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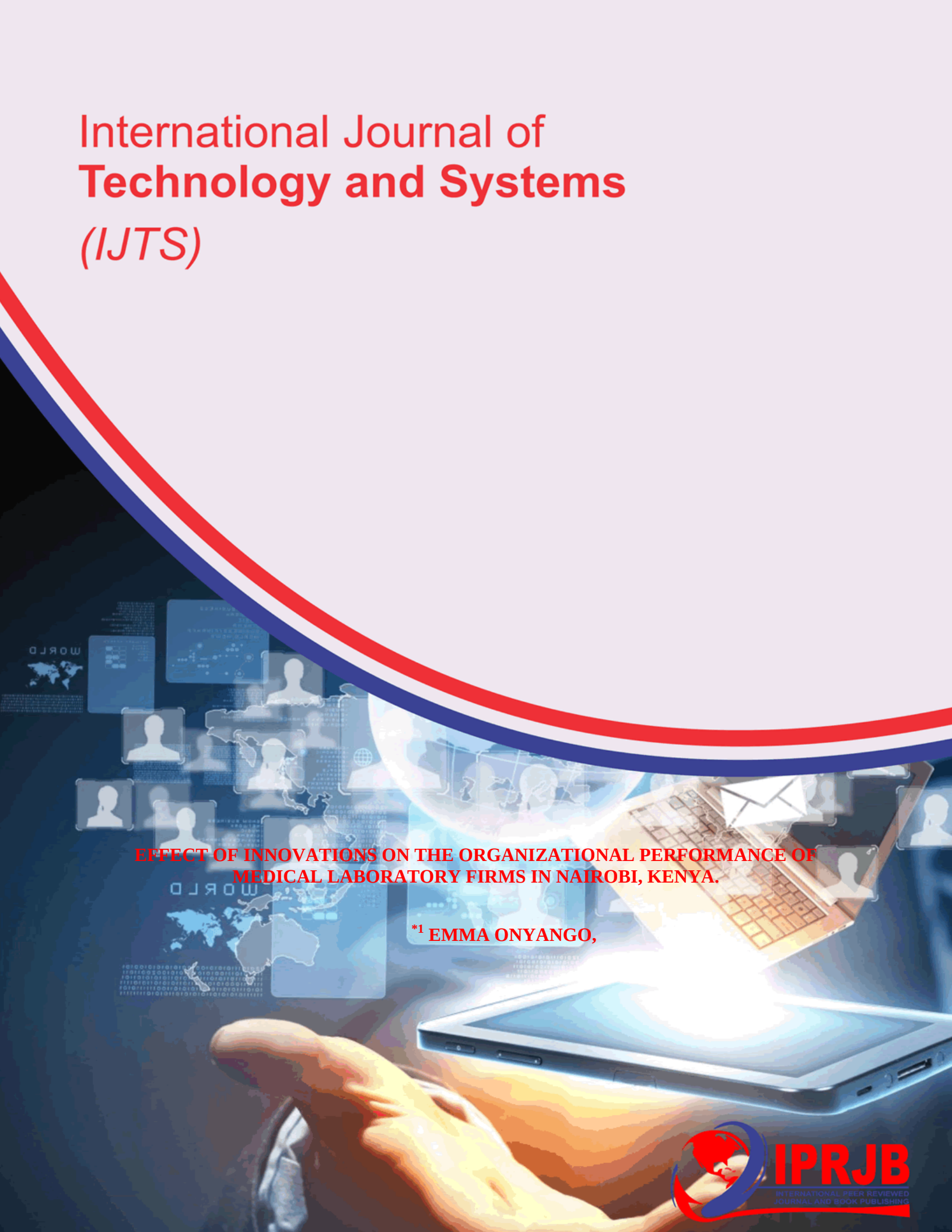

EFFECT OF INNOVATIONS ON THE ORGANIZATIONAL PERFORMANCE OF MEDICAL LABORATORY FIRMS IN NAIROBI, KENYA.

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Abstract

Purpose: The general objective of this study was to establish effect of innovations on the organizational performance of medical laboratory firms in Nairobi, Kenya.

Methodology: The study applied descriptive research design. The population of this study comprises 23 medical laboratory firms. A census of the 23 firms will be used. The study used Statistical Package for Social Sciences (SPSS Version 120 .0) to analyse the primary data. Both Descriptive and inferential statistics methods were applied to analyse the data.

Results: The findings revealed that digitalization of records had a positive and significant effect on the organizational performance. Regression results also revealed that digital marketing had a positive and significant effect on organizational performance. The findings revealed that digital training had a positive and significant effect on the on organizational performance. The study therefore concluded that, digitalization of records, digital marketing and marketing training had an effect on organisational performance.

Policy recommendation: The study recommended that Effective training programs helps employees to get acquaintance with the desired new technological advancement, also gaining full command on the competencies and skills required to perform at s particular job and to void on the job errors and mistakes.

Keywords: *digital training, organizational performance, digitalization of records*

1.0 Introduction

1.1 Background of the study

Although the concept of organizational performance is very common in the academic literature, its definition is difficult because of its many meanings. For this reason, there isn't a universally accepted definition of this concept. The definition of 'organizational performance' is surprisingly open question with few studies using consistent definitions and measures (see, Kirby, 2005). Depending on organizational goals, different methods are adopted by different firms to measure their performance. Performance indicator can be measured in financial and non-financial terms (Darroch, 2005; Bagorogoza and Waal, 2010; Bakar& Ahmad, 2010).

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). According to Richard et al. (2009) organizational performance encompasses three specific areas of firm outcomes: financial

performance (profits, return on assets, return on investment, etc.) product market performance (sales, market share, etc.); and shareholder return (total shareholder return, economic value added, etc.).

Innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations [UNESCO Institute for Statistics, 2005]. Beaver (2002) believes that innovation is an essential element for economic progress of a country and competitiveness of an industry. Innovation plays an important role not only for large firms, but also for SMEs (Jong and Vermeulen, 2006; Anderson, 2009).Sandvik (2003) argues that innovation is one of the most important competitive weapons and generally seen as a firm's core value capability. Innovation is also considered as an effective way to improve firm's productivity due to the resource constraint issue facing a firm (Lumpkin and Dess, 1996).

