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EFFECT OF SANITIZATION MEASURES ON THE FINANCIAL RISK MANAGEMENT OF PUBLIC UNIVERSITIES IN KENYA

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ABSTRACT: *Public universities in Kenya are struggling to fund their core operations and at the same time respond COVID-19 at the backdrop of low operational revenue and additional demands imposed by the pandemic on all main sources of finance. As a result, the pandemic adds to the complexity of higher education by posing new financial risks prior to COVID 19. However, for the universities to thrive under these new developments there is need for robust financial risk management. This study intended to examine how implementation of COVID 19 prevention and mitigation measures has affected financial risk management of public universities, specifically, sanitization. The study adopted explanatory research design. The target population was 62 staff of Public Universities. A census study was considered. The study used both descriptive and inferential statistical analysis and data was presented both in tables and graphs. The findings indicated that technological factors accounted for 56.3% variation in financial risk management. Linear regression coefficient indicated that a unit increase in sanitization measures would results to financial risk measures to significantly increase by 0.637 units. The study concluded that Covid-19 prevention and mitigation measures significantly (P=0.000) affect financial risk management of public universities in Kenya. The study recommended that university management should offer intensive training to her employees and clearly defined structures, policies and responsibilities for managing financial risks. Successful feedback from employees would make them mindful of the financial risk in the organizations is exceptionally which will enable them to comprehend the direction on financial management.*

KEYWORDS: corona virus disease of 2019, financial risk management, public universities, sanitization measures

INTRODUCTION

Background of the Study

Education has been hit particularly hard by Corona Virus Disease of 2019 (COVID-19) pandemic with 1.53 billion learners out of school and 184 country-wide school closures, impacting 87.6% of the world's total enrolled learners. Drop-out rates across the globe are likely to rise as a result of this massive disruption to education access. The main cause of SARS-CoV-2 transmission is human-to-human interaction; if an infected individual is in contact with a healthy person with mild or no symptoms (Kratzel, Todt, kovski & Steiner, 2020). To date, the current coronavirus has not been treated with treatment or vaccine and the infection rate is increasingly increasing in the global marketplace. WHO has been invited to introduce interventions to avoid and remain safe from COVID-19 in the current situation and safer lifestyles with an efficient immune system.

As hope grows for a return to some semblance of normal life across the world, roughly 70 percent of colleges and universities plan to resume in-person or at least hybrid or blended classes. But what will it take to reopen campuses safely? In short, a lot of experts around the world have weighed in, noting that between their packed residence halls, cafeterias, lecture halls and sporting events; college campuses make ideal venues for disease transmission. Even so, most of the country's universities intend to welcome students back to in-person learning, lest they face continued economic shortfalls and lapses in education. Sanitizing, temperature monitoring and various contact tracing technologies and protocols have all emerged as key elements of campus reopening plans. But, with no real precedent to fall back on and so many different demographics, locales and disciplines to consider, there's no singular approach or solution (Marinoni, Van't Land & Jensen, 2020).

The adjustment of good hand hygiene is important as one of the WHO's best advice is to use a soap or >60% alcoholic hand sanitizer to wash or sanitize your hands. WHO has introduced two alcohol-based formulae on hand hygiene in health care to make the hands sensitive and reduce the spread and infectivity of coronavirus (WHO, 2020). The WHO recommends alcohol-based hand sanitizers, which are predominantly composed of ethanol, isopropyl alcohols, and hydrogen peroxides in different combinations, for regular hand hygiene. Mahmood, Tabinda and Pugazhendhi (2020) indicated that such preparedness can be toxic to human health and the environment when misused.

These chemicals have toxic and adverse environmental effects when released by evaporation. 9504 cases of exposure to alcoholic hand-sanitizer were reported by the American Assembly of Poison Control Center in children under 12 in the early five months of 2020 and recognized that in children responsible for confusion, vomiting and somnolence, even small amounts of alcohol may lead to alcohol poisoning, as well as respire arrest and death in serious cases. The frequent use of such hand

sanitizers has also shown that antimicrobial resistance and other viral diseases are increased. A global shortage of hand sanitizers culminated in the coronavirus pandemic (Velavan & Meyer, 2020).

