THE INFLUENCE OF LOCATION ON THE PERFORMANCE LEVEL OF SLOT MACHINES: A CASE STUDY OF PYRAMID CASINO, MOMBASA, KENYA

BY

JUDITH KARIGU KIRAGU

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DECLARATION

This is my original work and it has not been submitted to any University or Institution of higher learning therein for the purpose of examination or otherwise

JUDITH KARIGU KIRAGU

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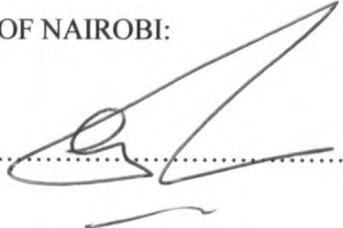SIGNATURE: .... Date ...... 14|09|10 ....

This research project report has been submitted with our approval as the University supervisors:

DR. CHRISTOPHER MWANGI GAKUU

LECTURER,

DEPARTMENT OF EXTRA MURAL STUDIES

UNIVERSITY OF NAIROBI:

SIGNATURE: .... Date ...... 21/09/2010 ....

MR. JOHNBOSCO KISIMBII

LECTURER,

DEPARTMENT OF EXTRA MURAL STUDIES

UNIVERSITY OF NAIROBI

SIGNATURE: .... Date ...... 14/9/2010 ....

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DEDICATION

I dedicate this work to my family who stood by me all along and had to endure endless hours without my attention. My son and daughter David Ikhabi and Yvonne Adego. My sister Jayne Karea and daughter Celestine Qha'kathekile. Special mention to Dr Philip Mwashe, my husband, who encouraged me daily and gave me the inspiration to complete it.

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LIST OF ABBREVIATIONS AND ACRONYMS

Amb   Ambience

CC   Customer Care

FMC   Ford Motor Company

GX   Game Characteristics

Loc   Location

Max   Maximum

MP   Machine Performance

Pol   Management Policy

ABSTRACT

This study looked at the interrelatedness of slot placements to performance. It aimed at investigating how the location of a slot machine influenced the performance level of the machine. It studied the performance of 30 slot machines over a period of time and at various locations. The study sought to generate a model that would enable casino management to manipulate slot locations for maximum profit generation. The objective of the study was to establish whether location of slot machine, its game characteristics, the environment in which the machines operate the management policies and customer care offered to the clients had an association to the performance level of the machines. The study was intended to assist casino operators better understand the effects of variables hypothesized to influence slot performance and help them move towards goal maximization of slot machine yields. Very few studies have been made in this field and initial literatures on slot machine placement have been based on conjecture. There are two specific studies done on location of slot machines in relation to their performance. These studies are amongst the literature review on placement of products for purposes of impressing upon a target market in order to improve sales revenues of the respective product. The study used correlational design to simultaneously test and model a multiple of independent variables that are known to affect and influence the performance of slot machines in a casino. The study found out that location was important to clients identifying and feeling comfortable in the environment they chose to play the slot machine. Thus, they stayed longer on the machine whilst playing. Location of individual slot machines did not have a great significant influence on the performance of the machine and game characteristics on individual machines had a greater influence on the performance of the slot machine. The conclusion of study was that there required further research on this topic to determine what actually influences slot machine performance as different studies have posted different results. However, these studies have initiated the process of determining a profile for successful slot machine management. The researcher recommended that the casino should move the slot machines around the slot floor more frequently and collect readings of each specific location for analysis over a longer period of time. As there were several variables that could affect performance, this calls for a close monitoring of the slots by the management by use of practical models like the performance –potential model and use of quantitative slot data to enable analysis and decision making. Investment in data base systems or data collection methods that would enable the personnel to identify key variables relevant to the performance of the machines is crucial as is Involvement of all key persons working in the slot department and the casino managers.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Casinos are gaming houses that offer games of chance as entertainment to customers who want to try their luck. According to the American Heritage Dictionary of the English Language, a Casino is a public room or building for gambling and other entertainment. The word originated from the diminutive 'Casa' which means "house" in Italian language. The word first applied to a country house and then came to be used as a social gathering, a room or building where one could dance listen to music or gamble. The last past time took precedence and casino took on the meaning of gambling. Casinos offer a variety of games some of which are found on electronic machines and others on live games. The electronic games come in various forms ie they may be stand alone machines where man and machine interact for example the slot machine or they may be one machine accommodating several players each player having his or her own individual slot and although all the players will interact as a group with this machine (example the Sicbo machine), they still have an independence in making their own decisions which will affect their individual outcomes. The live games consist of table games which, are operated by human personnel and have a human interaction. These form a social platform where clients can interact freely amongst themselves and they play against a casino employee. Live games can be found in various forms ie card games like the Blackjack, Baccarat, Poker, Pontoon etc or the famous roulette table that involves spinning a ball round a wheel called Roulette wheel (after it's founder) and clients place wagers on numbers laid out on a table in the hope that the spun ball will fall into one of the numbers they have selected. There are several other games that have not been mentioned and they differ from casino to casino depending on the market demands.

Slot machines are one of the forms of gaming products contained therein a casino. They are also the most popular gambling methods in casinos. (Cooper, 2005).These are cabinets with electronic and mechanical mechanisms branded by companies that provide entertainment in the form of right to play by inserting coins, cash, or ticket-in, ticket-out into a designated slot machine. The machine is then activated by means of a lever or button, or newer machines, by pressing an interactive touch screen on its face. The game itself may or may not involve skill on the player's part- or it may create an illusion of involving skill while only being a game of chance. The coins or credit is of various denominations. The client punches in

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the desired game and awaits the outcome as mechanical reels spin and click into position giving the outcome of the just clicked game.

Gaming started in Las Vegas in the 1930's (Nelson I. R., 1993). In these early days of gaming, slots were a mere diversion and were placed around the perimeter of the casino. In these times, the management of the casinos did not pay much attention to the location and placement of slot machines on the floor. Location is the position that a machine is placed on the casino floor. Location of machines according to (Jim Kilby, 2005), can either be general placement of the slot machine or specific placement of the slot machine within the casino floor. General placement deals with where the slot banks and coin booths will be placed. Slot banks refer to groupings of slot machines whereas coin booths are areas where players can purchase the slot coins from to use in the slot machines. Specific placement deals with placement of specific models and coin denomination (value of coins being played in the machine).

Slots dominate the casino floors in certain countries whereby they constitute approximately 70% of the average casino's income. (Cooper, Marc, 2005). In some United States of America, state Jurisdictions, slots contribute as much as 95% (Plume 2001). Plume (2001) also estimates that 80% of the casino floor is dominated by slot machines and one US gaming corporation reported that 80% of its gaming revenues and profits came from the slot machine play (MacDonald, 2001).

There have been very few studies on slot floor configuration. However, there are two studies that have been published that are related to the effects of machine location on unit level performance. These two studies (Lucas & Roehl, 2002; Lucas, Dunn, Roehl & Wolcott, 2003) indicated that machines with locations characterized by ease of access visibility and close proximity to high traffic areas outperformed other slot machines.

However, this theory has not been proven in the Pyramid Casino. Machines that are within the above locations on the contrary have not out-performed the other machines. This is despite the machines having features that are attractive and appealing (supposedly to the management) and they are similar to the others that perform.

Location of slot machine in the casino is important because according to Lucas, 2005, the position will determine the game performance level of the slot machine. Game performance in the slot machine context can be defined by several indicators. Credit wagered, games played, Hold percentage and PAR levels. Credit wagered is the amount of credit of cash that has been fed into the machine. Hold is another

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indicator of game performance. This is the actual win that the house retains. It is the percentage of total credits wagered that are actually won by the slot machine. Another indicator is games played. These are the number of games that will be played in a particular machine over a particular period, PAR levels are the house or casino advantage. PAR is percentage of each shilling wagered that the house wins is called casino advantage. It is a theoretical amount but the actual percentage will approximate the theoretical advantage after a large number of games are played. Other variables that influence the performance level of the slots machines are the game characteristics; these are features and attributes that adorn the machines. Customer care, the environment that the machines are located within and lastly, management policies.

1.1.1. The Pyramid Casino

The Pyramid Casino has been in operation for more than 10 years. It started with only 15 slot machines and it has accumulated a total of over 40 slot machines over these years. The revenue earned from these machines has risen gradually as indicated by the following table.

