



# Key performance indicators in the Kenyan hospitality industry: a managerial perspective

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## Abstract

**Purpose** – The overall purpose of this study is to investigate impact of managerial characteristics on key performance indicators in the Kenyan hotel industry.

**Design/methodology/approach** – A cross-sectional survey research design was used to gather primary data using self-administered questionnaires. A sample of 160 hospitality managers was selected proportionately by simple random sample method from six hotels in Nairobi and Mombasa. A custom factorial univariate analysis of variance of variance was used to analyze the data.

**Findings** – Hospitality managers in Kenya are still focusing on financial and result measures of performance while ignoring non-financial and determinant measures. Managerial demographic characteristics; age, education, current position, functional area, and performance appraisal influence managers' choice of key performance indicators.

**Research limitations/implications** – The model violated assumptions of homogeneity of variances. Literature review revealed a severe lack of Kenyan-based research in tourism and hospitality industries on performance measurement practices hence the need for future research in this area.

**Practical implications** – The hotels need to invest in comprehensive performance management systems suitable for Kenyan hospitality industry that will incorporate both financial and non-financial performance measures.

**Originality/value** – The study focuses on level of use of performance indicators and level of importance attached to performance indicators in the Kenyan hospitality industry. Managerial demographic characteristics influence on key performance indicators are examined in leading service industry in a growing economy thus contributing to a new body of knowledge in management literature in Africa.

**Keywords** Hotel and catering industry, Kenya, Performance management, Managers

**Paper type** Research paper



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## 1. Introduction

### 1.1 Background

The general growth in the Kenyan economy and steady increase in tourism earnings (US\$286,000 in 2002 to US\$855 million in 2007) have led to expansion and new investments in hotels in Kenya. Hospitality organizations are turning to performance measurement and management in order to qualify for the International Organization for Standardization standard certifications, and Company of the Year Awards. General business pressures, the achievement of the coveted five-star rating and membership to international hotel associations have created the need for effective key performance indicators. Furthermore, organizations that have already implemented the balanced scorecard performance measurement system have shown much better results (Malinga, 2004 in de Waal, 2007).

Despite the development of performance measurement systems in the hospitality industry, various researchers (Brander-Brown and McDonnell, 1995; Atkinson and Brander-Brown, 2001; Harris and Mongiello, 2001) have pointed to the reluctance of the hospitality industry to use balanced measures and rely solely on financial measures. de Waal (2007) contends that overall lack of management skills and expertise often makes organizations in developing countries to concentrate more on introducing and copying performance measurement systems from the Western world, which are not always the best suited to local circumstances. This raises the question what are the key performance indicators in the Kenyan hospitality. In addition, the impact of managerial demographic characteristics on key performance indicators is not clear.

### 1.2 Financial performance indicators

Performance of an organization has traditionally been measured by looking at the revenues or the profit made at the end of the year, or using key financial ratios. Venkatraman and Ramanujam (1986) reviewed ten different types of measurement and generalized the results into three dimensions: financial performance, business performance, and organization effectiveness. Ryan and Trahan (1999) used three key dimensions of performance, profit margin, total assets turnover, and equity multiplier. Hoque and James (2000) used a similar technique in asking managers to indicate by self-rating their organizations performance on several financial indicators. Financial measures are associated with a number of fundamental weaknesses, including: limitations in their accuracy, neutrality, summarized, and irrelevant due to the accounting period delay. Dominance of result over determinant measures and emphasis on the short term often at the expense of strategic issues; little appreciation of the links and relationships between key areas and aspects of an organization; and an overall lack of balance (Lynch and Cross, 1995; Emmanuel *et al.*, 1990; Fitzgerald *et al.*, 1991; Kaplan and Norton, 1992). Atkinson and Brander-Brown (2001) study indicates that the majority of the hotels almost exclusively monitor financial dimensions of performance with little or no attention being paid to non-financial or determinant dimensions. In particular, it has been suggested that, the hotel industry appears to concentrate on financial measures (Brander-Brown and McDonnell, 1995). The work of Harris and Mongiello (2001) suggests that financial measures are prominent, but not dominant, in a hotel general managers' decision making. According to Beatham *et al.* (2004), businesses measure their performance in financial terms, profit, and turnover. Financial measures and accounting measures are the traditional means of performance measurement.

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Nevertheless, these measures alone are no longer relevant for today's managers. To remain competitive, firms now need to consider non-financial or operational results as measured by competitiveness. The financial measures used in the current study included profitability, turnover, sales, and liquidity ratios.

### *1.3 Non-financial performance indicators*

Several research findings (Harris and Mongiello, 2001; Atkinson and Brander-Brown, 2001) in performance management are advocating an emphasis on both financial and non-financial dimensions such as competitiveness, service quality, customer satisfaction, organizational flexibility, resource utilization, and technology. It is important for performance measures to direct attention to such non-financial factors as service quality and customer satisfaction (Fitzgerald *et al.*, 1991). It is also widely considered essential that an organization's performance measures are linked to its strategic intent, its competitive environment, revenue management, market orientation and service delivery process within hotels (Fitzgerald *et al.*, 1991; Lynch and Cross, 1995; Kaplan and Norton, 1992; Haktanir and Harris, 2005).