The effect of this outbreak prompted individuals to purchase hand sanitizers to prevent transmission of the corona virus. Hand sanitizer prices have risen significantly from normal prices. In essential service facilities such as hospitals, retailers, education institutions and markets, frequent hand washing with soap/sanitizers has been carried out with hand washing stations set up at points of entry. However, most of the public universities did not have a vote head for this expenditure. This implies that they have to acquire the said sanitizer, sanitizer booth and other assortment as per WHO and Ministry of Health (MoH) guidelines. The implementation of WHO sanitization measures exposes universities to various financial risks. Therefore, this study examined how implementation of COVID 19 prevention and mitigation measures has affected financial risk management of public universities (Jairoun, Al-Hemyari & Shahwan, 2021).

Previous research on university financial risk management techniques have not centered on global pandemic responses. For example, in order to prevent potential financial turmoil and mitigate risk in unpredictable and dangerous environments, Yokoyama (2018) tried to assess whether the global financial crisis in 2008 re-shaped risk management at English universities. Culcleasure (2015) analyzed the influence of September 11, 2001 on risk management activities at private colleges and universities in North Carolina in another report. The research presented a review of the risk management practices used by universities and colleges and the significant deficiencies or voids in their procedures.

This study has policy relevance as far as financial risk management strategies of public chartered universities in Kenya are concerned. Since the government is the principal financer of Public Universities, the study aims at bringing out the how COVID 19 has influenced public universities responses to financial risk. This study can help the policy makers to design policies that strengthen financial stability of public Universities in Kenya. This study would also form a framework of operationalizing the public Universities activities efficiently for economic development and sustainable growth. The Ministry of Higher Education may use the findings to set guidelines and bench mark the best practices to ensure financial stability in institutions of higher learning. Further, the management of public universities would acquire information that directly relates to their decision making paradigm and be able to carry out their day-to-day operations. The donors and investors are interested on seeing public Universities excel in research and innovation programmes as the key objective of institutions of higher learning. The findings of this study can also add to the databank of scholarly articles and the existing body of knowledge. The outcome of this study may provide insight to other entities and

researchers and continue to form one of the major areas of interest for research on other influences of financial risk exposures in Kenya.

Statement of the Problem

There are incredibly complicated risk profiles in universities (Wade, 2011). The range and type of risks affecting higher education have been articulated by several authors (Lundquist, 2015). Some of those risks, such as financial risks come from within the institution as well as other external factors such as Corona Virus disease of 2019 pandemic. Public universities in Kenya are struggling to fund their core operations and at the same time respond COVID-19 at the backdrop of low operational revenue and additional demands imposed by the pandemic on all main sources of finance. As a result, the pandemic adds to the complexity of higher education by posing new financial risks prior to COVID 19. The universities have been empowered by the Universities Act 2016 which gives them more latitude in managing their own internal affairs. However, for the universities to thrive under these new developments there is need for robust financial risk management. Financial risks are a major threat to most organisations, so the mitigation and complete elimination of losses requires prudent management of financial risks. The Public Finance Management Act (PFMA), 1999, as amended by the National Treasury (2009) Framework for Risk Management in Public Sector Organizations, contains guidance and procedures for implementing a risk management strategy in the Kenyan public sector. However, evidence shows that, despite the existence of this regulatory framework, the effectiveness of public sector organizations' financial risk management is still undermined by the increasing prevalence of uncertainty both within the university and external factors such as disasters (the National Treasury, 2014 & Pricewaterhouse Coopers, 2014). Therefore, this study sought to determine how COVID 19 prevention and mitigation measures specifically sanitization measures has affected financial risk management of public universities in Kenya.

Research Hypothesis

i) **H_0**: Sanitization measures have no significant effect on the financial risk management of public universities in Kenya.

LITERATURE REVIEW

Empirical Studies

Arbogast, Moore-Schiltz, Hughes and Parker (2016) sought to determine the efficacy of a multimodal hand hygiene program in reducing health care insurance claims for hygiene preventable infections and impact on organizational performance. The results indicated that though utilization of hand hygiene program has reduced health care insurance claims, it has increase operational cost of acquiring hand sanitizers among faculty members. Sultana, Sarker and Hossain (2020) evaluated handwashing practice among the selected university students in the city of Dhaka, Bangladesh and how it influences overall financial risk management of the university. A cross-sectional study

was conducted among 200 undergraduate students from four selected universities. Regression coefficient indicated that expenses related to hand washing has significant effect on overall financial soundness of the university. Specifically, cost of hand sanitizers and water for found to significant.