Table 1.1 Revenues earned by Machines from 2000- 2009

MACHINES		
YEAR	QUANTITY	REVENUES (sh)
2000	15	5,965,466
2001	28	10,554,550
2002	28	11,561,815
2003	32	19,664,570
2004	33	22,349,370
2005	33	21,907,415
2006	40	26,126,998
2007	40	33,741,252
2008	40	31,569,727
2009	41	41,104,159
		224,545,322

Source (Pyramid Casino Data)

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Figure 1   Graph showing revenues earned by Slot Machines
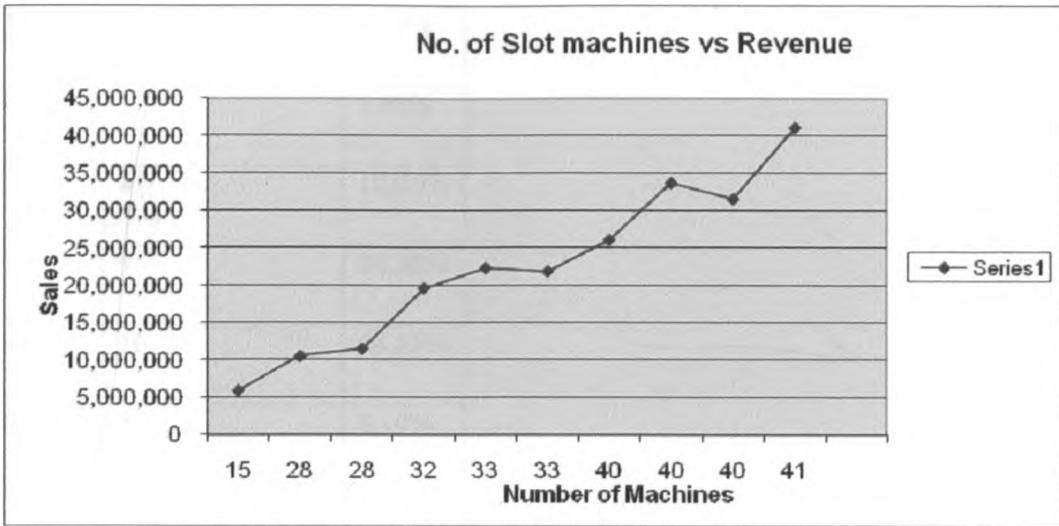
Source (Pyramid Casino Data)

The data contained in the table and illustrated in the graph above show that as the number machines increase the revenue generated also increases. On average the table indicates that each machine up to present, generate a revenue of approx 1million Kenya shillings (Ksh) up from approx 350,000 per machine. Over the last 10 years there has been a 92% increment in slots revenue however this revenue is attributed to 10% of the total number of slot machines on the casino floor. This is indicated in the individual analysis (Table 1.2 below) which shows that there are machines with a capacity to generate 3m & 2m per machine per year. 56% of the machines are earning less than 0.5m and 0.1m respectively. This indicates a problem. Some of the machines are riding on the good performance of others and are sitting on the floor idle.

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Table 1.2 Percentage of Revenues from Slot Machines

Slot Revenue	No. of Machines	%
Above 3m	2	5.40%
2-3m	2	5.40%
1-2m	4	10.00%
.5-1m	9	24.30%
0.1- 0.5m	16	48.65%
Below 0.1m	3	8.10%
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*Note 5 machines are less than a year and so not indicated

Source- Pyramid Casino indicating slot revenues (2000-2009)

Apart from the question 'what makes some machines earn revenue over 2m while others earn less than 0.5m?' another observation that denotes a problem at the casino is that some machines, when moved around the floor location, appear to perform better when they are placed at specific positions. However, at times, these positions do not seem to have any effect on newer and recent machines that have more features and are more interactive. The management would like to study the effect each position has on various machines in order to have a better picture of the type of machines that are in demand and what it is about the machines that is attractive despite the position.

Lastly, the casino revenue constitutes wins from the live games (tables) and from the slot machines. The tables are positioned in a section called a pit, and are manned by casino personnel and unlike the machines which do not require any man power where clients interact solely with the machines. The tables are a social platform where clients and casino staff interact on a personal level. The tables at Pyramid Casino have always been a profit leader. The slots at Pyramid Casino generate an average of 23% of

revenue (Table 1.3) they have not matched the slots revenue posted around the world quoted as at between 60- 97% of casino revenue. (Cooper, Marc, 2005 & Plume, 2001)

Table 1.3 Percentage of Slot revenue to Casino Revenue (1997-2009)

YEAR	TABLES	SLOTS	Gross Revenue	%
1997	29,967,310	3,660,635	33,627,945	10.89
1998	28,108,100	4,375,975	32,484,075	13.47
1999	29,617,800	6,531,145	36,148,945	18.07
2000	52,267,430	5,674,545	57,941,975	9.79
2001	53,044,400	11,197,070	64,241,470	17.43
2002	18,835,180	10,200,925	29,036,105	35.13
2003	60,518,450	21,255,136	81,773,586	25.99
2004	71,568,070	22,391,460	93,959,530	23.83
2005	85,159,575	21,902,975	107,062,550	20.46
2006	75,262,900	26,126,998	101,389,898	25.77
2007	96,799,025	33,494,902	130,293,927	25.71
2008	82,279,375	29,570,309	111,849,684	26.44
2009	70,173,300	41,143,632	111,316,932	36.96
		Average %		22.59

Source: Pyramid Casino archives

*Gross includes both Tables and slots.

In the United States of America, and Nevada to be specific, (this is the home of gaming) slots revenues generate 67% of the total casino win. (Kilby, Fox, & Lucas, 2005). It is only prudent that the casino takes a keener interest in all aspects of the slots department as it is now a major source of casino income which, cannot be ignored and try to maximize on its potential. It has been theorized that slot machines that are close to the live table games or pit areas have increased performance due to the accessibility. (Kilby, Fox, & Lucas 2005)

The Pyramid casino has added slots from different companies over the 10 year period. All these slots have posted different performance levels and exhibited various responses from the clients. It started with 15 machines called Hi-res from Atronic (a slot machine manufacturer) and there wasn't much expectation from management on their performance. They were just an addition to the gaming products and concentration was placed on the live games that yielded 85% of the casino revenue. No analysis was done on the machine specifications, characteristics, nor their attributes and most importantly their ability to earn revenue for the casino by looking at their PAR levels or excitability. Six years later in 2003, the Casino undertook to buy brand five new e-Motion machines from Atronic that were very expensive to add to their collection. The new management looked at the characteristics of the games provided and the mathematical setting in the games that were favourable both to the casino and to the clients. That is ensure the games had a high and frequent payout rate however, the payouts were in smaller amounts but sufficient to keep the clients coming back to play them in the hope of getting another win. The ability to choose the machine specifications prompted the management to re-evaluate the initial fifteen machines setting and reset them so that they were giving back more frequently to the clients.

1.2 Statement of the problem

The study aimed at investigating how the location of a machine influenced the performance level of the slot machine. This study arose from the three questions generated from the background of the study. Mainly, if slots around the world were competing in revenue generation with the live tables, what was hindering the Pyramid Casino slots from doing the same? Another query is what were the game characteristics that appealed best to the Pyramid Casino market? Lastly, how did casino personnel identify location suitable for each slot machine in order to maximize profit?

Past data collected from the machines indicated that some machines had the capacity of generating revenue of over 3m (table 1.2) while others were making less than one hundred thousand shillings. The study had the intention of finding out why there was such a wide discrepancy in revenue generation. Obviously, there were certain positions on the gaming operational floor that yielded different types of results with different machines. The casino wanted to maximize on the most potential positions for the machines that would give the most profitable yield of each machine. Stated differently, the more the machine played, the more the casino should hold as house advantage (PAR). The problem was that Pyramid Casino had not identified and placed a tag on each positions' yield thus there had been a random and haphazard positioning of slot machines resulting in some machines performing very well or very poorly. Secondly, the casino had not nailed down the game characteristics that best appealed to the clients so that it could maximize the various games. The oldest machines at Pyramid, were placed right at the entrance where all clients walked past them. However, these machines had varied in their performances. Initially they were performing dismally however as time went on and they were moved around from high movement areas to pave way for new machines their performance improved contrary to Prof Lucas & Roehl's theory that accessibility and visibility of machines will outperform others that are hidden.

Slots, according to researchers and worldwide gaming analysis, are the greatest revenue earners in the casinos. They have been reported to earn between 67% - 97% in some casinos (Cooper, Marc 2005). The Pyramid casino has over 40 slots and according to data going back to 1997, only a paltry 20% of these machines were significant money makers (See table 1.2). As the casino had never conducted a scientific study to analyze the overall performance of its machines, it was unable to confidently identify the factors that were hindering the machines from maximizing their potential, hence the rationale behind the study

1.3 Purpose of study

This study sought to generate a model that would enable the casino management to manipulate slot locations for maximum profit generation. It was supposed to indicate that slot machine performance levels were influenced by casino floor location. It was to enable the management of Pyramid Casino identify a systematic approach to machine positioning which would yield better and more profitable results. This would enable the casino personnel to act decisively and place machines in the most appropriate positions. The study also sought to expose differences in casino compositions that affected the

overall performance and response of clients towards the gaming products that were inhibiting the findings of the two studies by Lucas to be replicable at the Pyramid Casino

1.4 Objectives of the Study

The objectives of this study were fivefold:

1. To establish whether location of slot machine had a relationship with machine performance.

2. To establish whether game characteristics had a relationship to machine performance

3. To determine whether customer care had an influence on slot performance

4. To establish whether the ambience around the machines affected machine performance

5. To establish whether management policy had an effect on slot performance.

1.5 Research Questions

The study attempted to address the following five research questions:

1. Was there any significant relationship between location of slot machine and machine performance?

2. Was there a relationship between game characteristics and machine performance?

3. Was there a significant relationship between customer care and machine performance?

4. To what extent did ambience influence machine performance?

5. Did management policy have an influence on machine performance?

1.6 Significance of the study

This study was intended primarily for the casino management and Directors of Pyramid Casino. On a wider scale, the results of this research was to assist casino operators better understand the effect of variables hypothesized to influence slot performance. The results were also supposed to assist

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management in moving towards goal maximization of slot machine yields. Additionally, the research was to test the performance potential model advanced in (Lucas, 2003) research model which served as an alternative performance measure. According to Lucas, the performance potential model aided management in increasing number of machine replacement decisions. Other useful uses include machine relocation decisions and the performance evaluation of trial-purchase machines.

The casino managers are expected whilst carrying out their duties, to use their intuition coupled with qualitative data gathered from the slot machines to determine and decide on where to best place the slot machines on the casino gaming floor. This depended on their observations of client behavior and interaction with the slot machines. They are also expected to analyze and track machine performance and take note of when respective machine results were waning so that they could start looking for new replacements. The managers would be able to continuously modify the slot floor configuration to best attract and retain customers through the use of a qualitative model in their decision making.

