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INFLUENCE OF TECHNOLOGY ON ACCOUNTS RECEIVABLES MANAGEMENT IN THE HOTEL INDUSTRY IN KENYA

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Abstract

Purpose*:* The purpose of the study was to establish how technology influences accounts receivables management in the hotel industry in Kenya.

Methodology*:* The target population of the study was 47 hotels and lodges in Kenya. A sample of 141 respondents was selected using stratified random sampling in each hotel and lodge to group respondents into three strata. The strata were that of top management, finance staff and credit control staff. This study used both primary and secondary data. Data collection methods used included: questionnaires and secondary data collection guide**.** Secondary data was collected for all variables for a period of three years (2007 to 2010). Data was analyzed quantitatively and presented descriptively and illustrated by use of tables and charts. Information was sorted, coded and input into the statistical package for social sciences (SPSS) for production of graphs, tables, descriptive statistics and inferential statistics. In particular, means, standard deviations, and frequencies. Inferential statistics such as factor analysis and odd ratio regression were also used.

Results*:* Based on the findings, the study concluded that technology determines accounts receivables management in hotel industry in Kenya. The quality of technology facilities embraced at any hotel is very important because it influences accounts receivables management and hence improves the hotel performance at large.

Unique contribution to theory, practice and policy: Based on the findings, the study recommends that hotels management should ensure that systems are upgraded with the technological changes taking place in the whole world.

Keywords: *technology, accounts receivables management, hotel industry in Kenya*

1.0 INTRODUCTION

1.1 Background of the Study

The hotel industry constitutes an idiomorphic (having its own characteristics) tourist product, offering some of the most fundamental services in the tourism industry (Mihail, 2011).Trade credit occurs when there is a delay between the delivery of goods or the provision of services by a supplier and their payment. For the seller this represents an investment in accounts receivables, while for the buyer it is a source of financing that is classified under current liabilities on the balance sheet (Pedro & Martínez, 2010). When goods and services are sold under an agreement permitting the customer to pay for them at a later date, the amount due from the customer is recorded as accounts receivables (Joy, 1978); Receivables are asset accounts representing amounts owed to the firm as a result of the credit sale of goods and services in the ordinary course of business. The value of these claims is carried on to the assets side of the balance sheet under titles such as accounts receivables or customer receivables. This term can be defined as debt owed to the firm by customers arising from sale of goods or services in ordinary course of business (Joy, 1978).

According to Robert (2001), accounts receivables are amounts owed to the business enterprise, usually by its customers. Managing accounts receivables involves five steps: determining to whom to extend credit, establishing a payment period, monitoring collections, evaluating the liquidity of receivables accelerating, and eventually cash receipts from accounts receivables holders. A critical part of managing accounts receivables is determining to whom credit should be extended and to whom it should not. Many companies increase sales by being generous with their credit policy, but they may end up extending credit to risky customers who do not pay. If the credit policy is too tight, sales will be lost. Particularly risky customers might be required to pay cash on delivery. In addition, companies should ask potential customers for references from banks and suppliers, to determine their payment history. It is important to check these references on potential new customers as well as periodically check the financial health of continuing customers (McKesson, 2011).

For many companies, accounts receivables are also one of the largest assets. For example, receivables represented 11% of the current assets of pharmacy giant Rite Aid in 2007. Receivables as a company percentage of total assets of General Electric was 52%, Ford Motor Company 42%, Minnesota Mining and Manufacturing Company, (3M) 14%, DuPont Co. 17%, and Intel Corporation 5% (Kimmel, Weygandt & Kieso, 2008). The relative significance of a company's receivables as a percentage of its assets depends on various factors: its industry, the time of year, whether it extends long-term financing, and its credit policies (Kimmel et al., 2008). A review of literature reveals that little research has been done in the hospitality business and even less on their role in the hotel industry, compared to surveys of traditional manufacturing industries (Burgess, 2006 and 2007; Drury & Tayles, 2006; Mattimoe, 2008).

