

# INVENTORY DRIVERS AND FINANCIAL SUSTAINABILITY OF PUBLIC UNIVERSITIES IN KENYA

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# ABSTRACT

This study determined the effect of inventory on financial sustainability of public universities in Kenya. The study was anchored on operating cycle theory. The scope of the study was based on public universities in Kenya for period between years 2019 to 2022. Quantitative research design was used in this study. The study population was 31 accredited public universities in Kenya. The auditor general's office provided the secondary data. The research concluded that the financial viability of Kenya's public universities is influenced by inventory drivers. The study emphasized the need of reducing inventory turnover is key managerial advice for Kenyan public colleges. To enhance cash flow and minimize expenses, it was recommended to streamline use of inventory control systems. The policy suggestions also stressed the need of enhancing the turnover of inventories. The study recommended that optimizing inventory turnover is vital for minimizing carrying costs and preventing overstocking. Public universities should regularly assess inventory day ratios to identify opportunities for improvement and streamline procurement processes. Implementing inventory control systems can enhance accuracy in tracking inventory levels and ensure efficient inventory management.

Key Words: Inventory no of Days, Current ratio, Inventory turnover

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### INTRODUCTION

Inventory management in universities involves the oversight of educational materials, office supplies, and other consumables. Efficient inventory management ensures that the university has the necessary materials on hand to support educational activities without overstocking, which can tie up valuable resources. Poor inventory management can lead to stockouts, disrupting university operations, or overstocking, which can result in unnecessary costs (Jelagat & Paul, 2020). Recent research by Njagi and Mwangi (2021) indicates that optimal inventory management practices contribute significantly to the financial sustainability of educational institutions by reducing waste and improving resource allocation. By implementing effective inventory control systems, universities can streamline their operations, reduce costs, and enhance their financial health.

Financial sustainability refers to the ability of an institution to maintain its financial health over the long term. For public universities, this involves managing resources efficiently to ensure that they can continue to provide high-quality education without facing financial distress. Financial sustainability is influenced by various factors, including efficient working capital management, diversification of revenue sources, and effective cost control measures. According to Kioko, Njoroge, and Kirimi (2023), universities that implement comprehensive financial planning and management practices are better positioned to achieve long-term financial stability. By focusing on these areas, universities can mitigate financial risks, ensure continuous operation, and support their strategic goals.

In Germany, the automotive sector, represented by companies like Volkswagen AG, exemplifies the complex interplay between working capital management and industry-specific challenges (Anvari & Gopal, 2019). Volkswagen's global operations involve vehicle manufacturing, sales, and after-sales services, each contributing to working capital requirements. Factors such as production efficiency, supply chain disruptions, and regulatory compliance impact cash flows and inventory levels. Financial sustainability for Volkswagen depends on optimizing production processes, managing working capital tied up in inventory and receivables, and investing in research and development to navigate shifts in consumer preferences, technological advancements, and environmental regulations (Yazdanfar, 2021).

In Ghana, the manufacturing sector, exemplified by companies like Fan Milk Limited, underscores the importance of working capital in driving operational efficiency and product innovation (Kwame, 2018). Fan Milk's production of dairy and frozen products relies on efficient supply chain management, inventory control, and distribution network optimization. Working capital requirements fluctuate with raw material procurement, production scheduling, and market demand dynamics. Financial sustainability in this sector hinges on product diversification, cost control measures, and investment in technology to enhance manufacturing processes and meet changing consumer preferences in a competitive market environment (Kotut, 2019).

East African Breweries Limited (EABL) emerges as a noteworthy exemplar of effective working capital management and financial sustainability in Kenya. As a leading producer of alcoholic beverages, EABL's operations necessitate substantial working capital for procuring raw materials, maintaining production facilities, and distributing products across the country (Tibbs & Munene, 2022). Through meticulous inventory management, efficient receivables and payables systems, and strategic investment in technology and supply chain optimization, EABL mitigates financial risks and enhances its capacity to weather market volatilities, thereby fortifying its position as a key player in Kenya' manufacturing landscape (Muhindo & Rwakihembo (2021). Financial sustainability in Kenyan companies is often tied to their ability to manage working capital effectively. East African Breweries Limited (EABL) has diversified its revenue streams and implemented stringent cost control measures to ensure financial stability. According to a study by Kilonzo and Mwita (2022), EABL's comprehensive approach to managing working capital including efficient handling of payables, receivables, inventory, and cash has been crucial in maintaining its market position and ensuring long-term financial health. EABL's strategic focus on liquidity and operational efficiency underpins its financial sustainability in a competitive market.

Public universities in Kenya have increasingly focused on innovation and technology-driven initiatives to keep pace with the evolving needs of the labor market and society at large (Saro, 2022). Collaborations with industry partners, research institutions, and government agencies have led to the establishment of specialized programs and research centers aimed at addressing specific challenges facing the country, such as food security, healthcare, and environmental sustainability (Ksenjia, 2018). Furthermore, public universities in Kenya have played a crucial role in promoting social inclusion and equity by providing opportunities for disadvantaged and marginalized groups to access higher education. Scholarship programs, affirmative action policies, and outreach initiatives have been implemented to increase enrollment and retention rates among underrepresented communities, thereby promoting diversity and social cohesion within the university campuses (Mohamed, 2022).

#### **Statement of the Problem**

The financial sustainability of Kenyan universities has been declining to recent time where most of the universities reported deficits in their income statement, following the dwindling revenues universities are in a deep financial crisis that can possibly lead some of them to a halt. Auditor General declared 11 universities insolvent in a report to Parliament for financial year (2018/2019). It is necessary for all institutions to manage their liquidity well. Institutions are likely to encounter cash shortages that leads them to experience problems of paying its obligations when they fall due if it does not manage its liquidity well.

Kenyatta University, JKUAT, Egerton, and Moi University are other universities surviving on bank overdrafts to pay staff and run their affairs. According to the auditor general report (2018), management of Moi university failed to submit to the relevant agencies Ksh 598 million deductions made from staff to cater for loans and statutory. Another deducted fund but not submitted to agencies was Ksh 117 million for provident fund. The university is currently languishing in an estimated Sh1 billion deficit despite having about 23,500 students on government-sponsored programmes (Gok, 2018). Njoro-based Egerton University's bank had their accounts once frozen over workers' deductions arrears for insurance schemes and loans that have accrued to over Ksh 246 million. The 2017and 2018 audit reports revealed that Ksh 127 million for the pension scheme and Ksh 122 million collected from staff as Sacco savings was not submitted to the relevant agent. The university also owes staffs loans and insurance schemes amounting to Ksh 250 million. The university also has Ksh500 million deficit (Gok, 2018).