The Directors, being the decision makers, whilst making purchasing decisions, should be based on the proposals given to them by the managers related to what the clients preferred to play and new slot innovations in the market that appealed to the clients. It is beneficial to the owners that the machines performed profitably as they were very expensive to purchase and cost of shipping them from suppliers was exorbitant. Thus making an informed purchase was crucial

1.7 Scope of the Study

The study covered only one casino as this was a case study. The subject matters (slots) in this casino were also not that many. There were a total of forty three slot machines in all.

1.8 Limitations of the study

Time was a limited factor in this research. Not all the machines had been on the slot floor for the same duration of time. Thus eliminating some from being sampled

Secondly, the study was based on a small model casino in comparison to the huge casinos in Las Vegas and South Africa that had been studied that had numerous slot machines running to the hundreds in numbers. Thus the data collected from the sample was related to the number of machines contained therein ie few items were sampled.

1.9 Basic assumptions of the Study

The researcher was assuming that the casino had placed the machines in the wrong positions and that was why the performance was poor.

The researcher was also assuming that a change in slot machine positions would either influence the performance of the slots either positively or negatively thus establishing the best locations that yield maximum performance of slot machines

1.10 Definition of significant terms used in this study

Blackjack: A casino game in which the winning hand is determined by whether the dealer or the player is closest to twenty-one without going over. Also a hand where the first two cards dealt total to twenty-one.

Card games; Include Poker, Pontoon, Baccarat

Coin booths: These are areas on the casino floor where players can purchase coins and tokens for use in the slot machines. The booth s operated by a cashier who is responsible for making change for slot customers, redeeming coins, and making jackpot payouts.

Credit: The amount of money installed into the machine by a player to enable him play it.

Credits wagered: This is the number of coins that are fed into the machine. As each coin is inserted into the machine, the coin-in meters advances and the cumulative total for all coins inserted into the machine. It enables management to monitor the volume of play for a machine in order to evaluate the popularity of the machine with slot players.

Floor: The area surface within the casino where the gaming products and gaming activities take place

Gambling : The activity of playing games of chance for money.

Game performance: This is indicated by credits wagered, hold, PAR and games played

Gaming: The act of making or placing wagers in the hope of making a win

Gross Revenue: refers to the net win resulting from all gaming activities. Net win results from deducting all gaming losses from all wins prior to considering associated operating expenses. Also known as gross gaming revenue and win.

Hold percentage: This is the percentage calculated by management that is actually won by the slot machine. Hold percentage is calculated by dividing the win by the drop. Used by casino as a key performance indicator

House: Another term for Casino

Location: This is the area that is designated to hold a slot cabinet or slot bank

Loose Machines – Machines programmed for higher payouts

Pit: Section of the casino floor, which has live gaming products and activity taking place

Roulette: A gambling game in which a ball is dropped into a moving wheel that has holes with numbers on it. Players bet on which hole the ball will be in when the wheel stops.

Slot Bank: Group or cluster of slot machines within the casino floor

Slot Coins: These are round silver objects that are used as legal tender in the casino and used for sole purpose of playing the slot machines. They are inserted in a slot on the side of the machine.

Slot machine: Cabinet with electronic or mechanical mechanizations that provide games

Tight Machines- Machines programmed for low and infrequent payouts.

PAR: This is the casino advantage. The percentage of each shilling wagered that the house wins is called casino advantage. It is a theoretical amount but the actual percentage will approximate the theoretical advantage after a large number of games are played.

Win: Casino revenue generated from retained wagers. This is the gross revenue.

1.11 Organization of the report

The research report is divided into five chapters. The first chapter covers the introduction, which, delves into the background of the problem experienced at the Pyramid Casino. The researcher went through the casino records for the last ten years in order to understand the problem and formulate the problem questions that have been attempted in this study. Chapter two looked at what other studies and authors have come up with on the research subject matter that has been studied mainly product placement (location) in relation to performance. Chapter three postulates the research methodology that the researcher used in collecting the data and the fourth chapter looks at how the researcher organizes and manipulates the data to answer the research questions posed in the study. The final chapter outlines the summary of findings, conclusions and recommendations that the researcher has came up with because of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review was divided into three sections, the first looks at what other writers and researchers have said about product placements in relation to sales or performance. According to (Russel C. A., 2005), product placement falls into two categories. Products or locations. Jean-Marc Lehu, 2007 also states that the expression 'Product Placement' or Brand Placement essentially describes location or more accurately integration of a product in the Visual arts or entertainment world (Lehu J.-M. , 2007). The second section looks critically at past researches conducted specifically in the field of slot placement and how the positions affect the performance of slot machines. This section critically looks at two past researches done in the United States. Lastly, the third section will look at literature on performance potential models and how they can help management in maximizing the sales performance of its products. The researcher has selected the three areas to review because first, slot machine researchers term location of slot machines as slot placement. This is a term that casino personnel use to indicate the locations of the specific product 'slots' but initial founders of the term used product placement to boost the sale of a particular product and placed this product at strategic locations that could not be missed by the target market. In areas of research where product and performance are analyzed, researchers came up with several models that assisted management in assessment and representation of the mixture of types of products according to potential and performance

2.2 Product placements in relation to performance

Product placement is a form of advertisement where branded goods or services are placed in the context usually devoid of ads. Product placement is often not disclosed at the time that the good or service is featured (placement@resourcewater.org). Product placement became popular in the 1980's. It dates back to the 19th century and was mainly used in publishing and movies. This is where branded products were silently plugged into a movie or a book thus creating an interest to a target audience. (placement@resourcewater.org)

According to Russel et al, 2005, product placement falls into 2 categories. Products or locations. These are obtained from manufactures or owners at the cost of production and products deliberately placed into production in exchange of fees. The manufacturers used quantification methods to track brand integration with both basic qualitative techniques and demonstrative qualitative systems used to determine the cost and effective media value of a placement. For example, rating systems measured the type of placement on a screen exposure (in movies) is gauged by the audience recall rates. (Russel C. A., 2005). By analyzing the recall rates of specific products plugged into media, the manufacturers were measuring the impact their products had on the market. Product Placement is chosen strategically and seeks to gain brand awareness, recall and trial. According to (Brennan, 1999), these products did not appear in movies and media by accident.

As with any advertising, the researcher found out that product placement effectiveness tends to be pure by the fact that advertisers continue to see product placement as a marketing strategy. Transferring a message from a medium to the target audience has become increasingly more difficult due to many factors for example, there is the ubiquitous dislike of advertizing on TV (Alwit & Prabhakar,1994) viewers avoid TV ads by zipping and Zapping ((Olney, 1991). Therefore, marketers have discovered a new means of communication through product placement especially in movies. Certain products are featured more than others are in product placement, commonly, automobiles, consumer electronics, computers and video games and tobacco products. (Russell, Cristel & Belch 2005).

A study done by Ford Motor Company (FMC) found out that product placement drives sales. Ford Motor Company has been at the front of product placement for decades. By being associated with stars like 'Will Smith' and 'James Bond' in movies. It made Ford look really cool. Something that people will not forget at least for a while.' Said one sales executive of FMC. In view of the fact that manufacturers and producers have identified product placement as a marketing strategy, the researcher found out that product placement works on the mental responses of the target market to illicit responses that would favour the products being displayed albeit in a very strategic manner. The researcher found out through various literatures that there are two types of product placement. Prominent and subtle. Both elicit different types of responses to the targets.

2.2.1 Prominence and Subtlety in product placement

Researchers do not dispute that Product placement has an effect on sales. There are several researchers arguing about the method of the product placement. There is placement that is prominent and one that is

subtle. Two studies by (Polic, 2003), & (Zanjonc, 1968), each argue on both types of placement. Polic proposes that Product placement is a prominent display of products. It enables to boost sales of the branded product being displayed. (Polic, 2003). He further adds that product placement can increase brand liking. However, there is another argument posed by (Zanjonc, 1968). Zajonc states that mere exposure effect can only be observed for frequently presented subtle placements but not for prominent placements. The difference between subtle placement and prominent placement is that in the former, the target client is not aware that a product is being fronted to them where as in the latter, the product is unlikely to miss being noticed. Various other researchers have indicated that a placement prominence has a positive impact on the recall of the placed brands and they confidently state that prominence in product placement is more effective that subtlety as it relies on memory (Balasubramanian, 2006). There are several arguments from different researchers about prominence and subtlety. One paper on product prominence and exposure frequency argues that the effectiveness of product placement is usually measured in terms of free and aided recall (Babin, 1996) (Lord, 1998) (Hackley, 2005) but more recent studies indicate that brand placements need not be recalled in order to have an impact on brand attitudes. (Balasubramanian, 2006)

However, more specifically on location and its relation to business performance, there are two approaches evolved from two different streams of literature. One stream came from work in applied psychology (Dugan, 1960) and (Baehr, 1968). These researchers sought to understand the variation in sales person performance. They recognized that variation in performance could be due to variation in the quality of sales territories potential or to variation in sales person's characteristics. Regression analysis was used in this study to understand performance (the sales of the salesperson) within the context of potential (measures describing the salesperson and variables that describe the potential of their sales territory). Their approach recognized that performance had to be evaluated within the context of what was possible given the nature of the sales territory.

The second source of research in this field of location came from attempts to understand variation in retail sales among cities (Feber, 1958) and (Liu, 1970). This research attempted to explain variation in a city's retail sales as a function of that city's market conditions. Variables such as population and total or median income served as proxies for market conditions. These researchers (wanted to say) that performance of a product was both a function of the product's characteristics as well as the various conditions surrounding the product's location.