According to recent figures from the American Bankruptcy Institute, business failures are raising throughout the country in every major industry sectors. Accounts receivables represent a large portion of firms' assets worldwide. Using 1986 Compustat data, Mian & Smith (1992) reported that accounts receivables account for 21% of U.S. corporations' assets. More recently, Molina & Preve (2009) used a sample from Compustat that covered the 1978–2000 periods and found that, on average, the ratio of accounts receivables to assets is 18%,

which corresponds to 55 days of sales financing. Note that these studies focus on large corporations. Petersen & Rajan (1997), in contrast, used a dataset from the 1987 National Survey of Small Business Finance and reported that whereas large firms show accounts receivables to sales ratio of about 18.5%, the same figure for small firms is lower, at 7.3%. According to Petersen & Rajan (1997), small firms provide less commercial credit to their customers than do large firms in the United States.

Such a large amount of money invested in providing client financing presents an interesting puzzle. Why would a firm that is not in the business of lending money be interested in extending financing to other firms? Moreover, why would clients be willing to obtain financing from these non-financial institutions, particularly if banks are known to have clear scale and information advantages in lending money? This puzzle has triggered an interesting body of research that seeks to explain the existence and main patterns of trade credit. The use of trade credit can help firms fight for market share - a firm that seeks to grow at the expense of another firm's business may seek to increase its sales by increasing the financing it offers clients. Similarly, firms facing profitability problems may seek to increase sales or market share by increasing the provision of commercial credit to clients (Petersen & Rajan, 1997; Molina & Preve, 2009)

The hotel industry has gone through turmoil between 1996 during the Likoni clashes and 2008 during the Post-Election Violence (PEV). Various other events have occurred in between these events including the bombing of the American Embassy in Kenya and the Global Economic crisis in 2006 (ROK, 2011). All these events have negatively impacted on the hotel industry in Kenya which remains very volatile and susceptible to such events. The Kenyan hotel industry has also suffered heavily from negative advisories originating from various countries like USA and Britain. These advisories are intended to warn citizens of the countries issuing them, from visiting Kenya. Kenya, as a tourist destination traditionally enjoys the patronage of USA and Europe, which regions contribute nearly 70% of the total tourist arrivals (ROK, 2011). Once such advisories are issued, tourist numbers decline and therefore hotels tend to employ marketing strategies geared to ensure survival rather than long term sustainability.

Inspite of the foregoing, the Kenyan hotel industry has recorded growth in the number of beds available. Investors have resorted into this sector which has profitability potential despite its culpability. This has not helped the industry since the growth in the tourism arrivals has not matched the growth in the number of beds. Due to the sluggish economic growth of the country, the growth in the domestic tourism has not been encouraging. The middle class, which would be the potential domestic tourists, have been declining in numbers and more citizens in Kenya tend towards below the poverty line. Domestic tourism has therefore not grown as it should have (ROK, 2011).

1.2 Problem Statement

Accounts receivables management is important to the profitability of an organization. Hotels in Africa and more so in Kenya, have limited access to capital markets. There are five hotel groups listed in the Johannesburg Stock Exchange, four hotel groups listed in Nigeria Stock Exchange and one hotel group listed in Nairobi Stock Exchange (NSE, 2013). This shows the limitation of financing from the capital markets and therefore hotels tend to rely more heavily on owner financing, trade credit and short-term bank loans to finance their operations.

An analysis of groups of hotels in Kenya shows that total debtor's portfolio represents 13% of the balance sheet size of the firm. The analysis also shows that the average value of debtors is 50% of the total borrowing. As shown in appendix VII, the average borrowing as per the analysis, is sh 1,291 million mainly to finance accounts receivables (57%) among other industry requirements. The profitability of the groups would have improved by 23% if the groups had not incurred the cost of borrowing. Teruel and Solan (2005) suggested that managers can create value by reducing their firm's number of days of accounts receivables. The hotel industry has huge accounts receivables and would have been more profitable if they were to be reduced significantly and the funds applied towards other cash flow requirements. According to Kwansa and Parsa (1991) quoted in a study by Gu and Gao (2000), loan default was found to be one of the events unique to bankrupt companies.