Differences in financial ratios and averages between industries were examined by the work of (Huefner & Gupta, 2010). In the organizations where many financial executives are struggling to identify the basic working capital drivers and an appropriate level of working capital, working capital has become one of the most important mechanisms to be practiced. Working capital strategic importance has encouraged several researchers to maintain their focus on finding out the relationship between working capital and profitability (Samiloglu & Demirgunes, 2008; Uyar, 2009). Because most of the previous studies focused on developed economies, additional insights could be provided through investigating this issue and perhaps different evidence on working capital in public universities in Kenya could be unearthed. (Gok, 2018).

Through revenues collected from self-sponsored students, universities could fend for themselves in olden days to curb this shortfall but this loophole is no longer available because universities are now recording zero admission in parallel programme. This has made universities to largely depend on bank overdrafts in payment of their fees, university administrators and vice chancellors must look for alternative revenue sources due to the sharp drop of parallel students and government capitation. Massive expansion programmes is another cause of financial difficulties besides decreasing parallel programmes enrolment and reduced government capitation. When vice chancellors receive funds to pay salaries but decide to use it on equipping a lab might not be mismanagement but misapplication of funds. (Gok, 2018).

Working capital and financial sustainability have also been studied locally in Kenya. Several studies have been conducted on a regional level; for example, Waweru (2011) examined the correlation between working capital and the market value of NSE-listed firms. The research concluded that the value of NSE-quoted companies is statistically related to their efficient working capital. Working capital and the long-term viability of Kenyan oil marketing companies were the subjects of research by Mutungi (2010). The study found that the oil industry has an aggressive working capital policy based on the correlation analysis. Research by Kithii (2008) examined the connection between working capital and profitability for NSE-listed firms. A significantly negative relationship between cash conversion cycle and profitability was found through a Pearson's moment correlation of co-efficient. Nyakundi (2010) carried out a study on working capital policies among public companies in Kenya. The concluded that there was no relationship between working capital drivers and profitability after a simple linear regression was run. The studies showed that there were few studies that were done to find out the effect of inventory drivers on universities financial sustainability despite the financial distress the universities have been facing over recent years in Kenya. Therefore, the study sought to find out the effect of working capital drivers on financial sustainability of public universities in Kenya.

## **Research Objectives**

The objective was to determine the effect of inventory on financial sustainability of public universities in Kenya. The study was guided by the following hypothesis;

• **H**<sub>0:</sub> There is no significant relationship between inventory and financial sustainability of public universities in Kenya.

## LITERATURE REVIEW

#### **Theoretical Review**

### **Operating Cycle Theory**

The theory developed by Richard and Laughlin in 1980 emphasizes a dynamic approach to liquidity management by extending traditional static balance sheet analyses. This theory incorporates measures of a firm's operating activity from the income statement into the assessment of liquidity, thereby providing a more comprehensive and appropriate view of liquidity management. Rather than relying solely on conventional solvency indicators such as the current and acid test ratios, this approach integrates accounts receivable and inventory turnover measures into an operating cycle concept. This integration offers a nuanced perspective on how liquidity flows through a firm's operational processes, enhancing the traditional analysis of potential liquidation value coverage.

According to Weston and Eugene (2011), life expectancies of certain working capital components are explicitly recognized through additional liquidity measures. These components are influenced by the degree to which the three basic activities of production, distribution (sales), and collection are un-synchronized and non-instantaneous. The accounts receivable turnover, for example, indicates how frequently a firm converts its average receivables investment into cash. This metric is directly impacted by the firm's credit and collection policies. When a firm grants more liberal credit terms to its customers, it typically results in a larger and potentially less liquid current investment in receivables. Unless sales increase proportionately, this situation can lead to a deterioration in liquidity, evidenced by extended receivables collection periods and lower receivables turnover ratios.

Laughlin and Richards (2012) argued that decisions leading to larger average receivables investments over a longer period inevitably result in higher current and acid test ratios. This is because such decisions increase the firm's current assets without a corresponding increase in liquid assets. Similarly, inventory turnover measures the frequency with which a firm converts its stock of raw materials, work-in-process, and finished goods into product sales. Adopting certain distribution strategies, production scheduling, and purchasing

practices that necessitate more extensive inventory commitments per dollar of anticipated sales can lead to a lower inventory turnover ratio. This reflects a longer and potentially less liquid inventory-holding period. If a firm cannot adjust its payment practices with trade creditors or secure sufficient short-term debt financing from non-trade creditors, these decisions will result in a higher current ratio indicator of solvency, indicating a potential liquidity issue (Webb, 2019).

The length of a firm's operating cycle is approximated by the cumulative days per turnover for inventory investments and accounts receivable. By incorporating these asset turnovers into an operating cycle concept, firms can gain a more realistic, though incomplete, indicator of their liquidity position (Wachira, 2018). This approach moves beyond the static analysis provided by traditional liquidity ratios, offering a dynamic view of how quickly a firm can convert its current assets into cash. However, this cash flow measure has its deficiencies, as it does not account for the liquidity requirements imposed by the timing of current liability commitments (Santosuosso, 2014).

Integrating the time pattern of cash outflow requirements imposed by a firm's current liabilities is crucial for a thorough liquidity analysis. Evaluating the associated time pattern of cash inflows generated by the transformation of current asset investments must be done in tandem with understanding the timing of cash outflows. This holistic approach to liquidity management ensures that firms can meet their financial obligations without facing undue financial distress. By adopting a comprehensive view that includes both inflows and outflows, firms can better manage their working capital and maintain a stable liquidity position (Pandey, 2018).

Additionally, the theory emphasizes the critical role of adapting liquidity management strategies to the unique characteristics of a firm's operations and industry dynamics. Different industries may have varying levels of cyclicality in demand, seasonality, and supply chain complexities, all of which can significantly impact liquidity requirements (Rafuse, 2014). For instance, industries with longer production cycles or greater reliance on perishable goods may necessitate more conservative liquidity management approaches to mitigate risks associated with inventory obsolescence or supply chain disruptions. By recognizing and accommodating these industry-specific nuances, firms can tailor their liquidity management strategies to effectively address their operational needs while maintaining financial resilience (Waweru, 2011).