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With researchers exploring product placement through media, they branched out from movies to targeting users of computers and video games. The earliest example of product placement in a computer or video game occurred in 1984. The video games featured real retail stores as game destinations. The slot machine is computer or video game (Lucas et al, 2005). The reels on today's slot machines stop and display symbols according to what is chosen by the slot machine's internal computer chip. It is through these symbols that manufacturers of slots collaborate with other product manufacturers to place specific product symbols in the slot machines to draw and attract target market to the machines. Through use these symbols and of strategic placement of the machines in certain positions, the symbols illicit responses from targets memories that endear them to the machines by virtue of the sense of familiarity with the symbols displayed on the screen.

2.2.2 Memory; Explicit/ implicit memory and product placement in advertising

Product Placement relies on memory. This has been proven by (Karrh J. A., 1995) and (Karrh J. A., 2003) studies that state that the most widely used measure of product placement effectiveness is memory. There are two types of memory associated with product placement. Explicit and implicit memory. Research suggests that memory for product placement should be a function, not just of the execution characteristics of the placement, but also of the audience characteristics. (Lehu J. M., 2008). Lehu's research focused on product placement and their impact on audiences explicit memory.

One of the characteristics of product placement in video games that makes it interesting for marketers is that each game is played several times by the same person (Delaney, 2004). Players awareness in product and brand is the essential goal in advertising (Buckner, 2006). (Nelson R. , 2006) proposed that increasing brand awareness is one of the goals for product placement and that memory based measures (recognition and recall) are suitable to test the effectiveness. Explicit and implicit memory work within varied nueral structures, which explicit memory is characterized as a conscious collection and implicit memory as unconscious recollection (Percy, 2006).

Slot machine placement in casinos uses the premise of arguments expounded above. Ie memory and prominence/subtlety. The slot machines are placed strategically in casinos where they cannot be missed. However, their advertising is both subtle and prominent. They are subtly advertised because they use products by placing them strategically on the screens of slot machines to appeal their targets to draw clients. The casinos must use ingenious methods of drawing the attention of clients to their gaming products. They are then prominently placed inside the casinos with flashing lights, interesting sounds or

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music and eye catching icons on the screens of slot machines that stimulate the interest of the patrons entering the casino. In some casinos, loose machines are placed amidst other machines in order to entice customers to play the machines alongside it. Placement of loose machines at key or strategic positions in the casino is a subtle way of drawing customers to play them as well as those placed next to them. Loose machines are machines that are deemed to have favourable or higher payouts to customers.

2.3 Slots placements in Casinos

In Casinos, the placement of machines is called floor configuration (Jim Kilby, 2005) Floor configuration considers both general placement and specific placement. In general placement according to Lucas, deals with slot banks. These are groups of slot machines. Each slot cabinet is viewed as an empty box. These empty boxes can be used to create traffic patterns or conversely to impede traffic patterns. The overriding consideration is to place the machines where the maximum number of machines will be viewed by slot players. Specific placements deal with specific models being placed at specific locations for various reasons. Either the machines could be 'loose' and not part of a group, or it is a very popular machine or it is a gimmick machine among other reasons. Loose slots are used by casinos to entice players to play machines next to them

In application, casino managers and especially slot managers should continuously modify the slot floor configuration to best attract and retain customers through use of available slot performance data. (Jim Kilby, 2005). The researcher agrees with Lucas because a vibrant slot floor can draw clients to the machines. This will involve, moving the machines around to create a new look effect, and use of slot data will enable casinos to make informed decisions that affect their slot performances positively.

There have been very few studies on slot configuration. However, there are two studies that have been published that are related to the effects of machine location on unit level performance. These two studies (Lucas & Roehl, 2002; Lucas, Dunn, Roehl & Wolcott, 2003) indicated that machines with locations characterized by ease of access and were clearly visible and were in close proximity to high traffic areas outperformed other slot machines.

Initial literature on slot machine placement have been based on conjecture as very few studies have been conducted in this field. One study by (Freidman, 2000) stressed the importance of intimacy and privacy with regard to machine location. He theorized that slot machine patrons preferred more secluded locations

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over locations near busy walkways and crowded areas. Friedman's theory was opposite to Prof Lucas'. However, Lucas & Roehl (2002) examined the effects of location and game characteristics in a study to indicate that there was a statistically significant increase in performance levels for slot sections bordering busy areas like the pit. These areas were also centrally located and characterized by easy access and high visibility from major walkways.

Performance in slot machines does not only mean output or revenue earned. Performance according to Professor Lucas, 2005, has several indicators. in casino context these are the daily coin in, credits wagered, HOLD percentage, PAR levels and the number of games that are played. Output or revenue is determined by the outcome stated indicators.

2.4 Performance-Potential model

One of the ardent slot placement researchers (Lucas) in his Research 'Evaluating Slot Machine Performance 2002) he used the performance potential model. The research helped in determining the effectiveness of performance potential model in the management of slot machine operation

The purpose of the model is to enable simple assessment and representation of the mixture of types (according to potential and performance) within any group or team. It can assist in making investment decisions. The model can also be used to show an ideal mix, and an actual mix, and thereby highlight the gap or difference from an overall strategic viewpoint. (businessball.com)

Performance potential model is a quick simple easily-understood snapshot, It enables easy illustration or demonstration of a complex set of product related factors that are highly significant for organizational performance and development. The tool is useful to executives and executive discussions, presentations, reports and planning documents, etc (www.businessballs.com)

According to a document on project management@RvZ, the model is not for development other than for reference and interest alongside more accurate and objective individual assessment tools and processes.

The performance- potential model is similar to the Boston Matrix which is normally used in business planning. The Boston Matrix is attributed to the Boston consulting Group however, the terminologies had differences. For example instead of icebergs they stated dead wood, backbone was the same as workhorses and problem children (low performers) were question marks. In all

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other respects the model and its basic meaning remain the same. Figure 2.1 describes the Performance- potential model.

Figure 2   **Performance- Potential Model**

Performance   **Analysis**   **Method**
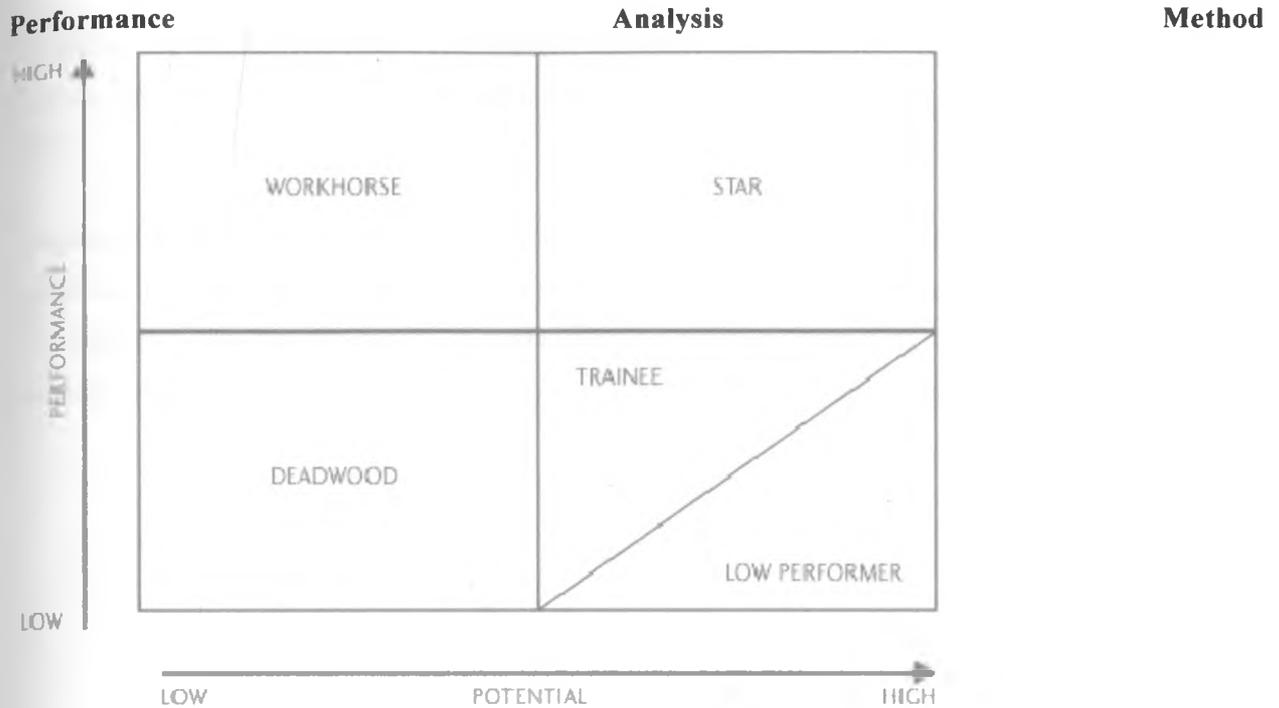
1. **Stars:** These products have high potential as well as high performance.

2. **Workhorses:** These are products that a manager can rely on and which perform well. Their potential may be moderate, but their performance is high.

3. **New products:** Those who are new products. They have potential to perform well with marketing strategies.

4. Low Performers: Products that have high potential but do not perform well, even after support. Managers can often overlooking low performance because of the perception of high potential. Managers may get caught in the "savior syndrome" in their desire to avoid conflict.

5. Deadwood: Those who are non-productive and exhibit both low potential and low performance. These products are often known as "quit-and-stay" organizations usually divest themselves of this group.

*Modified and adapted from The Performance Analysis Model based on J. William Pfeiffer and Leonard D. Goodstein, The 1984 Annual: Developing Human Resources, San Diego, CA: Pfeiffer & Company, 1984.