Furthermore, there has been an increasing recognition within the hotel industry of the importance and value of people; employees as well as guests in the service delivery process, which has led to suggestions that hotels need to develop better performance information relating to such key areas as employee morale and employee satisfaction (Fwaya, 2006; Fitzgerald *et al.*, 1991). In addition, Harris and Mongiello (2001) argue that even though a hotel is thought of in a service context, in reality it encompasses three different types of industrial activity (rooms, beverage, and food) that exhibit different business orientations. These three orientations call for a diverse set of performance indicators. Chan (2004) reported on the use of non-financial measures in the balanced scorecard as a performance management system to support reporting on various management activities. Based on the literature, the non-financial measures used in this study are competitiveness, quality of service, innovation, community social responsibility, supplier performance resource utilization, and flexibility.

### *1.4 Results and determinants model*

This study used modified results and determinants model (Table I) to identify key performance indicators in the Kenyan hospitality industry. The results and determinants matrix (Fitzgerald *et al.*, 1991) were developed for service industry. It sought to provide such organizations with a framework that integrates new management accounting theories with relevant operations management concepts. Moreover, it attempts to explicitly recognize the relationships and trade-offs between different measures and it is directed at linking the operational aspects of an organization to its strategic intent (Atkinson and Brander-Brown, 2001). By using six performance dimensions, the model specifically incorporates both financial and non-financial metrics while balancing internal with external perspectives. Most significantly, though it combines result measures (competitiveness and financial performance) which reflect the success of an organization's chosen strategy with determinant measures (quality of service, resource utilization, flexibility, and innovation) which focus on those activities and factors necessary to achieve the organization's strategic goals. Kennerley and Neely (2002) emphasize the importance of measurement of other dimensions such as supplier performance and environmental/community perspectives. The two dimensions were

Performance dimensions	Performance indicators	Key performance indicators
Competitiveness	Market share percentage Sales growth percentage Monitoring competitors performance by inquiring their occupancy levels	<b>861</b>
Financial performance	Customer satisfaction surveys completed by customers Net profit and gross profit attained Seat turnover, room turnover, and inventory turnover attained Current assets verses current liabilities ratio Labor cost percentage Total shareholder' capital investment (hotel owners financial investment) Daily room occupancy Total revenue achieved Total sales Paying suppliers and creditors on time Total operating costs of the hotel or department Food and beverage sales Food cost percentage Daily average meal check Daily average room rate	
Quality of service	Maintaining five-star hotel classification rating Guest evaluations of attitude, behavior, and expertise of employees Guest evaluations of design facilities renovations and maintenance Guest evaluations of benefits gained such as relaxation, exercise, and refreshment	
Flexibility	Ability to adjust to guest needs and wants Ability to meet customer requirements on time Delivering guest products and services on time	
Resource utilization	Frequency of equipment breakdown Number of employee training and development programs Level of ICT usage Employee turnover surveys Employee performance appraisal ratings	
Innovation	Monitoring of performance of individual employee innovators Number of product and services innovated per year	
Supplier performance	Hotel suppliers delivering on time Hotel suppliers meeting standard purchasing specification	
Community/environmental perspective	Number of community service projects Number of corporate sponsorships Participation in environmental conservation schemes and projects Number of environmental projects undertaken by the hotel	

**Table I.**  
Modified results and determinants model

included in the initial results and determinants model to give eight performance dimensions.

### *1.5 Managerial demographic characteristics and key performance indicators*

Previous studies have investigated organizational and environmental factors influencing adoption and choice of performance measurement tools and practices (Emmanuel *et al.*, 1990; Waggoner *et al.*, 1999; Ryan and Trahan, 1999; Hoque and James, 2000; Hussain and Hoque, 2002; Sakunasingha, 2006). Choosing performance measures is a challenge. Performance measurement choice is a dynamic process – measures may be appropriate today, but the system needs to be continually re-assessed as strategies and competitive environments evolve. The management is responsible for making a strategic decision on adoption and use of various performance measures. The assumed impact that managers have on the operational performance of their organization is a popular topic in management publications. Several studies have illustrated the importance of the managers in influencing a variety of organizational strategic decisions and outcomes. These include strategy type (Thomas *et al.*, 1991; Awamleh, 1994), strategic change (Williams *et al.*, 1995), innovation (Wiersema and Bantel, 1992), and strategic diversification, risk-taking propensity (Stevens *et al.*, 1978), overall performance (Kimberly and Evansiko, 1981).

