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Risk Management Techniques on Financial Performance of State-Owned Sugar Companies in Kenya

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ABSTRACT

Financial performance of sugar companies in Kenya is generally poor and has been fluctuating over a long period. The state-owned sugar companies are worse compared to the privately owned companies. The sugar sector has been orbiting around sugar scarcity, inefficiencies, failure to pay farmers, failure to renovate and modernize production unit, failure to battle with imported sugar, recurrent losses and political interference. The main objective of this study was to evaluate the effect of risk management techniques on financial performance of state-owned sugar companies in Kenya. The specific objectives guiding the study were; to establish the effect of risk avoidance on financial performance of state-owned sugar companies in Kenya, and to assess the effect of risk acceptance on financial performance of state-owned sugar companies in Kenya. The study was anchored on the risk management theory, model risk management and the theory of financial control. The study adopted a descriptive research design with a target population of fifty four respondents being employees from the six state-owned sugar companies in Kenya. Questionnaires were the main data collection tool. Data was analyzed with the help of statistical package for social science version 28, Analysis of Variances, Correlation and regression analysis tools were used to establish the relationship between the variables. The findings of the study revealed a statistically significant regression effect and indicative of accomplished prediction of financial performance of state-owned sugar factories through the F-calculated value which showed that the model was significant. Risk avoidance explained 53.9% of financial performance and risk acceptance explained 61.9% of financial performance of state-owned sugar factories in western Kenya. The findings of the study will provide an insight to finance practitioners on the risk management techniques and their relationship with organizational financial performance as well as contributing to the scholarly literature on risk management techniques in other sectors of the economy.

Keywords: *Risk, Risk Avoidance, Risk Acceptance, Financial Performance, Risk management Techniques*

INTRODUCTION

Financial performance of an organization is a critical factor in determining business success or failure. Financial performance of an organization allows companies to identify critical problem areas and improve accordingly (Rivera, Munoz & Moneva,

2017). Research on an organization's performance is important because it not only identifies the key financial and non-financial factors of success or failure but also evaluates other departments, performance management, performance processes and employees' welfare. Risk management has become a priority for all sectors of the economy, so companies can protect their interests while achieving their goals (Franco, Caroli, Cappa & Del Chiappa, 2020). Through risk management, organizations can ensure that it achieves the desired results, reduce the impact of threats to acceptable levels, and increase the ability to seize opportunities.

The risk of losing money is real and fundamental in the modern society; unlike for individual loss of income, for corporations, financial risk can affect the value of business investments and financial assets (Pojasek, 2017). Financial risk refers to the danger likely to be caused by an event or a loss that could impair the value of member's savings or substantially affect assets, hence its delivery and earning capacity. It is the possibility that a business will not have adequate liquidity to meet its ongoing financial obligation like debt repayment, payroll requirements, dividend payments, government licenses and taxes (Brigham & Houston, 2015).

In Canada, financial risk management is regarded as one of the most important concerns of company executives and the risk management approaches are expanding. However, regarding the peripheral effects and applications of risk management, few empirical research has been done up until now. Despite rapid growth in importance of the topic, few applied studies have been done to determine whether risk management has practically desirable effects on firms' performances. On the other hand, due to the conceptual complexities of risk management and variation in methods of controlling adverse effects of losses, the previous few attempts that have been made failed to offer a comprehensive and integrated framework (De Araújo Lima, Crema & Verbano, 2020).

In China, risk management techniques like risk acceptance, risk avoidance, risk retention and risk transfers has several advantages to an organization. It inspires strong stimulus in company's major stockholders to increase their investments in the company. By increasing their investments such investors invest in company's specific assets. These assets are regarded as tools that provide better business opportunities toward obtaining proper and long-lasting competitive advantage. Lack of effective risk management, therefore, may lead to imposition of extra costs on both investor and investee and may lead to deterioration of company performances (Buczkowski, 2021).

