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An Empirical Analysis of the Impact of Working Capital Management on the Performance of Companies in the Food Retail Industry

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***Abstract**: Working capital management is among the most crucial decisions for companies. The application of optimum working capital management tends to significantly boost the value of an organisation. Therefore, the study is based on an assessment of the working capital management as key indicator on the examination on the performance of a company. A critical analysis on this variable is provided to determine the relationship it has to the performance of a food retail company in terms of profitability. Moreover, the study also comprises of an assessment on the effects of WCM to improving leverage attributes of the companies. This analysis has utilised data sets from a sample of five companies is meant to provide scholarly evidences about the critical nature of the topic. These food retail organisations include Tesco, Sainsbury, Morrisons, and Mencer & Spencer. The outcome derived from the analysis is that there exists and positive and statistically meaningful relationship between working capital and the net profit which is a major determinant on the type of performance existing in a company*.

Keywords: Working Capital Management, Performance, Food Retail, Industry.

1. Introduction

A significant number of food retail companies has closed their operations due to the changing market and increasing complexity. The majority of those still in the market are facing financial difficulties and the challenges in meeting their operation needs, which further adds pressure on their working capital. This research seeks to investigate the impacts that working capital management has on the performance of companies in the food retail industry through evaluating various aspects of performance.

Ideally, in financial decision-making, considering working capital management is vital. In essence, working capital demonstrates the extent to which the firm has invested in assets which affect its profitability and liquidity directly. The management of working capital has been approached in several ways. [1] observed that each approach of managing working capital has an effect on the firm's profitability. Thus, there is a specific requirement of the working capital which potentially maximises the firm's profit. Furthermore, WCM can be explained using two concepts, which are gross and net working capital. The gross working capital represents the whole investment of a firm in the current assets, whereas the networking capital demonstrates the excess of current assets over current liabilities [2]. However, the efficiency of WCM depends on the WC policy set and implemented by the companies. The main aim of setting this policy is to manage cash and achieve an appropriate level of marketable securities as well as cash that aligns with the objectives and operation of the business The financial performance is a measure of how the business is progressing over a specific period. However, it is expressed in terms of either overall losses or profit measured using financial ratios. These ratios are used as tools to evaluate the financial performance of the companies. Given that the ratios have a standardised format of converting the financial data, it is possible to compare the performance of different firms in this food retail industry. For this study of the grocery industry, it will be important to identify subsets of the industry to compare. According to [3], not all financial ratios qualify to measure the efficiency of working capital management. In this sense, the major ratios that fit the food retail industries are inventory turnover, sales, liquidity, and profit ratios. Taking into consideration the nature of the food industry, inventory turnover is a critical ratio [4]. The basic reason is that it demonstrates the capability of the company to turn its overall inventory over a given period. On the other hand, the profitability ratios reflect the effect of all other financial ratios such as stock management, liquidity, and debt on the operations of the business. The research used data from the major food retailers in the United Kingdom which have the largest total assets in the food industry. A study presented by [5] reveals that the food retail industry is undergoing a seismic shift that has seen new technologies emerging forcing consumers to change the way they shop. The shift has complicated the food retail industry resulting in the closure of many traditional brands such as Maplin and Toys R Us in the UK. Another study by [6] opines that food retail chains are in trouble. The evidence of this is the affirmation by Marks & Spencer to close 100 stores. In the same study, it is revealed that Mothercare closed 50 stores in its jurisdiction. As some of the main food retailers are closing their shops, others are going on restructuring the stores under their administration due to declining performance.

2. Research Questions

A study presented by [7] reveals that the food retail industry is undergoing a seismic shift that has seen new technologies emerging forcing consumers to change the way they shop. The shift has complicated the food retail industry resulting in the closure of many traditional brands such as Maplin and Toys R Us in the UK. Another study by [8] opines that food retail chains are in trouble:

- • What are the impacts of working capital management on the profitability and efficiency in the operations of the UK food retail companies?
- What are the effects of working capital management on the leverage attributes of food retail companies in the UK market?
- What is the relationship between the management of working capital and the financial performance of food retail companies in the UK food retail industry?