From the above literature, several studies have investigated performance measurement practices in manufacturing settings (Hoque and James, 2000; Sakunasingha, 2006). Little is known about this phenomenon in the service sector (Hussain and Hoque, 2002), despite the service sector contributing an important part of gross domestic product and employment in most economies (Fitzgerald *et al.*, 1991). While the identified factors are important, the organization has no control over the majority of them. Although manager's demographic characteristics such age, gender, level of education, and experience may choice of performance indicators, they have not been considered in previous studies. Little empirical research has dealt with the assumed relationship managers characteristics have choice of key performance indicators.

Responding to this research gap is the prime objective of the study. The current study addressed the above gaps. First, it identified the key performance indicators in the Kenyan hospitality industry based on the results and determinants model by Fitzgerald *et al.* (1991). Second, the study attempted to find out the influence of managerial demographic characteristics on choice of key performance indicator. The proposition tested was that a set of six managerial characteristics are predictors of, or a positive influence on, the key performance indicators in the Kenyan hospitality industry.

## **2. Research method**

### *2.1 Research design*

The researchers used a cross-sectional research design to gather primary data. The advantages of the design over other research designs are that the data can be collected within a short period of time and less expensively (Bailey, 1978). In addition, the characteristics of variables to be measured do not change much due to the short period of data collection.

### *2.2 Sampling procedure*

The population of the study was composed of hospitality managers in ten five-star hotels in Kenya (Republic of Kenya, 2003). Five-star hotels were considered appropriate

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because they have clear and consistent organizational structures, hence the results can be generalized without much error, as the population is relatively homogeneous. Based on the above criteria, a sample size of 160 managers was chosen. To compile the sampling frame, six names of five-star hotels were randomly selected without replacement from the overall hotel classification list (Republic of Kenya, 2003). To get the actual participants involved in the study, individual managers were selected proportionately across the six hotels by simple random sample method (Bailey, 1978).

### *2.3 Data collection*

The study was conducted in Nairobi and Mombasa between September 2007 and January 2008. Mombasa hosts mainly vacation hotels that are influenced by the seasonality of tourism while Nairobi has town hotels, which serve both tourists and business clients. A questionnaire as a survey instrument was developed to measure the managerial demographic characteristics and key performance indicators. A self-administered questionnaire was chosen for this study as it had the lowest cost, and the hospitality managers read and responded to questions at their own pace and time. It also provided the greatest sense of anonymity and had a lower chance of introduction of bias.

The researchers used a five-point Likert scale in the survey instrument. Several writers (Bohrnstedt and Knoke, 1982; Bailey, 1978) have indicated that the use of ranked data as interval data is unacceptable. On the other hand, there is agreement, supported by research (Jaccard and Wan, 1996) that wise selection of statistical tools appropriate to interval data may be used with ranked data. Jaccard and Wan (1996, p. 4) summarizes:

[...] for many statistical tests, rather severe departures (from intervalness) do not seem to affect Type I and Type II errors dramatically. Likert scales are very commonly used with interval procedures, provided the scale item has at least 5 and preferably 7 categories.

This allows the retention of more characteristics of the data and greater versatility in statistical analysis.

The first section of the questionnaire included questions on managerial demographics (age, education, current position, functional area, work experience, and performance appraisal). The second section included 38 statements of performance indicators identified in the results and determinants model above (Table I). The managers were asked to respond to the statement indicating the level of utilization of each indicator measured on a five-point Likert scale (1 – not at all to 5 – completely) and their perception on importance each of the 38 performance indicators measured on a five-point Likert scale (1 – no importance to 5 – essential).

The questionnaire was pilot tested using managers of one hotel in Nairobi and the other in Mombasa who were considered representative of the study population. The managers used for the pilot test were excluded from the final sample. The managers recommended inclusion of performance indicators such as internal rate of return, maintaining five-star rating, and level of information communication technology (ICT) usage which had been previously been left out.

### *2.4 Data analysis*

The initial stage of descriptive statistics included calculating, means, standard deviations, frequencies, percentages, and reliability to investigate the individual set of observed variables measuring demographic characteristics and performance measures.

Ranking of mean scores and standard deviations were used to identify the key performance indicators. The mean of the level of importance and the level of use of performance indicators integrated to get the actual composite mean of each performance indicator. For the purposes of this study, any key performance indicator with a mean of above 4.0 on five-point Likert scale was considered significant. Ranking of mean scores to identify key performance indicators was consistent with previous studies (Harris and Brander Brown, 1998; Haktanir and Harris, 2005) which used similar research approaches in the hospitality management field. The effect of managerial demographic characteristics on key performance indicators was analyzed using factorial univariate analysis of variance (UNIANOVA).