In South Africa, integrated effective risk management is expected to support sound decision making, which ultimately improve company's performance by improving the precision in balancing the tradeoff between risk and expected return. The better the organization understand its inherent risks the greater confidence it will develop in order to pursue opportunities. The effectiveness of risk management improves accountability among stakeholders; thereby enhance effectiveness of corporate governance and strategic competitive advantages (Peter & Adediyan, 2020).

In Kenya, the financial success of sugar companies has been weak for a very long time and the key challenge is poor utilization of risk management techniques by corporate state-owned companies. They finally end up failing in the long run and resort to shutting down or selling it to an investor. Risk management techniques are expected to persuade company's own shareholders to invest more on company's specific assets. The resource could be utilized in improving production line and technological advancement that could directly and/or indirectly boosts company's performance. On the other hand, the proper management of risk also persuades company's customers, employees, suppliers and other stakeholders to invest more on

company's specific assets (Mohammed & Knapkova, 2016). This investment is valuable and a foundation for company's growth and enhancing competitive advantage.

STATEMENT OF THE PROBLEM

Financial performance of sugar companies in Kenya is generally poor and has been fluctuating over a long period. The state owned sugar companies are worse compared to the privately owned companies. The sugar sector has been orbiting around sugar scarcity, inefficiencies, failure to pay farmers, failure to renovate and modernize production unit, failure to battle with imported sugar, recurrent losses and political interference. In spite of the challenges in the sector, private factories are being set up to fill in the gap. According to the treasury report 2023, the state owned companies in Kenya have an accrued financial debt of Kshs. 128.06 billion needed to operationalize Mumias, Muhoroni, Nzoia, Chemelil, Miwani and Sony sugar companies. The debts include tax penalties and interest accrued over the years. Financial performance of the sugar companies has failed since they seem not to have keenly and appropriately adopted financial risk management strategies.

Currently, financial performance of the state-owned sugar companies in Kenya is wanting. The Sessional Paper No, 4 paints a gloomy scenario of unsatisfactory financial performance by firms in the sugar industry the sugar factories are technically insolvent with only the private millers;. Butali Sugar, Transmara Sugar and West Kenya Sugar, though with varying debts, are considered financially stable. The out-grower firms and, to a lesser extent, the jaggeries, are also indebted to the government (Bulitia, 2017). The failing financial performance has been attributed to poor governance, lack of capital, high debt portfolio and declining cane yields which are challenges caused or worsened by poor financial risk management techniques. This study therefore sought to evaluate the effect of risk management techniques on financial performance of state-owned sugar companies in Kenya.

Objectives of the Study

General Objective

The general objective of the study was to evaluate the effect of risk management techniques on financial performance of state-owned sugar companies in Kenya.

Specific Objectives

The study was guided by the following specific objectives:

1. To establish the effect of risk avoidance on financial performance of state owned sugar companies in Kenya
2. To assess the effect of risk acceptance on financial performance of state owned sugar companies in Kenya

LITERATURE REVIEW

Risk Management Theory

The study was guided by Risk Management Theory. Risk Management theory was postulated by Daniel Bernoulli in 1738. Risk Management theory emphasizes the need for risk acceptance, risk avoidance, risk retention and risk mitigation (Pritchard, & PMP, 2014). Bharathy and McShane (2014) made assumption that risks can come from uncertainty in financial markets, project failures, legal liabilities, credit risk, accidents, natural causes and disasters as well as deliberate attack from an adversary, or events of uncertain or unpredictable root-cause. Several risk management standards have been developed including the Project Management Institute, the National Institute of Science and Technology, actuarial societies, and ISO standards.

Lagat and Tenai, (2017) further critique that methods, definitions and goals vary widely according to whether the risk management method is in the context of financial portfolios, project management, security, engineering, industrial processes, actuarial assessments, or public health and safety. Rahayu (2018) stated that effective risk management structure supports better

decision making through a good understanding of the risks and their likely impact. In practicing Risk Management (RM), if risks are left unmanaged, they can crystalize and cause a negative impact on stake holder's value. It therefore means that good risk management enhances shareholders value. By creating a good discipline in risk management, it helps improve governance process and therefore improves effectiveness.