According to Upneja and Dalbor (2001), the reliance on debt financing by the hotel industry in the United States was significant. Due to poor management of accounts receivables, hotels in Kenya, suffer financial distress resulting to change of ownership of various hotels or hotel chains as a measure to prevent the foreclosure from heavy indebtedness. The study research gap is demonstrated by the scarcity of empirical studies on determinants of account receivable management. Empirical studies (Kwansa and Parsa, 1991; Gu and Gao, 2000; Upneja and Dalbor, 2001 and Teruel and Solan, 2005) were inadequate as they concentrated on other industries in developed and emerging economies. None of these studies focused on developing economies such as Kenya. Therefore, analysis of the factors that influence accounts receivables management, specifically, technology in the hotel industry in Kenya is an area that requires further research.

1.3 Research Objectives

To establish how technology influences accounts receivables management in the hotel industry in Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Systems Theory

Systems theory springs from biology and its content free and applicable to many fields of study. Systems theory can be defined as a working hypothesis, the main function of which is to provide a theoretical model for explaining, predicting, and controlling phenomenon (Bertalanffy, 1962). One common element of all systems is described by Kuhn (1974) as knowing one part of a system enables us to know something about another part. The information content or a piece of information is proportional to the amount of information that can be inferred from the information (Kuhn, 1974). Systems can be either controlled (cybernetic) or uncontrolled. In controlled systems information is sensed, and changes are effected in response to the information. Kuhn (1974) refers to this as the detector, selector, and effect or on functions of the system.

The detector is concerned with the communication of information between systems. The selector is defined by the rules that the system uses to make decisions and the effect or is the means by which transactions are made between systems. Communication and transaction are the only intersystem interactions. Communication is the exchange of information, while

transaction involves the exchange of matter-energy. All organizational and social interactions involve communication and/or transaction.

Kuhn's model stresses that the role of decision is to move a system towards equilibrium. Communication and transaction provide the vehicle for a system to achieve equilibrium. "Culture is communicated, learned patterns... and society is a collective of people having a common body and process of culture". A subculture can be defined only relative to the current focus of attention. When society is viewed as a system, culture is seen as a pattern in the system. Social analysis is the study of communicated, learned patterns common to relatively large groups (of people) (Kuhn, 1974). This theory informs the technology and marketing channels because communication is important in all of them.

2.2 Empirical Review

Advances in information technology have allowed firms to structure information sharing process with varying degree of customized reporting, real time access, data access frequency, access levels and software integration. However, these customization dimensions increase the complexity of the information sharing process. The many vendors and wide variety of specialized software systems like Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Customer Relationship Management (CRM) and Electronic Data Interchange (EDI) have made integration of this software costly and difficult. To enable information sharing across systems, a new breed of enterprise and web technologies (web services) and architectures (Service Oriented Architecture [SOA]) have emerged that provide a platform for integration. These integrating technologies employ standardized protocols and data formats for exchanging information across enterprise applications. Recent surveys have found evidence of SOA platforms being used widely and SOA deployment growing rapidly (Iyer et al., 2003). The real advantage of SOA lies in its ability to provide seamless integration across business units, customers and partners (Lim and Wen, 2003). By exposing the business services that are available in an organization to external customers, SOA offers a way to integrate data and processes across the organization. It also provides a way to combine the business services across partner organizations and offer a unified service to the end user application.

Sambamurthy et al. (2003) provide a theoretical model for analyzing the role of information technology in business strategy and how new technologies are leading to strategic flexibility in firms. They encourage further inquiry into how firms achieve agility and what technologies lead to flexible business processes and business models. Their research provides a theoretical foundation but lacks empirical support that will enlighten managerial decisions regarding investments in these new technologies including web services and SOA. Chatterjee et al. (2002) suggest that organizational assimilation of web technologies leads to very useful business process benefits and study the role of top management sponsorship, investment rationale and extent of coordination on such an assimilation of web technologies.

Hagit (2011) did a study in US to investigate the effect of information asymmetry between managers and outsiders on the use of accounts receivables in financing the firm’s operations. The information impounded in receivables pertains to the firm’s customers rather than the firm and therefore differs from the information embedded in other assets. It was established that the unique information content of accounts receivables makes it a likely candidate to use as a financing tool for highly information asymmetric firms.