The researcher to adopted this model to enable assessment of the performance of slot machines in the casino and represent the various mixture of slot machines according to their performance and potentials. Slot managers can use this model to make decisive decisions regarding their slots on the floor by collecting and analyzing qualitative and quantitative data generated from the machines.

2.5 Conceptual Framework

The conceptual framework showed the various variables that influence the performance of slot machines. The two main variables X_1 (Location) and Y (Games played) showed that location influenced performance of slots either positively or negatively. The researcher theorized that the location where a slot machine was placed on the casino floor would influence the slot performance either negatively or positively.

Figure 3   **Conceptual Framework**

Independent Variable   **Dependent Variable**

Moderating variables
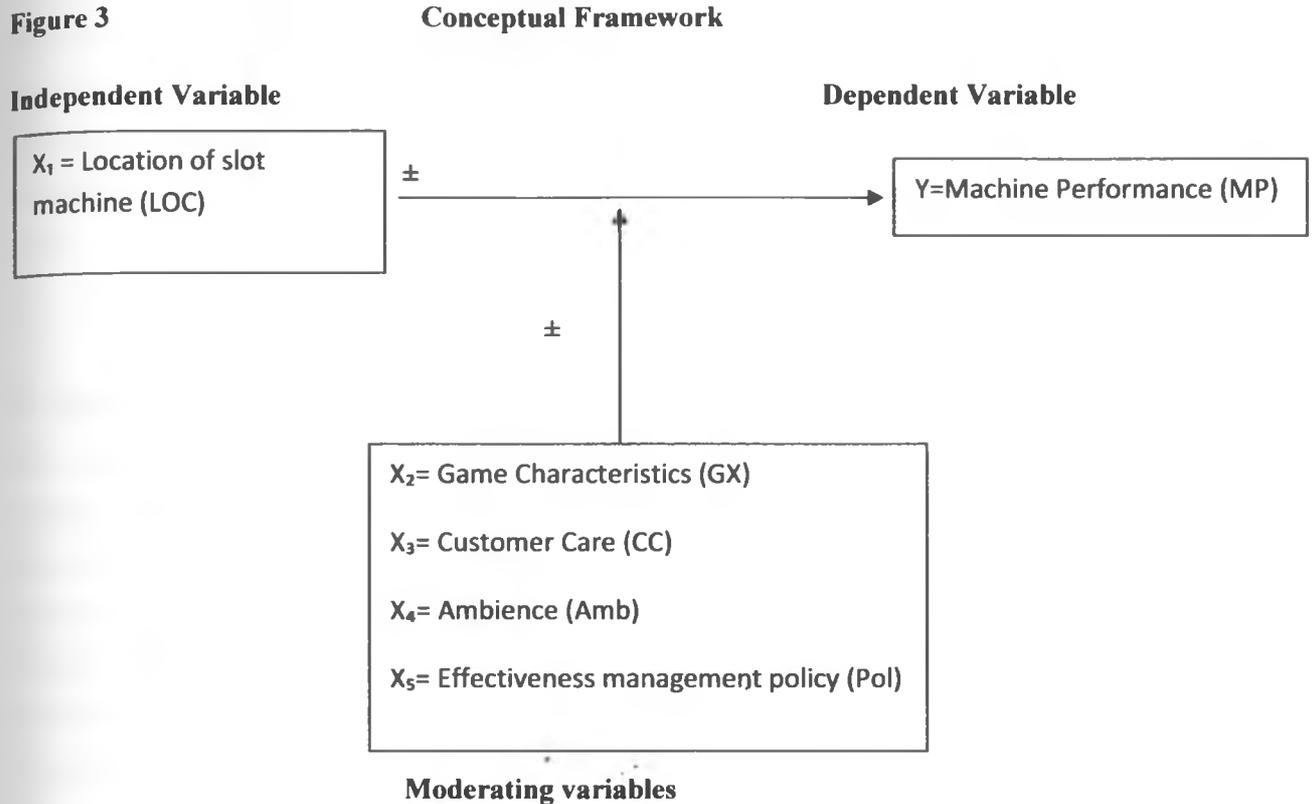
Conceptual framework Showing Slot Machine Performance is a function of Location and other moderating variables.

Where, Y= MP X_4=Amb

X_1 = LOC X_5= Pol

X_2= GX

X_3= CC

The other variables were moderating and in their own unique way influenced the Performance of slots also either positively or negatively. The Game characteristics X_2 which indicated the features the machine had in its game which attract the patrons to it. The better the features the more popular the game within the machine. Thus its performance levels go up. The unique management of clients through customer care (X_3) also determined whether a client came back to the casino or not. Repeat clientele means continuous business. If the slot customer kept on coming back to play on the machines then their performance levels went up. The environment in which the machines were placed also affected slot performance. Ambience (X_4) was crucial to the comfortability of clients and it influenced the length of period in which clients were glued to the machine or their presence in the casino. Lastly, effectiveness of management policy was crucial in handling slot machine issues. Like customer care, it determined comfort of client as well as customer satisfaction, leading to the client coming back to the casino and appreciating the management style.

2.6 Summary of Literature Review

Slot machines being video games or mechanical games brought together slot manufacturers and other product promoters because it was ideal to use the slot machine as a media to advertise certain products like cars, icons etc. For example, Las-Vegas based Bally Gaming and Systems is one the leading slot manufacturers, marketing an array of gaming devices that feature a variety of well-known personalities ie Blondie and Dagwood, the Lone Ranger, Popeye the Sailor Man etc. (Lucas et al, 2005). Another type of machine featured popular cherry and melon symbols derived from an early logo of the Bell-fruit Gum Company. (Wikipedia.org/wiki/slot_machine)

Thus from the above placements, the slot machines appealed to targets clients drawing them to machines through product placements that would appeal to their sense. The machines were further placed in areas around the casino where the clients would walk past them and get an urge to play them. Thus certain machines were strategically placed to lure clients who would sample other games next to the specific machines as they tried their luck on the machines.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This was a quantitative and qualitative research method. It used non- Parametric inferential Statistics (Spearman Rank Coefficient of Correlation (R). Spearman Rank Coefficient of Correlation (x^2) because its purpose was to establish whether there was any form of association between the independent and dependent variables when the variables were arranged in a ranked form.

3.2 Research design

The research design was also descriptive and correlational in nature. It took the form of a case study investigating the association of the predictor variables to slot machine performance. This design was selected because it was suitable to look into the investigation of the slot machines of specifically one casino to see if there was an association between other variables and the machine performances.

3.3 Target population

The target population was 43 slot machines in total. The sample population was a total of 30 machines. They were circulated around the locations being tested. The machines being tested, were on the floor entirely for the period of sampling and changed their positions during the period of six months. As the predictor variable was the location, the machines changed their locations and their performance in the various locations tested.

3.4 Sampling procedure and Sample size

Sampling procedures were subjective in nature. The researcher used stratified purposeful sampling procedures, where the researcher selected machines that illustrated characteristics of machine sub groups and this facilitated comparison between the group or the locations (sections)

The researcher ensured that in each bank there were machines with a performance of over three million, one to two million and those that perform below the million mark so that they all got an equal opportunity to be at all locations.

To control extraneous variables, all sample machines moved to different locations and all the machines rotated in both the high season and the low season

3.5 Methods of data collection

The researcher used primary data collected from the slot machines based at Pyramid Casino. The various data required was collected through various modes of data collection. As there are six variables, not all of them used the same mode. There is Machine Performance (Y) and this is content that is recorded and accumulated from each individual machine as it is in use, recording and calculating the statistics which report its performance by the indicator 'number of games played'. This content is electronically (soft meters) and mechanically (mechanical meters) recorded by the slot machine and cannot be whatsoever manipulated especially the electronic meters. Other methods used were the questionnaire, the observation technique and through interviews.

Data collection for Machine performance (MP)

Machine performance was measured by use of the games played indicator. Games played data was collected and analyzed for the period stipulated as the sampling period. This is the dependable variable (Y). The data was collected from the machines electronic readings.

Data collection for Location (LOC)

The researcher used a map of the various locations/sections that the banks of the slot machine were situated and assessed the impact of these locations to the slot performances. To identify and track the locations (X_1) of the machines, the researcher obtained a map showing various locations and banks of slot machines.   The researcher operationalized the locations by identifying from the log book the number of days that a machine played in a month.

Data collection for Game Characteristics (GX)

Data collection for game characteristics (X_2) was collected through a questionnaire. It was completed by slot customers during one of the slot promotions that was held at the casino. This ensured that majority of the slot clients were present and it targeted approx 80 clients. The questionnaire though focusing on all slots brands, furnished the researcher with the relevant details required to analyze the game characteristics as well. The questionnaires were filled out in the casino in the presence of casino managers.

Data collection for Ambience (Amb) and management policy (Pol)

The other variables, ambience (X_4) and management policy (X_5) were related to the location the machines were situated, or the bank the machine is grouped together. Management policy is the rules the casino operate the machines by. Ambience data was collected through observation, management policy through interview with managers.

3.6 Validity and Reliability of research instruments

The data collected from the questionnaire and interview guide was relevant to the study as it delves into queries related to the actual characteristics of the machines held on the slot floor and customer service offered at the casino. The research form used to gather information through observation indicated the actual activity captured by the researcher in each location that the slot machines were situated. It captured the gender of clients, it captured the various environments that these clients chose to play the machines, and the duration they played in each location. This information collected gave the researcher an indication of the clients preferences of areas of play.