Risk management theory is useful in studying risk acceptance variable, risk avoidance variable, risk retention variable and risk mitigation variables because the theory explain that an organization makes cost effective use of risk management; first by creating an approach built up of well-defined risk management and then embedding them. These risk management include financial risks management, operational risk management, governance risk management, and strategic risk management.

Model Risk Management

Model risk management was first authored by Henri Fayol in 1916. Model risk management is based on risk avoidance, and it is driven by capital reduction, loss avoidance, and cost reduction. The capital reduction, loss avoidance, and cost reduction targets become more challenging to meet yearly. This is owing to the introduction of new types of models like AI, the war on talent, and the new regulatory frameworks. As a result, many financial departments in an organization search for ways to industrialize model risk management.

Undoubtedly, model usage is highly imperative and is set to heighten, as the rapidly escalating trend of digitalization and the incorporation of machine learning (ML), big data, and artificial intelligence (AI) elevates the complexity and number of models much more. Through demonstrating to regulatory bodies that their MRM is on point, financial institutions can avoid expensive capital add-ons (Johnstone, 2021).

Furthermore, active model risk management reduces the rising modeling costs, addressing disintegrated model processes and ownership ascribed to high numbers of complex models. This can help organizations save millions. With a better understanding of their model landscapes, companies can align their model investments with business priorities and risks. Alongside the reduction of model risk and management of its impact, MRM is also capable of reducing some P&L unpredictability. The all-inclusive effect proliferates institutional risk culture and model transparency. High-priority decision-making models can then receive resources reallocated to them from cost reductions.

Risk management Model was relevant to the study since it supported risk avoidance variable. Risk avoidance (RA), Ambiguity avoidance (AA) and uncertainty avoidance (UA) lie at the heart of finance theory and are among the key elements involving handling risk, ambiguity and uncertainty. Risk management model is a broad field of both speculation and mathematical measurements used to determine investing strategies and monetary value estimates. Each area of finance may have dozens of associated concepts of finance theory; understanding all of them could take a lifetime of study. For example, the study was on risk avoidance in finance.

Conceptual Framework

The conceptual framework shows the relationship between independent and the dependent variables. The independent variables included; risk avoidance and risk acceptance while the dependent variable was financial performance of state-owned sugar companies.

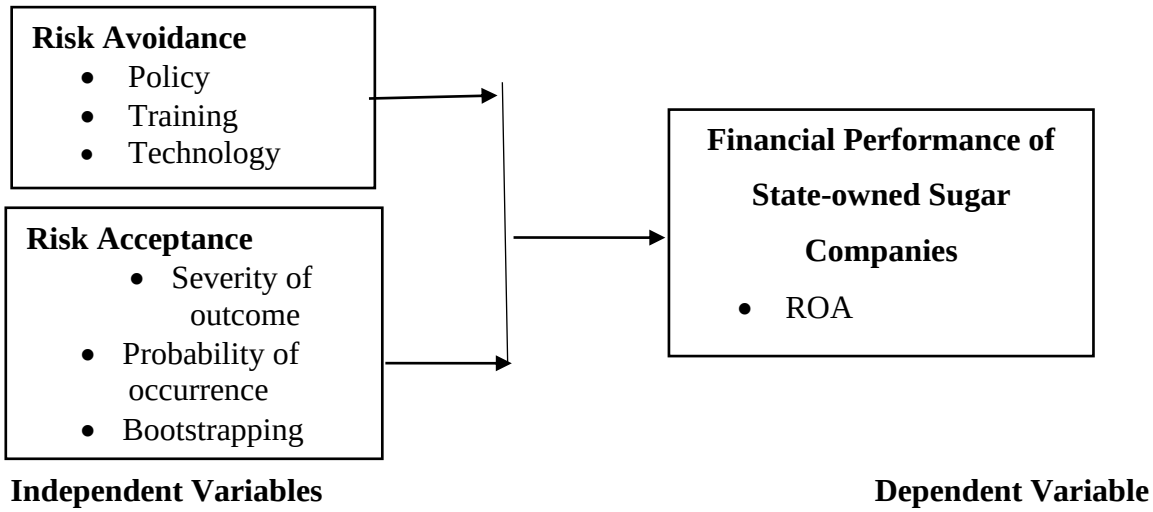

Figure 1. Conceptual Framework
(Researcher, 2023)