Moreover, the theory underscores the importance of aligning liquidity management decisions with broader financial objectives and risk tolerances. While maintaining ample liquidity is crucial for safeguarding against unforeseen shocks and operational disruptions, excessively conservative liquidity policies may lead to underinvestment in growth opportunities or inefficient allocation of resources (Yazdanfar, 2021). Striking the right balance between liquidity and profitability requires a nuanced understanding of the firm's risk appetite, market conditions, and strategic priorities. By adopting a holistic approach that considers both short-term liquidity needs and long-term growth objectives, firms can optimize their liquidity management practices enhancing shareholder value and sustain competitive advantage in dynamic business environments (Gitman & Smith, 2020).

In summary, the theory developed by Richard and Laughlin emphasizes a comprehensive approach to liquidity management that goes beyond traditional balance sheet metrics. By incorporating income statement measures and understanding the operational cycle of assets, firms can achieve a more accurate and dynamic view of their liquidity. This approach underscores the importance of integrating the timing of cash inflows and outflows, providing a robust framework for managing liquidity and ensuring financial stability. Through effective management of accounts receivable and inventory turnover, firms can maintain a healthy liquidity position, supporting their operational efficiency and long-term viability.

## **Conceptual Framework**





**Dependent Variable** 

## Inventory

According to Gitman and Smith (2020), inventory is an essential component of a company's capacity to maintain its financial viability across all sectors of the corporate world. The days inventory outstanding ratio, which is sometimes referred to as the inventory days ratio, is a measurement that determines the average number of days that it takes for a firm to sell all of its inventory. A manufacturing business that is suffering a high inventory days ratio, for instance, may be retaining excessive stock levels, which ties up precious cash and warehouse space (Yazdanfar, 2021). There are a number of reasons for this. There is a possibility that this will result in increased carrying costs, such as the cost of storage and the possibility of obsolescence. A reduction in the inventory days ratio, on the other hand, is indicative of a more effective inventory turnover, which enables the firm to maximize its working capital and swiftly adapt to shifting market needs (Singh, 2020).

The short-term liquidity situation of a firm may be determined by calculating the current ratio, which is a comparison of the company's current assets to its current liabilities. Take, for example, a retail chain that has a high current ratio because it operates with a significant amount of inventory (Darush & Ohman, 2019). According to Naeem et al.'s research from 2020, a high current ratio may initially imply great liquidity; however, it may also indicate poor inventory management if the inventory remains unsold for lengthy periods of time with a high current ratio. In such circumstances, the organization would experience difficulties in rapidly turning its inventory into cash, which might have an effect on its capacity to fulfill its short-term obligations or to grab opportune investment opportunities. According to Doan, Bui, and Hoang (2019), it is essential to strike the appropriate balance between the various levels of inventory and liquidity in order to ensure the continued viability of the business's finances.

According to Mbah, Obiezekwem, and Okuoyibo (2019), inventory turnover, which is also referred to as inventory turnover ratio or stock turnover ratio, is a method that evaluates the number of times that inventory is sold or utilized during a given time period. This method is used to determine how well a firm effectively manages its inventory. For example, according to Bougheas et al. (2019), a wholesale distributor that has a high inventory turnover ratio may be an indication of successful inventory management procedures. These activities include efforts to minimize stockouts and reduce the expenses associated with retaining extra inventory. On the other hand, a low inventory turnover ratio may indicate that products are being overstocked, that they are moving slowly, or that sales methods are not working effectively, all of which can put a burden on cash flow and profitability. Companies have the capacity to improve their cash flow, lower their carrying costs, and improve their overall financial sustainability if they effectively optimize their inventory turnover (Pandey, 2018).

Inventory management is pivotal to a firm's financial sustainability, impacting key financial ratios such as the Inventory Days ratio, Current ratio, and Inventory turnover. These ratios offer insights into how efficiently a company manages its inventory relative to its sales and overall financial health. The Inventory Days ratio, also known as Days Sales of Inventory (DSI), measures the average number of days it takes for a company to sell its entire inventory. A lower DSI indicates quicker turnover and efficient inventory management, contributing to better cash flow and reduced holding costs. According to Miller and Ross (2023), companies with optimized DSI are more agile in responding to market demands and can more effectively manage their working capital, thereby enhancing financial sustainability.

The Current ratio, which compares a company's current assets to its current liabilities, is a critical indicator of short-term financial health. Inventory is a substantial component of current assets, and its management directly influences this ratio. An efficient inventory system ensures that current assets are not overly concentrated in unsold stock, which can inflate the Current ratio without genuinely reflecting liquidity. As highlighted by Turner and Lee (2022), companies that maintain a balanced Current ratio through effective inventory management can meet their short-term obligations more reliably, supporting overall financial stability. Overinvestment in inventory can distort the Current ratio, leading to potential liquidity issues and increased financial risk.

Inventory turnover, the ratio of cost of goods sold (COGS) to average inventory, measures how many times a company's inventory is sold and replaced over a period. High inventory turnover rates typically signify efficient inventory management and strong sales performance, indicating that a company can quickly convert inventory into revenue. According to Johnson and Miller (2023), high inventory turnover is associated with lower holding costs and reduced risk of obsolescence, which are crucial for maintaining healthy profit margins. Conversely, low turnover rates may signal overstocking or weak demand, tying up capital that could otherwise be used for growth initiatives. Thus, maintaining an optimal inventory turnover rate is essential for financial sustainability.

The interplay between these inventory metrics and financial sustainability underscores the importance of integrated inventory management strategies. Companies must balance the Inventory Days ratio, Current ratio, and Inventory turnover to optimize their financial performance. Recent advancements in inventory management technologies, such as AI and machine learning, provide tools for achieving this balance. As reported by Zhang and Li (2023), these technologies enable more accurate demand forecasting, efficient stock replenishment, and improved decision-making processes, leading to better alignment between inventory levels and market demand. This technological integration supports sustainable financial practices by enhancing operational efficiency and reducing costs.

In conclusion, the management of inventory through metrics such as the Inventory Days ratio, Current ratio, and Inventory turnover is fundamental to financial sustainability. Efficient inventory management ensures optimal liquidity, minimizes holding costs, and enhances profitability. Companies that leverage advanced technologies and strategic inventory practices are better positioned to maintain financial health and achieve long-term sustainability. Recent literature consistently emphasizes the critical role of these inventory metrics in fostering robust financial strategies and operational resilience (Miller & Ross, 2023; Turner & Lee, 2022; Johnson & Miller, 2023; Zhang & Li, 2023).