Bonnet, Devel, Faucher and Roturier (2012) established that WASH facilities expenditure is raising among universities due to increased enrollment. However, municipals and cities authorities are unable to fulfill the demand. This has forced majority of the universities to spend colossal amount for their sustenance through public private partnership. Kiaritha, Gekara and Mung'atu (2014) adopted a descriptive survey design to investigate effect of WASH cost on financial risk management. The results indicated that the cost of acquiring wash equipment such as water tank, disinfectant and water has a bearing on overall organization expenditure. The effect of operating costs on pension schemes consisting of administrative and investment costs, which can substantially increase retirement security costs, was explored in Muriithi (2017). The findings of the study on regression analysis show that there was a strong inverse relationship between economic performance and administrative costs. The study recommends that the operating costs incurred by pension systems should be monitored and regulated by trustees/authorities.

Self-reported degree of awareness, attitude and accordance with the prescribed WHO hand hygiene status of alcohol-based hand sanitizers among healthcare workers were assessed during a COVID-19 pandemic in Jimma University Medical Center, Ethiopia, Assefa, Melaku, Bayisa and Alemu (2020) The study found that skin irritation, bad taste and dryness of the skin could be correlated with poor compliance with the health risks associated with hand washing sanitizers. The current study sought to determine the financial effect of covid-19 pandemic on risk exposure of chartered public universities in Kenya. This is a premier study as far as COVID 19 and financial risk exposure is concerned. The authors critiqued the existing studies therefore presented a basis for carrying out current study. It is evident that few studies have examined financial risk management strategies of public universities in Kenya during COVID 19 pandemic period. Further, existing foreign studies have not been published in referred journal leaving significant gaps which this study sought to fill.

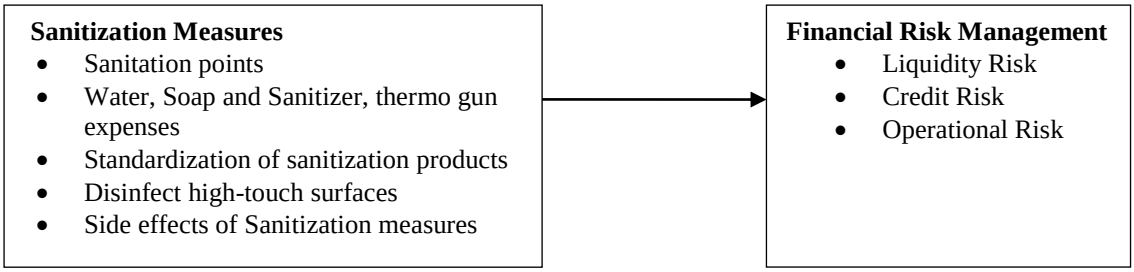
Theoretical Framework

This study was guided by financial distress theory. Financial distress was first classified and modelled in 1996 by beaver. He noted that financial distress as liquidation, bankruptcy, mergers absorption or major structural changes to a company. In this grey area where prediction of financial distress is difficult there is an overlap between non failed and failure. In most studies filling of bankruptcy occurs where the business deteriorates making it difficult to meet its short term obligations when they fall due as the key factor (Opler & Titman, 1994). Many factors accompany financial distress, Current bonds mature faster than existing assets which be kept until payments due for debt outstanding (Whitaker, 1999) including failing to pay debt, in

the event of debts due, decline or failure to pay dividends. Elloumi and Gueyié (2001) argue that bad economic conditions combined with weak financial risk management are characterized by financial distress. The ability to track working capital and cash flow levels is important for public universities to limit liquidity risk and other exposures to financial risk. Liang (2003), a supporter of this theory, ties the downturn in revenue and the production of negative profits to financial distress. Exogenous effects need to be addressed when determining causes of bankruptcy during crises, a catalyst for low asset performance in times of bankruptcy. Loss generation, insolvency and credit crunch times. Different exposures to financial risk, such as liquidity risk and credit risk, are related to financial distress. Two kinds of financial distress have been noted in financial literature, which include indirect and direct expenses. Salloum and Azoury (2012) claims that indirect costs of financial distress are the result of operating a corporation that is unable to perform its financial duty. These costs are unnoticed in nature and involve the expense of opportunities. This theory is relevant to this study since COVID 19 has potential to push universities to financial distress if adequate financial risk management practices are not adopted.

