CORPORATE RISK MANAGEMENT PRACTICES AND ORGANIZATIONAL INTERNAL EFFICIENCY IN SELECTED PUBLIC UNIVERSITIES IN NAIROBI METROPOLITAN REGION, KENYA

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CORPORATE RISK MANAGEMENT PRACTICES AND ORGANIZATIONAL INTERNAL EFFICIENCY IN SELECTED PUBLIC UNIVERSITIES IN NAIROBI METROPOLITAN REGION, KENYA

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ABSTRACT

The purpose of this study was to investigate the effect of corporate risk management practices on organizational internal efficiency. The study was hinged on the enterprise risk theory and stakeholders' theory and adopted an explanatory research design. The target population of the study was 270 senior and middle management administrators from four (4) public universities in Nairobi Metropolitan Region. The study used purposive, systematic and simple random sampling techniques to select 90 respondents for the study. Questionnaires, interview schedule and document analysis were used to collect quantitative and qualitative data. The researcher used content experts to establish the validity of the instruments while Cronbach alpha coefficient was used to establish the reliability of the questionnaires whose threshold was at 0.79. Quantitative data was analyzed using descriptive statistics, namely; percentages, mean and standard deviation while the regression analysis was used as the inferential statistics to answer the research questions. Qualitative data was analyzed thematically using Nvivo software. The study established that risk identification practices namely; internal factors, external factors, types of risks and risk knowledge have statistically significant effect on organizational internal efficiency. Further, the study revealed that risk assessment practices such as risk ranking and prioritized risk significantly affect organizational internal efficiency. Moreover, the study showed that risk treatment practices, namely; risk control techniques and contingency plans made significant contribution on organizational internal efficiency. Finally, the findings showed that risk monitoring practices, namely; proper documentation, risk management policy and internal audit had statistically significant effect on organizational internal efficiency.

Key Words: *Risk Identification, Risk Assessment, Risk Treatment, Monitoring Practices*

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INTRODUCTION

Organizational internal efficiency refers to the potential of an organization to execute its plans using available resources. It is a significant factor in organization performance since it measures the extent of favorable outcome of which the organization is able to attain its plans (Adeyinka & Umar, 2013). According to Pinprayong and Siengthai (2012), organizational internal efficiency demonstrates the fine-tuning of the processes and operations within the organization which may include activities such as culture, structure and corporate social responsibility. Through operational excellence in the resource utilization process, organizational internal efficiency can increase the organizations' performance in terms of governance, administration, quality, and productivity (Kumar & Gulati, 2010). World Bank (2014) report indicated that most African countries are struggling with organizational internal efficiency which is below 40% in most public organizations. An efficient organization uses less resources and time to achieve its goals and objectives and enjoys competitive advantage over its associate in long run which leads to customers' satisfaction, quality service delivery and low employee turnover. Different authors have shown that organizational internal efficiency is dependent on corporate risk management practices.

The government has over the years set out requirements for managing risk throughout the public sector as part of the public financial management agenda. The first risk management guidelines for government departments and agencies were published by the Internal Auditor-General department in 2011 following the release of Treasury Circular 3/2009 dated 23rd February, 2009 to introduce formal risk management in government offices and to promote good corporate governance. Subsequently, risk management was enacted into law through the Public Finance Management Act, 2012, sections 12 which requires all accounting officers in public organizations to ensure that organizations develop risk management strategies.

Corporate risk management procedures are critical duties that all firms must complete in order to accomplish their purpose and vision. Under normal circumstances, organizations should identify the different kinds of risks they are likely to face and set up a risk acceptance range so that they can manage the risks and take the vital actions (Lark, 2015). Risk management is critical in public sector enterprises for enhancing the governments' ability to recognize, comprehend, absorb and capitalize on new problems and possibilities. It also aids in assessing uncertainty within decision-making systems, clarifying accountability and demonstrating how best to serve the public interest (Dobrea & Ene, 2006).

Organizations should analyze the external and the internal environment and other underlying factors such as culture, structure, systems, processes and constraints as well as opportunities in identifying and assessing risks. All processes may be in vain if organizations do not properly identify risks. Developing of laws, standards, procedures, policies, rules, regulations, ethics, plans, guidelines and other related corporate documents are key practices that need to be undertaken in risk management process (Kendrick, 2015). Proper risk assessment requires considering the source of risk; evaluating the likelihood of occurrence, ranking the risk identifying potential losses and the effect it may have on the achievement of strategic goals. Proper documentation and reporting enables the organization to compare their outcome against the approved tolerable risk criteria and previously documented policies (Weir & Mcknight, 2012). As per the outcomes, risk control techniques such as transferring, terminating, tolerating and treating the risk through products or service modification can then be adopted (Reddy & Sharma, 2011).

The Universities Act, 2012 governs Kenya's public universities. Public monies are used to support or maintain all public universities. The Act governs the establishment, development, and governance of universities. In the previous six years, the number of

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public institutions has increased dramatically. However, the funding of these public universities has declined due to the rise in number of public institutions as well as funding of students in private universities by the government thus leading to a decrease in the number of students admitted by Kenya universities and colleges central placement service(KUCCPS) in public universities. In order to achieve organizational internal efficiency, public universities must address a number of quality and relevant challenges. In addition, adequate finances to support infrastructural growth have not been matched with the founding of new universities (Government of Kenya, 2012).

Statement of the Problem

Attaining organizational internal efficiency is a major objective of any organization which creates a number of advantages and benefits including both financial and nonfinancial. However, some risks can affect achievement of the internal efficiency in an organization, which can be predicted and prevented by effective implementation of corporate risk management practices Wambugu (2014). Public universities face a myriad of challenges and poor reputation as a result of inefficiencies and budget overruns that hinder effective service delivery. Additionally, failure by public universities to manage risks effectively affects the attainment of organizations strategic, operational, reporting and compliance objectives. Public universities have implemented risk management practices as required by law and respective policies in selected universities (Public sector risk management guidelines, 2020).

Public universities have recently faced high operating costs, increased time to fulfill corporate goals and objectives, and stagnating growth. This necessitates a continual and comprehensive commitment to business risk management techniques. Risk management methods are, in theory, essential to the organizations internal efficiency. It is a strategic priority and a shared duty for all employees of the organization. A strong, disciplined risk management culture exists within organizations. Despite the implementation of corporate risk management strategies in public universities, there is still internal inefficacies in these public universities in Nairobi Metropolitan Region. The current study therefore investigated the effect of corporate risk management practices on organizational internal efficiency in selected public universities in Nairobi Metropolitan Region, Kenya.

Objectives of the Study

The study's objectives are to:

- Determine the effect of risk identification practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya
- Investigate the effect of risk assessment practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya
- Determine the effect of risk treatment practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya
- Examine the effect of risk monitoring practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya.

LITERATURE REVIEW

Empirical Literature Review

Campbell, Tobin and Jeong (2014) employed a descriptive research methodology in their study internal efficiency and turnover intention: Evidence and data was obtained via a survey questionnaire and face-to-face interview. In terms of age, sex, civil service grade, and job type, respondents were picked at random from preset categories to ensure that the sample broadly reflected the community of local government employees. Descriptive statistic and inferential statistic were used to analyze the collected data; the study revealed that a high emphasis on efficiency in local government organizations was linked to higher turnover intentions. However, the finding cannot be

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generalized to public universities as a public sector since it was limited to local government as a single unit in public sector, moreover, local government as a public institution operates in different category from education and challenges in this two sectors may be different therefore there was need to find out how corporate risk management practices in public universities affect organizational internal efficiency.

Risk identification (RI) is the first step in risk management process and entails documenting each potential hazards and opportunities that may arise both inside and outside the company, as well as the circumstances that give rise to them (Okogbuo, F., Ubani, Chinenye, E., Amade, Benedict, Okorocha, Aku., K, &Agwu, A. 2015). The origins, features, causes, and consequences of risk on an organization's processes are defined during the identification phase and the final product is a list of different forms of risk in an organization.

Rostami (2016) examined risk identification tools and strategies in his study on tools and techniques in risk identification. Data was collected through the use of a postal questionnaire. Document review, expert judgment, check list analysis, and information collecting are the most widely utilized tools and techniques in risk identification. The study established that risk identification was the first phase in risk management which creates the framework for the entire process. The findings of the study cannot be applied in the public universities because the study focused on private construction industry which operates under different risk management policies. The current study established whether risk identification has the same importance in guarding risk management in an organization in achieving its objectives and enhancing organizational internal efficiency.