Effect of Risk Avoidance on Financial performance

Leflar and Siegel (2019) evaluated organizational resilience on financial risk avoidance of disruptive events- a practitioner's guide. The study used descriptive research design. Findings showed that the importance of financial risk avoidance is; it completely or nearly eliminates a risk that has the potential to damage the organization; and instills confidence that the organization will continue to operate because, with the risk eliminated, it won't have to plan for or contend with the negative consequences associated with the risk. While the disadvantages include; slows operations as employees, business partners and sometimes even customers adhere to the rules implemented to eliminate the risks; and limits opportunities such as increasing sales, cultivating new customers and developing new revenue streams.

The study used descriptive survey research design as the methodology. The study used questionnaires as the main tools of collecting data. Findings showed that the practice of financial risk avoidance involves actions to reduce the chances of idiosyncratic losses by eliminating risks that are superfluous to the institution's business purpose. Common risk avoidance actions, here, are underwriting standards, hedges or asset-liability matches, diversification, reinsurance or syndication, and due diligence investigation.

Akomeah *et al*., (2017) further stated the goal is to rid the firm of financial risks that are not essential to the financial service provided, or to absorb only the optimal quantity of a particular kind of risk. What remain are some portions of systematic risk and the unique risks that are integral to an institution's unique business franchise. In both of these cases, risk mitigation remains incomplete and could be further enhanced. In the case of systematic risk, any systematic risk not required to do business can be minimized. Whether or not this is done is a business decision that can be clearly indicated to stockholders. Likewise, in the case of operational risk, these risks of service provision -including fraud, oversight failure, lack of control, and managerial limitations can be addressed.

Pate-Cornell and Cox (2014) researched on improving financial risk management from lame excuses to principled practice. The study used cross-sectional research design as the research methodology. The study used interview schedules and questionnaires as the data collection instruments. The study results states that because risk avoidance is a deliberate tactic, it is not the same as failing to identify a risk or ignoring it altogether. It is not just about avoiding or

minimizing losses, but about dealing positively with opportunities. It is a powerful tool for public sector managers. Good risk management is based on a well-planned, logical, comprehensive, and documented strategy. This strategy provides general policy guidance and plans and procedures that can be used as part of the organization's everyday work to manage risk.

Araujo, Crema and Verbano (2020) examined the effect of financial risk avoidance on financial performance of companies in Europe. The study used descriptive survey research design. The study sampled a total of 61 firms and the findings showed that financial risk avoidance enables a firm to cluster or categorize financial risks based on the field of risk management; this for example can be to check if the identified risk is market or financial risks. The process also identified the origin of the risk. Clustering allows a company to later do analyses whether some of the risks are related and whether some of them offset each other. However, a holistic approach is still not diffused nor sufficiently developed in companies, even if the types of identified risks are increasing. There are new emerging risk management streams.

The study used exploratory research design methodology. Results showed that financial risk avoidance in engineering and Economics Company is required reading for decision making under conditions of uncertainty. The fundamental concepts, techniques, and applications of the financial risk avoidance is style tailored to meet the needs of students and practitioners of engineering, science, economics, and finance. Drawing on extensive experience in uncertainty and risk modeling and analysis, the author covers everything from basic theory and key computational algorithms to data needs, sources, and collection. Prokofieva *et al.,* (2017) emphasizes practical use of the methods presented and carefully examines the limitations, advantages, and disadvantages of each to help readers translate the discussed techniques into real-world solutions.