Conceptual Framework

According to Mugenda and Mugenda (2008), a conceptual framework helps the reader to quickly see the proposed relationships between the variables in the study and show the same graphically. The conceptual framework for examining influence of sanitization measures on financial risk management is discussed in this section. Figure 1.0 depicts the connection between the independent factors and the dependent variable.



Independent Variable **Dependent Variable**

Figure 1.0: Conceptual Framework

METHODOLOGY

Explanatory research design was adopted in this study. The primary objective of explanatory research is to establish any causal connections between the factors or variables contributing to the problem of the analysis. The target population was 62 staffs who were categorized into finance officer and DVC Finance and Planning from

31 public universities in Kenya (CUE, 2020). The choice of these population units is informed by the roles they play in financial risk management as well as COVID prevention and mitigation strategies. The study was purposive in nature as all the respondents were considered hence a census study thus providing the relevant information necessary for the study. Structured questionnaires were used to collect primary data from sampled respondents. The questionnaires were created in accordance with the study's goals, emphasizing the variables that were assessed using a Likert scale. The questionnaires achieved response rate of 82.3% implying that out of 62 questionnaires that were administered to the sampled respondents, 51 were successfully completed and returned. Pilot study was conducted to determine the research instruments' reliability and validity. For pilot analysis, the study used 10 respondents from Mt. Kenya University. Reliability was achieved using Cronbach alpha whereby sanitization measures yielded an Alpha value of 0.855 while financial risk management yield 0.877. Validity was accomplished via content and construct validity. Care was taken in developing the testing instrument to ensure that the data it is intended to collect is measured and obtained. Using supervisors and other experts from the School of Business and Economics, Masinde Muliro University of Science and Technology, expert judgment of content was employed. Construct validity was achieved using confirmatory factor analysis. The results of the factor analysis for sanitization measures with 5 items yielded a factor loading of 0.738; two factors of the seven factors were dropped because they did not follow the acceptable threshold. Financial risk management showed that all the factor loadings for the 8 items were 0.727. All the items were retained based on the general rule of thumb for acceptable factor loading of 40%.Both descriptive and inferential analysis was carried out by the use of Statistical Package for Social Sciences (SPSS 24). Analysed data was presented by use of tables.

FINDINGS

4Descriptive Statistics

Descriptive results comprised of mean, standard deviation, frequencies and percentages. This section presents descriptive results for sanitization measures and financial risk management. To achieve this, the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in a Likert scale of 1- 5 where: Strongly agree (SA)=5, Agree(A)= 4, Neutral or not sure (N)= 3, Disagree (D)= 2 and Strongly disagree (SD) = 1. The five statements on sanitization measures are presented in Table 1.0

Table 1.0: Sanitization Measures

No	Statements	5	4	3	2	1	Mean	SDV
1	High demand of hand sanitizers has resulted in high prices of hand sanitizers and thermo guns	15 (29.4)	32 (62.7)	0 (0)	4 (7.8)	0 (0)	4.14	0.78
2	The university has incurred extra cost in enforcing sanitization measures among students and staffs	18 (35.3)	31 (60.8)	0 (0)	2 (3.9)	0 (0)	4.27	0.67
3	Standardization of sanitizers and sanitization equipment from various authorities has resulted to legal risks	5 (9.8)	13 (25.5)	21 (41.2)	12 (23.5)	0 (0)	3.22	0.92
4	Implementing sanitization measures has exposed university to liquidity risk	10 (19.6)	28 (54.9)	1 (2)	12 (23.5)	0 (0)	3.71	1.04
5	Regular disinfecting of high-touch surfaces such as furniture has increased operational expenses	12 (23.5)	33 (64.7)	4 (7.8)	2 (3.9)	0 (0)	4.08	0.69

From Table 1.0, the results revealed that 62.7% of the sampled respondents agreed that High demand of hand sanitizers has resulted in high prices of hand sanitizers and thermo guns and 29.4% strongly agreed on the same. Similarly, 60.8% of the sampled respondents agreed that the university has incurred extra cost in enforcing sanitization measures among students and staffs while on the other hand 35.3% strongly agreed. The study also established that 25.5% of the sampled respondents agreed standardization of sanitizers and sanitization equipment from various authorities has resulted to legal risks although 41.2% were neutral. The results further revealed that 54.9% and 19.6% of the respondents were agreed and strongly agreed respectively that implementing sanitization measures has exposed university to liquidity risk although 23.5% were neutral. In addition, 64.7% and 23.5% of the sampled respondents agreed and strongly agree regular disinfecting of high-touch surfaces such as furniture has increased operational expenses.