Risk assessment (RA) includes risk analysis and risk evaluation. It is primarily concerned with quantifying risk and it necessitates consideration of the sources of identified risks, an assessment of their potential losses in terms of achieving organizational goals and objectives, and a judgment of the likelihood of occurrence (Tipili & Yakubu, 2016). It is based on the utilization of data and information to support the potential effects of the risk occurring and remaining unresolved. RA can be ranked as high, medium or low depending with the consequences it might have on organizations resources or assets, therefore RA prioritize risks by determining which risks are treated or accepted and the level of engagement of the management in the risk control.

This is a phase of the risk management processes which deals with the decisions on how to deal with risks in the external or internal environment. The strategies available include, risk avoidance, risk reduction and risk acceptance through development of risk response planning, as an integrated part of treating risk and developing a profile of risk (Amaya & Memba, 2015).

Juliane and Alexander (2013) in their study on portfolio hazard the board and accomplishment of IT projects portfolio in UK businesses used a Likert scale questionnaires to collect quantitative data from a sample size comprising 176 firms. The outcome of the scrutiny indicated that risk treatment emphatically affects IT project performance. The examination was however on UK businesses; therefore, the findings may not be extended to the Kenyan context owing to the fact that Kenya is a developing nation whereas the UK is a developed nation, therefore, the current study sought to find out how risk treatment practices affect organizational internal efficiency in public universities.

Risk monitoring is a series of activities aimed at detecting changes in the specific threats faced by the company. The organization's level of control must be suitable for the risk it faces. To manage risk, the organization must have effective reporting mechanisms in place. Action plans must be included in implementation decisions about identified risks as part of the risk response. The company needs to put together a team to keep track of the risk and report on it on a regular basis (Nair, Purohit & Choudhary, 2014).

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Theoretical Framework

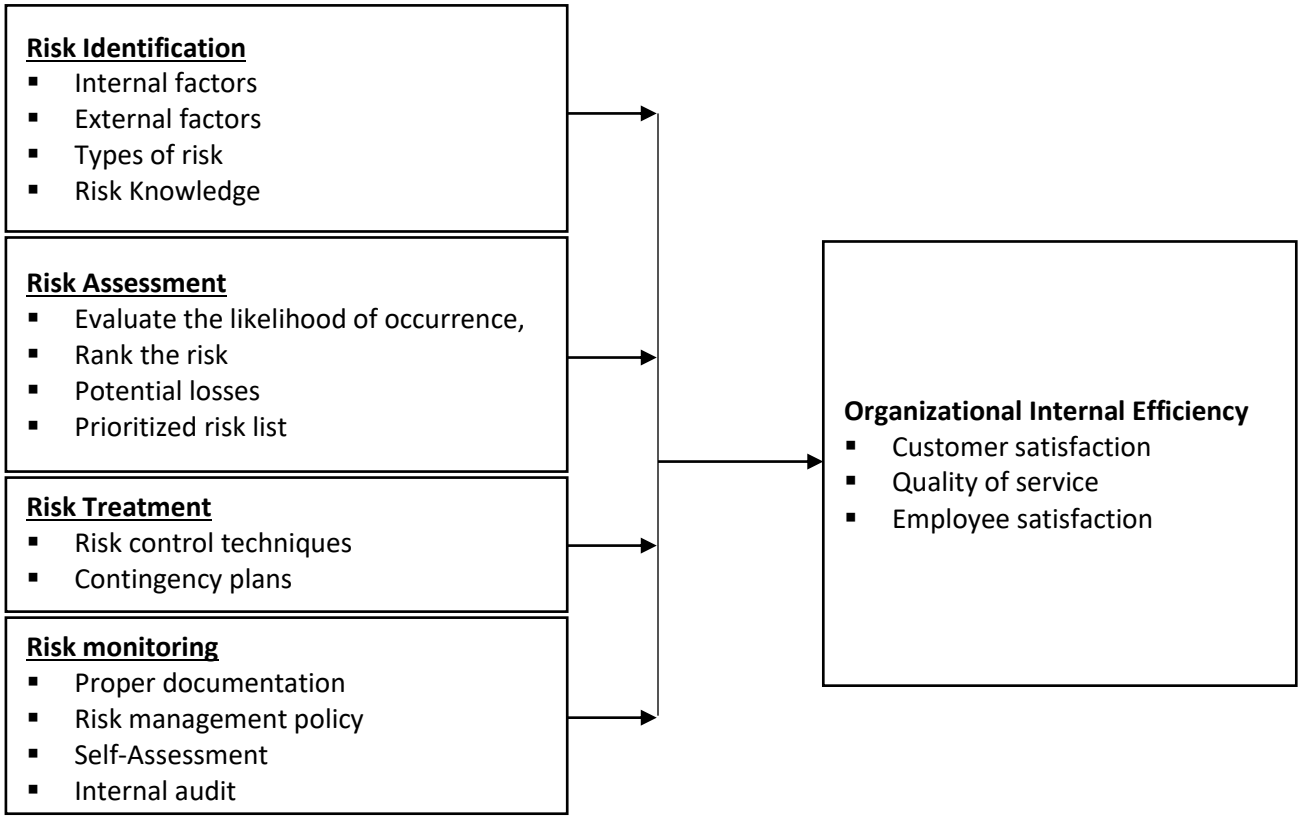
Enterprise Risk Management Theory

Enterprise Risk Management (ERM) is a risk management paradigm that champions for the quantifying and governance of substantial risk affecting the entire firm rather than handling each risk individually (Nocco & Stulz 2006). The main goal is to bring all of an organization's risk management practices under one umbrella. According to the ERM framework for risk management, senior corporate leaders and personnel should be actively incorporated in the organizations risk management activities (Hallowell, Molenaar & Fortunato, 2013). This is to encourage each and every employee to participate in organizations risk management practices. The necessity of well-defined risk management systems and procedures is also emphasized by the ERM theory.

Stakeholders Theory

As first stated by Dr. F. Edward Freeman in 1984. The stakeholder theory depicts an organization as a multidimensional network of multidimensional relationships with a broad collection of stakeholders that is multiplex, vibrant, and interrelated. Performance and competitiveness are determined by how successfully organizations manage and build these strategic relationships in order to achieve corporate goals, as well as how stakeholders perceive them to be managed in their best interests. (Zsolnai, 2006). Stakeholder theory was developed as a pre-risk management effort for risk prevention and readiness measures in the risk management process. Throughout the risk management process, organizations should continue to identify, manage, and communicate risks to key stakeholders. Firms must identify risk stakeholders and include them in the risk management process if they want to be stakeholder-oriented.

Conceptual Framework



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

METHODOLOGY

This study employed explanatory research design to explain the effects of corporate risk management practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. The target population for the study was 270 senior and middle level administrators in internal audit and risk department, quality assurance systems department and human resource department from selected public universities in Kenya's Nairobi Metropolitan Region. The study used purposive sampling to select public university in Nairobi Metropolitan Region. A sample of 90 staffs was selected to participate in the study.

The study used three research instruments, namely; questionnaires, interview schedules and document analysis guide. The collected data was processed, evaluated and presented in accordance with the rules, according to Kothari and Gang (2014). The researcher used SPSS version (22) to organize quantitative data which was eventually analyzed using descriptive and inferential statistics, namely; percentages, mean and standard deviation. Multiple regression analysis will be used to study the relationship between the dependent variable (Y) of organizational internal efficiency and the independent variables (X) of corporate risk management approaches.

The equation for multiple regression is as follows;

$Y= \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$ where:

Y = Organization Internal efficiency

x_1 = Risk identification

x_2 = Risk assessment

x_3 = Risk treatment

x_4 = Risk Monitoring

α = Constant (coefficient of intercept)

$\beta_1, \beta_2, \beta_3, \beta_4$ are the regression coefficients

ε = Error term

Qualitative data was analyzed thematically using N-vivo software and reported in verbatim. Findings were presented in tables.

FINDINGS

Descriptive Analysis

The researcher requested middle level administrators to respond to items related to corporate risk management practices and organizational internal efficiency in the questionnaire on a 5 point Likert scale. The responses were ranging from Strongly Disagree (SD) [1] to Strongly Agree (SA) [5].

The analysis was done using weighted average of the responses and their standard deviations. Weighted average of 3.50-5.00 indicates agreement to a statement while a range of 1.00-1.49 indicates disagreement to a statement. Specifically, weighted average of 1.00-1.49 represents strongly disagree; 1.50-2.49 represents disagree; 2.50-3.49 represents neutral; 3.50-4.49 represents agree and 4.50-5.00 represents strongly agree (Joshi, Kale, Chandel, & Pal 2015).