Effect of Risk Acceptance on Financial performance

Elena and Johnson (2015) evaluated factors influencing risk acceptance of cloud computing services in the UK government. The study used descriptive research design. The study used questionnaires and interviews schedule as the primary data collection instruments. The study found that understanding how risk perception and risk attitude influence risk acceptance of cloud services within Government departments may help risk managers and policy makers to prevent either that an overly cautious risk culture results in a failure to seize important opportunities or taking exaggerated risk without regard to the potential risk. In that regard, this study represents a contribution to support actions that aim to align risk exposure to risk appetite in order to maximize the efficiency and improve business services innovation taking acceptable risks.

The study used descriptive research design when collecting data. The study also used questionnaires as the primary tools for data collection. The study cautioned small businesses who often take the stance that they cannot afford to avoid, limit, or mitigate risk, and therefore, they accept risk by default. This is a mistaken and limited view and should not be the default position going into this planning. Risk acceptance should be evaluated along with the other options to determine the implications, appropriate actions, and costs of various mitigation strategies. Risk acceptance is the least expensive option in the near term and often the most expensive option in the long term should an event occur. The study was done in Pakistan and the researcher recommended future researchers to evaluate effects of risk acceptance on financial performance of companies in others countries. This formed the basis for this study to evaluate the effect of risk

acceptance on financial performance of state-owned sugar companies in Kenya.

Sadgrove (2016) published a book on the complete guide to business risk management. The study found that accepting risk comes with limitations as well, which are determined by the company's capacity to absorb financial consequences in the event of a risk. It is essential to managers and business strategists when they are deciding on risk retention policies. Risk acceptance is not really a mitigation strategy because accepting a risk does not reduce its effect. However, risk acceptance is a legitimate option in risk management. There are various reasons why companies may choose risk acceptance in certain situations. The most common reason is that the cost of other risk management options, such as avoidance or limitation, may outweigh the cost of the risk itself. There is no benefit in spending a huge sum of money to avoid a smaller cost risk. In cases where the cost outweighs the benefit, most organizations choose to accept a risk rather than spend time or money mitigating it.

According to Pritchard (2014), risk acceptance means that a business or an individual is ready to accept the identified risk. And, therefore they won't take any action as they can accept the impact. This is also known as "Risk Retention", which is an aspect of risk management commonly found in the business or investment sector. Risk acceptance is a strategy and it is accepted when it turns out to be the most economical option to do nothing about it. The business thinks that the risk is so small that they are ready to cope with the consequences (in case the incident occurs). Many business enterprises adopt various risk management techniques to evaluate and classify financial distress probabilities for easier monitoring and controlling. Managers and strategists find that business organizations face numerous business threats that can be avoided or mitigated in relation to the level of growth and the allocated resources.

Gallati (2022) evaluated risk management and capital adequacy in New York City. The study found that accepting risk can take different financial and organizational forms, such as continuously creating a financial reserve, using captives, or accumulating financial resources in special accounts. Sources of risks are multi-faceted, and they include natural disasters, overly aggressive competition, exchange rates, and unexpected variability of product prices, legal obligations, and credit risk. Businesses resort to control activities meant to strike a trade-off balance between the financial implications of an issue emanating from an identified and acceptable risk, as well as the cost of managing it. Accepting risk, therefore, carries the same sense as self-insurance. The choice of accepting risk is generally in relation to the small potential financial distresses that materialize each day. However, business enterprises may sometimes accept retaining a catastrophic uncertainty whose insurance costs are not financially feasible. In insurance companies, accepting risk can also include deductibles and underinsurance, as well as aggregate deductible plans. All the components require creating a reserve fund in an insurance company to cushion that part of losses that are uninsured because of the deductibles.

Tan, Sugiarto and Budhijono (2021) examined the family business and risk management: Perspectives of SMEs entrepreneurs in Indonesia. The study found that accepting a risk is sometimes referred to as the "do nothing" option. As the company develop strategies, it considers the implications of "doing nothing." This can be a way of ensuring that the company is taking appropriate actions because if it considers the implications of accepting the risk, it can have the potential consequences and weight them out against other options. The cost of risk acceptance is very low at the beginning (it may even be zero), but after a business disruption, the cost can be significantly higher than other risk management strategies. The company may

be willing to save money today knowing that it will have a disproportionately large expenditure later if a business disruption occurs.

