
**INVESTIGATING THE RELATIONSHIP BETWEEN INVENTORY CONTROL AND
ORGANISATIONAL PROFITABILITY: A CASE STUDY OF UGANDA RAILWAYS
CORPORATION.**

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ABSTRACT

The study aimed at investigating the relationship between inventory control and organisational profitability and it was guided by the following objectives; To investigate the relationship between inventory turnover and current ratio of Uganda Railways Corporation, to examine the effect of holding costs to the growth and expansion of Uganda Railways Corporation and to examine the effect of transport costs to the net margin (worth) of Uganda Railways Corporation. This study was adopting a cross-sectional survey design, together with a case study design, where quantitative paradigm was be considered. Cross-sectional design was be used because it allows collecting data at one point in time hence minimizing costs and time, putting into consideration the limited time and resources available. The findings of the study illustrated the relationship between holding costs (an independent variable) and organisational profitability (a dependent variable). By employing bivariate means, it revealed that there was a connection between the holding costs and organisational profitability of $(r) = 0.676$. The fact that the p -value is 0.000, which was less than 0.05 ($p < 0.05$), and the p -value was significant enough to led to the conclusion that the two parameters may be slightly positively correlated. The relationship between an enhancement in the holding costs and a corresponding change in organisational profitability appeared to be reciprocal, as indicated by the beneficial r value. It was concluded that there was a strong positive correlation coefficient between inventory control and organisational profitability. This was statistically significant since the p -value 0.00 was less than 0.05 and therefore the null hypothesis was rejected and decision made that was a strong relationship

between the two variables. The government should construct more inventories in order to increase organizational profitability.

Key words: inventory control, organisational profitability, inventory turnover, inventory turnover and holding costs

Background of the study.

Inventory control is an extension of stores keeping and it has been in practice for a long time. It has a wide scope of activities today. Inventory control is an act of safe keeping some valuable items for future use and to produce them when the need arises. Inventory control goes beyond the scope of keeping and producing the items only but also involves controlling of operations, receiving, quality control activities, training of store staff, control of all store houses, stock handling as well as clerical documentation (Allan et al., 2023)

Inventory control is a service center and the services to be provided must be meticulously handled, more organized to meet the demand of all units or department that constitute the organization for optimum performance. The primary function of inventory control is to provide for efficient inventory and handling goods to be redistributed to the ultimate user, this activity when carried out with the use of information technology was make re ordering of materials easy as the information were already in the computer. The use of information technology in controlling of inventory eliminates time wastages. The provision of services to the operating function must be fully appreciated. All the other activities although they have their own relative importance were subordinate to this primary responsibility. (Granny. J Z 2015).

In any institution, private or public, some substantial amount is spent on the acquisition of materials, equipment etc. which were kept in the store house for future use. These items represent an equivalent amount of cash and have to be looked after, protected against unauthorized usage, until they were used for the intended purpose and duly accounted for.

People have been buying and selling things for centuries so naturally, that means existed in some form, at least. Obviously, there were no computers 300 years ago, and certainly no barcode readers, but people have always tried to simplify the trading process, adopting new technologies along the way (Kazaara et al., 2023).

Before the industrial revolution, when merchants had to write down purchases and keep an eye on how many items were sold that day, and how many of them were left. and since they certainly didn't have a sales forecasting app, merchants had to forecast future needs themselves, which was not always accurate, and could easily slow down the business and the cause troubles.

Inventory control has resulted to integration of better production methods to minimize costs and wastages. In organizations such as Nile Steel Company Jinja, the stock requirements enable it to provide the required items to its customers, thereby enabling the firm's operations to be carried out smoothly hence resulting into a success to organizational profitability (Ntirandekura & Christopher, 2022).

There were various scholars who perceived inventory control in many different ways as analyzed below. According to Stevenson (2015). Inventory control is defined as a framework employed in firms in controlling its interest in inventory. It includes the recording and observing of stock level, estimating future request, and settling on when and how to arrange (Deus, 2023).

A study conducted in Kenya by Naliaka and Namusoke (2015) identified that inventory control affects competitive advantage of manufacturing firms. The same study further concludes that the firm is able to compete based on quality and delivery of customer orders on time. Competitive advantage comprises capabilities that allow an organization to differentiate itself from its competitors and is an outcome of critical management decisions (Christopher et al., 2022).