Using a unique hand collected dataset of all COMPUSTAT firms available for the fiscal year 2005 in the two 2-digit SIC code industries 73 and 37 (business services and transportation equipment), which are characterized by high ratios of AR to assets, the study test whether the firm's information asymmetry is related to its decision to use AR financing. The study first explored the association between leverage and the use of AR financing. They found that on average, firms that use AR financing have higher leverage relative to firms that do not use AR financing. The study also tested whether information asymmetry is related to the decision of the firm to use AR financing after controlling for leverage.

In order to shed light on which component of the corporate information environment – the economic/innate component and the managerial discretionary component – is more influential in explaining the decision to use AR financing, the earnings quality measure is decomposed into its two components. Consistent with Francis et al. (2005) and Bhattacharya, Daouk and Welker (2007), it was found that the innate component is more influential in explaining the decision to use AR financing. These results are robust to an alternative method of decomposition of the information environment proxy which relies on the principal component analysis and the use of two additional accounting measures that have been found to be correlated with the discretionary component of the information environment; earning volatility and abnormal accruals.

This study assumes no correlation between firm's information asymmetry and its customers' information asymmetry and therefore the probability that AR will be characterized by lower information asymmetry compared to the inherent business of the firm, is higher for firms that are characterized by high information asymmetry. This assumption does not hold especially in hotel industry.

2.3 Conceptual Framework

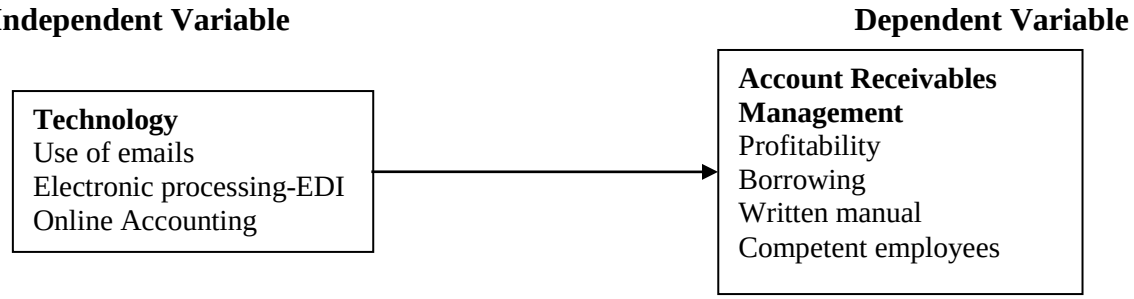

Figure 1: Conceptual Framework

3.0 RESEARCH METHODOLOGY

The study adopted a descriptive survey design with constructivism (experiential learning) as its epistemology (ground of knowledge). The population of this study is all the hotels and lodges in Kenya which is star rated by Hotels and Restaurants Authority in the range of 3 to 5 star. The sampling frame for this study consisted of all three, four and five star hotels and lodges in Kenya as they appear in the gazette notice of June 2003 and supplement gazette notice of July 2004. This study used random sampling procedure to identify the sample units. The sample size for the study was 47 units of analysis derived from hotels, restaurants and

lodges in the country. Proportional allocation was in the 3 star strata, the sample size was 28 units, in the 4 star stratums, the sample size was 10 units and in the 5 star stratums, the sample size was 9 units. This study used stratified random sampling method on all the hotels and lodges in Kenya. The strata were that of top management, finance staff and credit control staff. Stratified random sampling was used in each hotel to group respondents into three strata. Data collection methods used included questionnaires and secondary data collection guide**.** After data was obtained through questionnaires, interviews, observations and through secondary sources, it was prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed in using SPSS statistical package (version 20). Factor analysis was used to establish the appropriateness of the questionnaire constructs. Specifically factor loadings were used to establish the weights of the various statements on extracted factors. The binary logistic regression equation was applied to establish the effect of technology on accounts receivables management.

4.0 RESULTS AND DISCUSSIONS

4.1 Demographic Information

4.1.1 Response Rate

The number of questionnaires, administered to all the respondents, was 141. A total of 103 questionnaires were properly filled and returned from the hotel employees. This represented an overall successful response rate of 73%. According to Mugenda and Mugenda (2003), a response rate of 50% or more is adequate. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

Table 1: Response Rate

Response	Total	Percent
Returned	103	73%
Unreturned	38	27%
Total	141	100%

4.1.2 Gender of the Respondents

The respondents were asked to indicate their gender. Table 2 shows that majority (81.6%) of the respondents was male and 18.4% were female. The findings imply that the hotel industry is a male dominated field. According to Ellis et al. (2007), in spite of women being major actors in Kenya's economy, and notably in agriculture and the informal business sector, men dominate in the formal sector citing the ratio of men to women in formal sector as 0.74 : 0.26.