MATERIALS & METHODS

Research Design

Research design is the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, thereby, ensuring effective address of the research problem. It constitutes the blueprint for the data collection, measurement, and analysis of data (Creswell & Poth, 2016). This study used a descriptive research design. Descriptive research design is a methodology designed to depict the participants in an accurate way. Descriptive research can be carried out as observational which is a method of viewing and recording the participants, case study which involves an in-depth study of an individual or group of individuals and survey which is a brief interview or discussion with an individual about a specific topic (Yin, 2017). Descriptive research design was chosen for this study because it is a design that is concerned with answering the questions of who, what, which, when or to what extent.

Target Population

The target population defines those units for which the findings of the study are meant to generalize (Yin, 2017). The research targeted a population of 54 employees from six state-owned sugar companies in western Kenya which included Mumias Sugar Company, Chemelil Sugar Company, Nzoia Sugar Company, South Nyanza Sugar Company, Miwani Sugar Company and Muhoroni Sugar Company. The population included accountants, internal auditors (Senior IA and two members) and sales managers. The target population was as presented in the table below;

Table 1: Target Population

Category	Frequency	Percentage
Sales Managers	6	11
Internal Auditors	18	33
Accountants	30	56
Total	**54**	**100**

Data Collection Instruments

The researcher used questionnaires as the main data collection tool. A questionnaire is a measuring instruments that ask individuals to answer a set of questions or respond to a set of statements (Patten, 2016). The questionnaire contained closed-ended questions. Closed-ended questionnaires are questions that are accompanied by a list of possible alternatives given by the researcher by putting a tick or an "x" appropriately. Primary data was collected based on the research objectives (independent variables) while secondary data was collected on the dependent variable by giving a range of questions using a likert scale questionnaire.

A 5-point Likert scale questionnaire was the main instrument of data collection for the study where responses were rated on a 5-point scale for which was as follows; 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1-Strongly Disagree. The questionnaires had two sections. Section A solicited information on demographic data which collected data describing the sample characteristics included in the analysis because these characteristics had an effect on respondents' perception.

The researcher used questionnaires because confidentiality was upheld, the names of the respondents did not feature anywhere. Questionnaires were also cheaper to administer as compared to interviews. In cases where distance was an issue, the questionnaires were channeled via email. Specific questions were incorporated in the questionnaires which aimed at capturing specific information.

Data Collection Procedure

The researcher adopted a drop-and-pick-later approach where the questionnaires were dropped to the respondents' desks and picked after they had been filled after a week. All the 54 respondents (sales

managers, internal auditors and accountants) were administered with the questionnaires.

Data Processing and Analysis

Data processing and analysis involves, classifying, sorting, editing, presentation and interpretation of the data to generate findings (Ngulube, 2015). The data collected was first sorted, categorized and tabulated into SPSS v28 data analysis package. Quantitative data from questionnaires was analyzed using descriptive statistics. Descriptive statistics includes percentages, mean and standard deviation. This was followed by data interpretation. Data presentation was in form of tables, charts and figures.

Inferential statistical tools including correlation analysis and regression analysis were applied to assess the correlation between risk management techniques and financial performance (profitability) of the state-owned sugar companies in Kenya. A multiple regression is a statistical technique that can be used to analyze the relationship between a single dependent variable and several independent variables. The analytical model was in the form of a multiple regression model where all the relevant model assumptions were observed. The model took the format below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y Financial performance of state-owned sugar companies

β_0 the constant

β_1 & β_2 the coefficients of independent variables X_1, and X_2,

X_1 Risk Avoidance

X_2 Risk Acceptance

ε the error term.

STATISTICAL ANALYSIS

Correlation of Variables

The study Pearson correlation matrix was extracted as shown in the table below;

Table 2: Correlation Matrix

	Risk Avoidance	Risk Acceptance	Financial performance
Risk Avoidance	1		
Risk Acceptance	.479	1	
Financial performance	.542	.625	1

Correlation is significant at .01 level (2-tailed).