Risk Identification Practices and Organizational Internal Efficiency

The first objective sought to determine the effect of risk identification practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. To achieve this objective, the researcher administered questionnaires to middle level administrators, interviewed senior administrators as well as analyzed selected documents. Table 1 summarizes the findings from middle level administrators.

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Table 1: Responses of Middle Level Administrators on Risk Identification Practices

Statement	SD		D		U		A		SA		Mean	Std. Dev.
	N	%	N	%	N	%	N	%	N	%		
The departmental risk coordinator does risk inspection occasionally	15	21.6	19	27.6	2	2.5	22	31.7	11	16.6	2.74	1.26
The criteria for risk identification is clearly stated in our organization	7	10.1	17	24.6	1	1.5	25	36.2	19	27.6	3.27	1.38
Brainstorming is a way of risk identification	15	21.6	22	31.7	3	5	24	34.2	5	7.5	2.74	1.33
Employee feedback is has a role on risk identification	3	5	12	17.6	1	2	37	53.3	16	22.1	3.60	1.05
Risk identification is an ongoing processes in an organization	10	14.1	22	31.7	2	3	29	42.7	6	8.5	3.20	1.19
Establishment of procedures and policies enhance identification of risk	14	20.1	30	43.7	5	7.5	16	22.1	4	6.5	2.41	1.12
Organization trains the workforce on risk identification and management	6	8	12	17.6	5	7.5	33	47.7	13	19.1	3.62	1.31
Risk identification involves categorization of risk in an organization	9	13.6	26	37.7	5	6.5	17	24.6	12	17.6	2.85	1.27
Environmental factors which cause risk to an organization are identified	21	30.7	28	41.2	4	5.5	12	16.6	4	6	2.36	1.33
Risk identification describes natural disasters which cause risk to an organization	8	11.6	13	18.6	7	10.6	38	55.3	3	4	3.22	1.15

Table 1 presents respondents responses on corporate risk management practices and organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. Accordingly, the findings show that slightly less than one quarter (21.6%) of the middle level administrators strongly disagreed that departmental risk coordinator does risk inspection occasionally whereas slightly more than one quarter (27.6%) disagreed with the statement. Further, the findings indicate that slightly less than one third (31.7%) of the middle level administrators agreed that departmental risk coordinator does risk inspection occasionally while only 16.6% of the respondents strongly agreed with the statement. The statement had a mean and standard deviation

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of 2.74 and 1.26 respectively, an indication that most middle level administrators neither disagreed or agreed that departmental risk coordinator does risk inspection occasionally in the selected public universities. The finding could be attributed to less attention given by public universities on occasional risk inspection.

The findings also show that one tenth (10.%) of the middle level administrators strongly disagreed that criteria for risk identification was clearly stated in their organizations whereas almost one quarter (24.6%) of the same respondents disagreed with the statement. However, more than one third (36.2%) of the middle level administrators and slightly more than one quarter (27.6%) agreed and strongly agreed respectively that criteria for risk identification was clearly stated in their organizations. The statement generated a mean and standard deviation of 3.27 and 1.38 respectively, an implication that most of the middle level administrators agreed that a criterion for risk identification was clearly stated in their organizations. The results could be attributed to the fact that sampled public universities were ISO 9001: 2015 certified and therefore they were required to clearly state the criteria for risk identification.

Findings also indicate that slightly more than one fifth (21.6%) of the middle level administrators strongly disagreed that brainstorming was a way of risk identification while slightly less than one third (31.7%) of the middle level administrators disagreed. On the other hand, slightly more than one third (34.2%) of the senior administrators agreed that brainstorming was a way of risk identification in their organizations while only 7.5% of the respondents strongly agreed with the statement. The statement generated a mean and standard deviation of 2.74 and 1.33 implying that most middle level administrators neither disagreed or agreed that brainstorming was a way of risk identification in their organizations. The finding could be as a result of management in public universities failing to embrace brainstorming as method of risk identification.

Similarly, the findings in Table 1 illustrate that less than one tenth (5%) of the senior administrators strongly disagreed that employee feedback had a role on risk identification whereas slightly less than one fifth (17.6%) of the respondents disagreed with the statement. In addition, the findings show that slightly more than one half (53.3%) of the senior administrators agreed that employee feedback had a role on risk identification while slightly more than one fifth (22.1%) strongly agreed with the statement. The item had a mean of 3.6 and a standard deviation of 1.05, an indication that most middle level administrators agreed that employee feedback had a role on risk identification. The finding could be attributed to the fact that employees in public universities face various risks in their day to day operations and thus their feedback is vital as regards identification of risks.

Further, results in Table 1 show that less than one fifth (14.1%) of the middle level administrators strongly disagreed that risk identification was an ongoing process in their organizations while slightly less than one third (31.7%) of the respondents disagreed. Similarly, the findings illustrate that slightly more than two fifth (42.7%) of the middle level administrators agreed that risk identification was an ongoing process in their organizations whereas only 8.5% of the respondents strongly agreed with the statement. The item generated a mean of 3.2 and a standard deviation of 1.19 which implies that more than half of the respondents agreed that risk identification was an ongoing process in their organization. This finding may be as a result of the changing nature of risk in public universities which require continuous identification.

The findings also illustrate that one fifth (20.1%) of the middle level administrators strongly disagreed that establishment of procedures and policies enhance identification of risk while more than two fifth (43.7%) disagreed with the statement.

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Moreover, results indicate that slightly more than one fifth (22.1%) of the middle level administrators agreed that establishment of procedures and policies enhance identification of risk while an insignificant proportion (6.5%) of the respondents strongly agreed with the statement. The statement had a mean and standard deviation of 2.41 and 1.12 implying that majority of the middle level administrators disagreed that establishment of procedures and policies enhance identification of risk. This finding could be as a result of unclear policies and procedures which fail to aid in risk identification in public universities.

Findings in Table 1 also illustrate that less than one tenth (8.0%) and slightly less than one fifth (17.6%) of the middle level administrators strongly disagreed and disagreed respectively that organizations train the workforce on risk identification and management. On the other hand, slightly less than one half (47.7%) of the middle level administrators agreed that organizations train the workforce on risk identification and management while slightly less than one fifth (19.1%) of the respondents strongly agreed with the statement. The item generated a mean and standard deviation of 3.62 and 1.31 respectively which implies that most middle level administrators agreed that organizations train the workforce on risk identification and management. The finding could be as a result of ISO 90001:2015 which requires public universities to train their employees on risk identification and management.

The findings in Table 1 further indicate that slightly more than one tenth (13.6%) of the middle level administrators strongly disagreed that risk identification involve categorization of risk in their organizations while more than one third (37.7%) of the middle level administrators disagreed with the statement. Similarly, the findings show that slightly less than one quarter (24.6%) of the senior administrators agreed that risk identification involve categorization of risk in their organizations while a significant number (17.6%) of the respondents strongly agreed with the statement.

The findings also indicate that the item had a mean and standard deviation of 2.85 and 1.27 respectively, an indication that majority of the middle level administrators disagreed that risk identification involve categorization of risk in their organizations. The finding implies that employees in public universities are not aware on how to categorize risks in their institutions.

Results displayed in Table 1 further indicate that almost one third (30.7%) of the middle level administrators strongly disagreed that environmental factors which cause risks to their organizations are identified while two fifth (41.2%) of the respondents disagreed. Similarly, the findings indicate that less than one fifth (16.6%) of the middle level administrators agreed that environmental factors which cause risks to their organizations are identified whereas an insignificant number (6.0%) of the middle level administrators strongly agreed with the statement. The item had a mean of 2.36 and a standard deviation of 1.33 which implies that most middle level administrators disagreed that environmental factors which cause risks to their organizations are identified. The reason for this finding may be that employees in public universities have been trained on environmental factors that are likely to pose risks to their institutions.

Similarly, the findings in Table 1 indicated that slightly more than one tenth (11.6%) strongly disagreed that risk identification describes natural disasters which cause risk to an organization while slightly less than one fifth (18.6%) disagreed. Finally, the findings show that more than one half (55.3%) of the middle level administrators agreed that risk identification describes natural disasters which cause risk to an organization while an insignificant number (4.0%) strongly agreed with the statement.

The item had a mean and standard deviation of 3.22 and 1.15 respectively, an indication that

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majority of the middle level administrators agreed that risk identification describes natural disasters which cause risk to an organization. The finding could be attributed to trainings organized by public universities for their employees on how natural disasters can cause risks to institutions.