### 3. Results and discussion

#### *3.1 Demographic characteristics of the respondents*

The overall response rate was 134 out of 160 questionnaires giving a response rate of 84 percent. The total number of usable responses was 124 giving a usable response rate of 77.5 percent. The hotels were divided into town hotels and vacation hotels. About 84 (67.7 percent) respondents were from town hotels while 40 (32.2 percent) were from vacation hotels. In Kenya, there are more five-star town hotels than vacation hotels. Town hotels have slightly more complex organizational structures than vacation hotels due to the nature of the business they handle. The results showed that majority of respondents (82) (66 percent) were male and 42 (34 percent) of respondents were female. These results indicate that the hotel industry in Kenya has surpassed The World Bank's Millennium Development Goals target of 30 percent. About half of the respondents (64) (51.6 percent) indicated they were in the category of 28-37 years old as shown in Table II. This indicates that managerial staffs in the Kenyan hospitality industry are relatively young.

From Table II, the highest number of the managers (56) (45.2 percent) indicated they had a four-year diploma; 24 (19.4 percent) had a university degree. Only 8 (7.8 percent) of all respondents had masters degree. Analysis found that majority of the managers (88) (75.2 percent) had at least four-year diploma program and only 32 (25.8 percent) of respondents had attained a three-year diploma and below (Table II). This is true in the Kenyan hospitality industry given that the hospitality field is relatively young compared to other fields. Utalii College, which started in 1975, was for many years the only institution offering four-year diploma in hotel management. However, in the recent past several public and private universities have started bachelors and masters degree programs.

Table II illustrates how the managers are distributed in the various functional areas. Both food and beverage and front office departments had the highest number of managers (24) (19.4 percent) each. This may be due to the intensive nature of work in the two functional areas which require more managers. Most of the processes cannot be computerized or mechanized as they are mainly service in nature hence need a human touch. Finance and control, human resources, and operations departments had 12 (9.7 percent) respondents each.

From Table II it can be said that 54 (43.5 percent) of the respondents were departmental managers and only six (4.8 percent) were general managers. More than half of the respondents (80) (65.5 percent) had working experience in the hospitality field for over seven years; only 14 (11.3 percent) of the respondents had working

Characteristic ( <i>n</i> = 124)	Frequency (percentage)	KPI mean	SD	Key performance indicators
<i>Age grouping</i>				<b>865</b>
18-27 years	16 (12.9)	3.31	0.55	
28-37 years	64 (51.6)	3.90	0.42	
38-47 years	30 (24.2)	3.48	0.62	
48 years and above	14 (11.3)	3.62	0.72	
<i>Level of education</i>				
Two-year certificate	8 (6.5)	3.80	0.11	
Two-year diploma program	16 (12.9)	3.66	0.60	
Three-year diploma	8 (6.5)	3.49	0.89	
Four-year diploma program	56 (45.2)	3.66	0.49	
Higher national diploma	4 (3.2)	4.32	0.00	
Four-year bachelors degree program	24 (19.4)	3.45	0.58	
Two years masters program	8 (6.5)	4.24	0.27	
<i>Functional area</i>				
Finance and control	12 (9.7)	3.94	0.45	
Human resource	12 (9.7)	3.27	0.62	
Food and beverage	24 (19.4)	3.54	0.59	
Front office	24 (19.4)	4.12	0.33	
Sales and marketing	16 (12.9)	3.62	0.57	
Housekeeping	6 (4.8)	3.65	0.13	
General management	18 (14.5)	3.77	0.67	
Operations (IT, stores, and purchasing)	12 (9.7)	3.32	0.27	
<i>Current position</i>				
General manager	6 (4.8)	3.80	0.98	
Assistant general manager	12 (9.7)	4.02	0.25	
Departmental manager	52 (41.9)	3.56	0.55	
Assistant manager	54 (43.5)	3.28	0.53	
<i>Work experience</i>				
Under three years	14 (11.3)	3.25	0.56	
Four to six years	30 (24.2)	3.73	0.37	
Seven to ten years	34 (27.4)	3.70	0.65	
Above 11 years	46 (37.1)	3.80	0.57	
<i>Performance appraisal</i>				
Financial performance	24 (19.4)	3.86	0.79	
Non-financial performance	36 (29.0)	3.47	0.52	
Both financial and non-financial	64 (51.6)	3.68	0.47	

**Table II.**  
Demographic characteristics of the sample

experience in this field less than three year (Table II). This indicated that the managers used in the sample are relatively experienced in hospitality operations in Kenya. In addition in most hotels, the number of employees working under one manager is relatively small hence no need for assistant managers.

### 3.2 Reliability analysis of the survey instrument

The results in Table III show a Cronbach's alpha ( $\alpha$ ) above 0.70 for all but one of the scales, indicating acceptable level of reliability. The values of performance measures dimensions scales were greater than 0.70 for all of the dimensions apart from flexibility, which had  $\alpha$ -value of 0.64. This implies that 38 performance indicators were reliable and consistent measures of performance dimensions.