Innovations are one of the fundamental instruments of growth strategies to enter newmarkets, to increase the existing market share and to provide the company with a competitive edge. Motivated by the increasing competition in global markets, companies have started to grasp the importance of innovation, since swiftly changing technologies and severe global competition rapidly erode the value added of existing products and services. Thus, innovations constitute an indispensable component of the corporate strategies for several reasons such as to apply more productive manufacturing processes, to perform better in the market, to seek positive reputation in customers' perception and as a result to gain sustainable competitive advantage. Particularly over the last two decades, innovativeness has turned into an attractive area of study for those researchers who tried to define, categorize and investigate its performance impacts, especially due to its practical relevance. Innovations provide firms strategic orientation to overcome the problems they encounter while striving to achieve sustainable competitive advantage (e.g. Drucker, 1985; Hitt et al., 2001; Kuratko et al., 2005).

Medical laboratory firms are a knowledge-intensive and professional organization; therefore innovation is the key element in improving their environmental adaptability and competitive advantage (McDonald and Srinivasan, 2004). Technological innovation enhances hospitals competitive advantages through the improvement of work efficiency and value (McDonald and Srinivasan, 2004). Moreover, it supports hospitals achieve core activities and enhance their reputations. Technological innovation is more directly related to the improvement of health care quality and for hospital managers it has become a key developmental component (McDonald and Srinivasan, 2004; Tsai and Li, 2002)

Medical science has advanced exponentially during the last half a century. Yet, the paper system has stymied the ability of care givers to access the information vital to the delivery of care. Patient information is routinely held in static paper storage systems and managed with a silo mentality. Of the $600 billion spent on lab tests each year in the U.S., 70 percent of that money pays for paperwork, says Shanker S. Sastry, Engineering Dean at the University of California, Berkeley, and Director Emeritus of the Center for Information Technology Research in the Interest of Society (CITRIS). Paperwork is prone to costly errors. Sastry argues that huge savings can be realized by more and better use of electronic recordkeeping, employing software that can detect mistakes and issue prompts [Grose, 2008].

Govindarajan (2007) finds out that in addition, new digital information, nanotechnology, semiconductor products, and genetic engineering are revolutionizing health care, making old assumptions invalid and creating unanticipated prospects for innovation and improvement of existing processes The last century has produced a proliferation of innovations in the health care industry aimed at enhancing life expectancy, quality of life, diagnostic and treatment options, as well as the efficiency and cost effectiveness of the healthcare system [Varkey, Horne and Bennet, 2006]. These include, but are not limited to, innovations in the process of care delivery [Varkey and Athyal, 2005], medications, and surgical interventions [Varkey, Horne and Bennet, 2006].

In a study by Fuchs and Sox (2001), medications (e.g., angiotensin-converting enzyme inhibitors, statins, proton pump inhibitors, antidepressants), diagnostic modalities (e.g., magnetic resonance imaging, computerized tomography scanning, mammography), and procedures (e.g., balloon angioplasty, coronary artery bypass graft, cataract extraction) made the list of top 10 medical innovations.

1.2 Problem statement

The definition of 'organizational performance' is surprisingly open question with few studies using consistent definitions and measures (Kirby, 2005). Despite remarkable scientific and technological achievements during the 20th century, the 21st century has already witnessed additional new and profound changes in all areas of medical science and research, including innovations and discoveries in biology, cellular biology, genomics and proteomics, pharmaceuticals, medical devices, and information technology.But the new discoveries keep coming, and it is becoming clear that even the biotech industries (which have long proclaimed their leadership in being "on the cusp" of translational science in genetics and proteomics) are feeling some level of uncertainty about their mastery of current knowledge and future applications. (Niederhuber2007).

Medical laboratory firms are a knowledge-intensive and professional organization,therefore innovation is the key element in improving their environmental adaptability and competitive advantage (Mcdonald and Srinivasan, 2004).

According to Goh (2002) there are numerous barriers to innovation in developing nations. The developing countries with low literacy rates and weak higher educational systems often face a great deal of difficulties assimilating new technologies for innovation development as they lack the essential human capital to leverage on technological developments, scientific knowledge and technical skills.

Locally, Gitonga ,T .(2003 did a study on innovation processes and the perceived role of the CEO in the telecommunication industry. Odhiambo,K.(2008) carried out a research on the innovation strategies at Safaricom Ltd. As much as innovations is an important factor in determining the organizational performance, research on the relationship between innovations and organizational performance remains inadequate in the Kenyan context. This forms the basis of this research.

1.3 Specific objectives of the study

The specific objectives of the study were;

1. To assess the influence digitalization of records in organizational performance of medical laboratory firms in Nairobi, Kenya.
2. To assess the influence of digital marketing on organizational performance of medical laboratory firms in Nairobi, Kenya.
3. To assess the influence of market training on staff organizational performance of medical laboratory firms in Nairobi, Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical review

2.2.1 Diffusion of Innovation theory

The diffusion theory, also known as the diffusionof innovations theory, is a theory concerning the spread of innovation, ideas, and technology through a culture or cultures (Rodgers, 1962). Diffusion theory states that there are many qualities in different people that cause them to accept or not to accept an innovation. There are also many qualities of innovations that can cause people to readily accept them or to resist them. According to diffusion theory, there are five stages to the process of adopting an innovation. The first stage is knowledge, in which an individual becomes aware of an innovation but has no information about it. Next is persuasion, in which the individual becomes actively interested in seeking knowledge about the innovation. In the third stage, decision, the individual weighs the advantages and disadvantages of the innovation and decides whether or not to adopt it. After the decision comes implementation, in which the individual actually does adopt and use the innovation. Confirmation is the final stage. After making adopting the innovation, the individual makes a final decision about whether or not to continue using it based on his own personal experience with it. These same stages apply, to varying degrees, to groups of people in addition to individuals (Rogers, 2002) This theory is important in the study as it outlines the stages that the employees will pass through as they are being trained on innovation procedures such as marketing on the other hand it will reflect on the attitudes that customers will adopt when accessing products of medical firms such as medical kits etc.