The qualitative findings from the senior administrators agreed with the quantitative results. For example, one of the senior administrators (SA/11/2022) had this to say:

> Each department in the university has a person who is in charge of coordinating risks, the person is referred to as departmental risk coordinator. The role of the risk coordinator includes identifying all risks a department may be exposed to. As regards risk identification, the risk coordinator usually organizes meetings where employees brainstorm on potential risks in their departments. The risk coordinator also sometimes requests for feedback from the employees regarding risks that they face in their day to day activities in their departments.

In addition, another senior administrator (SA/03/2022) reported:

> In our university, an individual has been designated to be in-charge of risks including potential ones which are likely to face departments and units. The person in charge is tasked with coordinating all departments and units in the entire university and he/she reports the potential risks to a committee in the university who ultimately handles the way risks are mitigated.

The qualitative findings imply that public universities have identified individuals to coordinate risk identification activities.

Analysis of data obtained from minutes of risk management committee supported the findings from the middle level and senior level administrators. For instance, the study revealed that risk management committees in almost all departments in selected universities had a substantive agenda on risk identification practices. The minutes further indicated different methods such as brainstorming and feedback from members of staff in respective departments as ways of identifying risks in each department.

The findings are in agreement with those of other scholars. For example, Okogbuo et al., (2015) indicated that origins, features, causes, and consequences of risk on an organization's processes are defined during the identification phase and the final product is a list of different forms of risk in an organization. Further, Rostami (2016) who examined risk identification tools and strategies revealed that risk identification is important to risk management success as it creates the framework for the entire process.

Risk Assessment and Organizational Internal Efficiency

The second objective of the study sought to investigate the effect of risk assessment practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. In an attempt to achieve the objective, the researcher administered questionnaires to middle level administrators, interviewed senior administrators and analyzed selected documents. The findings from middle level administrators are shown in Table 2.

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Table 2: Responses of Middle Level Administrators on risk assessment practices

	SD		D		U		A		SA		Mean	SD
	N	%	N	%	N	%	N	%	N	%		
Risk assessment is carried out by qualified person or a group of people who have a thorough understanding of the scenario.	17	24.6	30	42.7	4	6	15	22.6	8	3	2.29	1.10
Risk assessment is done after identifying risks	29	41.7	22	32.7	7	10.6	9	12.6	2	2.5	2.12	1.22
Risk assessment determines when risk will occur	21	30.2	34	49.2	5	7	7	11.1	2	2.5	2.17	1.12
Risk assessment determines the potential impact of risk to an organization	18	26.6	20	29.1	11	15.6	15	21.6	5	7	2.42	1.17
Ranking of risk enhances the risk assessment by creation of action list	13	19.1	18	24.6	7	11.1	13	19.1	18	26.1	3.18	1.19
Risk is assessed using quantitative and qualitative methods	11	15.6	8	12.1	14	20.6	20	29.1	16	22.6	3.31	1.36
Prioritizing risk is one way of determining which risk is most serious to control first	10	15.1	12	17.1	10	14.6	26	37.7	11	15.6	3.11	1.21
Risk assessment involves identifying actions necessary to control risk occurrence in an organization	17	24.6	11	15.6	6	9	25	36.7	10	14.1	3.12	1.55
Records detailing the processes used to assess risk are well kept in an organization	15	22.1	14	20.1	19	27.6	11	16.1	10	14.1	2.70	1.33

Table 2 displays findings on middle level administrators responses on risk assessment practices and organizational internal efficiency. Results show that almost one quarter (24.6%) of the middle level administrators strongly disagreed that risk assessment was carried out by a qualified person or a group of people who have thorough understanding of the scenario. Similarly, results indicate that majority (42.7%) of the senior administrators disagreed that risk assessment was carried out by a qualified person or a group of people who have a thorough understanding of the scenario. However, slightly more than two fifth (22.6%) of the middle level administrators agreed that risk assessment was carried out by a qualified person or a group of people who have a thorough understanding of the scenario whereas an insignificant number (3.0%) of the respondents strongly agreed with the statement. The item had a mean and a standard deviation of 2.29 and 1.10 respectively, an indication that most middle level administrators disagreed with the statement. The

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finding may be as a result of public universities using internal staffs who are not specifically trained to conduct risk assessment.

Similarly, results also show that majority (41.7%) of the middle level administrators strongly disagreed that risk assessment was done in their organizations when risks were identified whereas almost one third (32.7%) of the respondents disagreed. Moreover, results indicate that slightly more than one tenth (12.6%) of the middle level administrators agreed that risk assessment was done in their organizations when risks were identified while the minority (2.5%) strongly agreed. The statement had a mean of 2.12 and a standard deviation of 1.22 implying that majority of the middle level administrators disagreed that risk assessment was done in their organizations when risks were identified. This finding could be attributed to negligence by public universities to conduct risk assessment at the right time when new risks are identified.

Results in Table 2 also illustrate that almost half (49.2%) of the middle level administrators disagreed that risk assessment determines the likelihood of the risk occurring while nearly one third (30.2%) of the middle level administrators strongly disagreed. In addition, results show that a sizeable number (11.1%) agreed that risk assessment determines the likelihood of the risk occurring while and insignificant number strongly agreed. The statement generated a mean and standard deviation of 2.17 and 1.12 respectively which means that most middle level administrators disagreed that risk assessment determines the likelihood of the risk occurring. The finding is attributed to fact that some risks are unpredictable thus risk assessment may not determine whether they occur or not.

The findings further indicate that slightly more than one quarter (26.6%) of the middle level administrators strongly disagreed that risk assessment determines the potential impact of risk to an organization while more than one quarter (29.1%) disagreed with the statement. Similarly, results indicate that slightly more than one fifth (21.6%) of the middle level administrators agreed that risk assessment determines the potential impact of risk to an organization whereas a sizeable number (7.0%) strongly agreed with the statement. The item generated a mean and standard deviation of 2.42 and 1.17 respectively, an indication that majority of the middle level administrators disagreed that risk assessment determines the potential impact of risk to an organization. The finding could be as a result of the unforeseen consequences caused by the risk which may not be attributed to assessment of the risk.

Furthermore, the findings in Table 2 show that slightly less than one fifth (19.1%) strongly disagreed that ranking of risk enhances the risk assessment by creation of action list whereas almost one quarter (24.6%) disagreed with the statement. Similarly, the results show that almost one fifth (19.1%) agreed that ranking of risk enhances the risk assessment by creation of action list while slightly more than one quarter (26.1%) strongly agreed with the statement. Results also show that the item had a mean of 3.18 and a standard deviation of 1.19 implying that majority of the respondents agreed that ranking of risk enhances the risk assessment by creation of action list. The finding could be as result of the vitality of ranking risks in providing insights to the public universities on where to allocate more resources to mitigate the occurrence of risks.

Results in Table 2 also illustrate that more than one tenth (15.6%) of the middle level administrators strongly agreed that risk was assessed using quantitative and qualitative methods whereas a sizeable number (12.1%) agreed. Similarly, more than one quarter (29.1%) of the middle level administrators agreed that risk was assessed using quantitative and qualitative methods while slightly more than one fifth (22.6%) strongly agreed. Further, findings indicate that the item had a mean and standard deviation of 3.31 and 1.36 respectively which shows that majority of the middle level administrators agreed that risk was

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assessed using quantitative and qualitative methods. This finding could be attributed to the fact that risk assessment is conventionally done using both quantitative and qualitative methods globally.

In addition, results in Table 2 indicate that more than one tenth (15.1%) of the middle level administrators strongly disagreed that prioritizing risk was one way of determining which risk was most serious to control first while almost one fifth (17.1%) disagreed. However, results show that more than two third (37.7%) of the middle level administrators agreed that prioritizing risk was one way of determining which risk was most serious to control first while a sizeable number (15.6%) strongly agreed with the statement. The item generated a mean of 3.11 and a standard deviation of 1.21 an indication that majority of the middle level administrators agreed that prioritizing risk was one way of determining which risk was most serious to control first. The finding is attributable to the fact that risk prioritization leads to efficient and effective risk management.

Results contained in the table also illustrate that almost one quarter (24.6%) of the middle level administrators strongly disagreed that risk assessment involves identifying actions necessary to control risk occurrence in an organization a sizeable number (15.6%) disagreed. Further, more than one third (36.7%) of the middle level administrators agreed that risk assessment involves identifying actions necessary to control risk occurrence in an organization while slightly more than one tenth (14.1%) of the respondents strongly agreed with the statement. Results also indicate that the statement had a mean and standard deviation of 3.12 and 1.55 respectively which implies that majority of the middle level administrators agreed that risk assessment involved identifying actions necessary to control risk occurrence in an organization. The finding is attributable to the procedure set up in public universities on how to carry out risk assessment.