The respondents were also required to indicate the extent to which financial risks associated with sanitization measures as a result of COVID 19. The responses ranged from Very Large Extent (1), Large Extent (2), Moderate Extent (3), Small Extent (4) and Very Small Extent (5). The results in Table 2.0 indicated that liquidity (mean=2) and operational (Mean=2) risks are associated with sanitation measures as a result of COVID 19 at large extent while credit risk at moderate extent (mean=3)

Table 2.0: Financial Risks Associated with Sanitation Measures

Sanitization Measures	N	Min	Max	Mean	Std. Error	Std. Deviation
Liquidity Risk	51	1.00	4.00	2.3922	.15102	1.07849
Credit Risk	51	1.00	4.00	2.7451	.13675	.97659
Operational Risk	51	1.00	5.00	2.3725	.15833	1.13068

The sampled respondents were provided with 8 statements related to financial risk management of public universities in Kenya. The relevant results are as shown in

Table 3.0.

Table 3.0: Financial Risk Management

No	Statements	5	4	3	2	1	Mean	SDV
1	University regularly prepares cash flows statement to manage its liquidity	18 (35.3)	32 (62.7)	1 (2)	0 (0)	0 (0)	4.33	0.52
2	The university personnel cost is within the acceptable Standard	14 (27.5)	20 (39.2)	6 (11.8)	11 (21.6)	0 (0)	3.73	1.10
3	Receivable balances in my universities are monitored on an ongoing basis to ensure that university's exposure to bad debts is not significant	10 (19.6)	32 (62.7)	6 (11.8)	2 (3.9)	1 (2)	3.94	0.81
4	The university has intensive training and clearly defined structures, policies and responsibilities for managing credit risk.	6 (11.8)	18 (35.3)	14 (27.5)	13 (25.5)	0 (0)	3.33	0.99
5	The university assesses the well-being financial resources to determine its vulnerabilities and therefore develop plans to minimize their impact	8 (15.7)	34 (66.7)	5 (9.8)	4 (7.8)	0 (0)	3.90	0.76
6	The university prepares cash flow forecasts to identify future surpluses and deficits	13 (25.5)	30 (58.8)	5 (9.8)	3 (5.9)	0 (0)	4.04	0.77
7	Controls are in place to evaluate the efficiency of financial risk management program	9 (17.6)	27 (52.9)	12 (23.5)	3 (5.9)	0 (0)	3.82	0.79
8	The university periodically reviews the financial risk management policies	9 (17.6)	22 (43.1)	12 (23.5)	7 (13.7)	1 (2)	3.61	1.00

From Table 3.0, 62.7% of the respondents agreed that university regularly prepares cash flows statement to manage its liquidity while 35.3% strongly agreed with a mean of 4.33 and standard deviation of 0.52. The results also revealed that 39.2% and 27.5% of the respondents agreed and strongly agreed respectively that the university personnel cost is within the acceptable standard. Majority of the respondents agreed

that receivable balances in my universities are monitored on an ongoing basis to ensure that university's exposure to bad debts is not significant as shown by 62.7%. However, 35.3% of the respondents agreed that the university has intensive training and clearly defined structures, policies and responsibilities for managing credit risk, 27.5% were undecided and 25.5% disagreed.

The results also revealed that 66.7% of the respondents agreed that the university assesses the well-being financial resources to determine its vulnerabilities and therefore develop plans to minimize their impact. Majority 58.8% of the respondents agreed and further 25.5% strongly agreed that the university prepares cash flow forecasts to identify future surpluses and deficits. The results further revealed that 52.9% of the respondents agreed that controls are in place to evaluate the efficiency of financial risk management program while 23.5% were undecided. Lastly, slight majority of the respondents (43.1%) agreed that the university periodically reviews the financial risk management policies while 23.5% were neutral on the same.