2.2.2 Evolutionary Model

According to evolutionary model of the firm by Nelson, *et al*., (1982) the behavior of any firm consists of, and is based on, a set of learned principles or routines. The quality of individual firm's routines determines its position in relation to rivals, analogous to the position of species in the evolutionary chain. Firms cannot, of course, maintain their superiority permanently on the basis of their existing routines. Innovations, which enable firms to develop new and upgrade existing routines, drive the continuous changes in the economic system. This theory is relevant to our study because it outlines the importance of firms to clearly adopt innovations if they want to have a competitive advantage of their rivals.

2.3 Empirical Review.

2.3.1 Digitalization of Records

Digital records are informational files or data files that are created and stored in digital form through the use of computers and applications software. Okiy, (2008) defined digital records as recoded information, documents or data that provides evidence of policies, transactions and activities carried out in e-government and e-commerce environments. Digital records are always machine-dependent formats, thus digital records are accessible and readable only with the assistance of digital processors (Landis, 2000).

Despite the utility of electronic health records, hospitals were initially slow to adopt them. A 2009 survey of American Hospital Association (AHA) members found just 1.5 percent of hospitals had a comprehensive EHR system, meaning that the system performed 24 specific functions and was used in all clinical units. Another 7.6 percent of hospitals had an EHR in use in at least one clinical unit.Hospital leaders cited startup and maintenance costs as major barriers to adoption.Grose, T. K. (2008)

Digital imaging projects offer unique advantages. Information and content may be delivered directly to end-users, and can be retrieved remotely. Image quality can be quite good, and is often enhanced, with capabilities continuously improving (Conway, 2000). There is added advantage with the possibility of full-text searching, cross-collection indexing and newly designed user interfaces that allow for new uses of the material and content (Conway, 2000). Flexibility of the digital material is another advantage. Since the data is not “fixed”, as with paper or printed text, it is easy to reformat, edit and print (Smith, 2000).

2.3.2 Digital Marketing

Digital marketing is the use of technologies to help marketing activities in order to improvecustomer knowledge by matching their needs (Chaffey, 2013).Digital marketing concept originated from the Internet and search engines ranking ofwebsites. The first search engine was started in 1991 with a network protocol called Gopherfor query and search. After the launch of Yahoo in 1994 companies started to maximizetheir ranking on the website (Smyth 2007).

With the availability of so many choices for customers, it is very difficult for marketers to create brands and increase traffic for their products and services. Online advertising is a powerful marketing vehicle for building brands and increasing traffic for companies to achieve success (Song, 2001). Expectations in terms of producing results and measuring success for advertisement money spent, digital marketing is more cost-efficient for measuring ROI on advertisement (Pepelnjak, 2008).

Social media with an extra ordinary example Facebook has opened the door for businesses to communicate with millions of people about products and services and has opened new marketing opportunities in the market. This is possible only if the managers are fully aware of using the communication strategies to engage the customers and enhancing their experience (Mangold, 2009). Marketing professional must truly understand online social marketing campaigns and programs and understand how to do it effectively with performance measurement indicators. As the market dynamics all over the world arechanging in relation to the young audience

accessibility to social media and usage. It is important that strategic integration approaches are adopted in organization's marketingcommunication plan (Rohm & Hanna, 2011).

Blogs as a tool for digital marketing have successfully created an impact for increasingsales revenue, especially for products where customers can read reviews and writecomments about personal experiences. For businesses, online reviews have worked reallywell as part of their overall strategic marketing strategy (Zhang, 2013). Online servicestools are more influencing than traditional methods of communication (Helm, Möller,Mauroner, Conrad, 2013). As part of study, it is proven that users experience increase inself-esteem and enjoyment when they adapt to social media which itself is a motivating signfor businesses and marketing professional (Arnott, 2013). Web experiences affect themental process of consumers and enhance their buying decision online (Cetină, Cristiana,Rădulescu, 2012).

The Internet is the most powerful tool for businesses (Yannopoulos 2011). Marketingmanagers who fail to utilize the importance of the Internet in their business marketingstrategy will be at disadvantage because the Internet is changing the brand, pricing,distribution and promotion strategy.

2.3.3 Market Training

Due to fast pace global and technological development the firms are now facing new changes as well as challenges. Technological advancements have molded the need of capabilities and competencies required to perform particular tasks. Thus, to cope with these challenges, more improved and effective training programs are required by all corporates. Effective training programs helps in constructing a more conducive learning environment for the workforce and train them to cope with the upcoming challenges more easily and in time (Wei-Tai, 2006).

According to Farooq.M,&Aslam. M. K (2011), managers are trying their level best to develop the employee's capabilities, ultimately creating good working environment within the organization. For the sake of capacity building managers are involved in developing the effective training programs for their employees to equip them with the desired knowledge, skills and abilities to achieve organizational goals. This struggle by the top management not only improves the employee performance but also creates positive image of the firm worldwide, (Jia-Fang, 2010).
Effective training programs helps employees to get acquaintance with the desired new technological advancement, also gaining full command on the competencies and skills required to perform at s particular job and to void on the job errors and mistakes (Robert, 2006).

Brennan and Pearce (2009) also advocate a particular experiential learning technique, but one that is perhaps less well-known – educational drama. This is to be distinguished from conventional role plays (as often used, for example, in sales education (Inks et al., 2011) because the students are involved in researching, designing and reporting on the dramatic scenario; it is, therefore, a more extensive and immersive learning experience than a role play.