3. Aim and Objectives

The aim of the research is to evaluate the roles of working capital management to a business with regards to components such as inventory, receivables, current assets, expenses, and current liabilities. The research also intends to critically discuss the performance of companies based on working capital determinants that mainly comprise of internal and external factors of a business. The increasing cases of financial difficulties facing food retail companies in the industry present an interesting area of study. The specific objectives of this study are limited to the following:

- To determine the impact that working capital management has on the performance of companies in the UK food retail industry in terms of profitability and efficiency in operations.
- To assess the effect of working capital management on improving liquidity and leverage attributes of companies in the UK food retail industry.
- To establish the existing relationship between the management of working capital and the financial performance of the companies in the food retail industry.

4. Rationale of the Study

The role of natural selection in the business sphere is eliminating the weak companies and maintaining the strong ones as well as those ready to meet the changing market. In the food retail industry, this analogy applies adequately to many companies closing shops and those facing operational difficulties. Research assessing the working capital management attributes and the effects it has on performance will enable food retail companies to gain insights into the challenges faced and will allow to develop countermeasures. Also, the implementation of policies in the food retail industry ranging from those of financial control and management of working capital is important for the progress of food retailers. This study contributes to better policy development for the industry.

5. Literature Review

According [7], the operating cycle theory explicitly focuses on the current assets of the WC. Thus, the theory attributes the income statement as the measure of the operating activities of a firm which include distribution, production, and collection. [1] noted that in this sense, some elements of CA such as receivables are influenced directly by the credit collection policy and the frequency at which these receivables are converted into cash in working capital management. This means that if customers are granted a fair or liberal credit policy, profitability is likely to increase, while liquidity will be sacrificed. [9] suggested the same impact of other components of CA on the firm's profitability. Based on the research conducted by [10] on the operating cycle of the food industry in the UK, effective working capital management has become vital as competition continues to intensify in this sector. The companies operating in the sector of foods and beverages ensure that they can

manage their cash levels, receivables, inventories, and payables effectively to determine their capital amount and meet their daily needs. Given a commercial organisation such as Tesco, it may not always be easy to justify that the current liabilities are less important in terms of quantitative value. Today, Tesco is the largest food retailer in the UK, and it has been utilising the shorter cycles for its betterment. [11] emphasise that shorter cycles have less capital tied up, and as a result, Tesco has invested in new markets overseas, thus expanding new opportunities for growth.

The cash conversion cycle is a metric that defines the time length of converting resources into cash flows. [12] introduced the concept of the cash conversion circle. [13] as well as Oseifuah and Gyekye (2017) emphasised that this theory should rather supplement the static and traditional liquidity ratio as it demonstrated dynamic insights[14]. These scholars observed that unlike operating cycle theory, this theory integrates both elements of the working capital, and it has a positive relationship with the current and quick ratios. In this sense, the cash conversion cycle provides an indicator of the retail food firms' liquidity to determine how working capital management affects the performance of a business. [15] applied a cash cycle analysis using the liability and the asset conversion cycles. One of the requirements for applying the cash conversion cycle in measuring financial performance is a good liquidity measure. Based on the historical data of the UK food retail industry, [16]noted that the wholesaling and retailing companies tend to have a shorter cash conversion cycle compared to manufacturing firms.

According to [17], the Baumol Model is applied in cash management as a formal approach to assessing the optimum cash balance under certainty conditions. Sarriera, [7] observed that this model treats working capital management similar to the problem affecting inventory management. In this sense, firms have opted for a way of reducing the cost of holding cash and that of liquidating the marketable securities. Lastly, this scholar supports the assumption that as the firm converts security into cash, it incurs the same transaction costs. In the context of foods retailers such as Walmart, Tesco, and Starbucks among others, the sale maximisation principle tends to be consistent with working capital management. This means that as these firms increase revenue from sales, they focus on the trade-off between foregoing interest on interest-bearing assets and the liquidity of holding money with the expectation of carrying out transactions. In the past, the tendency of the business to hold large cash was interpreted as an inefficient managerial choice[18]. Today, the companies make the choice of accumulating their cash reserves [19].The cash policy of these firms is corresponding to the objective of ensuring the level of financial flexibility. According to the study conducted by [7] on the cash holding of the firm in the UK food industry, it was evident that Tesco plc opts to rather hold the cash as a way of supporting its growth process and business development.