Moreover, findings show that slightly more than one fifth (22.1%) of the middle level administrators strongly disagreed that records detailing the processes used to assess risk are well kept in their organizations while one fifth (20.1%) of the respondents disagreed. Similarly, results indicate that slightly more than one quarter remained neither agreed nor disagreed. Further, more than one tenth (16.1%) of the middle level administrators agreed that records detailing the processes used to assess risk are well kept in their organizations whereas a sizeable number (14.1%) of the middle level administrators strongly agreed with the statement. Finally, the results show that the item had a mean of 2.7 and a standard deviation of 1.33 which is an indication that majority of the middle level administrators disagreed that records detailing the processes used to assess risk were well kept in their organizations. The finding could be as a result of the difficulty in retrieving records containing risks assessment procedures in public universities.

Interviews with senior administrators were in tandem with the quantitative findings. For example one of the senior administrators (SA/09/2022) had this to say:

> Risks assessment in public universities affect cost management in that when ranking and prioritization of risk are carried out, the university is able to attend to those risks which are most likely to occur and thus resources are allocated to mitigate risks which are likely to highly negatively impact the university.

Another senior administrator (SA/12/2022) revealed:

> Risk assessment is very important in our university because it helps us to identify potential losses in time and therefore we are able to specify the right control measure which is best suited to control and reduce the specified risk.

Senior administrator SA/05/2022 reported:

> The quality management system department is the custodian of the procedures followed in assessing risk in the university and this

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procedures are communicated to the department from time to time and when need arises.

Results from the analysis of the risk register in every department in the selected universities revealed that all the departments had risk registers; however, the risks were not ranked in their likelihood of occurrence in most departments. Moreover, the potential losses were also not identified in the risk registers in the departments.

The findings are in tandem with results of a study by Tipili and Yakubu (2016) which established that quantifying risk necessitates consideration of the sources of identified risks as well as their potential losses. In addition, the study also established that risk assessment prioritizes risks by determining which risks will be treated or accepted and the level of engagement of the management in the risk control. Similarly, the findings agree with those of Roque and de Carvalho (2013) in Brazil which revealed that risk assessment had a considerable beneficial impact on project prosperity because project workers were able to detect and mitigate risks to a larger extent.

Risk Treatment Practices and Organizational Internal Efficiency

The third objective of the study sought to determine the effect of risk treatment practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. In an attempt to achieve the objective, the researcher administered questionnaires to middle level administrators, interviewed senior administrators and analyzed selected documents. The findings obtained from middle level administrators are contained in Table 3.

Table 3: Responses of Middle Level Administrators on Risk Treatment Practices

Statement	SD		D		U		A		SA		Mean	SD.
	N	%	N	%	N	%	N	%	N	%		
Organization identifies the best treatments to reduce risk	42	60.3	20	28.1	3	5	3	5	1	1.5	1.48	0.80
Organization has laid down the implementation strategy, for the treatment option adopted	41	59.3	21	30.2	2	2.5	3	5	2	3	1.51	0.8
Organization always state those responsible for the treatment plan	43	62.3	19	27.6	3	4.5	3	4.5	1	1	1.65	0.97
The contingencies plan are well indicated to stakeholders	6	8.5	4	6	5	7.5	21	30.7	33	47.2	4.13	1.36
The contingencies plan are well communicated to stakeholders	35	50.8	23	32.2	5	7.5	5	7.5	1	2	1.89	1.12
All treatments plans identifies the proposed action	36	51.8	22	31.7	3	5.5	7	10.6	1	0.5	1.65	0.88
All treatments plans identifies when action will commence	34	49.2	23	33.7	6	8.5	5	7	1	1.5	1.67	0.87
All treatments plans identifies when it will be completed	42	61.8	21	30.2	3	4	2	3	1	1	1.51	0.80
All treatment plans state the required reporting	36	52.8	25	35.2	4	5.5	3	4.5	1	2	1.68	0.92
All treatment plans state the required key performance measures	41	61.3	18	25.6	5	6.5	3	4	2	2.5	1.61	0.96

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Table 3 displays responses of middle level administrators on risk treatment practices and organizational internal efficiency. Accordingly, results show that two third (60.3%) of middle level administrators strongly disagreed that their organizations identify the best treatments to reduce risk while almost one third (28.1%) of the respondents disagreed with the statement. Similarly, findings indicate that a sizeable number (5.0%) of middle level administrators agreed that their organizations identify the best treatments to reduce risk while an insignificant number strongly agreed with the statement. The item had a mean and standard deviation of 1.48 and 0.80, an indication that most middle level administrators disagreed that their organizations identify the best treatments to reduce risk. The finding could be attributed to inadequate resources in public universities to choose best treatments to reduce risk.

The findings also show that almost two third (59.3%) of the middle level administrators strongly disagreed that their organizations had laid down the implementation strategy for the treatment option adopted while one third (30.2%) disagreed. Similarly, sizeable number (5.0%) of the middle level administrators agreed that their organizations had laid down the implementation strategy for the treatment option adopted whereas an insignificant number (3.0%) strongly agreed. The item generated a mean of 1.51 and a standard deviation of 0.8 which means that most middle level administrators disagreed that their organizations had laid down the implementation strategy for the treatment option adopted. The finding could be as a result of the dynamic nature of risks which makes it cumbersome to have implementation strategies for all identified treatment options in public universities.

Results in the table also show that slightly more than two third (62.3%) of middle level administrators strongly disagreed that their organizations always state those responsible for the treatment plan while slightly more than one quarter (27.6%) of the respondents disagreed. In addition, findings in the table illustrate that a sizeable number (4.5%) of middle level administrators agreed that their organizations always state those responsible for the treatment plan while an insignificant number (1.0%) strongly agreed with statement. The statement had a mean of 1.65 and a standard deviation of 0.97 implying that most middle level administrators disagreed that their organizations always state those responsible for the treatment plan. The finding is attributable to the assumption that all staff members are responsible for risk treatment in public universities.

Moreover, the results illustrate that slightly less than one tenth (8.5%) of the middle level administrators strongly disagreed that contingencies plans are well indicated to stakeholders involved while only 6.0% disagreed with the statement. On the other hand, almost one third (30.7%) of the middle level administrators agreed that contingencies plans are well indicated to stakeholders involved while almost half (47.2%) of the respondents strongly agreed with the statement. The statement had a mean and a standard deviation of 4.13 and 1.36 respectively, an illustration that most middle level administrators agreed that contingencies plans are well indicated to stakeholders involved. The finding is as a result of the requirement by ISO 90001:2015 that universities indicate contingencies plans to their stakeholders.

Results further show that half (50.8%) of the middle level administrators strongly agreed that contingencies plan are well communicated to stakeholders involved while almost one third (32.2%) of the respondents agreed. On the other hand, an insignificant number (2.0%) of the middle level administrators strongly disagreed that contingencies plan are well communicated to stakeholders involved while a sizeable number (7.5%) of the middle level administrators disagreed with the statement. The item had a mean and

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standard deviation of 4.89 and 1.12 respectively which imply that most middle level administrators agreed that contingencies plan are well communicated to stakeholders involved. This finding could as a result of the need to involve all the stakeholders in the processes of risk management through communication.

Moreover, findings also indicate that slightly more than half (51.8%) of the middle level administrators strongly disagreed that all treatment plans identify proposed action while almost one third (31.7%) of the respondents disagreed. On the other hand, one tenth (10.6%) of the middle level administrators agreed that all treatment plans identify proposed action while an insignificant number (0.5%) strongly agreed. The mean and standard deviation for the item were 1.65 and 0.88 meaning that most middle level administrators disagreed that all treatment plans identify proposed action. The finding means that not all treatments plans in public universities indicate proposed action plans for risk treatment. This is because having a treatment plans require expertise to come up with action plans which may not be available in public universities.

In addition, results illustrate that almost half (49.2%) of the middle level administrators strongly disagreed that all treatment plans identify when action will commence while one third (33.7%) agreed with the statement. On the other hand, less than one tenth (7.0%) agreed that all treatment plans identify when action will commence while an insignificant number (1.5%) of the respondents strongly agreed. The item generated a mean of 1.67 and standard deviation of 0.87 implying that most middle level administrators disagreed that all treatment plans identify when action will commence. The finding could be attributed to ineffective treatment plans in public universities.