2.4 Conceptual Framework

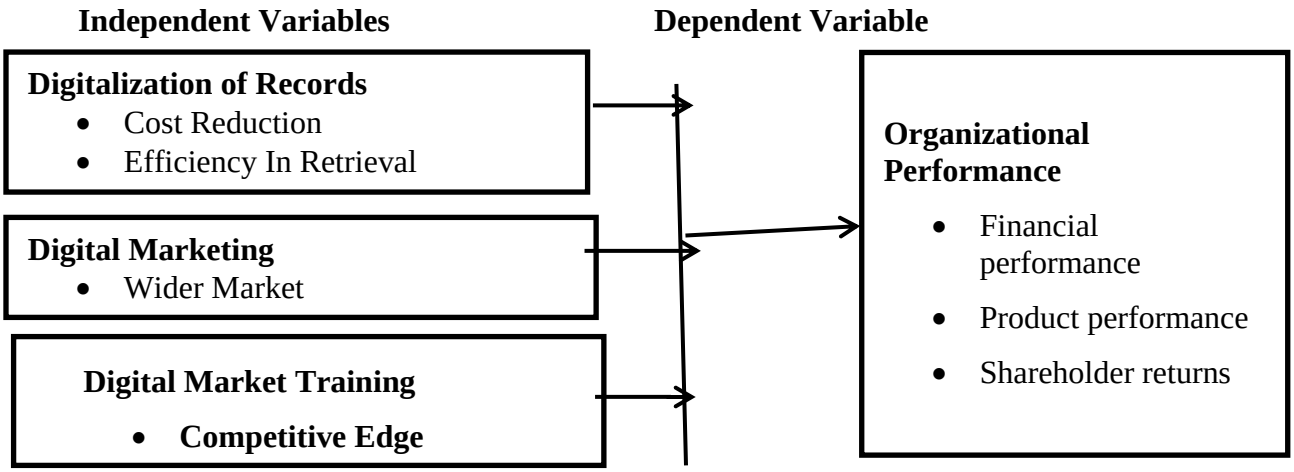


Figure 1 Conceptual Framework

3.0 METHODOLOGY

The study applied descriptive research design. The population of this study comprises 23 medical laboratory firms. A census of the 23 firms will be used. The study used Statistical Package for Social Sciences (SPSS Version 120 .0) to analyse the primary data. Both Descriptive and inferential statistics methods were applied to analyse the data.

4.0 RESULTS FINDINGS

4.1 Response Rate

The number of questionnaires that were administered was 69. A total of 69 questionnaires were properly filled and returned. This represented an overall successful response rate of 86.4% as shown on Table 4.1. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good. Based on these assertions from renowned scholars 100 % response rate is adequate for the study.

Table 1: Response Rate

Response	Frequency	Percent
Returned	69	100
Unreturned	0	0
Total	69	100%

4.2 Demographic Characteristics

4.2.1 Gender of the Respondents

The respondents were asked to indicate their gender. Results in figure 4.2.1 show that majority of the respondents 55% indicated that they were female. 45% indicated they were male. This implies that most of the respondents of medical laboratory firms in Nairobi were female.

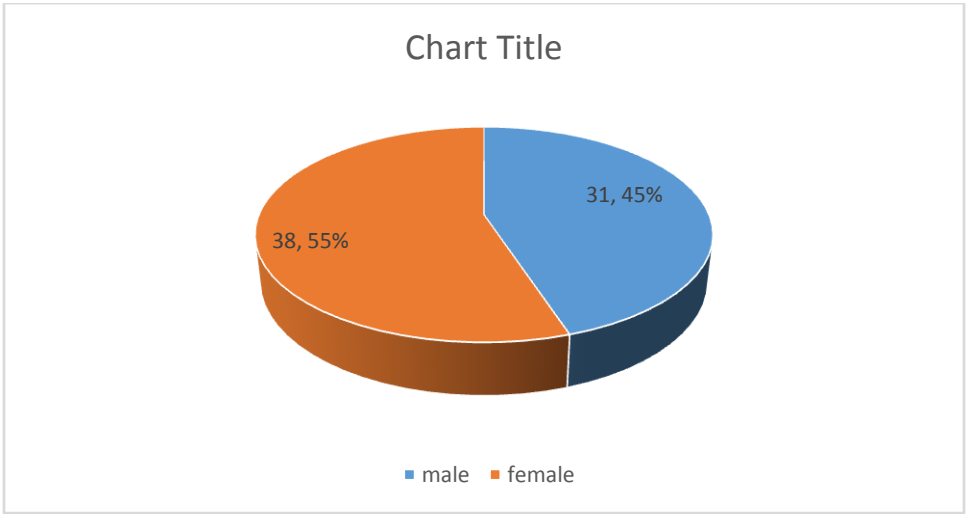


Figure 2 Gender of the Respondents

4.2.2 Age of the Respondents

The respondents were asked to indicate their age in Years.Results in figure 4.2.2Majority of the respondents 75% indicated they were between 31-40 years. 18% of the respondents said they were between 20-30 years. 7% of the respondents indicated that they were more than 40 years.

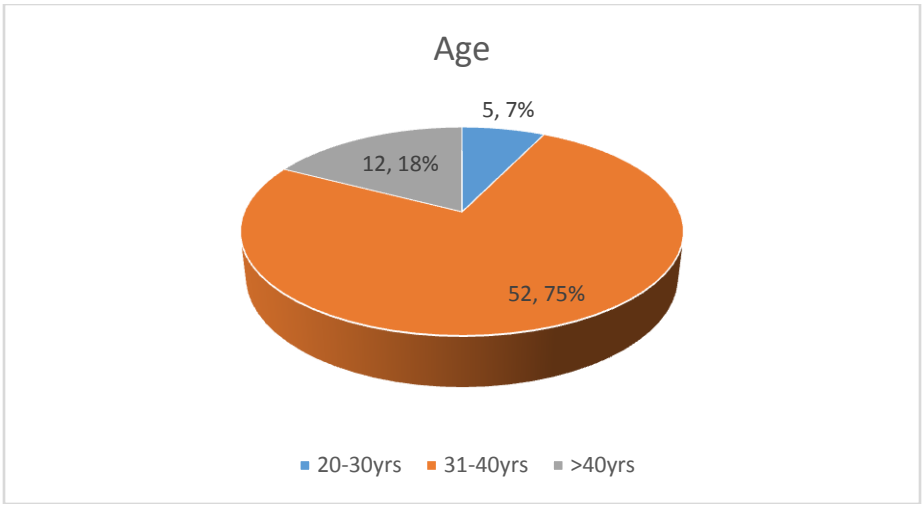


Figure 3 Age of the Respondents

4.2.3 Number of Years Worked

The respondents were asked to indicate the number of years worked in medical laboratory firms. Results in figure 4 show that majority of the respondents (55 %) indicated that they had worked in medical laboratory firms for 10-15 years. 39% of the respondents indicated that that they had worked in medical laboratory firms for 5-10 years while finally6% indicated that they worked in medical laboratory firms for more than 15 years.