Table 2: Gender of the Respondents

Gender	Frequency	Percent
Male	84	81.6
Female	19	18.4
Total	**103**	**100**

4.1.3 Age Bracket of the Respondents

The respondents were asked to indicate their age brackets. Results in Table 3 revealed that majority (58%) of the respondents were aged between 31 to 45 years and 42% were aged between 21 to 30 years. The findings imply that most of the respondents were at their career peak. The findings also imply that a significant number of the respondents were youths hence young work force which can cope with long working hours in the hotel industry.

Table 3: Age Bracket

Age	Frequency	Percent
21-30	43	41.7
31-45	60	58.3
Total	**103**	**100**

4.1.4 Department of the Respondents

The respondents were asked to indicate the departments they worked in at the various hotels. Table 4 shows that 45% of the respondents were in finance department, 40% were in credit control department and 15% of the respondents were from executive department. The findings imply that most the respondents, 85% were working in the finance departments hence accurate responses about accounts receivables.

Table 4: Respondent's Department

Department	Frequency	Percent
Executive	16	15.5
Finance	46	44.7
Credit Control	41	39.8
Total	**103**	**100**

4.1.5 Period Worked in Hotel

The respondents were asked to indicate the length of period they have worked in the hotel industry. Table 5 illustrates that 42.7% of the respondents had worked for a period of between 7 to 9 years, 23.3% indicated 10 to 15 years and 14.6% indicated over 15 years. This also indicates that 66% of the respondents have worked in the hotel industry for between 7 years and 15 years. The findings imply that the respondents had worked long enough in the hotel industry and hence had knowledge about the issues that the researcher was looking for.

Table 5: Period Worked in Hotel

Period worked in Hotel	Frequency	Percent
1-3 yrs	13	12.6
4-6 yrs	7	6.8
7-9 yrs	44	42.7
10-15 yrs	24	23.3
over 15 yrs	15	14.6
Total	**103**	**100**

4.1.6 Period Working With Accounts Receivables

The respondents were asked to indicate the period they have been working with accounts receivables. Results in Table 6 illustrate that 39% of the respondents indicated between 4 to 6 years, 23% indicated 7 to 9 years and 19% indicated10 to 15 years. The findings imply that the respondents had worked long enough in the accounts receivables hence accurate responses.

Table 6: Period Working with Accounts Receivables

Period	Frequency	Percent
1-3	5	4.9
4-6	40	38.8
7-9	24	23.3
10-15	20	19.4
over 15	14	13.6
Total	**103**	**100**

4.1.7 Average Hours Worked

The study sought to find out how many hours (average) each week do the respondents work with issues related to accounts receivables. Table 7 shows that an equal share of 24.3% of the respondents indicated 20 hours and 15 hours per week, 19.4% indicated 5 hours and 18.4% indicated 10 hours per week.

Table 7: Average Hours Worked

Average Hrs	Frequency	Percent
30 hrs	14	13.6
20 hrs	25	24.3
15 hrs	25	24.3
10 hrs	19	18.4
5 hrs	20	19.4
Total	**103**	**100**

4.1.8 Accounts Receivables Tools

The respondents were asked to indicate how much they work with the different aspect of accounts receivables. Table 8 indicates that 67% of the respondents used reminder letters extensively between 21-40%, 54% of the respondents indicated they used reminder phone calls extensively, 41% indicated they used credit control to a higher percentage. Fifty seven percent indicated that they sent invoices to a greater extent and 61% indicated that they sent interest invoices between 21% to 40% percentage. The findings imply that the hotel management used various accounts receivables tools in reminding their clients. These are letters, phone calls, credit control, sending invoices and sending interest invoices.