Inferential Statistics

Linear regression analysis was conducted to yield inferential statistics. The output include R for correlation coefficient, R square for coefficient of determination, F-statistics for model suitability and significance level which was set at $P<0.05$. The analysis also yielded regression coefficients which were used to predict financial risk management from sanitization measures. The results are presented in Table 4.0

Table 4.0: Regression Results of Sanitization Measures and Financial Risk Management

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.750[a]	.563	.554	.42109	.563	63.137	1	49	.000

a. Predictors: (Constant), Sanitization measures

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.195	1	11.195	63.137	.000[b]
	Residual	8.689	49	.177		
	Total	19.884	50			

a. Dependent Variable: Financial risk management

b. Predictors: (Constant), Sanitization measures

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.447	.307		4.716	.000
	Sanitization measures	.637	.080	.750	7.946	.000

a. Dependent Variable: Financial risk management

The results revealed that there was a statistically significant positive relationship between Sanitization measures and financial risk management of public universities in Kenya, Kenya. Sanitization measures accounted for 56.3% (R^2 = 0.563) variations in the financial risk management of public universities in Kenya. Therefore, Sanitization measures are a significant (P=0.000) predicator of financial risk management of public universities in Kenya.

Results show that Sanitization measures had a positive, linear and significant (P=0.000) association with the financial risk management of public universities in Kenya {regression coefficient, B=0.637, ANOVA, F=63.137 and t-test value, t=7.946, P=0.000}. The results are represented in the following model:

$Y = \beta 0 + \beta_1 X_1 + \varepsilon$

Where Y= Financial risk management of public universities in Kenya,

β_0= 1.447 (constant)

β_1= 0.637

X_1= Sanitization measures

Substituting equation above with values, the model becomes: $Y= 1.447+ 0.637X_1$

From the above model, the constant had coefficient of 1.447, p=0.000, this implies that in the absence of Sanitization measures, financial risk management of public universities in Kenya would be positive at 1.447. This financial risk management of public universities in Kenya would be significant (P=0.000). Further, Sanitization measures had beta coefficient of 0.637, P=0.000. This implies when everything is held constant one percent increase in the Sanitization measures would results to a significant increase in financial risk management of public universities in Kenya by 63.7%.

DISCUSSION

The study established that universities have implemented sanitization measures within the universities premises so as to mitigate spread of corona virus disease of 2019. These measures have exposed public universities to liquidity and operational risks at great extent while credit risk at moderate interest. Regular disinfecting of high-touch surfaces such as furniture has increased operational expenses; high demand of hand sanitizers has resulted in high prices of hand sanitizers and thermo guns thereby forcing universities to incur extra cost in enforcing sanitization measures among students and staffs. This increased the potential of liquidity risks as most of the universities were not prepared for Corona Virus of disease 2019 pandemic. This also exposed public universities to credit risk as funds budgeted for other functions are re-allocated to implementation of sanitization measures. Besides, adequate attention given to implementation of sanitization measures has exposed universities to operational risks. Operational risk associated with prospect of loss resulting from inadequate or failed procedures, systems or policies are significantly associated with sanitization measures. Excessive use of sanitize in effort to contain COVID exposes

employees and students to health problems if adequate care is not given. Therefore, employee errors or Systems failures associated with sanitization measures hence operational risk.

Financial risk can play a key role in developing overarching risk management programs that include business continuity and disaster recovery planning, and information security and compliance measures. In evaluating risk associated with sanitization measures, practical remedial steps should be emphasized in order to eliminate exposures and ensure successful responses. This is in line with financial distress theory Financial distress arises when a firm is not able to meet its obligations (payment of interest and principal) to debt-holders. The firm's continuous failure to make payments to debt-holders can ultimately lead to insolvency. For a given level of operating risk, financial distress exacerbates with higher debt. In regard to financial distress theory, bad economic conditions combined with weak financial risk management are characterized by financial distress. The ability to track working capital and cash flow levels is important for public universities to limit liquidity risk and other exposures to financial risk. Two kinds of financial distress have been noted in regard to sanitization measures to mitigate and prevent COVID 19, which include indirect and direct expenses.