**Table III.**  
Reliability analysis

Scale ( <i>n</i> = 124)	$\alpha$ values	No. of indicators for each measure
<i>Performance measures dimensions</i>		
Competitiveness	0.83	4
Financial performance	0.90	14
Quality of service	0.83	4
Flexibility	0.65	3
Resource utilization	0.71	5
Innovation	0.80	2
Supplier performance	0.89	2
Community/environmental perspective	0.95	4

### 3.3 Key performance indicators in the Kenyan hospitality industry

The composite mean scores of the key performance indicators are presented in Table IV. The managers' composite mean scores for performance ranged from 4.63 down to 2.77. These results indicate that the managers in this study demonstrate reasonable use and value of a wide range of performance indicators. Performance indicators had two components, namely result measures and determinants measures. Under results measures, it is evident that financial performance was regarded much more highly than competitiveness, both in level of use and level of importance. Under determinant measures, flexibility, and service quality were highly significant compared to other dimensions. Competitiveness, financial performance, flexibility and service quality dimensions had mean scores above 4.0. Community service dimension had the lowest mean score of 2.84 as shown in Table IV. The key performance indicators in descending order are total revenue achieved, profitability ratios, food and beverage sales, total operating costs, total sales, sales growth, customer satisfaction surveys, five-star hotel classification rating, interaction quality, relative market share and position, volume flexibility, specification flexibility, room occupancy, delivery speed flexibility, and food cost percentage. The performance indicators managers least use and value are environmental projects undertaken by the hotel, corporate sponsorship, environmental conservation schemes, and community service projects. On a Likert scale of 1 to 5, the managers' lowest mean score was 2.77 for environmental projects undertaken by the hotel and the highest mean score was 4.63 for total revenue achieved. Despite the fact the indicators from the community/environmental perspective scored poorly, they need to be included the performance measurement, as there is an increasing concern for community and environmental impact of an organizations activities. Kenya is one of the countries affected by changes in the environment due to global warming effect, environmental degradation, and eco-system changes. There are ongoing efforts to rate hotel on eco-tourism and waste management aspects. Hotels need to be aware of the impact of their activities on the environmental. Therefore, they need to measure their performance on this dimension so as to contribute to the national efforts being done to conserve the environment in Kenya.

Although there were some exceptions, the empirical research results clearly indicated that the majority of the respondent managers almost exclusively monitor result measures such as competitiveness and financial dimensions of performance. Modest attention is being paid to non-financial or determinant dimensions such as resource utilization innovation, supplier performance, and community/environmental indicators.

Performance indicator	Level of use			Level of importance			Composite mean		
	M <sup>a</sup>	SD <sup>b</sup>	Rank	M	SD	Rank	M	SD	Rank
<i>Results indicators</i>									
Competitiveness							4.21	0.68	
Sales growth	4.16	1.03	7	4.52	0.88	5	4.34	0.72	6
Customer satisfaction surveys	4.16	1.12	8	4.48	0.72	6	4.32	0.77	7
Relative market share and position	4.10	1.26	10	4.35	0.98	12	4.23	0.81	10
Measures of the customer base	3.77	1.37		4.10	0.94	19	3.94	1.01	
Financial performance							4.10	0.62	
Total revenue achieved	4.81	0.54	1	4.45	0.73	8	4.63	0.51	1
Profitability ratios	4.45	0.88	3	4.58	0.76	2	4.52	0.75	2
Food and beverage sales	4.58	0.84	2	4.42	0.71	10	4.50	0.65	3
Total room sales	4.42	1.08	4	4.45	0.88	9	4.44	0.88	5
Total operating costs	4.35	0.83	5	4.52	0.72	4	4.44	0.64	4
Room occupancy	4.32	1.10	6	4.03	1.21	24	4.18	1.07	12
Food cost percentage	4.06	1.14	11	4.19	1.04	14	4.13	0.91	15
Labor cost percentage	3.77	1.19		4.16	0.81	16	3.97	0.87	
Average room rate	3.84	1.38		4.03	1.27	25	3.94	1.25	
Turnover ratios	3.68	1.32		4.19	0.83	15	3.94	0.88	
Average meal check	3.52	1.20		4.13	1.02	18	3.82	0.94	
Paying suppliers and creditors on time	3.61	1.35		3.97	1.19		3.79	1.14	
Capital	3.26	1.33		3.97	1.29		3.61	1.15	
Liquidity ratios	3.32	1.24		3.71	1.23		3.52	1.04	
<i>Determinants indicators</i>									
Service quality							4.08	0.72	
Five-star hotel classification rating	4.13	1.27	9	4.39	0.91	10	4.26	0.93	8
Interaction quality	4.00	1.02	12	4.45	0.72	7	4.23	0.73	9
Outcome quality	3.71	1.18		4.23	0.88	13	3.96	0.90	
Service environment quality	3.71	1.15		3.97	0.94		3.84	0.97	
Flexibility							4.19	0.53	
Volume flexibility	3.74	0.99		4.68	0.65	1	4.21	0.65	11
Specification flexibility	3.97	1.13		4.39	0.84	11	4.18	0.77	13
Delivery speed flexibility	3.81	0.90		4.55	0.72	3	4.16	0.62	14
Resource utilization							3.58	0.50	
Employee training and development programs	3.29	0.96		4.06	0.81	21	3.68	0.68	
ICT usage	2.94	0.81		4.06	0.88	22	3.50	0.69	
Frequency of equipment breakdown	2.87	0.98		3.90	0.82		3.39	0.70	
Employee turnover surveys	3.16	1.09		4.13	0.88	17	3.65	0.79	
Employee performance appraisal ratings	3.35	1.10		4.06	0.89	23	3.71	0.81	
Innovation							3.27	0.91	
Performance of the innovation process	3.00	1.23		3.81	1.16		3.40	1.02	
Performance of individual innovators	2.81	1.16		3.48	1.20		3.15	0.98	
Supplier performance							3.27	0.91	
Delivery time	3.65	1.13		3.68	1.21		3.66	0.98	
Standard purchasing specification	3.55	1.42		3.65	1.16		3.60	0.99	
Community/environmental perspective							2.84	0.83	
Community service projects	2.55	1.30		3.26	1.05		2.90	0.94	
Environmental conservation schemes and schemes	2.58	1.05		3.19	1.01		2.89	0.84	
Corporate sponsorship	2.29	1.06		3.26	1.02		2.77	0.90	
Environmental projects undertaken by the hotel	2.45	1.05		3.10	1.04		2.77	0.84	