According to sander, Mathias, and Geoff (2016), historically, however, organizations have ignored the potential savings from proper inventory control, treating inventory as a necessary evil and not as an asset requiring management. As a result, many

inventory systems were based on arbitrary rules. Inventory control according to R.M. Onyango (2015) is a fundamental pillar in an organization and it should be taken seriously (Deus, 2023).

Statement of the problem

According to Uganda Investment Authority (UIA) since 1986, Uganda has had a very conducive socio- economic environment for both local and foreign investors including one stop center services, favorable taxing, licensing and after were of companies in Uganda, in fact some have continued to collapse due to low or even no profits and others keep declining in performance.

The causes of low profitability in organizations include; excessive operating costs, inadequate revenue, inefficient operating practices, over staffing, declining market and not knowing about competitors, (Annet et al., 2023). Wild 2002 states that the success of a venture depends on the ability to provide services to customers or users and remain financially viable and inventory control is an activity that plans for sales and stock outs, optimizing inventory for maximum benefit and preventing the pipe-up of dead stock (Ronet et al., 2023). Therefore, there is distress in a situation, in which the commercial is having operational, managerial and financial difficulties (weaknesses). Hence all the above cited problems have necessitated the researcher to investigate or carry out a financial performance analysis study (Deus, 2023).

Research objectives.

- 1. To investigate the relationship between inventory turnover and current ratio of Uganda Railways Corporation.*
- 2. To examine the effect of holding costs to the growth and expansion of Uganda Railways Corporation.*
- 3. To examine the effect of transport costs to the net margin (worth) of Uganda Railways Corporation.*

Research questions.

1. *What were the effects of holding costs to the growth and expansion of Uganda Railways Corporation?*
2. *What is the relationship between inventory turnover and the current ratio of Uganda Railways Corporation?*
3. *What is the effect of transport costs to the net margin of Uganda Railways Corporation?*

Methodology

Research design

This study was adopting a cross-sectional survey design, together with a case study design, where quantitative paradigm was be considered. Cross-sectional design was be used because it allows collecting data at one point in time hence minimizing costs and time, putting into consideration the limited time and resources available (Saunders, 2007, p. 610). A case study was be used because it allows for intensive investigation and focuses on a case or a few cases of a phenomenon. The study was using quantitative approach because quantitative approach helps to describe nature of relationships between the study variable.

Study population

Kothari (2014, p.153) defines population as the total number of items about which information is desired. The study population comprises all members of the Uganda railways corporation. The organization has the population of 70 staff members. These members were in four categories namely; Audit staff (AS), Senior Accountants (SAAs), Operational members (OM), Administration staff (AS), The population of these were courtesy of the human resource manual of respective in 2019/2020. URC is chosen because they have been in existence for quite a long period of time, thus these staff have the necessary information for the study.

Sample size

Out of the total population of the study, the researcher was select a sample of respondents who were identified from the total population of 70.

The table below presents the population that includes audit staff, senior accountants, operational members and administration staff. These categories were capable to have sufficient information on inventory control and organizational profitability.

Table 1, showing breakdown of population and sample of respondents;

Category	Access population	Sample	Sampling Techniques
<i>Audit staff</i>	21	20	<i>Purposive</i>
<i>Senior Accountants</i>	15	10	<i>Purposive</i>
<i>Operational members</i>	25	20	<i>Simple random</i>
<i>Administration Staff</i>	09	7	<i>Simple random</i>
TOTAL	70	57	

Source: Primary data 2020

Sampling Techniques and Procedures

The sample was be selected using two sampling methods, namely; simple random and purposive sampling. By simple random sampling, each individual from operational members and administration staff was be chosen by chance (Oso & Onen, 2009). Simple random sampling was selected because it enables the general's ability of the findings. With purposive sampling, this was be used to select senior accountant and audit staff of the organization to provide in-depth responses for qualitative analysis. The method of purposive sampling was intensity purposive sampling which was allow the researcher to select a small number of rich cases that enable the obtaining of in-depth information (Patton, 2003). Purposive sampling helps in obtaining detailed data for in-depth analysis from the key staff leaders.

Data Collection Instruments

The study was employing one method of data collection instrument known as, questionnaire.