#### **Financial Sustainability**

Financial sustainability is a multifaceted concept that encompasses various financial metrics, including return on assets (ROA), surplus/deficit on asset, growth in sales, return on equity (ROE), and profitability, all of which are instrumental in evaluating the long-term viability and performance of an organization (Adam & Caroline, 2021). ROA measures the efficiency with which a company generates profits from its assets. A higher ROA indicates better utilization of assets to generate earnings, thus contributing to financial sustainability. For example, a technology company like Alphabet Inc., the parent company of Google, consistently maintains a high ROA through its innovative products and efficient asset management, which bolsters its financial sustainability by generating significant returns relative to its asset base (Anvari & Gopal, 2019). Growth in sales is another key indicator of financial sustainability, reflecting the ability of a company to expand its revenue streams over time. Sustainable sales growth indicates market acceptance of the company's products or services and its capacity to capture new market opportunities (Kwame, 2018). Consider a consumer goods company like Procter & Gamble (P&G). P&G's consistent investment in research and development, coupled with effective marketing strategies, has enabled it to achieve steady sales growth across its diverse product portfolio, thereby enhancing its financial sustainability through continued revenue expansion (Darush & Ohman, 2019).

ROE measures the profitability of a company in relation to its shareholders' equity, indicating how effectively the company is generating profits from the equity invested by shareholders (Tibbs & Munene, 2022). A higher ROE signifies efficient utilization of equity capital and can attract investors seeking strong returns. Take, for instance, a banking institution like JPMorgan Chase. JPMorgan Chase consistently delivers impressive ROE figures through its diversified business model, rigorous risk management practices, and operational efficiency, thereby demonstrating its ability to generate substantial returns for shareholders and ensuring its long-term financial sustainability (Jelagat & Paul, 2020).

Profitability, encompassing metrics such as gross profit margin, operating profit margin, and net profit margin, evaluates the company's ability to generate profits relative to its revenue and operating costs. Sustainable profitability is essential for covering expenses, reinvesting in the business, and rewarding stakeholders (Adam & Caroline, 2021). An exemplary case is Amazon.com Inc., which has achieved remarkable profitability by leveraging economies of scale, operational efficiencies, and innovation across its e-commerce, cloud computing, and digital content businesses. Amazon's sustained profitability underscores its financial resilience and capacity to thrive in dynamic market conditions, solidifying its position as a leader in the global marketplace and ensuring long-term financial sustainability (Grablowsky, 2019).

Financial sustainability refers to an organization's ability to maintain its operations and fulfill its mission over the long term while managing risks and adapting to changing economic environments. It involves the prudent management of resources, ensuring that revenues are stable and sufficient to cover expenses, and maintaining the capacity to invest in future growth opportunities. Financial sustainability is critical for the survival and success of any organization, whether in the private, public, or non-profit sector. The concept encompasses various aspects of financial health, including liquidity, solvency, profitability, and efficiency.

Liquidity and solvency are fundamental to financial sustainability. Liquidity refers to the ability of an organization to meet its short-term obligations, while solvency indicates the capacity to meet long-term debts and commitments. According to research by Cokins (2023), maintaining adequate liquidity ensures that a company can handle unexpected expenses and opportunities without the need for costly borrowing. Solvency, on the other hand, is crucial for long-term viability. Firms with strong solvency are better positioned to invest in long-term projects and weather economic downturns. Together, these aspects ensure that an organization remains operationally stable and capable of pursuing its strategic goals.

Revenue stability is a key component of financial sustainability. Organizations need consistent and predictable income streams to support their ongoing operations and strategic initiatives. Diversification of revenue sources can reduce the risk associated with reliance on a single source of income. For instance, non-profits might combine fundraising, grants, and service fees, while businesses might diversify their product lines or markets. Smith and Smith (2022) highlight that revenue diversification helps organizations mitigate risks and enhances their ability to adapt to market changes, thereby supporting sustainable growth and development.

Effective cost management is essential for financial sustainability. Organizations must control their costs to ensure that they do not exceed their revenues. Efficient operations, minimizing waste, and prudent resource allocation are critical. According to Brown et al. (2023), adopting lean management practices and continuous improvement methodologies can significantly reduce operational costs and enhance efficiency. By optimizing

processes and eliminating inefficiencies, organizations can improve their profit margins and reinvest savings into growth and innovation, thereby sustaining their financial health.

Investing in growth is a vital aspect of financial sustainability. Organizations need to allocate resources toward research and development, infrastructure, and capacity-building initiatives to stay competitive and meet future demands. Johnson and Wong (2023) argue that strategic investments in technology and innovation are crucial for long-term success. These investments should be balanced with maintaining sufficient liquidity and solvency. By carefully planning and prioritizing growth initiatives, organizations can ensure they are well-positioned to seize new opportunities and achieve sustainable development.

Risk management is integral to financial sustainability. Organizations must identify, assess, and mitigate risks that could impact their financial health. This includes financial risks, such as market volatility and credit risk, as well as operational and strategic risks. Implementing robust risk management frameworks and practices helps organizations anticipate potential challenges and develop strategies to address them. As highlighted by Johnson and Wong (2023), a proactive approach to risk management supports resilience and stability, ensuring that organizations can sustain their operations and achieve their long-term objectives even in uncertain environments.

Financial sustainability is a multifaceted concept that requires a balanced approach to managing liquidity, solvency, revenue stability, cost efficiency, growth investments, and risk. Organizations that excel in these areas are better equipped to maintain their operations, fulfill their missions, and adapt to changing economic conditions. Recent literature underscores the importance of integrating these elements into a cohesive strategy to enhance overall financial sustainability and ensure long-term success (Cokins, 2023; Smith & Smith, 2022; Brown et al., 2023; Johnson & Wong, 2023).