The findings displayed in the table also indicate that slightly more than two third (61.8%) of the middle level administrators strongly disagreed that all treatment plans identify when it will be completed while almost one third (30.2%) of the respondents disagreed. Results also show that only 3.0% of the middle level administrators agreed that all treatment plans identify when it will be completed while an insignificant number (1.0%) strongly agreed with the statement. The item had a mean of 1.51 and a standard deviation of 0.80 indicating that most middle level administrators disagreed that all treatment plans identify when it will be completed. The finding could be attributed to the dynamic nature of risks and unpredictability of the same and thus treatment plans may not be able to identify when to end.

Results in the table also reveal that slightly more than half (52.8%) of the middle level administrators strongly disagreed that all treatment plans state the required reporting while more than one third agreed with the statement. Similarly, results also indicate that a sizeable number (4.5%) of the middle level administrators agreed that all treatment plans state the required reporting whereas an insignificant number (2.0%) strongly agreed with the statement. The statement had a mean of 1.68 and a standard deviation of 0.92, an indication that most middle level administrators disagreed that all treatment plans state the required reporting. The finding could be as a result of negligence on the part of risk management committees to ensure that the required reporting is incorporated in the treatment plans.

Findings in the table also reveal that slightly more than three fifth (61.3%) of the middle level administrators strongly disagreed that all treatment plans state the required key performance measures while one quarter of the respondents disagreed with the statement. Similarly, the results also indicate that only 4.0% of the middle level administrators agreed that all treatment plans state the required key performance measures while an insignificant number (2.5%) of the respondents strongly agreed. The mean and standard deviation for the statement were 1.61 and 0.96 which means that most middle level administrators disagreed

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that all treatment plans state the required key performance measures. The finding could be attributed to inadequate expertise among staff responsible for preparing treatment plans.

Qualitative findings generated from interview with senior administrators revealed the similar results as quantitative results. For example, one senior administrator SA/11/2022 had this to say:

> My university uses various strategies to treat risk, for example, the university has transferred some of the risks to third parties such as insurance companies because some risks require expertise knowledge for our university to be safe. Moreover, our university finds it cost effective to transfer some of the risks due to huge loss that they are likely to pose when they occur. Given that our university is currently financially incapacitated, the insurance companies have become in handy to help us deal with certain crisis.

As regards contingency plans or alternative plans in place to ensure business continuity in case of risk occurring and whether the plans are well documented in the universities, the qualitative findings were in tandem with the quantitative results. For instance, a senior administrator SA/ 08/2022 said:

> My university has well established alternative plans which are well documented and communicated to all concerned stakeholders in the university. For example, in 2020 when Covid-19 pandemic struck, our university resorted to operating online and thus ensured smooth operation of all activities. For example, all the procedures of conducting meetings were clearly outlined in a manual which was circulated to all staff members. Similarly, all classes were taught online and even exams were administered online.

Review of departmental policies on risk management practices showed that all departments in the selected public universities had clear risk management policies which indicated different risk control techniques and contingency plans which can be adopted for different types of risks. The policies also clearly indicated mitigation measures for both internal and external risks that were likely to affect the selected public universities.

The finding of the present study is in line with Amaya & Memba (2015) who established that risk management strategies involved risk avoidance, risk reduction and risk acceptance through development of risk response planning, as an integrated part of treating risk and developing a profile of risk. Similarly, the finding also agree with Juliane and Alexander (2013) who established that the outcome of the scrutiny depicted that risk treatment emphatically affects internal efficiency of businesses in IT projects in UK.

Risk Monitoring Practices and Organizational Internal Efficiency

The fourth objective sought to examine the effect of risk monitoring practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya. In an attempt to achieve the objective, the researcher administered questionnaires to middle level administrators, interviewed senior administrators and analyzed selected documents. The findings from the middle level administrators are contained in Table 4.

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Table 4: Middle Level Administrators Responses on Risk Monitoring Practices

	SD		D		NS		A		SA			
	F	%	F	%	f	%	f	%	f	%	Mean	SD
Risk monitoring practices determines the risk mitigations efforts success	8	11.4	10	15.0	4	5.7	20	28.2	27	39.7	3.6	1.5
The framework for risk monitoring is well documented	12	17.7	9	12.5	4	5.1	24	35.3	20	29.4	3.3	1.6
Risk monitoring practices takes note of the changes implemented	15	21.9	7	9.7	3	4.6	20	28.2	24	35.6	3.4	1.7
Risk monitoring practices takes note of the changes in costs	4	5.9	9	12.3	4	5.7	22	32.2	30	43.9	3.8	1.4
The senior management supports risk monitoring efforts very well	5	7.5	7	10.3	5	6.7	21	30.4	31	45.1	3.9	1.4
Employees are always trained on policies of the firm regarding risk Monitoring practices	25	37.1	25	35.7	4	5.7	10	14.7	5	6.8	1.7	0.8
There are regular reports to senior management on risk monitoring efforts	5	6.6	7	10.2	4	5.7	22	32.6	31	44.9	4.1	1.2
Risk monitoring frequency is well stated in the organization procedures	8	11.6	9	12.7	7	10.1	29	42.1	16	23.5	3.7	1.2
Risk monitoring keeps track of previously identified risks,	4	5.6	9	12.5	3	4.9	22	32.1	31	44.9	4.1	1.3

Table 4 contains responses of middle level administrators on risk monitoring practices and organizational internal efficiency. Accordingly, results indicate that slightly more than one tenth (11.4%) of the middle level administrators strongly disagreed that risk monitoring practices determines the risk mitigations efforts success while a sizeable number (15.0%) of the respondents disagreed. On the other hand, more than one quarter (28.2%) of the middle level administrators agreed that risk monitoring practices determines the risk mitigations efforts success while almost two fifth (39.7%) of the respondents strongly agreed. The item generated a mean of 3.6 and a standard deviation of 1.5 which indicates that majority of the middle level administrators agreed that risk monitoring practices determine the risk mitigation efforts success. The finding could be attributed to the fact that risk monitoring helps in identifying new risks as they occur and allow measures to mitigate the same to be installed in time.

Similarly, findings illustrate that almost one fifth (17.7%) of the middle level administrators strongly disagreed that the framework for risk monitoring was well documented while one eighth (12.5%) of the respondents disagreed. The findings also show that slightly more than one third (35.3%) of the respondents agreed that the framework for risk monitoring was well documented while more than one quarter (29.4%) of the respondents strongly agreed with the statement. The statement had a mean of 3.3 and standard deviation of 1.6, an indication that majority of the respondents agreed that the framework for risk monitoring was well documented. The finding could be as a result of the requirement by ISO: 9001: 2015 that framework for risk monitoring be well documented to enhance risk

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management practices which in turn leads to internal efficiency in public universities.

Results also reveal that one fifth (21.9%) of the senior administrators strongly disagreed that risk monitoring practices take note of the changes implemented in their organizations while less than one tenth (9.7%) of the respondents disagreed. Further, slightly more than one quarter (28.2%) of the middle level administrators agreed that risk monitoring practices take note of the changes implemented in their institutions while more than one third (35.6%)of the respondents strongly agreed. The item generated a mean of 3.4 and a standard deviation of 1.7 which means that majority of the middle level administrators agreed that risk monitoring practices take note of the changes implemented in their institutions. The finding could be as a result of both internal and external audits carried out occasionally in public universities.

Moreover, results in the table reveal that an insignificant number (5.9%) of middle level administrators strongly disagreed that risk monitoring practices take note of the changes in costs in their organizations while slightly more than one tenth (12.3%) of the respondents disagreed. Similarly, findings indicate that slightly less than one third (32.2%) of the middle level administrators agreed that risk monitoring practices take note of the changes in costs in their organizations whereas majority (43.9%) of the respondents strongly agreed. The statement had a mean and standard deviation of 3.8 and 1.4 respectively which means that most middle level administrators agreed that risk monitoring practices take note of the changes in costs in their organizations. The finding could be attributed to the dynamic nature of risks whereby risk monitoring incorporates new risks while terminating others thus taking cognizance of costs in their organizations.

In addition, findings in Table 4 show that majority (45.1%) of the middle level administrators strongly disagreed that senior management support risk monitoring efforts very well whereas slightly less than one third (30.4%) of the respondents disagreed. Similarly, results show that one tenth (10.3%) of the middle level administrators agreed that senior management support risk monitoring efforts very well whereas less than one tenth (7.5%) of the respondents disagreed. The item had a mean of 1.9 and a standard deviation of 0.9, an indication that most middle level administrators disagreed that senior management support risk monitoring efforts very well. The finding is attributable to the cost involved in risks monitoring activities which makes senior management to defer some activities of risk monitoring.