The Questionnaire

An administered questionnaire (SAQ) was be administered on the respondent's self. The questionnaire was be chosen because it serves to collect appropriate data made; data comparable and amenable to analysis minimizes bias in formulating and asking of the questions and makes questions varied. The questionnaire has identical sets of items for all respondents. The researcher uses close ended questionnaire for all respondents. The use of questionnaire enables collection of data from a large number of respondents and also enables the respondents give sensitive information without fear as their personal identity is not needed on the questionnaire. Questionnaires offer greater assurance of anonymity thus enabling the respondents to give sensitive information without fear (Amin, 2005).

Data Analysis

A number of closely related operations which were performed with the purpose of summarizing the collected data and organizing these in such a manner that they answer researcher questions (Saunders 2007, p.610) data is analyzed using quantitative technique using E-views (Nelson et al., 2023).

Quantitative Data

Quantitative data was be analyzed at different levels, namely univariate and bivariate. At univariate level, the data was based on percentages from the frequency tables and descriptive statistics such as the mean. At bivariate level, the dependent variable (DV), financial performance was correlate and regress on internal controls the independent variables (IVs). The statistical package for social scientists (SPSS 20.0) was be used in the analyzing of data (Nelson et al., 2022).

Results

Relationship between inventory turnover and current ratio of Uganda Railways Corporation

Inferential findings on regression

To establish the relationship between inventory turnover and organisational profitability, the researcher carried out linear regression test. The results are presented in the tables below;

Table 1: Model summary for inventory turnover and Customer behavior in UBL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742	.577	.553	.27749
a. Predictors: (Constant), <i>inventory turnover</i>				

Source; Primary data, 2022

Keeping others constant, a one percent increase in inventory turnover would on average lead to 0.742 increase in organisational profitability. The R-squared value (0.577) is greater than the adjusted R-squared value (0.553) because it takes into consideration the degrees of freedom

Table 2: ANOVA values for inventory turnover and organisational profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.607	1	8.607	114.231	.000 ^b
	Residual	8.363	56	.075		
	Total	16.970	57			
a. Dependent Variable: organisational profitability						
b. Predictors: (Constant), <i>inventory turnover</i>						

Source; Primary Data, 2022

The examination's findings, which are shown in the table above, show that the regression model successfully forecasts the variable that is the dependent variable.

The regression model's statistical significance is denoted by $F=114.231$ and $P=0.000$, both less than 0.05. The disparity between the regression's initial mean square value of 8.607 and the remainder's mean square value of 0.075 serves as more evidence for this. This demonstrates the relationship between organisational profitability and inventory turnover.

Table 3: Coefficients of inventory turnover and organisational profitability

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.562	.219		7.130	.000
	inventory turnover	.629	.059	.712	10.688	.000

a. Dependent Variable: organisational profitability

Source; Primary Data, 2022

Table 3 above includes T-values and Beta. The t-values look for deviations from zero in the coefficient. To reject this, a t-value greater than 1.96 must be used (with a 95% level of confidence). The t-value of *inventory turnover* decreases is 10.688, which is greater than 1.96. This implies that inventory turnover has an impact on organisational profitability. Consideration is given to a substantial constituent (Sig = 0.000). Furthermore, an improvement of 0.712 units in inventory turnover causes an increase of one unit in organisational profitability, corresponding to the equation $Y=x + C$, where x =Offer price decreases (Independent variable), = 0.712, and C =constant.

Table 1: Correlation between holding costs and organisational profitability

		holding costs	organisational profitability
holding costs	Pearson Correlation	1	.676**

	Sig. (2-tailed)		.000
	N	56	56
Organisational profitability	Pearson Correlation	.676**	1
	Sig. (2-tailed)	.000	
	N	56	56
**. Correlation is significant at the 0.01 level (2-tailed).			

Source; Primary Data, 2022

The information in table 4 above illustrates the relationship between holding costs (an independent variable) and organisational profitability (a dependent variable). By employing bivariate means, it reveals that there is a connection between the holding costs and organisational profitability of $(r) = 0.676$. The fact that the p-value is 0.000, which is less than 0.05 ($p < 0.05$), and the p-value is significant enough to lead to the conclusion that the two parameters may be slightly positively correlated. The relationship between an enhancement in the holding costs and a corresponding change in organisational profitability appears to be reciprocal, as indicated by the beneficial r value.

Conclusion

There was a strong positive correlation coefficient between inventory control and organisational profitability. This was statistically significant since the p-value 0.00 was less than 0.05 and therefore the null hypothesis was rejected and decision made that was a strong relationship between the two variables.

Recommendation

The government should construct more inventories in order to increase organizational profitability.

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