#### **Empirical Literature**

Mbah, Obiezekwem, and Okuoyibo (2019) set out to investigate the link between inventory management and operational performance of publicly traded manufacturing companies in the southeast region of Nigeria. This region has great potential for industrialization and is one of several in the country. This was accomplished by surveying manufacturing organizations to learn more about their operational performance and how it relates to various inventory management factors. Inventory expense, the just-in-time method, materials need planning, and strategic supplier partnerships were all part of these factors. Five hundred thirty-eight people from four different industrial companies in the southeast region of Nigeria completed out the survey accurately and were considered relevant to the research. Three hundred and seventy-one survey forms were distributed. Some of the recommendations made by the research for inventory techniques that manufacturing enterprises in southeast Nigeria should adopt include just-in-time methods, strategic supplier alliances, materials need planning, and inventory cost control. This is because these practices have a significant impact on the operational performance of the companies. As a result of the study's singular concentration on publicly traded manufacturing companies located in the south-eastern area of Nigeria, it is possible that its conclusions cannot be generalized to other categories of manufacturing companies or to other locations within Nigeria. It is possible that manufacturing companies located outside of the south-east area have distinct operational contexts, market dynamics, or resource restrictions, all of which have the potential to influence the link between inventory management techniques and operational performance in a different manner. In addition, the fact that the research relied on information from only four manufacturing companies that were included in the study may not have sufficiently captured the variety of practices and experiences that are present throughout the manufacturing industry as a whole.

The effectiveness of inventory management on the performance of state corporations in Kenya was the subject of an investigation conducted by Jelagat and Paul (2020). Based on the data, it can be concluded that if all other independent variables are held constant at zero, then an increase of one unit in inventory categorization

will result in a performance improvement of 0.537 for state businesses in Kenya. The significance of the association was established by the fact that the P-value was 0.000, which is less than 0.05. When it comes to the performance of state businesses in Kenya, the study also discovered that an increase of one unit in inventory control procedures will result in a 0.097 percent rise in performance. The significance of the association was established by the fact that the P-value was 0.002. In addition, the research discovered that a one-unit rise in the integration of information technology will result in a 0.067 percent boost in the performance of state businesses in Kenya. Due to the fact that the P-value was 0.000, the link was judged to be significant. Last but not least, the research concluded that an increase of one unit in demand and supply forecasting will result in an increase of 0.08 standard deviations in the performance of state businesses in Kenya the p-value was less than 0.05, the association was considered to be statistically significant. A p-value of 0.001 was recorded. The research concluded that, among all factors influencing the performance of Kenyan state-owned enterprises, inventory classification had the greatest impact. The study's results imply that state companies' success is positively correlated with safe stock management, inventory control processes, IT integration, and demand and supply forecasting.

Researchers Muhindo and Rwakihembo (2021) set out to empirically examine the link between inventory management and the bottom lines of private hospitals in Western Uganda. The study gathered information from 32 private hospitals in Western Uganda using a positivist approach and a cross-sectional research design. The study's data was analyzed using simple linear regression, and a closed-ended questionnaire was used for data collection. The results showed that private hospitals in Western Uganda's financial success is highly dependent on inventory management. According to the study's findings, private hospitals can't hope to improve their financial performance without establishing robust and scientific inventory management systems and models. Maximizing stock levels while decreasing expenditures should be the goal of these models and systems.

A number of public and private universities in Nakuru County were chosen for the purpose of establishing the link between inventory control procedures and supply management, as Saro (2022) established. The following objectives served as the basis for the research project: to establish the relationship between inventory audit and supply management; to investigate the relationship between inventory management systems and supply management; and to ascertain the relationship between inventory security and supply management in a selection of public and private universities located in Nakuru County. Following the findings, it was discovered that the inventory audit was carried out effectively by ensuring that the recording was accurate. It is also the responsibility of the universities to guarantee that expenditures are effectively managed in order to minimize waste and improper resource management. In addition, the inventory audit was carried out on a regular basis in order to guarantee the safety of all of the university's assets and resources. The result was that there was a substantial association between the auditing of inventory and the management of supply. Inventory code was modified by the inventory management system to make tracking more straightforward. On the other hand, the universities carried out cycles counting and verification in a modest manner, and they also refilled stock based on the information that was easily accessible in the records. The inventory management system provided some assistance in the process of budgeting for inventories. As a result, there was a substantial link between the supply management system and the inventory management system. In addition, it was discovered that the universities-maintained records in order to protect the resources of the universities, conducted inventory inspections in order to minimize the loss of things, and carried out stock taking in order to guarantee the safety of all of the inventory. Because of this, there was an adequate security system to guarantee that there was no security bridge. According to these findings, there was a substantial association between the management of supply chains and the protection of inventories. After conducting the research, the researchers came to the conclusion that supply management was significantly impacted by inventory audits, inventory management systems, and inventory security. According to the findings of the study, universities should conduct frequent inventory audits in order to provide opportunities for the reduction of shortages,

losses, and waste. Additionally, the universities have to consider implementing an electronic inventory management system that is capable of making tracking simple.

Several empirical studies have delved into the intricate relationship between inventory management metrics and financial sustainability, shedding light on their impact across various industries. One such study conducted by Jones and Smith (2023) examined the effect of the Inventory Days ratio on the financial sustainability of manufacturing firms. Their findings revealed that a decrease in Inventory Days ratio was positively correlated with enhanced financial sustainability. This suggests that efficient inventory management, leading to reduced holding periods, can significantly contribute to a firm's overall financial health by freeing up working capital and minimizing storage costs.

Lee et al. (2022) explored the influence of the Current Ratio on financial sustainability within the retail sector. Their analysis indicated a significant positive relationship between a higher Current Ratio and improved financial sustainability. A higher Current Ratio, indicative of better liquidity and short-term solvency, allows firms to meet their short-term obligations more comfortably, thereby bolstering their financial resilience against economic uncertainties and market fluctuations.

Chen and Wang (2024) investigated the impact of Inventory Turnover on the financial sustainability of wholesale distributors. Their findings demonstrated a strong positive correlation between a higher Inventory Turnover ratio and enhanced financial sustainability. A high Inventory Turnover ratio signifies efficient inventory management practices, such as timely replenishment and effective sales strategies, which can lead to reduced carrying costs and increased profitability, thereby fostering financial sustainability in the long run.

Patel and Gupta (2023) explored the combined effects of various inventory management metrics on financial sustainability across multiple sectors. Their comprehensive analysis revealed that firms employing an integrated approach to inventory management, optimizing Inventory Days ratio, Current Ratio, and Inventory Turnover simultaneously, tended to exhibit superior financial sustainability compared to those focusing solely on individual metrics. This highlights the importance of a holistic inventory management strategy in bolstering financial sustainability across diverse organizational settings.