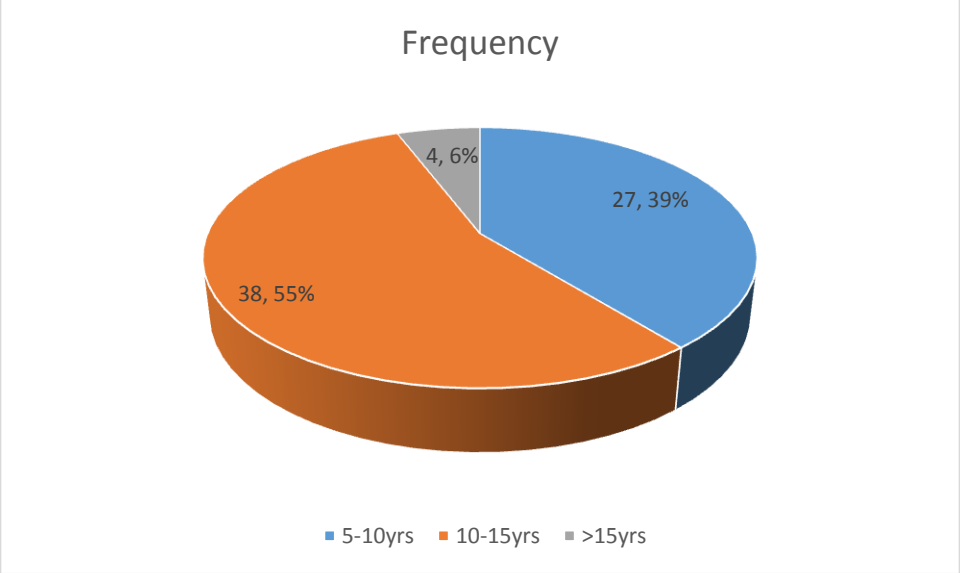


Figure 4 Number of years worked

4.2.4 Type Of Department Worked?

The respondents were asked to indicate the type of department worked in medical laboratory firms.

Results in figure 5 show that majority of the respondents 38 %) indicated that they had worked in the training department of medical laboratory firms.35% of the respondents indicated that that they had worked in sales department.24% indicated that they worked in IT department.Finally 3% admitted that they were working for any other department.

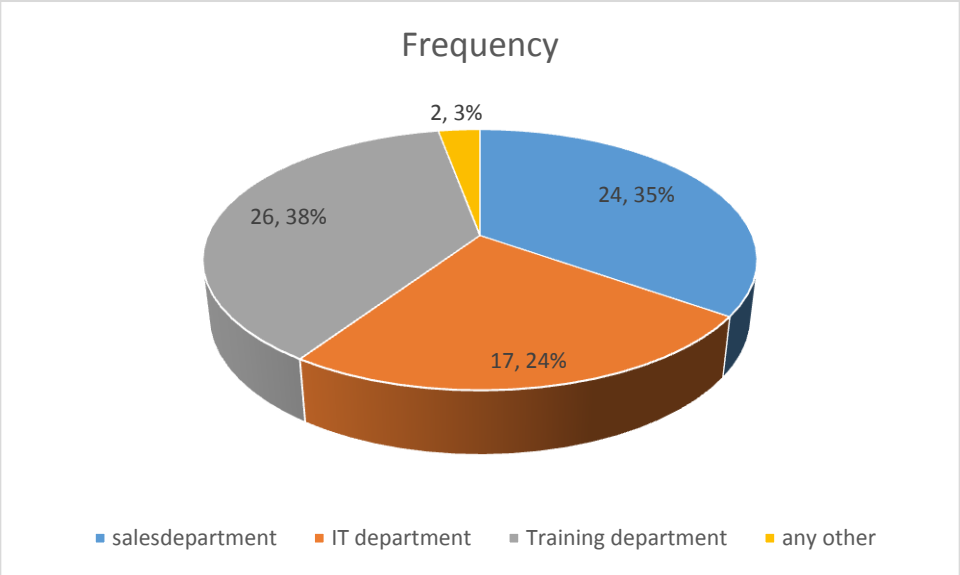


Figure 5 Type of Department Worked

4.2.5 Level of Proficiency?

The respondents were asked to indicate the level of proficiency in social marketing tools. Results in figure 6 show that show that majority of the respondents (54.%) indicated that they had intermediate proficiency skills .30 % of the respondents indicated that level of proficiency in social marketing tools was advanced while finally 16% indicated that they basic proficiency.

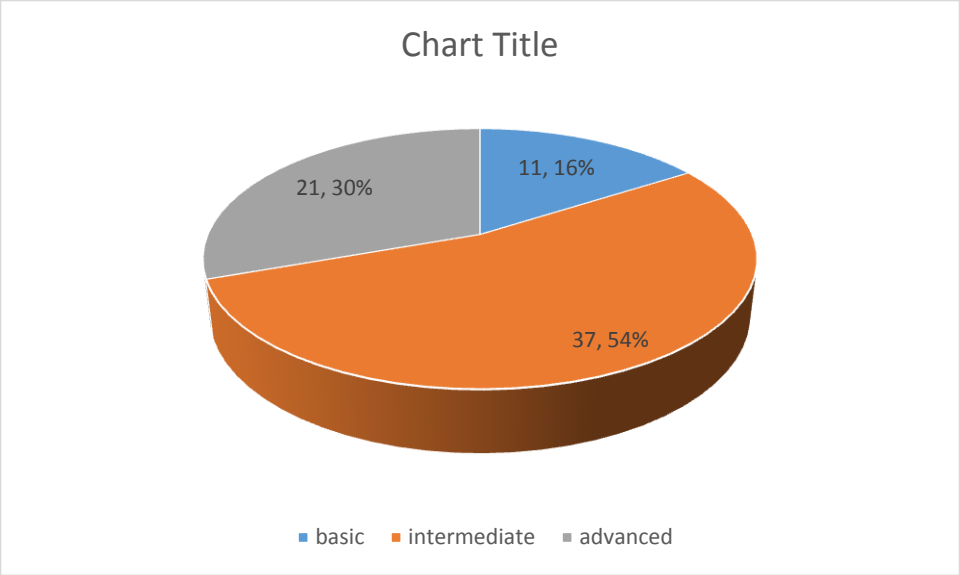


Figure 6 Level of Proficiency

4.3Descriptive Statistics

This section presents the descriptive results of digitalization of records, digital marketing and marketing training: a case study of medical laboratory firms in Nairobi.