Key performance indicators

**Table IV.**  
Ranking of key performance indicators by mean scores

Notes: <sup>a</sup>Mean; <sup>b</sup>Standard deviation

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Key performance indicators provide vital information to the organization for tracking and predicting business performance against strategic objectives in a way that complements financial measures. The indicator that each department or section evaluates as the most representative to successfully describe its need of measuring its performance constitutes the key performance indicators (Walsh, 1996). The results are consistent with literature and previous studies (Fitzgerald *et al.*, 1991; Atkinson and Brander-Brown, 2001; Harris and Mongiello, 2001; Kaplan and Norton, 1992) particularly given the previously suggested revenue-oriented nature of hotel operations (Fitzgerald *et al.*, 1991). While the research findings supported this expectation, they also demonstrated quite a varied response in relation to level of use and level of importance of each performance indicator. Kaplan and Norton (1992) highlight those financial measures which are not enough to explain an organization's trends or decision effectiveness. The fundamental point, however, is that whatever happens in an organization is the effect of a variety of different causes that are prompted by customers (internal and external), employees (whose behavior affects the organization), and other stakeholders (e.g. shareholders, suppliers, and investors). Financial performance is driven by the need to meet the needs of the shareholders, ignoring other internal and external stakeholders. There is a concern that in using inappropriate measures, hotel managers may be ignoring issues, which really matter, potentially to the serious detriment of their organization's performance (Brander-Brown and McDonnell, 1995). Furthermore, where performance reports are dominated by financial measures, performance evaluation is weakened by the inherent limitations of financial information. The overview of performance measurement literature has led to the conclusion that non-financial measures have more advantages and that non-financial measures are more directly traceable to the strategy of any firm (Shank and Govindarajan, 1993).

With regard to non-financial performance indicators, the research findings exhibited a noticeably different pattern compared to the financial indicators. The non-financial performance indicators that were rated highly were sales growth and customer satisfaction. Those two top non-financial performance indicators are essentially result measures of competitiveness. It is important to note that generally managers appear to pay significantly less attention to non-financial indicators than to financial indicators. Although the non-financial measures scored poorly in the current study, these measures are now viewed as being important to providing managers with valuable information to control the operations. This does not mean that non-financial measures should replace financial measures. Instead, the non-traditional approach to performance measurement, which combines both non-financial and financial measurement activities, provides a number of benefits.

#### *3.4 Managerial demographic characteristics and key performance indicators*

Custom factorial UNIANOVA was conducted to determine the effect of the managerial demographic characteristics on the key performance indicators in the Kenyan hospitality industry. Initially, Levene's test of homogeneity of variance and Welch *F*-test of equality of means were used to test if the model met assumptions of factorial ANOVA. Lack of fit test was used to determine the difference between reduced model used in this study with the full factorial model. The custom factorial univariate model was used to determine the effect (measured by partial  $\eta^2$ ) and significance (measured by *F*-test at  $p < 0.05$ ) of managerial characteristics on key performance indicators.

**3.4.1 Homogeneity of variance.** Levene's test of homogeneity of variance was computed to test the assumption that each group (category) of the independents has the same variance (Garson, 2009). Levene's test for equality of variances was found to be violated for the present analysis,  $F(47, 76) = 378.93, p = 0.00$ . Violation of the homogeneity of variances assumption increase type I errors in the  $F$ -test (wrongly rejecting the null hypothesis). However, ANOVA is robust for small and even moderate departures from homogeneity of variance (Garson, 2009). The researchers suggest that the results need to be treated cautiously. In view of the fact that, variances and group sizes are unequal, Welch's  $F$ -test of equality of means was used. The Welch's  $F$ -statistic for the independent variables is as follows: current position ( $F = 6.33, p = 0.00$ ), age ( $F = 7.88, p = 0.00$ ), education ( $F = 28.67, p = 0.00$ ), functional area ( $F = 9.97, p = 0.00$ ), and work experience ( $F = 3.41, p = 0.02$ ). However, performance appraisal was not significant ( $F = 2.74, p = 0.00$ ).