Findings also reveal that more than one third (37.1) of the middle level administrators strongly disagreed that employees are always trained on policies of the firm regarding risk monitoring practices whereas slightly more than one third (35.7%) of the respondents disagreed with the statement. On the other hand, slightly more than one tenth (14.7%) of the middle level administrators agreed that employees are always trained on policies of the firm regarding risk monitoring practices while an insignificant number (6.8%) of the respondents strongly agreed. The item generated a mean and standard deviation of 1.7 and 0.8 respectively implying that most middle level administrators disagreed that employees are always trained on policies of the firm regarding risk monitoring practices. The finding is attributable to the high costs involved in training all employees on policies of the universities in risk monitoring practices.

The findings also indicate that an insignificant number (6.6%) of the middle level administrators strongly disagreed that there are regular reports to senior management on risk monitoring efforts while one tenth (10.2%) of the respondents disagreed. Similarly, results show that almost one third (32.6%) of the middle level administrators agreed that there are regular reports to senior management on risk monitoring efforts while more than two third (44.9%) of the respondents strongly agreed. The

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statement had a mean of 4.1 and standard deviation of 1.2, an indication that most middle level administrators agreed that there are regular reports to senior management on risk monitoring efforts. The finding is as result of the requirement for quality management systems that all departments in the universities report to senior management about risk monitoring efforts.

Similarly, results in the table also reveal that slightly more than one tenth (11.6) of the middle level administrators strongly disagreed that risk monitoring frequency was well stated in the organization procedures while a sizeable number (12.7%) of the respondents disagreed. On the other hand, majority (42.1%) of the middle level administrators agreed that risk monitoring frequency was well stated in the organization procedures whereas more than one fifth (23.5%) strongly agreed. The mean and standard deviation for the item were 3.7 and 1.2 respectively meaning that most middle level administrators agreed that risk monitoring frequency was well stated in the organization procedures. The finding is as a result of the requirements by ISO 9001:2015 that frequencies of monitoring risks be well stipulated in the procedures of all universities.

Results in the table finally reveal that an insignificant number (5.6%) of the middle level administrators strongly disagreed that risk monitoring kept track of previously identified risks while slightly more than one tenth (12.5%) disagreed. However, almost one third (32.1%) of the middle level administrators agreed that risk monitoring kept track of previously identified risks whereas almost half (44.9%) strongly agreed with the statement. The item generated a mean of 4.1 and a standard deviation of 1.3 which implies that most middle level administrators agreed that risk monitoring kept track of previously identified risks. This is as a result of organized internal and external risk audits in public universities which always keep track of all identified risks.

The qualitative findings are in line with the quantitative results. For instance, a senior administrator SA/04/2022 reported:

> In our university risk monitoring is considered very important in risk management process because it enhances efficiency and effectiveness of operations in all departments in the university. As regards availability of risk auditors, my university has trained at least one staff per department to frequently carry out review of risk management practices in their respective departments. Similarly, my university conducts quarterly internal audits every year whereas external audits are carried out bi-annually.

Moreover, a senior administrator (SA/ 09/2022) reported:

> All documentation of organization policies and procedures are done according to the requirements of ISO 9001:2015 because the university is ISO certified and thus has to follow the set guidelines on documentation of organization policies and procedures. In addition, various internal audits occasionally conducted in the university also often check whether the recommended documentation of our policies and procedures has been done accordingly.

Analysis of annual auditors' reports, evaluation of risk registers and memos on risk management practices indicated that the selected public universities had formal strategies of risk management practices in place. Further, the risk register contained quarterly evaluation of risk as well as risks and emerging ways of risk mitigation such as risk transfer and termination. Finally, memos on risk implementation strategies from and to different departments in the selected universities contained communication on how to manage risk in various departments across the selected public universities.

The current findings are in tandem with the findings of Nair, Purohit and Choudhary (2014) who established that risk monitoring is a series of

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activities aimed at detecting changes in the specific threats faced by the organization and that it must have effective reporting mechanisms in place. Moreover, the study by Jaber (2020) revealed that risk monitoring has an impact on organizational performance in insurance company.

Organizational Internal Efficiency

The researcher sought responses from middle level administrators on organizational internal efficiency which was the dependent variable in the study. The findings were regressed against the specific variables to establish the effect of each independent variable on organizational internal efficiency. The findings are contained in Table 5.

Table 5: Middle Level Administrators Responses on Organizational Internal Efficiency

	SD		D		NS		A		SA			
Statement	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**Mean**	**SD**
Organizational internal efficiency is essential to the quality of service delivered in public university	8	11.4	10	15.0	10	13.8	16	23.6	25	36.2	3.9	0.9
Establishment of an appropriate risk management framework is key to achieving organizational internal efficiency	5	7.6	17	24.3	4	5.1	29	42.8	14	20.2	3.3	1.6
Establishment of an appropriate economic framework is key to cost management of the organization in achieving internal efficiency	2	3.4	11	16.3	3	4.6	25	35.1	28	40.6	4.1	0.8
Establishment of an appropriate institutional framework is key to achieving organizational internal efficiency	5	7.3	12	18.2	4	5.6	16	23.1	32	45.8	3.8	0.9
Corporate risk management practices affect organizational internal efficiency	5	9.8	7	11.5	5	7.9	21	27.6	31	43.2	3.7	1.2
Corporate risk management practices enable organization to achieve its goals within the stipulated time lines	4	5.9	10	15.6	5	8.8	25	32.6	25	37.1	3.9	1.3
Corporate risk management practices enable organization to achieve its objectives within the stipulated time lines	5	7.8	7	11.2	4	6.7	22	33.5	31	40.8	3.8	1.1
Balanced allocation of resources leads to organizations growth	7	12.1	9	14.7	8	14.6	29	38.1	16	20.5	3.4	1.1

The findings in Table 5 show that majority (36.2%) of the respondents strongly agreed that organizational internal efficiency is essential to the quality of service delivered in public university while the minority (11.4%) of the respondents strongly disagreed. The item had a mean and standard deviation of 3.9 and 0.9 respectively, an indication that most respondents agreed that organizational internal efficiency is essential to the quality of service delivered in public university. In addition,

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the findings in the table illustrate that majority (42.8%) of the respondents agreed that establishment of an appropriate risk management framework is key to achieving organizational internal efficiency while the minority (5.1%) neither agreed nor disagreed with the statement. The statement had a mean of 3.3 and a standard deviation of 1.6 implying that most respondents agreed that establishment of an appropriate risk management framework is key to achieving organizational internal efficiency.

The findings further show that majority (40.6%) of the respondents strongly agreed that establishment of an appropriate economic framework is key to cost management of the organization in achieving internal efficiency whereas the minority (3.4%) of the respondents strongly disagreed. The statement had a mean and standard deviation of 4.1 and 0.8 respectively, an indication that most respondents agreed that establishment of an appropriate economic framework is key to cost management of the organization in achieving internal efficiency. Moreover, results in the table show that majority (45.8%) of the respondents strongly agreed that establishment of an appropriate institutional framework is key to achieving organizational internal efficiency while the minority (5.6%) of the respondents remained neutral. The statement had a mean of 3.8 and standard deviation of 0.9 meaning that most respondents agreed that establishment of an appropriate institutional framework is key to achieving organizational internal efficiency.

As regards whether corporate risk management practices affect organizational internal efficiency, majority (43.2%) of the respondents strongly agreed while minority (7.9%) of the respondents neither agreed nor disagreed. The mean and standard deviation for the statement were 3.7 and 1.2 implying that most respondents agreed that corporate risk management practices affect organizational internal efficiency. The findings further illustrate that majority (37.1%) of the respondents strongly agreed that corporate risk management practices enable organization to achieve its goals within the stipulated time lines whereas the minority (5.9%) strongly disagreed. The item had a mean of 3.9 and standard deviation of 1.3 indicating that most respondents agreed that corporate risk management practices enable organization to achieve its goals within the stipulated time lines.

Moreover the findings in the table reveal that majority (40.8%) of the respondents strongly agreed that corporate risk management practices enable organization to achieve its objectives within the stipulated time lines while the minority (6.7%) neither agreed nor agreed. The statement had a mean of 3.8 and standard deviation of 1.1 indicating that most respondents agreed that corporate risk management practices enable organization to achieve its objectives within the stipulated time lines. Finally, results in Table 5 show that majority (38.1) of the respondents agreed that balanced allocation of resources leads to organizations growth while the minority (12.1%) of the respondents strongly disagreed. The statement had a mean of 3.4 and a standard deviation of 1.1 an indication that most respondents agreed that balanced allocation of resources leads to organizations growth.