3.7 Methods of data Analysis

As there are several variables, the researcher used different methods of analyzing the data as suited and then found an association between the predictor variables and the dependable variables. The game performance (GP) indicated by games played data was collected and computed by dividing the games played accumulated over the sample period. Each games played represents the number of games played on each machine during this period. The data was tabulated and the measures of central tendency used to calculate the median. The researcher used the Spearman Rank Correlation Coefficient (R) to establish

whether there is any form of association between Machine performance and the locations (LOC). The researcher further uses the chi-square distribution to compare the games played results in the two different locations. The game characteristics (GX) was tested through the questionnaire. The researcher used the SPSS model to analyse the results from the questionnaire. The questionnaire also covered questions related to customer care to the casino which were tested for the variable 'customer care' (CC). Data collected for ambience and management policy was collected through observation checklist and interviews respectively analyzed through the SPSS model. The researcher then correlated the findings to the number of games played on the sample machines.

3.8 Operational definition of variables

The table below (Table 3.1) show the variables of the study and their indicators. These indicators are what the researcher used to operationalize and test in the study. It also shows the measurements, scales data collection modes and finally how the data as analysis

Table 3.1   Operational Definition of Variables

Objective	Variable	Indicators	Measurement	Scale	Research Design	Data collection mode	Data analysis
1 (Y)	Dependent Variable Machine Performance	Games played	No of games	Ordinal	Correlation design	Machine Records	Descriptive Measure of Central tendency Median
2 (X_1)	Independent variable Location (Sections)	Position of the slot machines in the casino	Bank A " " B " " C " " D_1 " " D " " entr	Ordinal	Correlation design	Map of slot banks on the floor	Spearman Rank Coefficient Correlation
3 (X_2)	Game characteristics	-Bonuses -Jackpots -Free games -Max bets -Ease of play	Data coding	Nominal	Correlational	Questionnaire	SPSS
4 (X_3)	Ambience (Environment)	-Smoking area -Lighting -Privacy -Exposed area -ease of movement	Frequency counts	Nominal	Survey	Observation Checklist	SPSS
5 (X_4)	Customer care	-Greet clients -Offer a drink -Help with games -Prompt attendance	Data coding	Nominal	survey	Questionnaire	SPSS
6 (X_5)	Management Policy		Data coding	Nominal	survey	Interview	SPSS

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This section looked at the data collected, categorized and summarized in order to obtain answers to the research questions. It was summarized by means of central tendency techniques using the mean and averages to reduce the number of numerical used in calculation. Outlined also is the response rates and findings of the questionnaire that was administered to the slot clients as well as Observations and interviews that were conducted at the slot sections during the study.

4.2 Machine data readings

To investigate the relationship between the machines performance and location, the Slot banks data was organized in the respective groups. Averages were taken to reduce the amount of data, grouped and computed using the Spearman's Rank correlation of coefficient. Machined data readings on performance and location was collected for each bank as shown in table 4.1 below.

Table 4.1   **Slot Machine Bank readings**

1st	Position			2nd	Position	
BANK	Ave days (Xi)	Ave GP (Yi)		BANK	Ave days(Xii)	Ave GP (Yii)
A	19	17,368.67		C	22.27	15,505.89
B	25.46	34,118.53		B	26.4	37,765.53
C	17.4	3,566.20		D	20.11	5,382.06
D	23.2	12,607.27		E	21.77	11,608.11
F	22.83	13,787.13		G	26.26	19,002.21
Lobby	22.668	7,531.46		F	15.867334	10,108.40

The Spearman Rank Correlation Coefficient reading for both locations (positions) 1 and 2 were as follows.

Position 1 posted R= 0.64781155

Position 2 posted R=0.73175834

Looking at the X_1 and Y variables, it is clear from the strong positive correlation between the performance of slots (Y) and location (X_1) of the slots at two different locations positions 1 posted a R= 0.6478115 and position 2 posted R=0.73175834 that that location does not influence performance of the slots that much. There was no significant difference in the coefficient readings of both locations.

4.3 Response rates

Below is the response rate and findings from the respondents. It covers the questionnaire administered to clients, the observations made on the slot floor regarding choice of locations and machines by clients and the interviews conducted by the researcher to the casino managers.

4.3.1 Game Characteristics (X_2)

The findings for the second variable game characteristics(X_2). Total number of respondents were 61. The questionnaire covered questions on all the machines that were on the casino floor despite not all of them being the sample machines. The sample machines were the Atronic machines (Hi-res and emotion) both 5/- and 2/-, and the Unicum, Adventure machines which are 1/- in total 30 machines. The other 10 machines are made up of the Amatic but these lacked the option of games played and this data could not be accessed where as the Sensation and Octavian machines were added onto the floor after the sample period had began and these three brands were not part of the sample.

Table 4.2 Percentage of clients who play the various brands of machines

Machines	% of players
Amatic	52%
Unicum	28%
Atronic	53%

All   22%

No Show   29%

Figure 4 Graph showing percentage of Players for each set of machines
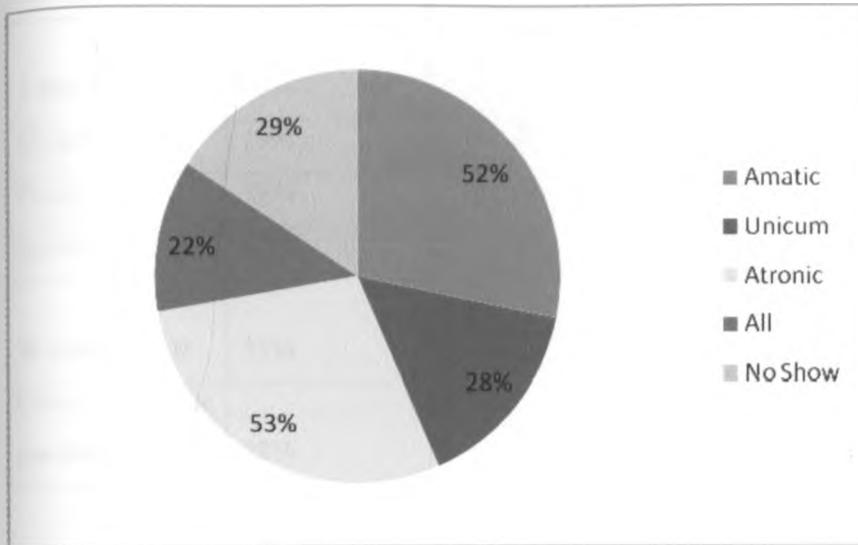
The Atronic machines played by 53% of the respondents had two types of machines. These were the Hi-res payed at sh 5/- which had a clientele of 66% of total Atronic players and the emotion played at sh 1/- had 34%.

The unicum machines played by 28% of players sampled were all of one type and played at sh 1/- .

The Amatic played by 52% of players were all Multi-games. (Machines made up of several games in one) but these were not part of the sample.

Of all the respondents to whom the questionnaire was administered, 36%admitted to playing all the machines and 63% played only one type of machine.

Some games were more popular than others by far taking into consideration the percentages postulated in table 4.2 above about each brand of machines. The specific machines indicated in table 4.3 having a higher percentage of players have a high performance rate compared to others listed under other machines of similar brand. The following table 4.3 shows a summary of findings for specific slot machines.

Table 4.3   Percentage of players who play specific brand machines

Atronic	Players
Golden City	38%
Jokers Wild	28%
3 Monkeys	19%
Mystery	19%
Penny Piper	19%
Sphinx	15%
Wonders of Oz	13%
Other atronic machines	38%

Unicum	Players
Don Quixote	53%
Ar World	38%
Other unicum machines	10%

Amatic	Players
Multi Game machines	20%

1)   What clients found attractive about the machines they play

Table 4.4 Game Characteristics

Game Characteristics	% of clients
Bonus features	51%
Free games	56%
MysteryBonuses	62%
Feature icons	47%
Payability	22%
Max Bets	8%
Jackpots	10%
Ease of Play	25%
Pricing	58%
Multi game	51%

The table above shows that 62% of the respondents indicated that they preferred games with mystery bonuses. This is a game characteristics that attracted many of the players. Other features that were equally attractive on a high rate were the pricing 58% of respondents, free games 56% and bonus features 51%. The total number of bets (max bets) one played was not a game characteristics that was attractive to clients as well as the jackpots.

2) Suggestions offered by clients

The data findings show that 60% of the clients stated that they would like to see new games on the floor as they had exhausted the current ones. 52% respondents requested for multi game machine. These are machines with several games in them enabling the client to select from the variety and giving them may choices. On the pricing 34% stated that the machines pricing should be reduced to sh 1/- while 58% stated they were happy with the different price levels as this catered for the needs of the different customers They did not mind the various costs.

4.3.2 Findings for ambience or Environment of Machine (X_3)

Data for Ambience was collected over two seasons a period of three months each. One was low season and the other high season. The data was averaged between the three months and it indicated the sex of the players. Through observation, the researcher was able to observe that regular clients played specific machines. Even when the machines were moved, these payers would still seek out their specific machines wherever on the floor they were. During the high season, there seemed to be more activity and many tourists moving from one machine to another without any specification. They sought to seek out machines that caught their fancy either by the icons displayed on the machine.

INDEX OF BANKS

BANK A	Ease of movement
BANK B	Partially Hidden
BANK C	Privacy
BANK D	Privacy
BANK E	Ease of movement
BANK F	Smoking Area

BANK G   Exposed Area

BANK H   Lighting

BANK I   Ease of movement

Table 4.5   **Gender representation of locations of play**

		Activity - High Season				Activity - Low Season		
	Bank	**M**	**F**		**Bank**	**M**	**F**
Ease of movement	A	122	108	Privacy	C	61	62
Partially Hidden	B	202	108	Partially Hidden	B	44	49
Privacy	C	39	46	Privacy	D	27	15
Privacy	D	87	253	Ease of Movement	E	64	42
Smoking Area	F	78	128	Exposed Area and lighting	G	83	60
Exposed area and Lighting	H	32	41	Smoking Area	F	29	27

The table above (table 4.4) which captured the slot players movement amongst the slot machines, indicated the number of hits the locations got over the sampling period. There were two locations that provided private environments (banks C and D) and yet in the two positions they both posted varied number of location hits. Machines that were in bank C and moved to bank D did not have as many hits as machines that were in bank D and moved to bank E which is an indication that despite the environment the type of machine that the clients wanted to play was important. In addition, machines located in bank C over the low season posted higher location hits than machines in the same position during the high season. Given that both locations were private and there were two different sets of machines.