The correlation matrix table indicated that there was a relevant relationship between the (Financial performance of State-owned sugar factories) and the independent variables (risk avoidance and risk acceptance). The findings indicated the relationship among the variables with risk acceptance being a higher, perfect and at statistically significant correlation of r=.625; p<.01, and risk avoidance at r=.542; p<.01. The findings agreed with Fwamba (2017) who concluded that risk management techniques positively and strongly effect financial performance of sugar manufacturing sector in Kenya. The independent variables were hence used to predict the dependent variable accordingly.

Goodness of Fit Model

The study used the F-statistic (ANOVA) to measure the goodness of fit of the model. The ANOVA results were extracted from the analyzed data and presented as shown below;

Table 3: ANOVA

Model		Sun of Squares	df	Mean Square	f	Sig.
1	Regression	10.543	1	10.543	9.405	.005[b]
	Residual	58.316	49	1.190		
	Total	68.859	50			
a. Dependent variable: Financial performance						
b. Predictors: (Constant); risk avoidance and risk acceptance.						

The ANOVA table above indicated that the regression model was statistically significant and hence used to predict the dependent variable. To find out the effect of predictor variables on financial performance of state-owned sugar factories, a regression model was fitted to the data and it was found to be statistically significant (F (1, 49) = 9.405, p-value = .005).

Model Summary

The study used the coefficient of determination (R-Square) as a measure of the explanatory power of the independent variables explaining the dependent variable.

Table 4: Model Summary

Model	R	R-Square	Adjusted R-Square	Std Error of the Estimate
1	.875[a]	.766	.761	.002
a. Predictors: (Constant), Risk Avoidance and Risk Acceptance				

The model summary results revealed that the coefficient of determination (R^2) was .766 of financial performance of the state-owned sugar factories which implied that the independent variables (Risk Avoidance and Risk Acceptance) explained 76.6% of the dependent variable (Financial performance). The R-Square value showed that there was a positive correlation between the independent variables and the dependent variable. The adjusted R-square of 0.761 showed that independent variables in exclusion of the constant, explained the change in financial performance of the state-owned sugar factories by 76.1%, the remaining percentage to 100% (i.e. 23.9%) was be explained by other factors excluded from the model.

Regression Analysis

The study undertook to measure the relationship between each independent variables using the simple regression model and the results presented as shown below:

Simple Regression for Risk Avoidance on Financial performance

The study used the simple linear regression model to measure the relationship between risk avoidance and financial performance of the state-owned sugar factories and the results presented as indicated in the table below;

Table 5: Regression Coefficients for Risk Avoidance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	βeta		
1	(Constant)	12.542	.045		3.152	.000[b]
	Risk Avoidance	.539	.032	.530	3.248	.005

a. Dependent Variable: Financial performance

The relationship between the risk avoidance variable and financial performance revealed a positive beta coefficient of .530 with a p-value of .005<.05 and a constant of 12.542 and p-value = .000<.05. It was concluded that the constant as well as risk avoidance significantly contributed to the model and was therefore considered statistically viable to employ the model to provide relevant and required information for the prediction of the dependent variable (financial performance of state-owned sugar factories) from risk avoidance data. The regression equation was then presented as follows;

$$\mathbf{Y = 12.542 + .539X_1}$$

Where:

Y Financial performance of the state-owned sugar factories

X_1 Risk Avoidance

Simple Regression for Risk Acceptance on Financial performance

The study used the simple linear regression model to measure the relationship between risk acceptance and financial performance of the state-owned sugar factories and the results presented as indicated in the table below;

Table 6: Regression Coefficients for Risk Acceptance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	βeta		
1	(Constant)	12.542	.045		3.152	.000[b]
	Risk Acceptance	.619	.084	.606	2.180	.002

a. Dependent Variable: Financial performance

The relationship between the variable risk acceptance and financial performance of the listed telecommunication sector firm was measured and the results depicted a positive beta coefficient value of .619 with a p-value =0.002<0.05 and a constant of 12.542 with a p-value=.000<.0.05. The study concluded that both the constant and risk acceptance contributed significantly to the model with the second highest coefficients. The model was therefore accepted for use in providing needed information to predict financial performance from risk acceptance data. The regression equation was then presented as follows;

$$\mathbf{Y = 12.542 + .619X_4}$$

Where:

Y Financial performance of the state-owned sugar factories

X_4 Risk Acceptance

Multiple Regression Analysis

The study then adopted a multiple regression model to measure the relationship among the variables (Audax, 2018). The multiple regression model below was a combined model from the simple regression models per variable above.