# METHODOLOGY

The study was guided by epistemology (what is known to be true) research philosophy. According to Galliers, (1991), interpretivist and positivist are the main research philosophies that have been identified. Positivist research philosophy that is epistemological (what is known to be true) was adopted by this study. It is believed by positivists that reality is stable and can be described and observed from an objective point of view (Levin 1988). This study adopted a quantitative research design. The entire population of study was 31 accredited public universities in Kenya. This study used the censure since the entire target population was used in the study. Data sources for the study was secondary data. The collection sheet quantitative data was keyed into a computer software called SPSS (statistical package for social sciences) after being edited, blank responses handled, coded and categorized ready for analysis. To verify whether the captured data correlates with the data-captured into SPSS the dataset was subjected to a verification process. SPSS version 20 was used to run the descriptive statistics. After analysis, both descriptive and inferential statistics was generated. According to Zikmund (2011), descriptive statistics involved calculating percentage and frequency distribution. Mean and standard deviations were used to measure central tendencies and dispersion respectively. The relationship between dependent and independent variables was determined through a regression analysis. Correlation analysis determines the association between the variables. Multiple linear regression model tested the influence of each independent variable on the dependent variable for each of the years and the overall.

## **RESULTS AND DISCUSSIONS**

#### **Response Rate**

The study sought to address the objectives by use of collection data sheet, out of the accredited 31 public universities, information on 26 public universities was obtained, which represented 83.8% response rate, which was considered appropriate and enough for the study conclusions. A response proportion of above 50% is considered adequate in social science research Mugenda and Mugenda, (2003), hence the response rate for the study was adequate.

### **Descriptive Statistics**

## Effect of Inventory Drivers on Financial Sustainability

Table 1 depicts the results of the regression model that looked at the connection between SOA, inventory day ratio (IDR), current ratio (CR), and inventory turnover (IT) at Kenyan public colleges. Among the important metrics included in this model summary are the following: change statistics, standard error of the estimate, adjusted R Square, R, and Pearson correlation coefficient (R). These metrics provide valuable insights into the significance and explanatory power of the regression model.

A moderate positive linear association between the dependent variable (financial sustainability) and the predictor variables (IDR, IT, CR) is suggested by the Pearson correlation coefficient (R) of 0.610. This suggests that among Kenya's public universities, a higher inventory turnover, current ratio, and inventory day ratio correlates with greater financial sustainability.

A reported R Squared value of 0.372 indicates that inventory turnover, current ratio, and inventory day ratio account for around 37.2% of the variance in financial sustainability. This shows how these predictor factors might shed light on the differences in financial sustainability across public colleges.

A more cautious assessment of the model's explanatory power, taking into account the degrees of freedom linked to the regression model, is given by the adjusted R Square, which is 0.371 and was published. With this corrected number, we can see that the predictor variables were crucial in ensuring a good fit for the regression model.

An estimate's standard error, abbreviated as Std. Error of the Estimate, measures how far actual data fall short of the regression line on average. The accuracy of the regression model in predicting financial sustainability based on the included predictors is measured by the reported standard error of the estimate, which in this case is 0.87698.

Adding the predictor variables also affects the overall fit of the regression model, as seen by the change statistics. With their corresponding degrees of freedom and significance levels, the predictor variables' incremental contribution to the model's explanatory ability is shown by the reported F Change statistic of 4.150. The considerable rise in R Squared is supported by the computed p-value of 0.018, which further supports the reliability and validity of the regression results.

Table 1 shows the model summary, which highlights the considerable link between the financial sustainability of Kenyan public universities and inventory turnover, current ratio, and inventory day ratio. Strategic decision-making and resource allocation activities in the higher education sector might greatly benefit from these results, which aim to enhance organizational resilience and long-term survival.

## Table 1:

Model Summary	before	moderation
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				Std. Error		Chan	ge Statist	ics		
		R	Adjusted R	of the	R Square	F			Sig. F	
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change	
1	.610 <sup>a</sup>	.372	.371	.87698	.372	4.150	3	21	.018	
o Dradia	a Bradistana (Constant) IDD IT CD									

a. Predictors: (Constant), IDR, IT, CR

Table 1 provided the analysis of variance (ANOVA) results for the regression model investigating the impact of inventory drivers (inventory turnover, current ratio, and inventory day ratio) on the financial sustainability (SOA) of public universities in Kenya. This ANOVA table partitions the total variance in the dependent variable (SOA) into components attributed to the regression model (explained variance) and the residual error (unexplained variance), allowing for the assessment of the overall significance of the regression model and the individual predictors.

The regression component of the ANOVA table reports a sum of squares (SS) of 7.209 attributed to the regression model, with 3 degrees of freedom (df) associated with the included predictor variables. The mean square (MS) for the regression component, calculated as the ratio of SS to df, is reported as 2.403.

The F statistic, computed as the ratio of MS regression to MS residual, is reported as 4.150. This F statistic evaluates whether the regression model as a whole is statistically significant. The associated significance level (Sig.), denoted as .018b, is less than the conventional significance level of 0.05. Therefore, we conclude that the regression model is statistically significant overall. This implies that there is sufficient evidence to reject the null hypothesis, suggesting that at least one of the predictor variables (IDR, IT, CR) significantly contributes to explaining the variance in financial sustainability (SOA) of public universities in Kenya.

Moving on to the residual component, the ANOVA table reports a sum of squares (SS) of 12.151 attributed to the residual error, with 21 degrees of freedom (df). The mean square (MS) for the residual component, computed as SS divided by df, amounts to 0.579. This residual error captures the unexplained variance in the dependent variable (SOA) that is not accounted for by the regression model.

Finally, the total component represents the overall variability in the dependent variable. It reports a sum of squares (SS) of 19.360, with a total of 24 degrees of freedom (df). This total variability encompasses both the explained variance captured by the regression model and the unexplained variance captured by the residual component.

In summary, the ANOVA results presented in Table 2 confirm the significant influence of inventory turnover, current ratio, and inventory day ratio on the financial sustainability of public universities in Kenya. The statistically significant F statistic underscores the substantive impact of these inventory drivers on financial sustainability, thereby emphasizing the importance of effective inventory management practices for enhancing organizational resilience and long-term viability within the higher education sector.

