotel  
2. Lotus Hotel  
3. Hotel Genevieve  
4. Blue Post Hotel  
5. Hotel Water buck  
6. Blue Hut Hotel  
7. Quale Hotel

One Star Town Hotels

1. Asis Hotel  
2. Fig Tree Hotel  
3. Karibu Hotel