Table 7: Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	βeta		
1	(Constant)	12.542	.045		3.512	.000[a]
	Risk Avoidance	.539	.032	.530	3.248	.005
	Risk Acceptance	.619	.084	.606	2.180	.002

P<.05, 95% Confidence level, N=51

The independent variables in the study fully explained the dependent variable (financial performance of the state-owned sugar factories). The following regression equation was established from the analysis:

$$\mathbf{Y= 12.542 + .539X_1 + .619X_4}$$

The regression analysis table above indicated that holding other variables constant, financial performance of the state-owned sugar factories had a constant or intercept value of 12.542. and that a single unit increase in risk avoidance would lead to an increase in financial performance by a .539 factor, while risk acceptance by a .619 factor increase in financial performance of the state-owned sugar factories. According to Audax (2018), the model was concluded to be important for purposes of the study in providing relevant information for the forecasting of the financial performance of the state-owned sugar factories in Kenya from the study predictor variables.

DISCUSSION of the Findings

Effect of Risk Avoidance on Financial performance

The first objective of the study was risk avoidance on financial performance of the state-owned sugar factories. The study results revealed that risk avoidance had a coefficient of .539 with a p-value of .005 at .05 significance level. The results reflected a positive correlation between risk avoidance and financial performance. The correlation was however third in significant compared to other variables in the study.

Effect of Risk Acceptance on Financial performance

The last independent variable of the study was the effect of risk acceptance on financial performance of the state-owned sugar factories. The ratio was determined and the results revealed the second strongest relationship of the four variables with a

coefficient of .619 and a p-value of .002 at a significance level of .05. The results reported a positive and statistically significant relationship on financial performance of the state-owned sugar factories.

CONCLUSION

The following were the conclusion from the study findings:

Risk Avoidance on Financial performance

From the research analysis results, financial performance of state-owned sugar companies was significantly and statistically affected by the risk avoidance variable. The results reflected a positive correlation between risk avoidance and financial performance. The correlation was however third in significant effect to the dependent variable compared to other variables in the study.

Risk Acceptance on Financial performance

The ratio was determined and the results revealed the second strongest relationship of the four variables with a coefficient of .619 and a p-value of .002 at a significance level of .05. The results reported a positive and statistically significant relationship on financial performance of the state-owned sugar factories.

Recommendations

The following recommendations were made with regard to the gaps identified from the data analysis results/findings:

Risk Avoidance on Financial performance

The research findings and conclusions on this variable indicated a generally positive verdict on financial performance of state-owned sugar factories. However, since not all respondents were convinced about the positives, it was recommended that: that the management of the state-owned sugar factories ensures that confidence is instilled in the workforce on financial policies to increases revenue. This was because over a third of the respondents seemed unconvinced when required to respond to the statement on confidence to the workforce. Overwhelming feedback on the impact of integrating risk avoidance in company's organizational culture necessitated a recommendation that the management ensures it's incorporated in the system since it will be fully embraced by the workforce.

Risk Acceptance on Financial performance

The following recommendations were made from the analysis results of the risk acceptance variable, which was found to have the second highest significant effect on financial performance of state-owned sugar factories in the study; that there was need to ensure that the non-current assets register is well maintained to ensure that there is a balance between asset maintenance and the gain from the use of the asset otherwise disposal of the asset be encouraged. This was because the feedbacks were equally shared out between supporting and not supporting the statement by the respondents. That acceptance of risks and putting measures in place to identify them and avoid or minimize incurring huge costs on their settlement be prioritized by the management of the sugar factories.

Declaration by Authors

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