# Table 2:

ANUVA
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Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.209	3	2.403	4.150	.018 <sup>b</sup>
	Residual	12.151	21	.579		
	Total	19.360	24			

a. Dependent Variable: SOA

b. Predictors: (Constant), IDR, IT, CR

Table 2 presented the coefficients derived from the regression model, offering insights into the relationship between inventory drivers (inventory turnover, current ratio, and inventory day ratio) and financial sustainability (SOA) of public universities in Kenya. These coefficients, both unstandardized and standardized, along with their standard errors, beta values, t statistics, and associated significance levels, provide valuable information regarding the magnitude, direction, and significance of the relationships between the predictor variables and the dependent variable.

Starting with the constant term, the coefficient (B) is reported as 0.702, with a standard error of 0.236. The constant term represents the expected value of financial sustainability (SOA) when all predictor variables are set to zero. The t statistic, calculated as the ratio of the coefficient to its standard error, yields a value of 2.973. The associated p-value (Sig.) of 0.007 indicates that the constant term is statistically significant at the conventional significance level of 0.05.

The predictor variables, inventory turnover (IT) exhibits an unstandardized coefficient (B) of 0.295, with a standard error of 0.124. The standardized coefficient (Beta), representing the change in financial sustainability per one standard deviation change in IT, is reported as 0.261. The t statistic for IT is 2.379, with an associated significance level of 0.026, indicating statistical significance at the 0.05 level.

Similarly, the current ratio (CR) demonstrates an unstandardized coefficient (B) of 0.541, with a standard error of 0.214. The standardized coefficient (Beta) for CR is reported as 0.531. The t statistic for CR is 2.528, with a significance level of 0.018, indicating statistical significance at the 0.05 level.

Furthermore, the inventory day ratio (IDR) yields an unstandardized coefficient (B) of -0.338, with a standard error of 0.125. The standardized coefficient (Beta) for IDR is reported as -0.342. The negative sign of the coefficient indicates an inverse relationship between IDR and financial sustainability. The t statistic for IDR is -2.704, with a significance level of 0.012, indicating statistical significance at the 0.05 level.

In-depth analysis of these results reveals that inventory turnover, current ratio, and inventory day ratio individually significantly influence the financial sustainability of public universities in Kenya. The reported coefficients provide insights into the direction and magnitude of these relationships, underscoring the importance of effective inventory management practices for enhancing organizational resilience and long-term viability within the higher education sector.

# Table 3:

Coefficients
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		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	0.702	.236		2.973	.007
	IT	.295	.124	.261	2.379	.026
	CR	.541	.214	.531	2.528	.018
	IDR	338	.125	342	-2.704	.012
	IDR	338	.125	342	-2.704	.012

a. Dependent Variable: SOA

The study sought to establish the equation of inventory turnover, current ratio and inventory day ratio on financial sustainability of public universities in Kenya. This was based on the standardized coefficients of the inventory turnover, current ratio and inventory day ratio. From the results in Table 3, the following regression model was obtained SOA = 0.702 + 0.295 IT + 0.541 CR - 0.338 IDR. The regression equation was to be presented in the form;

$$SOA = \beta_0 + \beta_1 IT + \beta_2 CR + \beta_3 IDR + \varepsilon$$

Where:

SOA- Universities financial sustainability in Kenya

 $\beta_0 - Constant$ 

IT – Inventory Turnover

CR - Current ratio

IDR - Inventory Day Ratio

 $\epsilon$ = Error term

The results shown provide important information on the connection between inventory factors and the financial viability of Kenyan public universities. Public universities in Kenya are somewhat positively associated with inventory drivers and their financial sustainability, according to the correlation coefficient (R) of 0.413. This indicates that, although not always in a straight line, financial sustainability does tend to alter in tandem with changes in inventory drivers.

With a R<sup>2</sup> of 0.17, we may deduce that variations in inventory drivers account for almost 17% of the observed variability in the financial sustainability of Kenyan public institutions. So, while the model's inventory drivers can explain 17% of the variance in financial sustainability, these variables don't account for 83% of the variance.

Once the number of predictors is taken into account, the adjusted R square value of 0.134 indicates that the independent variables in the model explain about 13.4% of the variance in financial sustainability. Adding more predictors may not substantially enhance the model's explanatory power, as this value is somewhat lower than the unadjusted R square.

The standard error of the estimate (0.83563) represents the average distance between the actual values and the predicted values by the model. Lower values indicate better predictive accuracy. The change statistics provide information about how much the R square changes when the independent variables are included in the model. A significant F change value (4.725) with a corresponding p-value (0.040) suggests that the model including inventory drivers significantly improves the explanation of financial sustainability compared to a model without these predictors.

The findings indicate that inventory drivers play a discernible role in influencing the financial sustainability of public universities in Kenya, albeit to a moderate extent. However, it's crucial to recognize that the model only accounts for a portion of the variability observed in financial sustainability, implying that other unmeasured factors also contribute significantly to this outcome. Future research could focus on identifying and incorporating additional variables to enhance the predictive power of the model and provide a more comprehensive understanding of the determinants of financial sustainability in the context of public universities in Kenya.

# Table 4:

# Model Summary after moderation

			Std. Error Change Statistics				ics		
		R	Adjusted R	of the	R Square				Sig. F
Model	R	Square	Square	Estimate	Change	F Change	df1	df2	Change
1	.413 <sup>a</sup>	.170	.134	.83563	.170	4.725	1	23	.040
<b>D</b> 11	ź	) <b>T</b> ) <b>T</b>	*						

a. Predictors: (Constant), INV

The ANOVA results presented in Table 4 provide further statistical evidence regarding the significance of the regression model in explaining the relationship between inventory drivers and financial sustainability of

public universities in Kenya. The regression sum of squares (3.299) represents the amount of variation in the dependent variable (financial sustainability) that is explained by the independent variable (inventory drivers) in the model.

The residual sum of squares (16.061) reflects the unexplained variability in the dependent variable after accounting for the effects of the independent variable. It represents the variability that is not captured by the model. The total sum of squares (19.360) indicates the total variability in the dependent variable. Degrees of Freedom represents the degrees of freedom associated with the regression model (1) and the residual (23), respectively.

Mean square is calculated by dividing the sum of squares by its corresponding degrees of freedom. It represents the average variability within each group (regression and residual). The F-statistic (4.725) is calculated by dividing the mean square of the regression by the mean square of the residual. It assesses whether the variability explained by the model is significantly greater than the variability not explained by the model. The significance level (p-value) associated with the F-statistic indicates the probability of obtaining the observed F-value if the null hypothesis (that there is no relationship between the independent and dependent variables) is true.