**3.4.2 Lack of fit test.** The researchers selected a custom model, which has fewer terms than a full factorial UNIANOVA model. That is, the lack of fit  $F$ -test assumes that the model is a non-full factorial model. Table V indicates the lack of fit  $F$ -test is significant  $F(24) = 82.90, p = 00$ . Therefore, the researchers concluded that necessary terms that are present in the full factorial model are present in the custom model.

**3.4.3 Test of overall model significance and effect size measures.** Main effects are the unique effects of the categorical independent factors or of the covariates (Garson, 2009). Effect size coefficients are standardized measures of the strength of a relationship that indicates the relative importance of the given covariate, main, or interaction effect. The researchers used partial  $\eta^2$  to measure the effect size. Partial  $\eta^2$  is the percent of total variance in the dependent variable accounted for by the variance between categories (groups) formed by the independent variables (Garson, 2009). The  $F$ -test is (omnibus) was used to test whether the overall model was working. It was used to test the significance of each main effect. A " $p$ " value of 0.05 or less on the  $F$ -test was selected lead the researchers to conclude the effect is real and not due to chance of sampling. The overall factorial univariate tests gave significance levels and partial  $\eta^2$  for key performance indicators.

The corrected model shows that the overall model is significant  $F(23) = 8.9, p = 0.00$  and the effect size, partial  $\eta^2 = 0.67$ , meaning that the managerial demographic characteristics explains 67 percent of the variance in choice of key performance indicators. Table VI also shows that the managerial characteristics factors; performance appraisal ( $p = 0.02$ ; partial  $\eta^2 = 0.12$ ), age. ( $p = 0.03$ ; partial  $\eta^2 = 0.21$ , current position ( $p = 0.00$ ; partial  $\eta^2 = 0.19$  functional area ( $p = 0.00$ ; partial  $\eta^2 = 0.27$ ) and education ( $p = 0.02$ ; partial  $\eta^2 = 0.13$ ) are significant influencing the choice of key performance indicators. Surprisingly, experience ( $p = 0.83$ ; partial  $\eta^2 = 0.009$ ) was not significant (Table VI).

Source	Sum of squares	df	Mean square	$F$	Sig.	Partial $\eta^2$	Noncent. parameter	Observed power <sup>a</sup>
Lack of fit	12.622	24	0.52	82.90	0.000	0.963	1,989.643	1.000
Pure error	0.482	76	0.006					

**Note:** <sup>a</sup>Computed using  $\alpha = 0.05$

**Table V.**  
Lack of fit tests

**Table VI.**  
Tests of between-subjects  
effects

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial $\eta^2$	Observed power <sup>a</sup>
Corrected model	26.838 <sup>b</sup>	23	1.167	8.905	0.00	0.672	1.000
Intercept	135.744	1	135.744	1,035.88	0.00	0.912	1.000
Performance appraisal	0.926	2	0.463	3.532	0.03	0.066	0.646
Age group	3.584	3	1.195	9.116	0.00	0.215	0.995
Work experience	0.115	3	0.038	0.291	0.83	0.009	0.104
Current position	3.101	2	1.551	11.83	0.00	0.191	0.994
Functional area	4.820	6	0.803	6.130	0.00	0.269	0.998
Level of education	1.945	6	0.324	2.473	0.02	0.129	0.811
Error	13.104	100	0.131				
Total	1,730.406	124					
Corrected total	39.942	123					

**Notes:** <sup>a</sup>Computed using  $\alpha = 0.05$ ; <sup>b</sup> $R^2 = 0.672$  (adjusted  $R^2 = 0.596$ )

*3.4.4 Planned multiple comparisons of managerial characteristics.* Significance of the overall test shows at least, one group is significantly different from another among the managerial characteristics variables. Planned comparison is necessary to identify the significance of differences in levels of managerial characteristics variables with respect to key performance indicators variable. The assumption of homogeneity of variances was not met in the present study. Therefore, Dunnett's T3 (pair wise comparison test based on the studentized maximum modulus) test was used to carry out planned comparisons at  $p < 0.05$ . The means of the managerial demographic characteristics groups are presented in Table II.

Follow-up univariate planned multiple comparisons between groups using Dunnett's T3 test showed that key performance indicators mean of managers aged 28-37 years was significantly different from 18-27 years ( $p = 0.04$ ) and 38-47 ( $p = 0.01$ ). This study is consistent with other studies in age. Stevens *et al.* (1978) found that older managers are more risk averse and tend to make more conservative decisions than younger managers. Similarly, Awamleh (1994) suggested that higher age levels were inversely associated with managers' willingness to be more innovative and open to change; older managers are more apt to defend the status quo. Thomas *et al.* (1991) found that CEOs of prospector firms were significantly younger than those in defender firms.