Areas with ease of movement during the high season posted very high location hits and this could be attributed to the increased numbers walking into the casino as opposed to the low season. Overall, the

high season relatively posted more activity in all the slot banks than the low season. The researcher attributed the players movement to select areas to the type of specific machines that they wanted to play.

4.3.3   Customer care (variable X_4)

Customer Care was surveyed in the slot questionnaire given to the clients. There were ten questions which addressed this section and they were rated as follows

Table 4.6   **Customer Service Rating**

	V. poor	Poor	Satisfactory	Good	V. good	Total
Service at slot machines						
Attendant's presentation			13	36	12	61
Greetings			5	38	18	61
Offer of drink	5	14	37	3	2	61
Prompt service			18	23	20	61
Correct calculations			11	42	8	61
Average rating	**1%**	**4%**	**28%**	**47%**	**20%**	
Overall Casino service						
Ambience			2	15	44	61
Table & Slot layout			14	36	11	61
Customer service			9	38	14	61
Staff			9	16	36	61
F & B service		21	33	7		61
Average rating		**7%**	**2%**	**38%**	**34%**	

The overall rating by clients on all the services offered to them were favourable. Over 60% of the clients stated that the slot service as good or excellent. The same as the overall casino experience. Over 60% stated they were happy and comfortable with all the Casino services and atmosphere found in the casino. They stated the staff were pleasant

4.3.4 Management Policy (X_5)

The researcher interviewed three Managers from the Pyramid casino. The managers' responses varied. Some questions gave similar responses. Their emphasis lay on positive customer responses with an underlying will to please all their clients so that they do not walk out of the door dissatisfied.

Table 4.7   **Manager's responses**

	Managers Interviews	Responses
1	Client Disputes	Listening to all parties, agreeing on a workable solution
2	Difficult clients	Get situation under control, Explain casino policies firmly and clearly
3	Treatment of Loyal clients	Bonus points system, complimentaries, recognition & gifts
4	Communication of info to clients	Direct marketing, word of mouth, telephone calls or sms
5	Problem solving at slots dept during crisis	Mixed reactions. Managers not too clear on what to do
6	Handling of positive and negative comments from clients	researches through questionnaires, maintaining rapport with clients
7	Follow-up on issues pertaining to slots	Vague answers probably not too sure what questions required.
8	Strategies involved at enforcing rules	Vague answers
9	Review of pricing	Only one manager pointed out that continuous evaluation and analysis of slots data provided for guidelines to review pricing of machines
10	Non-performing machines	Sales promotion, upgrade of games, change position, reduce the price

On review of policies and enforcement of policies, none talked about round table management discussions on formulation review and implementation of rules, policies, and strategies that were in favour of both clients and organization. None had clear-cut approaches to how they ensured their clients conformed and bought into their policies. None pointed out how they made clients feel that their contributions and suggestions, comments were relevant and important to ensuring that client satisfaction was key priority

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter concludes the research project projecting the researcher's findings from the tests done on the data collected during the study. It also holds the researcher's discussions on the topic, findings and the findings of other researchers on the same topic. Finally, the conclusion and recommendations that the casino should follow based on the study's objectives and research questions are included in this chapter.

5.2 Summary of Findings

The Data analyzed clearly indicated that the customers chose to play the machines not because of the location but because of the machine characteristics. They followed the machines wherever they were located onto the casino floor despite the location or ambience around the machine. The strong positive Rank Correlation coefficient in both locations tested attest to that fact. The high value close to +1 indicated a strong linear relationship between the location and machine performance in both sets of locations

Looking at the X_1 and Y variables, it was clear from the strong positive correlation between the performance of slots (Y) and location (X_1) of the slots at two different locations positions 1 posted a R= 0.6478115 and position 2 posted R=0.73175834 that that location did not strongly influence performance of the slots that much. There was no significant difference in the coefficient readings of both locations. To answer the research question whether there was any significant relationship between location of slot machine and machine performance, this research shows that there is none. Some other variable greatly influenced the performance of the slot machines.

The independent Variable X_2, Games Characteristics (GX) clearly indicated that clients played specific machines because of their attributes. No matter where on the floor they were placed, ie the environment or ambience around the machine (X_3) the clients sought out the machines to play them.

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The variable Ambience (X_3) also did not significantly influence the performance of machines as wherever the machine were placed; the clientele followed their respective favourite games. Although there were cases of complains about machines being placed at the smoking area, clients who did not smoke went into the smoking room to play their machines when no one was in there who was smoking.

Customer care (X_4) and management policy (X_5) indirectly influence the performance of the machines. The more the client keeps on coming back to the casino the more the opportunity for the machines to play more games thus increase their performance. Clients who were comfortable stay longer at a place, and their word of mouth marketing is a great seller on behalf of the organization.

5.3   Discussion of Findings

The research was able to establish that although there is a strong relationship between location(X_1) and slot machine performance, there is a much stronger relationship between the moderating variable Game Characteristics (X_2). Clients followed specific machines to whichever location or environment they were placed. This was because there were specific attributes about the machines that the clients enjoyed.

The research agrees with Friedman's (2000) which stressed the importance of privacy and intimacy with regard to machine location. Privacy, intimacy, smoking areas, comfortability of chairs, lighting all represent the ambience (X_3) created to make a client feel that his different needs are taken care of. The relationship between the client and the machine is unique (and this theory can be a topic for future research). The clients picked out the location they wanted to play depending on their specific need of either wanting to smoke, or be isolated or be part of activity going on around the casino. The study indicated that the locations had different or similar ambiances around them. Friedman theorized that slot machine patrons preferred locations that are more secluded over locations that were near busy walkways and crowded areas. The secluded areas may have been well lit or dimly lit. They may also have a smoking area or not. Location of the slot and the ambience are both complimentary to each other. The location in which the machine is situated has an environment that is attractive to the client. However, the researcher noted that the performance of the machine might be affected negatively if the ambience around the machine was not what the client wanted, despite the specific machines having the attributes the client desired.

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The studies of Lucas and Roehl (2002) and Friedman (2000) to are not supportive of each other. Lucas (2003)' second study on the same subject produced a result indicating an increased selection and play duration on slot machines based on their location, in his 2000 study, he clearly suggest the presence of opposing forces at work to influence machine performance. Lucas et al (2005) study, a third study on the same topic gave three different results of three variables that he tested. The first one indicated a significant and positive effect produced by the locations variable, which represented one of the premium slot sections that he sampled. The second result which tested the variable machine performance and game characteristics produced a negative and significant effect on machine performance while the third test he conducted which tested a certain brand of machine make configured for ease of use produced results that ran counter to its hypothesized direction. The test models that Lucas et al (2005) used in the third study failed to produce significant effects for three of the characteristics variables.

This study may be an indication that both researchers are not wrong in their findings, only that different variables need to be studied exhaustively to determine the true influence of slot machine performance.

Customer care and management policies greatly influence the returnability rate of clients. Clients who feel welcome, well taken care of and management decisions made in favour of or fair decisions that do not discriminate clients have a higher rate of return as opposed to establishments that are impersonal.

5.4 Conclusion

The results of this study along with the others done previously, by Lucas et al (2005) have initiated the process of determining a profile for successful slot machine management. For example, all the studies studied the theory 'increased performance levels resulting from locations of slot machine'.

To protect the anonymity of the donor casino, the slot floor design could not be illustrated as well as its true identity. However all data used in this research was fully authorized by the directors of the casino. The research had its pitfalls as some machines broke down during the crucial sample period and the casino policy of 12 hours downtime ensured that the machine was up and running within a day. The fact that most regular clients were very familiar with the machines such that they identified specific machines to play indicated the slow pace at which the casino management reviewed and replaced their slots with newer more exciting games that captured the curiosity of clients.

The small size of the casino may have influenced the outcome of the results of this study in favour of Prof Lucas' studies as opposed to supporting Friedman's (2000)

5.5 Recommendations

The results of the study as well as those of other researchers point out that casino managers should do the following;-

1. Play around with locations

   Casino Managers should move the machines round the slot floor more frequently and collect readings of each specific location in order to analyze and ascertain performance. They should move non-performing machines around to investigate if their performance levels can be improved upon change of location. Moving machines to different locations also gives the casino an air of newness and anticipation as clients may discover machines that they had not noticed previously as they intently played their regular machines.

2. Identify game characteristics that are appealing to clients.

   In their daily interactions with clientele, managers should be more involved in understanding key characteristics and attributes that draw clients to the machines so that they can source for similar characteristics in the market. Understanding what the clients wants gives the management an indication of what new products coming into the market would be ideal for their clients.

3. Customer care

   Casino managers should monitor service offered to clients as this is crucial to the comfort and ease of clients. Clients who feel that they are important and are appreciated will keep on coming back. Listening to clients suggestions, complains and needs is an important avenue of data collection and clients feel they own the establishment as they see their views being implemented. Lastly, the managers should ensure that their direct marketing skills are above standard and incomparable to none.