Table 4.8: Accounts Receivables Tools

Accounts receivables	1% - 20%	21% - 40%	41% - 60%	61% - 80%
Reminder letter	14.6%	67.0%	7.8%	10.7%
Reminder phone calls	19.4%	54.4%	8.7%	17.5%
Credit control system	19.4%	40.8%	18.4%	21.4%
Sending invoices	23.3%	57.3%	9.7%	9.7%
Sending interest invoices	24.3%	61.2%	5.8%	8.7%
Other	17.5%	41.7%	8.7%	32.0%

4.1.9 Payment Terms for Important Customers

The study sought to establish the terms of payment the respondents allow to their most important customers. Results in Table 9 shows that 43.7% of the respondents indicated 30 days, while 40.8% indicated 90 days and 10.7% indicated 14 days. The findings imply that the customers were given enough duration to clear their debts.

Table 9: Payment Terms for Important Customers

Payment Terms for Important Customers	Frequency	Percent
14 days	11	10.7
30 days	45	43.7
60 days	5	4.9
90 days	42	40.8
Total	**103**	**100**

4.1.10 Payment Terms for Usual Customers

The study sought to establish the terms of payment the respondents allow to their usual customers. Results in Table 10 shows that 34% of the respondents indicated 30 days, while 30.1% indicated 90 days and 24.3% indicated 14 days. The findings imply that the customers were given enough duration to clear their debts.

Table 10: Payment Terms for Usual Customers

Payment Terms for Usual Customers	Frequency	Percent
14 days	25	24.3
30 days	35	34
60 days	8	7.8
90 days	31	30.1
other	4	3.9
Total	**103**	**100**

4.2 Descriptive Statistics

The objective of the study was to establish technology influences on accounts receivables management in the hotel industry in Kenya. Results in Table 11 indicate that 94% agreed that all customers are billed for services, 90% agreed that the hotel keeps accounts of receivable records and 91% agreed that the company utilizes technology to advance invoices to the customer. In addition, 92% agreed that the company used the email as a tool for debt collection reminder, 94% agreed that the department of credit control and the sales unit reconcile debtors using the technology in our company and 91% agreed that Electronic processing (e.g., EDI - electronic data interchange) of accounting data has resulted in complex accounting and management of accounts receivables.

Furthermore, 92% agreed that online account management is used for viewing and printing balances and statements, searching for specific items and adjusting stop orders and stop payments online, 86% agreed that online account management is a more cost-effective alternative to paper-based processes and 88% agreed that accounts data can be downloaded directly from the internet to be used with your own accounting software, saving time and reducing data capture error. Ninety percent agreed that their international accounts management service facilitates the movement of funds into and out of resident and non-resident foreign currency accounts, as well as offshore accounts held with other financial institutions and 92% agreed that single or bulk payments can be made in real time or future-dated up to 65 days. The mean score for responses for this section was 4.26 which indicates that majority of the respondents agreed that technology was a key driver of accounts receivables management.

The findings agree with those in Hagit (2011) who did a study in US to investigate the effect of information asymmetry between managers and outsiders on the use of accounts receivables in financing the firm's operations. The information impounded in receivables pertains to the firm's customers rather than the firm and therefore differs from the information embedded in other assets. It was established that the unique information content of accounts receivables makes it a likely candidate to use as a financing tool for high information asymmetric firms.

The findings are consistent with Francisa et al. (2005) and Bhattacharya, Daouk and Welker (2007) who found that the innate component was more influential in explaining the decision to use AR financing. These results are robust to an alternative method of decomposition of the information environment proxy, which relies on the principal component analysis and the use of two additional accounting measures that have been found to be correlated with the

discretionary component of the information environment; earning volatility and abnormal accruals.

The findings imply that technology influences accounts receivables management in as the hotel keeps the record, customers are billed for services and the company sends emails to customers for debt collection reminders. This implies that if the hotels are embracing technological changes taking place in the world but there is need to do much more because there can be many challenges in executing accounts receivables management if technology is avoided.