Mahmood et al. (2020) indicated that sanitization measures preparedness can be toxic to human health and the environment when misused. Further, (Southivarakom, 2020) indicated that poor financial risk management can hurt an organization's reputation and cause financial damage. How much loss an organization is prepared to accept, combined with the cost of correcting those errors, determines the organization's risk appetite. Sultana et al. (2020) indicated that expenses related to hand washing has significant effect on overall financial soundness of the university. Specifically, cost of hand sanitizers and water for found to significant.

To mitigate these risks, the universities have ensured that personnel cost is within the acceptable and the universities have prepared cash flow forecasts to identify future surpluses and deficits. Therefore, an increase in sanitization measures to contain the spread of COVID 19 would results to significant increase in financial risk management of public universities in Kenya. Ibrahim, Fitria and Dianah (2019) showed that need to undertake by the university's management to be more effective and able to reduce risk management. It also found that the internal control system was effective in identifying 69 risk sources that could potentially have a negative impact on the university performance, especially in terms of financial report reliability, asset security, effectiveness and efficiency of activities, and compliance with regulations. Wang (2017) argued that financial risks are an inevitable result of local universities' operation on borrowings in the context of higher education expansion. These risks can be found in various fields of financial management and caused by different factors. To eliminate or at least reduce these risks, the school authority of a university has to update their financial knowledge on the one hand; on the other hand, local

government and banks should offer greater financial supports to local higher education. Specifically, the following measures should be taken as preventive practice. In another study, found that the internal audit effectively manages its activities in relation to risk management and adds value to the department's work. This is due to taking into consideration the directives of senior management when identifying risks, and to taking into consideration the benefit of implementing strategic tasks in improving the risk management process. In addition, the internal auditors have sufficient knowledge and awareness of the nature and quality of risks surrounding management, as well as their experience, scientific ability and skills in identifying and assessing the types of risks that threaten the conduct of operations in management.

Implication to Research and Practice

The study has a significant contribution to knowledge, practice and policy. The results were supported by financial distress theory. Implementation of various sanitization measures exposed public university to financial distress which affects their sustainability. Therefore, financial risk management cannot be undermined so far as financial sustainability is concerned. For practice, the universities should continuously and consistently come up with robust financial risk management strategies that would withstand both internal and external shocks. In regard to policy implication, The Ministry of Finance should come up with policies to increase financial resources allocated to public universities and higher education in Kenya as well as reduce taxes associated with sanitization facilities so as to cushion public universities from risk associated with COVID 19. The Ministry of Health should continue to work closely with the university management to come up with policies on COVID 19 mitigation and prevention measures that would ensure face-to-face learning is re-introduced.

CONCLUSION AND RECOMMENDATION

The study concluded that sanitization measures have significant effect on financial risk management of public universities in Kenya. The study established that universities have implemented sanitization measures within the universities premises so as to mitigate spread of corona virus disease of 2019. These measures have exposed public universities to liquidity and operational risks at great extent while credit risk at moderate interest. Regular disinfecting of high-touch surfaces such as furniture has increased operational expenses; high demand of hand sanitizers has resulted in high prices of hand sanitizers and thermo guns thereby forcing universities to incur extra cost in enforcing sanitization measures among students and staffs. To mitigate these risks, the universities have ensured that personnel cost is within the acceptable and the universities have prepared cash flow forecasts to identify future surpluses and deficits. Therefore, an increase in sanitization measures to contain the spread of COVID 19 would results to significant increase in financial risk management of public universities in Kenya. The study recommended that university management should offer intensive training to her employees and clearly defined

structures, policies and responsibilities for managing financial risks. Successful feedback from employees would make them mindful of the financial risk in the organizations is exceptionally which will enable them to comprehend the direction on financial management.

FUTURE RESEARCH

The current study focused on the effect of covid-19 prevention and mitigation measures on the financial risk management of public universities in Kenya. The examined Social distancing measures, sanitization measures and technological factors. Other factors such as government policies, university size may have mediated, moderating or intervening effect on the relationship between independent variables and financial risk management, therefor, further studies should focus on these factors to examine how they influence financial risk management in public universities. Comparative studies should be carried out between public and private universities in Kenya so as to establish significant difference in financial risk management as a result of COVID 19 which may improve on existing financial risk management strategies and policies.

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