Regression Analysis

The researcher further used regression analysis to answer the research question, “what is the effect of corporate risk management practices on organizational internal efficiency in selected public universities in Nairobi metropolitan region, Kenya?” In an attempt to answer this question, data on risk identification practices, risk assessment practices, risk treatment practices, risk monitoring practices and organizational internal efficiency were collected from middle level administrators and analyzed using multiple regression analysis. The findings were contained in the following tables.

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Table 6: Model Summary of Regression Statistics on Corporate Risk Management Practices and Organizational Internal Efficiency.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.567	.321	.301	.346311

Predictors: (Constant), risk identification practices, risk assessment practices, risk treatment practices, risk monitoring practices

Table 6 shows the model summary of regression analysis on corporate risk management practices and organizational internal efficiency. Results indicate that the correlation coefficient between corporate risk management practices and organizational internal efficiency is, (r = .567). The finding indicates that there is a moderate positive relationship between corporate risk management practices and organizational internal efficiency. Similarly, results in the table reveal that the coefficient of determination which is given by R-square of .321 which shows how much the variation in organizational internal efficiency in selected public universities in Nairobi Metropolitan Region was explained by corporate risk management practices.

R- Square of .321 implies that 32.1% of variation in organizational internal efficiency in selected public universities in Nairobi Metropolitan Region is explained by corporate risk management practices, namely; risk identification practices (RIP), risk assessment practices (RAP), risk treatment practices (RTP), risk monitoring practices (RMP). The findings imply that 67.9% of variation in organizational internal efficiency in selected public universities in Nairobi Metropolitan Region is attributed to other factors.

The researcher further tested whether the regression model for the study was good fit for the data based on the ANOVA results presented in Table 7.

Table 7: ANOVA Results Table on Corporate Risk Management Practices on Organizational Internal Efficiency

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.510	4	2.160	5.322	.001[b]
	Residual	76.900	194	.389		
	Total	82.410	198			

a. Dependent Variable: Organizational Internal Efficiency

b. Predictors: (Constant), risk identification practices (RIP), risk assessment practices (RAP), risk treatment practices (RTP), risk monitoring practices (RMP).

Table 7 shows that the value of *F* is 5.332 with 4 and 194 degrees of freedom and *F* being significant at less than 0.05. The results show that the regression analysis was appropriate because the significant value of p = 0.001 was statistically significant (p < 0.05). Therefore the significant regression equation from the output could be stated as; F (4, 194) = 5.322, p < 0.05). Since the significant value of p = 0.001 is less than p-value (0.05), it was inferred that the model used in the study was a good fit for the data. Thus, the regression model estimated was applied in predicting the value of organizational internal efficiency in public universities in Nairobi Metropolitan region when the values of risk identification practices (RIP), risk assessment practices (RAP), risk treatment practices (RTP), risk monitoring practices (RMP) are known.

The researcher thus sought to establish the contribution of each predictor variable after determining the overall strength of corporate risk

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management practices on organizational internal efficiency. Thus, the regression coefficient Table 8 illustrates the weight (Beta) of each of the independent predictors.

Table 8: Regression Co-efficient Table on corporate risk management Practices and Organizational Internal Efficiency

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.777	.202		13.327	.000
	Risk Identification Practices (RIP)	.114	.042	.201	2.716	.003
	Risk Assessment Practices (RAP)	.096	.040	.169	2.410	.014
	Risk Treatment Practices (RTP)	.116	.040	.217	2.898	.002
	Risk Monitoring Practices (RMP)	.085	.039	.156	2.399	.003

a. Dependent Variable: Organizational Internal Efficiency p< .05

Table 8 indicates the quantity of change in organizational internal efficiency in public universities that is predicted by a unit change in risk identification practices (RIP), risk assessment practices (RAP), risk treatment practices (RTP) and risk monitoring practices (RMP). Accordingly, results show that the "Constant" which shows the predicted value of organizational internal efficiency when corporate a risk management practice is zero is 2.777.

As regards each independent predictor, results show that for risk identification practices (RIP), the Beta is. 114 meaning that for each unit increase in RIP, a .114 unit increase in organizational internal efficiency is predicted. Similarly, findings indicate that for each unit increase in risk assessment practices (RAP), a . 096 unit rise in organizational internal efficiency is predicted. Further, results show that for each unit increase in risk treatment practices (RTP), a .116 increase in organizational internal efficiency is predicted. As regards, risk monitoring practices (RMP), findings reveal that for each unit increase, a .085 increase in organizational efficiency is predicted.

Results in the table also indicate whether each predictor variable is making a statistically significant contribution to the model at a significance level of p< .05. Thus, RIP (B =.114, p = 006 < .05); RAP (B = .096, p = .014 < .05), RTP (B = .116, p = .002 < .05) and RMP (B = .085, p = .003 < .05). These results reveal that all the four predictor variables have p-values which are less than the significance level (0.05). The findings thus imply that corporate risk management practices namely; risk identification practices (RIP), risk assessment practices (RAP), risk treatment practices (RTP) and risk monitoring practices (RMP) have statistically significant effect on organizational internal efficiency in public universities in Nairobi Metropolitan region.

The researcher thus refined the regression model by replacing the Beta values with coefficient from the regression analysis as follows:

OIE= 2.777 + 0.114(RIP) + 0.096(RAP) + 0.116(RTP) + 0.085(RMP) + e.

Where OIE= Organizational Internal Efficiency, RIP= Risk Identification Practices, RAP= Risk Assessment Practices, RTP= Risk Treatment Practices, RMP= Risk Monitoring Practices and e = Error Term.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the first objective, the study concluded that public universities in Nairobi Metropolitan Region put in place some risk identification practices such as trained the

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workforce on risk identification, employee feedback, criterion for risk identification as well as continuous risk identification. The study also concluded that public universities did not practice all the relevant risk identification practices such as risk inspection, brainstorming, and identification of environmental factors cause that can improve organizational internal efficiency. The study also concluded that risk identification practices had a statistically significant effect on organizational internal efficiency in public universities in Nairobi Metropolitan region.

Based on the results of the second objective, the study concluded that risk was assessed by unqualified personnel using both quantitative and qualitative methods in public universities in Nairobi Metropolitan Region. The study also concluded that public universities did not conduct timely assessment of risks which subsequently affected their internal efficiency. The study thus concluded that risk assessment practices significantly affect organizational internal efficiency in public universities in Nairobi Metropolitan region.

As regards the third objective, the study concluded that public universities in Nairobi Metropolitan did not use the best risk treatment practices thus the problem of poor internal efficiency. The study also concluded that various stakeholders were left out by public universities as far as risk treatment practices were concerned. The study therefore concluded that risk treatment practices significantly affected organizational internal efficiency in public universities in Nairobi Metropolitan region.

Based on the findings of the fourth objective, the study concluded that risk monitoring practices in public universities in Nairobi Metropolitan were cognizant of changes executed, costs as well as the importance of documentation of the framework for risk monitoring. The study also concluded that risk monitoring practices were not supported by the senior management in public universities in Nairobi Metropolitan Region. The study thus concluded that risk monitoring practices statistically significantly affect organizational internal efficiency in public universities in Nairobi Metropolitan region.

On recommendation, First, the senior management in public universities should ensure that all risk identification practices are executed. This will help the universities to identify all the possible risks in the internal and external environment are identified and appropriate action taken thereby improving organizational internal efficiency.

Second, councils in public universities should ensure that qualified personnel are employed to carry out responsibilities related to risk management. Similarly, the study recommends that each department in public universities should conduct timely assessment of risks. This will ensure that timely treatment of the risk is done thereby reducing the chances of unwarranted losses to the public universities.

The researcher also recommends that risk management managers in public universities should use the best risk treatment practices as opposed to the ones in place. Using best risk treatment practices will ensure that the best treatment is implemented to risks facing universities thus improving internal efficiency. Moreover, the study recommends that public universities should involve all the relevant stakeholders in the process initiating and implementing risk treatment practices.

Finally, the study recommends that senior management in public universities should support risk monitoring practices. This will ensure that there is goodwill as to the management of risks as well as availability of resources including finances need to monitor risks.

Recommendations for Further Research

The study recommended that a similar study be conducted in other universities in other regions in Kenya.

The study also recommended that a similar study be replicated in private universities as the present study was delimited to public universities.

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The researcher finally recommended that a comparative study be conducted with the focus in other government institutions other than universities.

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