Table 11: Technology and Accounts Receivables Management

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Likert Mean
All customers are billed for services	0%	5%	1%	54%	40%	4.29
The hotel keeps accounts of receivable records	1%	7%	3%	45%	45%	4.25
The company utilizes technology to advance invoices to the customer	0%	9%	1%	51%	40%	4.21
The company uses the email as tool for debt collection reminder	0%	8%	1%	50%	42%	4.25
The credit control department reconciles accounts receivables using the technology	0%	6%	0%	56%	38%	4.26
Electronic processing (e.g., EDI - electronic data interchange) of accounting data has resulted in complex accounting and management of accounts receivables	1%	7%	2%	44%	47%	4.28
Online account management is used for viewing and printing balances and statements, searching for specific items and adjusting stop orders and stop payments online	0%	7%	2%	50%	42%	4.26
Online account management is a more cost-effective alternative to paper-based processes	0%	14%	1%	42%	44%	4.16
Account data can be downloaded directly from the internet to be used with your own accounting software, saving time and reducing data capture error	0%	9%	4%	37%	51%	4.29
Our international account management service facilitates the movement of funds into and out of resident and non-resident foreign currency accounts, as well as offshore accounts held with other financial institutions	0%	8%	3%	44%	46%	4.27
Single or bulk payments can be made in real time or future-dated up to 65 days	0%	7%	2%	46%	46%	4.3
Mean						**4.26**

4.3 Inferential Statistics

4.3.1 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, multiple linear regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling

Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 12 showed that the KMO statistic was 0.737 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 2015.819 with 55 degree of freedom, at $p < 0.05$). The results of the KMO and Bartlett's Test are summarized in Table 4.20. These results provide an excellent justification for further statistical analysis to be conducted.

Table 12: Technology KMO Sampling Adequacy and Bartlett's Sphericity Tests

Kaiser-Meyer-Olkin Measure	0.737
Bartlett's Chi- Square	2015.819
Bartlett's df	55
Bartlett's Sig.	0.000

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 11 statements on technology and accounts receivables can be factored into 1 factor. The total variance explained by the extracted factor is 83 % as shown in Appendix IX. This is also supported by the Scree Plot in the Principal Components output.

Table 13 shows that all statements on technology and accounts receivables attracted a component matrix of more than 0.8. This implies that all the statements were retained for analysis because they were rotating around the technology variable. The statement that the company uses the email as tool for debt collection reminder had a coefficient of 0.961, Online account management is used for viewing and printing balances and statements, searching for specific items and adjusting stop orders and stop payments online attracted a coefficient of 0.944, Our international account management service facilitates the movement of funds into and out of resident and non-resident foreign currency accounts, as well as offshore accounts held with other financial institutions had a coefficient of 0.937 and single or bulk payments can be made in real time or future-dated up to 65 days attracted a coefficient of 0.934.

Table 13: Technology Factor Analysis Component Matrix

Statement	Component
The company uses the email as tool for debt collection reminder	0.961
Online account management is used for viewing and printing balances and statements, searching for specific items and adjusting stop orders and stop payments online	0.944
Our international account management service facilitates the movement of funds into and out of resident and non-resident foreign currency accounts, as well as offshore accounts held with other financial institutions	0.937
Single or bulk payments can be made in real time or future-dated up to 65 days	0.934
The credit control department reconciles accounts receivables using the technology	0.93
The company utilizes technology to advance invoices to the customer	0.923
Electronic processing (e.g., EDI - electronic data interchange) of accounting data has resulted in complex accounting and management of accounts receivables	0.905
All customers are billed for services	0.901
Account data can be downloaded directly from the internet to be used with the accounting software, saving time and reducing data capture error	0.893
The hotel keeps accounts of receivable records	0.889
Online account management is a more cost-effective alternative to paper-based processes	0.81

The reliability results for technology attracted a cronbachs alpha coefficient of 0.978 hence the statements were good for analysis.