4.3.1 Digitalization of Records

The study sought to establish whether Digitalization of Records affects performance of medical laboratory firms in Nairobi, Kenya. The responses were rated on a likert scale and the results presented in Table 4.3.1 below.

A majority of the respondents 44.90% were neutral on the statement that all departments had adopted mechanisms of digitization of records. A majority of the respondents 36.20% were neutral on the statement that the firm had a central fully digitized records center A majority of the respondents 42 % were neutral on the statement that the all departments had adopted mechanisms of digitization of records. A majority of the respondents 53.60% agreed on the statement Digitized records are easy to retrieve, use and refer to in case of emergencies. A majority of the respondents 46.40% were neutral on the statement that the company had experienced reduced running costs due to digitization of records. A majority of the respondents 44.90% agreed on the statement that Digitization is a policy requirement by regulatory bodies and also an upcoming trend. Finally Companies that use traditional methods of records managements are slow and inefficient as shown by a majority of 65.20% of respondents.

Table 1 Digitalization of Records

	strongly disagree	disagree	neutral	agree	strongly agree	Mean	Std. Dev
All departments have adopted mechanisms of digitization of records	2.90%	14.50%	44.90%	34.80%	2.90%	3.20	0.833
The firm has a central fully digitized records center.	2.90%	26.10%	36.20%	31.90%	2.90%	3.06	0.906
All departments have adopted mechanisms of digitization of records	0.00%	26.10%	42.00%	20.30%	11.60%	3.17	0.954
Digitized records are easy to retrieve, use and refer to in case of emergencies	0.00%	5.80%	14.50%	53.60%	26.10%	4.00	0.804
The company has experienced reduced running costs due to digitization of records.	4.30%	5.80%	46.40%	36.20%	7.20%	3.36	0.874
Digitization is a policy requirement by regulatory bodies and also an upcoming trend.	4.30%	5.80%	30.40%	49.30%	10.10%	3.55	0.916
Companies that use traditional methods of records managements are slow and inefficient	2.90%	2.90%	8.70%	65.20%	20.30%	3.97	0.822

4.3.2 Digital Marketing

The study sought to establish the rate of digital uptake in the firm .48% which was a majority of the respondents indicated that rate of digital uptake in the firm was medium 46% of the respondents indicated that rate of digital uptake in the firm was low .Finally 6% indicated that digital uptake in the firm was high.

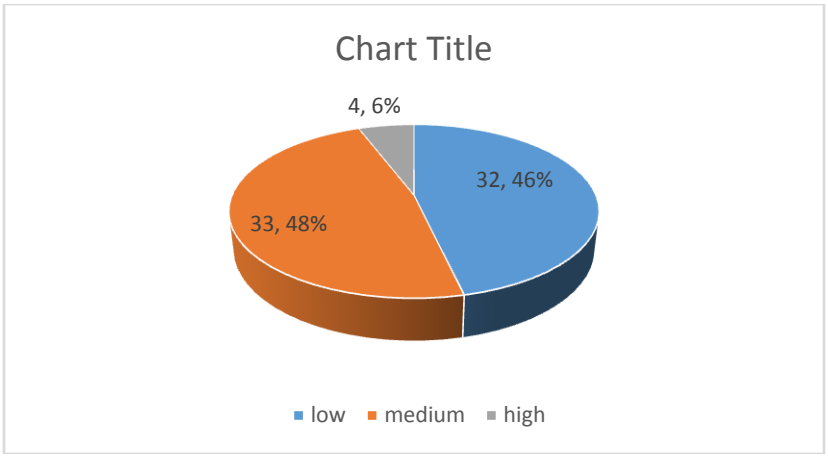


Figure 7 Digital Marketing uptake

The study also wanted to know if digital market affected sales. Results indicated that 87% of the respondents disagreed while 13 % agreed that Digital market affected sales

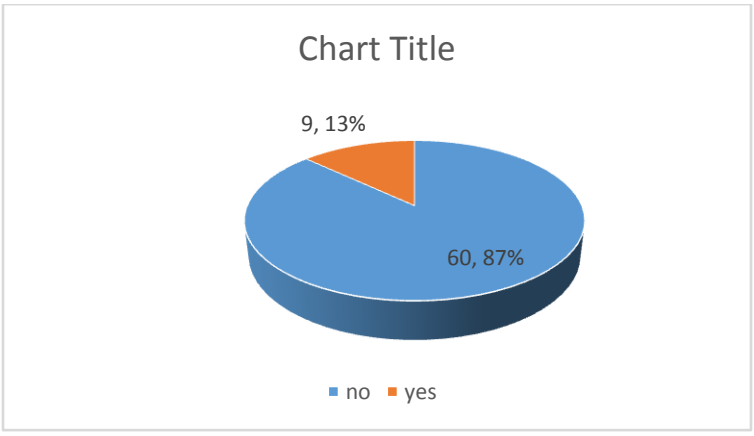
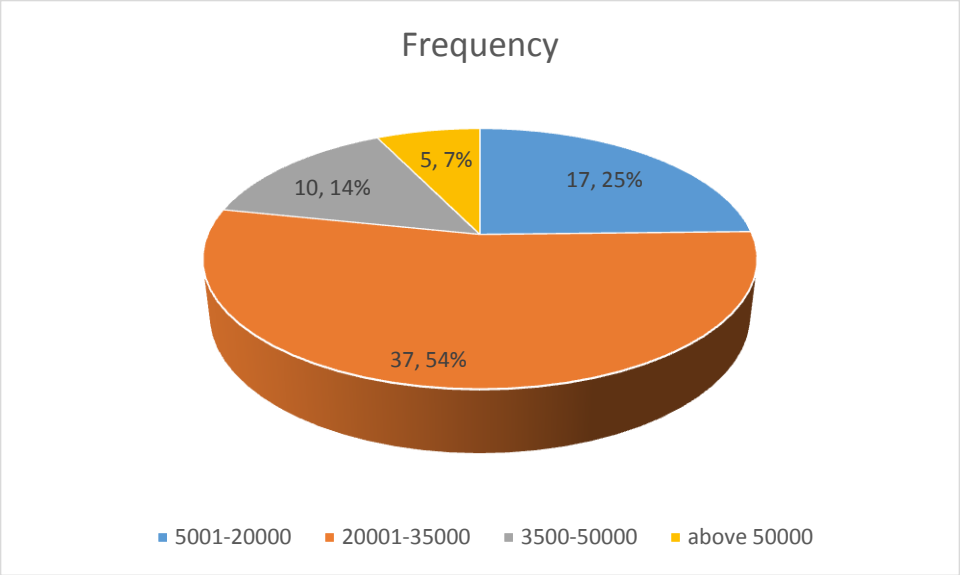


Figure 8Digital opinion sales

The study sought to establish the sales made in a month. Results showed that 54% indicated that sales were between 20001-35000, 25% indicated that sales were between 5001to 2000,14% indicated that sales were 35000 to 50000,finally above 50000 was 7%.