The F-value of 4.725 indicates that the variability explained by the regression model is approximately 4.725 times greater than the unexplained variability. The associated p-value of 0.040 is less than the conventional significance level of 0.05, indicating that the observed relationship between inventory drivers and financial sustainability is statistically significant. Therefore, based on the ANOVA results, we can conclude that the model of financial sustainability on inventory drivers is statistically significant overall, providing empirical support for the influence of inventory drivers on the financial sustainability of public universities in Kenya.

#### Table 5:

ANO	$VA^a$
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Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.299	1	3.299	4.725	.040 <sup>b</sup>
	Residual	16.061	23	.698		
	Total	19.360	24			
-						

a. Dependent Variable: SOA

b. Predictors: (Constant), INV

The results in Table 5 indicated that cash drivers were statistically significant ( $\beta = 0.326$ , t = 2.174, P-value = 0.040<0.05). Thus, the hypothesis that inventory drivers have significant effect on financial sustainability was supported. Beta coefficient for inventory management suggest that for every one-unit increase in inventory drivers, financial sustainability (SOA) of public universities in Kenya decreases by 0.326 units holding other factors constant. The predictive model of financial sustainability (SOA) on inventory drivers was of the form;

# FP(SOA) = 0.273 + 0.326 IM

Where FP is Financial Sustainability (SOA) and INV is Inventory

The results presented offer detailed insights into the relationship between cash drivers and financial sustainability, along with the predictive model derived from the regression analysis. The constant term (0.273) represents the expected value of financial sustainability (SOA) when all independent variables are zero. In this context, it signifies the baseline financial sustainability level. The coefficient for inventory management (0.326) indicates the change in financial sustainability (SOA) associated with a one-unit increase in inventory drivers, holding all other factors constant.

The standardized coefficient (Beta) of 0.413 provides a measure of the strength and direction of the relationship between inventory management and financial sustainability. It indicates the standard deviation

change in the dependent variable (SOA) per standard deviation change in the independent variable (inventory drivers). The statistical significance of the coefficient for inventory management (IM) is established by the associated t-value (2.174) and p-value (0.040<0.05). This indicates that inventory drivers have a statistically significant effect on financial sustainability.

The beta coefficient (0.326) suggests that for every one-unit increase in inventory drivers, financial sustainability (SOA) of public universities in Kenya decreases by 0.326 units, all else being equal. This negative relationship implies that higher levels of inventory drivers are associated with lower financial sustainability. The predictive model of financial sustainability (SOA) on inventory drivers is represented as:

## FP(SOA) = 0.273 + 0.326 \* IM

This equation provides a framework for predicting financial sustainability based on inventory drivers, with the constant term (0.273) and the coefficient for inventory management (0.326) serving as the model parameters.

The statistically significant relationship between cash drivers and financial sustainability supports the hypothesis that inventory drivers have a notable impact on the financial performance of public universities in Kenya. The negative beta coefficient suggests that higher levels of inventory drivers are associated with lower financial sustainability, highlighting the importance of effective inventory management practices in enhancing financial performance. The derived predictive model can serve as a valuable tool for policymakers and university administrators in assessing and managing the financial sustainability of public universities, providing insights into the potential impact of inventory drivers on overall financial performance.

#### Table 6:

## *Coefficients*<sup>a</sup>

				Standardized		
		Unstandardized	l Coefficients	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.273	.113		2.416	.024
	IM	.326	.150	.413	2.174	.040

a. Dependent Variable: SOA

# **Summary of Hypothesis Testing Results**

The results of hypothesis testing show that the hypothesized relationship was statistically significant meaning inventory drivers significantly contribute to financial sustainability of public universities in Kenya.

# $H_{0:}$ There no significant relationship between inventory drivers and financial sustainability of public universities in Kenya

The measure of fit, known as R2, was 0.170. Consequently, this indicates that inventory factors were responsible for explaining seventeen percent of the variances in the financial sustainability of public institutions in Kenya. The beta coefficient of inventory was found to be statistically significant ( $\beta = 0.326$ , t = 2.174, P-value = 0.040<0.05). The hypothesis that there is no significant association between inventory drivers and the financial sustainability of public universities in Kenya was rejected, and the conclusion that was reached was that inventory drivers do have a major influence on the financial sustainability of public universities in Kenya. The findings were in agreement with Padachi (2006), who discovered that a large investment in receivables and inventory is related with a lower level of profitability. Additionally, there was a significant correlation between profitability and total inventory days as well as the cash conversion cycle.

### CONCLUSIONS AND RECOMMENDATIONS

According to the findings of the study, there is a moderately favorable correlation between the profitability of public universities in Kenya and inventory turnover, current ratio, inventory day ratio, and inventory day ratio. Determination coefficient to be exact. When taken as a whole, the model was influential. Furthermore, the Inventory Day Ratio had the greatest impact on the long-term financial viability of public universities in Kenya, followed by the Inventory Turnover Ratio and its counterpart, the current Ratio.

The study aimed to determine the impact of inventory drivers on the financial sustainability of institutions in Kenya. The study determined that the financial viability of public universities in Kenya is affected by inventory. A strong and meaningful correlation existed between the value of its inventory and its financial stability.

The study recommended that optimizing inventory turnover is vital for minimizing carrying costs and preventing overstocking. Public universities should regularly assess inventory day ratios to identify opportunities for improvement and streamline procurement processes. Implementing inventory control systems can enhance accuracy in tracking inventory levels and ensure efficient inventory management.

Public universities should focus on improving their inventory turnover and current ratio. These factors have shown a moderate positive association with financial sustainability. Implementing efficient inventory tracking systems and adopting inventory optimization techniques can aid in achieving better turnover rates and maintaining a healthy current ratio.

#### **Suggestions for Further Studies**

This study used quantitative research design; future studies should use other research design such as descriptive cross-sectional research design. Further studies should use triangulation so as to get more information. The study relieved on secondary data, future studies should incorporate both primary and secondary data. It is also suggested that future studies should test the mediating effect on the relationship between working capital and establish the effect of working capital management on financial sustainability of universities in Kenya. Further studies should be conducted in private universities and the results be compared for the purposes of generalization. This study used surplus/deficit on assets as a financial measure of sustainability, future study should use other financial and non-financial indicators of sustainability measurements.

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