4. Casino Management.

Casino managers need to have a practical approach by use of models like the performance potential models and detailed slot data to enable analysis and decision making of slot machines. Key areas they need to concentrate on are performance levels, game characteristics, evaluation of slot machines in respect to its return on investment and lastly, relocation issues.

5. Policy Making

Involve all managers in key decision-making processes where they get involved in collecting data and analyzing it to come up with workable and viable decisions. These meetings should be specific strategy meetings where rules and policies should be reviewed and strengthened.

6. Brands.

The casino should add more brands of machines to test the products offered by other suppliers.

7. Investment.

The casino should invest in newer game products that will entice and challenge the clients. Some of the machines have been on the floor for the last 14 years and this may explain why the clients are attached and familiar to their characteristics. However, they have already paid for themselves and new games and machines will offer the casino another long period of satisfactory earnings whist meeting client needs and demands. The Casino should phase out the non-performing machines by using survey techniques and data collected, compiled and analyzed to identify dead machines

5.6 Suggestions for Future Research

Future researchers should attempt to study size of casino as a variable that influences slot machine performance. A small casino with few machines may explain the intimacy and privacy that clients are looking for as its size indicates a certain type of clientele and not mass produced. Large casinos will

require large masses of clients to fill it up and the configuration of the casino and slot layout may be different to that of a small casino.

The relationship of client and slot machine is another area that can be studied as clients' behavior patterns when on a slot machine are unique. Some clients while observing the ambience variable X_3 played only on one machine for a very long duration of time, while others kept on alternating between two machines. What made the clients play only one or two machines only out of the several machines available is a query that needs to be answered. Other clients picked on machines randomly and these fell on the category of tourists who were out for fun or pass time.

Lastly, a study should be done where the variable Game characteristics should be tested as a predictor variable X_1 as an influence to slot machine performance (Y)

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15th July 2010

Judith K. Kiragu

P.o box 95695 – 80106

Mombasa, Kenya

REF: LETTER OF UNDERTAKING

We are in receipt of your letter dated 10th June 2010.

We hereby give you authority to proceed, collect and analyze Slot Machine data from the company for the purposes of your educational requirement.

We would however require you to submit a copy of your finished project to the company on completion of the said course.

Wishing you all the best in your studies.

Yours faithfully

P.J.F

Director

Appendix I

PYRAMID CASINO   SLOT QUESTIONNAIRE

Dear client

We kindly request you for your time to answer the following questionnaire, which by your responses will go a long way to help us improve our slot services to you. Thank you very much

Management

PLEASE TICK IN THE APPROPRIATE BOXES

1) Indicate the machines you enjoy playing

Atronic	☐ Yes	☐ No
Unicum	☐ Yes	☐ No
Amatic - Multi-game	☐ Yes	☐ No
Octavian Multi-game Poker	☐ Yes	☐ No

2) Indicate the specific machines you play

Atronic

<u>Ksh 5/-</u>

☐ Aphrodite
☐ Wonders of Oz
☐ Mystery
☐ 3 Monkeys
☐ Sphinx II No. 11
☐ Mystic Realm
☐ Ole Ole
☐ Mambo Money
☐ Jokers Wild
☐

<u>Ksh 2/-</u>

☐ Golden City
☐ Penny Piper
☐ IC Cash
☐ Kismet
☐ Break the Spell
☐ Mayan Magic
☐ Avalanche of Cash
☐ Dancing Spirits
☐ Mystery II
☐

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Unicum Ksh 1/-

☐ Russian Mafia no. 60   ☐ Platinum Player

☐ Around the World no.61   ☐ Kosmos no. 82

☐ Dacha no.62   ☐ Black G

☐ Queen of Spades   ☐ Wolf n Rabbit no. 84

☐ Guns n Mushrooms   ☐ Wolf n Rabbit no.85

☐ Russian Mafia no.70   ☐ Kosmos no. 86

☐ Around the world no. 71   ☐ C Fish

☐ Dacha no.72   ☐ M-tron no.88

☐ Don Quixote   ☐ Ice M

☐ Bachelor   ☐ M-tron no. 90

☐ Tam Tam   ☐ C– track

Amatic Machines Multi- Game

Machine No.

☐ 46   ☐ 47   ☐ 48   ☐ 49   ☐ 50

Octavian Multi –Game Poker Machines

Machine no.

☐ 95   ☐ 96   ☐ 97   ☐ 98   ☐ 99

3) Please give your comments on the following queries

What do you find attractive about the machines you play?

....

....

What should we change or add to enhance your slot game experience?

....

....

Do you find the pricing of our machines satisfactory? If not, why not?

....

....

How often do you come to the casino?

☐ Daily   ☐ Weekends only   ☐ 3 times a week   ☐ special occasions   ☐

rely

4) Please circle the appropriate box to rate our slot machine features and characteristics

Atronic Machines

Bonus games

   None   Dull   Satisfactory   interesting   V interesting

How often do bonuses appear on the machines?

   None   Rarely   Occasionally   Often   V often

How many lines do you prefer playing on the machines

   Any   9   10   2   21

What bet do you play?

   Any bet   Bet 1   Mixed Bet   Average Bet   Max Bet

Unicum

Bonus games

None   Dull   Satisfactory   interesting   V interesting

How often do bonuses appear on the machines?

None   Rarely   Occasionally   Often   V often

How many lines do you prefer playing on the machines

Any   9   10   2   21

What bet do you play?

Any bet   Bet 1   Mixed Bet   Average Bet   Max Bet

Amatic

Bonus games

None   Dull   Satisfactory   interesting   V interesting

How often do bonuses appear on the machines?

None   Rarely   Occasionally   Often   V often

How many lines do you prefer playing on the machines

Any   9   10   2   21

What bet do you play?

Any bet   Bet 1   Mixed Bet   Average Bet   Max Bet

Poker

Bonus games

None   Dull   Satisfactory   interesting   V interesting

How often do bonuses appear on the machines?

None   Rarely   Occasionally   Often   V often

How many lines do you prefer playing on the machines

Any   9   10   2   21

What bet do you play?

Any bet   Bet 1   Mixed Bet   Average Bet   Max Bet

5) CUSTOMER SERVICE AT SLOT MACHINES

On a scale of 1-5, please rate the services at the slot desk

Slot attendants pleasant and presentable

1	2	3	4	5
V poor		Satisfactory		V Good

Attendant greets you

1	2	3	4	5
Never		Sometimes		Always

Attendant offers you a drink

1	2	3	4	5
Never		Sometimes		Always

Prompt slot service for key in and key out

1	2	3	4	5
V poor		Satisfactory		V Good

Correct service and key in /key out calculations

1	2	3	4	5
V poor		Satisfactory		V Good

6) OVERALL CASINO APPRAISAL

Ambience

1	2	3	4	5
V poor		Satisfactory		V Good

Slot machine and table layouts

1	2	3	4	5
V poor		Satisfactory		V Good

Customer service

1	2	3	4	5
V poor		Satisfactory		V Good

Staff

1	2	3	4	5
V poor		Satisfactory		V Good

F&B service

1	2	3	4	5
V poor		Satisfactory		V Good

Thank You for participating

Appendix II

OBSERVATION CHECKLIST FOR SLOT STUDY AT PYRAMID CASINO

(Location Variable)

Date ....

Please tick or insert relevant info

Location of Machines	Male/Female	Machines Played (Nos)				Duration Stayed (Time)
Smoking Area						
Lighting						
Privacy						
Exposed Area						
Ease of Movement						

Data collected by ....

Appendix III

PYRAMID CASINO

INTERVIEW GUIDELINE FOR MANAGERS

(Variable Management Policy)

Interview no……………..

Date of Interview…………………………… Time …………………………………………………..

1) How do you deal with disputes amongst clients?

2) How do you deal with difficult customers?

3) How do you reward you loyal clients?

4) How do you communicate information to clients?

5) How do you deal with crisis? Ie When a machine crashes?

6) How do you track positive and negative comments?

7) Do you have any follow up on client issues?

8) What strategy do you have to enforce your rules at the slot machine floor?

9) How often do you review your pricing policy?

10) How do you react to non-performing machines?

Appendix IV

SLOT MACHINE DATA REQUIRED FROM PYRAMID CASINO

(Variable – Ambience)

No of games played on the machines based at different Locations

Machine no.	Machine name	Games played at Location (Bank)								
	Machine Name	A	B	C	D	E	F	G	H	I

APPENDIX V

Slot Machine index and location identities

Machine No.	Name	Bank No.	Bank No.
16	Mayan Magic	Lobby	F3
17	Avalanche of Cash	Lobby	F2
18	Dancing Spirit	Lobby	F1
19	Mystery 2	Lobby	F4
20	Moonlight Mansion	Lobby	F5
3	Golden City	F1	G1
8	Penny Piper	F2	G2
10	IC Cash	F3	G3
12	Kismet	F5	G5
14	Break the Spell	F4	G4

Atronic Machines

Machine No.	Name	Bank No.	Bank no.
1	Aphrodite	C1	D1
2	Wonders of Oz	D4	D4
4	Mystery	C6	C6
5	3 monkeys	D1	E3
6	Sphinx	C2	D2
7	Mystic Realm	D5	E2
9	Ole Ole	C5	D5
11	Sphinx II	C4	D3
13	Mambo Money	D6	D6
15	Jokers High	D2	E1

Unicum Machines

Machine No.	Name	Bank No.	
60	Russian Mafia	A1	C5
61	Around the World	A2	C4
62	Dacha	A3	C3
63	Queen of Spades	A4	C2
70	Russian Mafia	B1	B1
71	Around the World	B2	B2
72	Dacha	B3	B3
73	Don Quixote	B4	B4
74	The Bachelor	B5	B5
80	Tam Tam	A5	C1