The study sought to establish whether digital marketing affects performance of medical laboratory firms in Nairobi, Kenya. The responses were rated on a likert scale and the results presented in Table 2 below.

A majority of the respondents 63.80% agreed on the statement that Digital marketing was a relatively new trend that firms are adopting. Results in table 4.3.2 below show that a majority of the respondents 41.80% were neutral on the statement that there were no highly accepted methods of digital marketing. Majority of the respondents 43.4 % were agreed on the statement that adoption of digital marketing led to an increased sales volume in the firm. A majority of the respondents 56.0% agreed on the statement that Market level had drastically increased after adoption of digital marketing tools. A majority of the respondents 68.1% were neutral on the statement that Level of interaction between firm and clients had also increased. Finally results indicated that 70.1 % the over the counter transactions has decreased.

Table 2 Digital Marketing

	strongly disagree	disagree	neutral	agree	strongly agree	Mean	Std. Deviation
Digital marketing is a relatively new trend that firms are adopting	0.00%	0.00%	24.60%	63.80%	11.60%	3.2	0.833
There are no highly accepted methods of digital marketing	0.00%	1.50%	47.80%	41.80%	9.00%	3.87	0.592
Adoption of digital marketing has led to an increased sales volume in the firm	0.00%	4.30%	39.10%	40.60%	15.90%	3.58	0.678
Market level has drastically increased after adoption of	0.00%	4.30%	39.10%	46.40%	10.10%	3.68	0.795

digital marketing tools							
Level of interaction between firm and clients has also increased	0.00%	4.30%	27.50%	56.50%	11.60%	3.62	0.73
The over the counter transactions has decreased	1.50%	6.00%	22.40%	58.20%	11.90%	3.75	0.715

4.3.3 Digital Training

The study sought to establish whether digital marketing affects performance of medical laboratory firms in Nairobi, Kenya. The responses were rated on a likert scale and the results presented in Table 4.3.3 below.A majority of the respondents 44.9 0% were neutral on the statement that their firm had adopted regular training programs on Internet proficiency. Results in table 4.3.2 below show that a majority of the respondents 46.4 0% agreed on the statement that Most of these trainings were hands on in nature as opposed to theory .Majority of the respondents 92.5 % were agreeing on the statement that Digital marketing tools are easy to use and highly effective. A majority of the respondents 89.9 % agreed on the statement that Capacity building leads to increased digital marketing tools. A majority of the respondents 92.7 % agreed on the statement that Digital market training gives a firm competitive edge over its rivals

Table 3 Digital Training

	strongly disagree	disagree	neutral	agree	strongly agree	Mean	Std. Dev
Our firm has adopted regular training programs on Internet proficiency.	7.20%	10.10%	44.90%	37.70%	0.00%	3.13	0.873
Most of these trainings are hands on in nature as opposed to theory	7.20%	7.20%	39.10%	46.40%	0.00%	3.25	0.881
Digital marketing tools are easy to use and highly effective.	0.00%	0.00%	7.20%	56.50%	36.20%	4.29	0.597
Capacity building leads to increased digital marketing tools	0.00%	0.00%	10.10%	55.10%	34.80%	4.25	0.628
Digital market training gives a firm competitive edge over its rivals.	0.00%	0.00%	7.20%	56.50%	36.20%	4.29	0.597

4.3.4 Financial Performance

The study sought to establish performance of medical laboratory firms in Nairobi, Kenya. The responses were rated on a likert scale and the results presented in Table 4.3.4 below.Amajority of the respondents 50.7 0% agreed on the statement that their firm financial performance had increased with respect to profits. Results in table 4.3.4 below show that a majority of the respondents 53.6% agreed on the statement that their financial equity had increased over their

rival's .Majority of the respondents 92.5 % were agreeing on the statement that our products enjoy a higher market segment in the market.Majority of the respondents 56.5 % were agreeing on the statement that Returns for investors and shareholders had increased.

Table 4 Financial Performance

	strongly disagree	disagree	neutral	agree	strongly agree	Mean	Std. Dev
Our firm financial performance has increased with respect to profits.	1.40%	13.00 %	34.80%	47.80%	2.90%	3.38	0.806
Our financial equity has increased over our rivals	1.40%	13.00 %	31.90%	50.70%	2.90%	3.41	0.81
Our products enjoy a higher market segment in the market.	5.80%	8.70%	31.90%	47.80%	5.80%	3.39	0.943
Returns for investors and shareholders have increased	5.80%	8.70%	29.00%	53.60%	2.90%	3.39	0.911

4.4 Inferential Statistic

Inferential analysis was conducted to generate correlation results, model of fitness, and analysis of the variance and regression coefficients.

4.4.1 Correlation Analysis

The Table 4.14 below presents the results of the correlation analysis Digitalization of records, digital marketing and marketing training and organizational performance.