On the level of education, higher national diploma holders differed with two-year diploma ( $p = 0.01$ ), four-year diploma ( $p = 0.00$ ), two-year certificate ( $p = 0.00$ ) and Bachelors degree ( $p = 0.00$ ). Those managers who have completed master degree differed significantly with four-year diploma ( $p = 0.00$ ) and bachelors ( $p = 0.00$ ). This because in the higher national diploma and masters degree programs the learners tend to accumulate broad knowledge hence increased use of the key performance indicators. Furthermore, the managers holding this level have relatively worked in the industry compared to manager with basic degrees and diploma who may be at middle-level management. Manager with higher levels of education have been found to be more understanding and more receptive to new ideas in studies examining the relationship between education levels and organizational outcomes (Kimberly and Evansiko, 1981). Wiersema and Bantel (1992) and Awamleh (1994) found that the more

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educated the management team, the more innovative the firm's strategies tended to be. Similarly, Williams *et al.* (1995) found that managers with greater education levels were likely to implement structural changes with greater speed.

Managers in the front office area significantly differed with human resource ( $p = 0.01$ ), food and beverage ( $p = 0.00$ ), housekeeping ( $p = 0.00$ ), and operations ( $p = 0.00$ ) on key performance indicators. The front office managers rated the key performance indicators highly due to the nature of the services offered in the front office department. They interact with the guests and other hotel departments in the performance of their work. Assistant general managers significantly differed with departmental managers in the choice of key performance indicators. In the work experience variable, managers with three years experience below three years differed significantly with managers with experience above 11 years ( $p = 0.02$ ). Managers with experience tend to understand the organizational performance measurement system hence they use a variety of performance indicators to measure performance. The basis of performance appraisal also has an effect on key performance indicators. Managers appraised on financial performance alone greatly differed with managers appraised on non-financial performance ( $p = 0.04$ ).

Change in the manager carries with it the likelihood that changes will be made in the organization's performance measures because its manager plays an important role in helping define the performance of an organization. The length of time a manager has been in the job may have an important effect on the likelihood that he or she will initiate a change in key performance indicators. The longer an individual has worked for a firm, the more familiar he/she is with its structure, systems, people, and process (Gupta, 1984). Differences in demographic characteristics of the managers may explain important differences in strategic decision processes across firms as well as across decisions within a firm.

The observed ranking of the key performance indicators in Kenyan hospitality industry can generally be explained by both managerial characteristics and development phase of the performance management in Kenya, which still lacks sophistication especially in hospitality firms (de Waal, 2007). Predominant management style in the Kenyan organizations, has not yet reached a high level of modernization and adoption of scientific methods and techniques. de Waal (2007) contends that poor management practices, bureaucratic inefficiencies, and low-productivity levels in many organizations of developing countries create considerable pressure for managers to adopt speedy, ready-to-implement strategies including performance measurement practices. Furthermore, most Kenyan hospitality organizations are yet to embrace comprehensive management information systems that can capture the necessary information in all performance dimensions. This may explain the higher ranking of the financial indicators in the Kenyan hospitality industry. These results suggest that managerial demographic characteristics namely; age, education, current position, functional area, and performance appraisal have an effect on the choice of key performance indicators.

### 3.5 Conclusions

From the results, it can be concluded that hospitality managers in Kenya almost exclusively monitor competitiveness and financial dimensions of performance with little or no attention being paid to non-financial or determinant measures. The evidence clearly indicates that key performance indicators are overwhelmingly dominated by

result indicators, thus focusing management's attention even further toward the results of past actions rather than toward determinants of future success. This predominance of financial and past-oriented measures would then seem to demonstrate that performance measurement within the Kenyan hospitality industry is not balanced. The findings of this study indicate that key performance indicators chosen by managers represent hospitality business orientation (revenue driven) and Kenyan hospitality industry characteristics.

### 3.6 Recommendations

The hospitality managers need to rethink about the choice of their performance indicators. They need to incorporate both financial and non-financial performance measures in their performance measurement systems. They need to use balanced range of measures, which are linked to the company's objectives and strategic intent. The hotels need to invest in comprehensive performance management systems that will enable the managers to capture both financial and non-financial data.

### 3.7 Limitations and scope for further research

The industry population surveyed represents hospitality managers in Kenya; therefore the study may not be generalized outside Kenyan hospitality industry. Lack of ability for the researchers to control extraneous factors in the Kenyan hospitality environment and organizational factors. The present study violated the assumption of homogeneity of variance. The literature review revealed there is a severe lack of Kenyan-based research in tourism and hospitality industries that investigates factors influencing performance measurement practices. Hence, research in this area in developing economies is warranted. Furthermore, there need for research which aims to propose a broader model inclusive of all other factors that influence performance measurement in hospitality industry in a single model.

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Key performance  
indicators

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