Table 14: Reliability Test for Technology

Variable	Technology
Number of items	11
Cronbach's Alpha	0.978

4.3.2 Relationship between Technology and Accounts Receivables

Regression analysis was conducted to empirically determine whether technology was a significant determinant of accounts receivables. Table 15 shows the correlation results which indicate that there was a positive relationship between technology and accounts receivables although not significant. This was evidenced by the p value of 0.348 which is more than that of critical value (0.05)

Table 15: Relationship between Technology and Accounts Receivables

Variable		Accounts receivables	Technology
Accounts receivables	Pearson Correlation	1	
	Sig. (2-tailed)		
Technology	Pearson Correlation	0.093	1
	Sig. (2-tailed)	0.348	

Binary logistic regression was used to model relationship between technology constructs and accounts receivables management**.** Table 16 shows that technology utilization was statistically associated with accounts receivable management ($p<0.005$). An increase in technology utilization increases the probability of having effective account receivables management by 51.558 times. Usage of electronic data interchange was statistically associated with accounts receivable management ($p<0.009$). An increase in usage of electronic data interchange increases the probability of having effective account receivables management by 1.109 times. Keeping accounts data was statistically associated with accounts receivable management ($p<0.035$). An increase in keeping accounts data increases the probability of having effective account receivables management by 1.154 times. Management services was statistically associated with accounts receivable management ($p<0.040$). An increase in management services effectiveness increases the probability of having effective account receivables management by 1.18 times.

Table 16: Logistic regression for Technology

Construct	B	S.E.	Wald	df	Sig.	Odds(Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Customer billing	-1.072	0.908	1.391	1	0.238	0.342	0.058	2.032
Account keeping	0.969	0.824	1.381	1	0.24	2.635	0.524	13.255
Technology utilization	3.943	1.406	7.861	1	**0.005**	51.558	3.276	811.474
Email	-0.527	1.342	0.154	1	0.694	0.59	0.043	8.191
Credit control	0.542	0.505	1.152	1	0.283	1.72	0.639	4.631
Use of EDI	2.215	0.843	6.911	1	**0.009**	1.109	1.021	1.569
Online viewing	-1.288	0.943	1.865	1	0.172	0.276	0.043	1.752
Online account mgt	-0.125	0.576	0.047	1	0.828	0.882	0.285	2.728
Account data	1.871	0.888	4.443	1	**0.035**	1.154	1.027	1.877
Mgt services	1.714	0.946	3.279	1	**0.040**	1.18	1.028	1.152
Bulk payments	1.785	0.93	3.68	1	0.055	5.957	0.962	36.888
Constant	8.25	4.5	3.362	1	0.067	3826.85		

$Odds\ of\ AR = 8.25-1.072X_1 +0.969X_2 + 3.943X_3 -0.527X_4 + 0.542X_5 + 2.215X_6 - 1.288X_7 - 0.125X_8 + 1.871X_9 + 1.714X_{10} + 1.785X_{11}$

Where;

X1 = Customer billing

X2 = Account keeping

X3= Technology utilization

X4 = Email

X5= Credit control

X6 = Use of EDI

X7 = Online viewing

X8= Online account mgt

X9 = Account data

X10 = Mgt services

X11 = Bulk payments

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

The objective of the study was to establish technology influences on accounts receivables management in the hotel industry in Kenya. Results showed that hotels keep records of receivable accounts, and utilized technology to advance invoices to the customer and Electronic processing through electronic data interchange (EDI), of accounting data, which has resulted into complex accounting and management of accounts receivables. Additionally, the results indicated that that technology utilization was statistically associated with accounts receivable management ($p<0.005$). An increase in technology utilization increases the probability of having effective account receivables management by 21.763 times. Keeping accounts data was statistically associated with accounts receivable management ($p<0.012$). An increase in keeping accounts data increases the probability of having effective account receivables management by 9.315 times. Management services was statistically associated with accounts receivable management ($p<0.031$). An increase in management services effectiveness increases the probability of having effective account receivables management by 2.281 times.

5.2 Conclusions

Technology was found to determine accounts receivables management in hotel industry in Kenya. The quality of technology facilities embraced at any hotel is very important because it influences accounts receivables management and hence improves the hotel performance at large.

5.3 Recommendations

The study recommends that the hotel management should ensure that systems are upgraded with the technological changes taking place in the whole world.

5.4 Areas for Further Research

A replica of this study can be carried out with a further scope to include more hospitality establishments in Kenya other than Three to Five star hotels and lodges. A similar study can be done on other services oriented institutions and see whether the findings hold true. Future

studies should apply different research instruments like secondary data, focus group discussions to involve respondents in discussions in order to generate detailed information which would help improve accounts receivables management in Kenya.

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