Digitalization of records and cost of corganizational performance were positively and significantly correlated (r =0.268, p=0.000).Digital marketing and organizational performance were positively and significantly related (r=0.376, p=0.000).Marketing training and organizational performance were positively and significantly related (r=0.361, p=0.000).This mirrors McDonald and Srinivasan, (2004) who say that Medical laboratory firms are a knowledge-intensive and professional organization, therefore innovation is the key element in improving their environmental adaptability and competitive advantage

Table 5 Correlation Analysis

	Organization Performance	Digitalisation of records	Digital marketing	Digital training

Organization Performance	r	1			
	pvalue				
Digitalisation of records	r	.268	1		
	pvalue	0.000			
Digital marketing	r	.376	0.039	1	
	pvalue	0.000	0.575		
Digital training	r	.361	0.072	.252	1
	pvalue	0.000	0.304	0.000	
	r	0.000	0.048	0.000	0.32

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

4.4.2 Regression Analysis

The results presented in table 4.15 present the fitness of model used of the regression model in explaining the study phenomena. Digitalization of records, digital marketing and marketing training were found to be satisfactory variables in explaining organizational performance. This is supported by coefficient of determination also known as the R square of 36.3%. This means Digitalization of records, digital marketing and marketing training, explain 36.3% of the variations in the dependent variable which is organizational performance. This results further means that the model applied to link the relationship of the variables was satisfactory.

Table 6: Model Fitness

Indicator	**Coefficient**
R	0.602
R Square	0.363
Adjusted R Square	0.487

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

Table 4.15 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables affected organizational performance. This was supported by an F statistic of 6.259 and the reported p value (0.002) which was less than the conventional probability of 0.05 significance level.

Table 7 Analysis of Variance

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.602	3	109.54	6.259	0.002
Residual	0.363	33	0.536		
Total	12.306	36			

Regression of coefficients results in table 4.43 shows that there is a positive and significant relationship between Digitalization of records, digital marketing and digital training as supported

by beta coefficients of 0.37, 0.204 and 0.281 respectively. The findings resonates with Beaver (2002) whobelieves that innovation is an essential element for economic progress of acountry and competitiveness of an industry. Innovation plays an important role not only for large firms, but also for SMEs (Jong and Vermeulen, 2006; Anderson, 2009).Sandvik (2003) argues that innovation is one of the most important competitive weapons and generally seen as a firm's core value capability. Innovation is also considered as an effective way to improve firm's productivity due to the resource constraint issue facing a firm (Lumpkin and Dess, 1996).

Table 8: Regression of Coefficients

	B	**Std. Error**	**Beta**		**Sig.**
(Constant)	1.145	0.259		4.422	0
Digitalization of records	0.181	0.073	0.37	2.478	0.018
Digital marketing	0.12	0.084	0.204	1.426	0.163
digital training	0.14	0.073	0.281	1.93	0.062

: organizational performance

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The primary objective of the study was to assess the influence digitalization of records in organizational performance of medical laboratory firms in Nairobi, Kenya. The findings revealed that digitalisation of records had a positive and significant effect on the organisational performance. The results seem to agree with Conway, (2000).who argues that Digital imaging projects offer unique advantages. Information and content may be delivered directly to end-users, and can be retrieved remotely. Image quality can be quite good, and is often enhanced, with capabilities continuously improving. There is added advantage with the possibility of full-text searching, cross-collection indexing and newly designed user interfaces that allow for new uses of the material and content (Conway, 2000). Flexibility of the digital material is another advantage. Since the data is not "fixed", as with paper or printed text, it is easy to reformat, edit and print(Smith, 2000).

The second objective of the study was to establish the influence digital marketing in organizational performance of medical laboratory firms in Nairobi, Kenya. This was also supported by the regression results which revealed that digital marketing had a positive and significant effect on organisational performance.
The findings resonates Zhang(2013) who says that with Blogs as a tool for digital marketing have successfully created an impact for increasing sales revenue, especially for products where customers can read reviews and write comments about personal experiences. For businesses, online reviews have worked really well as part of their overall strategic marketing strategy online services tools are more influencing than traditional methods of communication (Helm, Möller,

Mauroner, Conrad, 2013). As part of study, it is proven that users experience increase in self-esteem and enjoyment when they adapt to social media which itself is a motivating sign for businesses and marketing professional (Arnott, 2013). Web experiences affect the mental process of consumers and enhance their buying decision online (Cetină, Cristiana,Rădulescu, 2012).
The Internet is the most powerful tool for businesses (Yannopoulos 2011). Marketing managers who fail to utilize the importance of the Internet in their business marketing strategy will be at disadvantage because the Internet is changing the brand, pricing, distribution and promotion strategy.

The third objective of the study was to establish the effect digital training on organisational performance. The findings revealed that digital training had a positive and significant effect on the on organisational performance. This is supported by Brennan and Pearce (2009) also advocate a particular experiential learning technique, but one that is perhaps less well-known – educational drama. This is to be distinguished from conventional role plays (as often used, for example, in sales education (Inks et al., 2011) because the students are involved in researching, designing and reporting on the dramatic scenario; it is, therefore, a more extensive and immersive learning experience than a role play.

5.2 Conclusion

The primary objective of the study was to assess the influence digitalization of records in organizational performance of medical laboratory firms in Nairobi, Kenya .The study concluded that, digitalization of records, digital marketing and marketing training had an effect on organisational performance.

5.3 Recommendations

The primary objective of the study was to assess the influence digitalization of records in organizational performance of medical laboratory firms in Nairobi, Kenya**.** Managers and other departmental heads should consider digitalization of records because Information and content may be delivered directly to end-users, and can be retrieved remotely. Image quality can be quite good, and is often enhanced, with capabilities continuously improving.

The second objective of the study was to establish the influence digital marketing in organizational performance of medical laboratory firms in Nairobi, Kenya. Online advertising is a powerful marketing vehicle for building brands and increasing traffic for companies to achieve success Expectations in terms of producing results and measuring success for advertisement money spent, digital marketing is more cost-efficient for measuring ROI on advertisement. Thus it is recommended that medical laboratory firms in Nairobi, Kenya should cash in this expose to boost their sales.

The third objective of the study was to establish the effect digital training on organisational performance.Effective training programs helps employees to get acquaintance with the desired new technological advancement, also gaining full command on the competencies and skills required to perform at s particular job and to void on the job errors and mistakes. Training therefore should be a policy strategy that medical laboratory firms in Nairobi should follow.

5.4 Further Research Recommendations

The primary objective of the study was to assess the influence digitalization of records in organizational performance of medical laboratory firms in Nairobi, Kenya.The study concluded that, digitalization of records, digital marketing and marketing training had an effect on organizational performance. Future research should be carried out on other medical institutions such as government hospitals.

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