Different studies have been conducted on the financial ratios as control variables of working capital management. However, there are only a few which have focused on the food retail industry in the UK, and specifically Tesco plc. Some earlier studies by [20], [21]analysed the differences of the financial ratios influencing working capital between industries. Both studies concluded that the only difference that exists is in the leverage, profitability, activity, and liquid ratios among the firms in the same industry. Afrifa (2016) extended these findings through cross-sectional stability by grouping the financial ratios of both primary manufacturers and retailers.

6. Using the Template

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7. Methodology

This study is mainly constructed on the basis of interpretivism. This aspect indicates that the type of reality examined in the study is subjective since it was designed by contributions from both the researcher as well as the authors featured from various secondary sources[14]. Throughout the project, the research shows concern by navigating through the various complexities of business phenomena. Moreover, the study provides empathic understanding on how the subject of WCM should be perceived by the world in terms of business performance. Again, the study belongs in the interpretivist research philosophy because the findings are supported using a moderately small data-sample size [22]. The research has classified the study under this type of philosophy due to the fact that the context comprises of insights on the problems affecting a specific business field. Moreover, the research has worked on interpreting the findings to generate the provided theories. Three hypotheses are formulated to assess this relationship:

H0: Poor working capital management approaches affect the performance of food retail companies considering their leverage and profitability.

H1: Poor working capital management does not affect the performance of food retail companies based on their profitability and leverage ratios.

An assessment of the above hypothesis based on testing approaches discussed in the methodology will reveal the relationship between working capital management and performance of food retail companies.

H3: Poor WCM may trigger slow movement of stock which in turn becomes obsolete as well as non-performing receivables that lead to an increase of write offs thereby reducing profits in the business.

8. Data Needs

In this section, the data needs, which include the nature of data required for the study, are presented. The intention of the research is to conduct an empirical analysis of the impact that working capital management has on the performance of the companies in the food retail industry indicates that the ideal data is necessary to be presented by companies in the food retail industry. Five companies from the UK food retail market are selected including Tesco, Sainsbury's, Morrisons, Walmart, as well as Marks & Spencer. The selection of the five enterprises is based on the resource limitations that may not support the assessment of the vast food retail market and companies in it.

9. Data Analysis

The analysis of the data collected will occur through the use of STATA software. Due to this, the testing of the hypothesis will be conducted including presentation of the descriptive analysis, a correlation or causal relationship, and inferential analysis. This section will also involve hypothesis testing. The first step towards understanding the attributes of the data collected is the descriptive analysis, which is presented including the results such as the means, the standard deviation, and the tests of the normality of the data. The goodness of fit model will be employed in studying the data with the hypothesis testing occurring through the use of t-tests. Similarly, the linear regression model is applied in this study. It was also used in the research of the effects that working capital management has on financial performance reported in Somalia, which was conducted by Jama et al. (2017). The model includes an assessment of the financial performance of the UK food retail companies in line with the working capital ratios such as current ratio, inventory turnover ratio, accounts receivables turnover ratio, and the quick ratio. In order to implement the above information, the following equation of the analysis is used:

$$FP = \beta 0 + \beta 1CR + B2ITR + B3ARR + B4QR + e$$

According to the above equation, FP represents the financial performance of the food retail companies, with CR representing current ratio, ITR being the inventory turnover ratio, ARR standing for the accounts receivables ratios, and QR representing the quick ratio. The analysis will be based on the identified ratios that represent financial performance for both profitability and leverage elements. Therefore, the analysis will be based on profitability and leverage as the measures of performance of the food retail companies in the UK market.

Before, presenting the outcomes as generated from the evaluation procedures conducted in this study, this part provides a summary of the values for the variables considered in the work. The essence of this step is to promote proper understanding of the data. Therefore, these statistics have represented all the important information that relates to the data such as the mean and standard deviation. Table 1 below is a tabular representation of the resulting figures after the computation. The mean represents a measure of central tendency whilst the standard deviation represents a measure of dispersion. Based on the chosen five case studies and the number of observations made for each variable, the summary also represents the maximum and minimum value recorded for each of the variables. This information provides an overview on the performance of all the variables in the chosen financial period under analysis in this work.

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Current ratio	10	1.5661	.2046346	.6471116	1.103184	2.029016
Net profit	10	2.674278	.4144815	1.310706	1.736656	3.611901
diff	10	-1.108178	.5934373	1.876613	-2.450627	.2342699

10. DISCUSSION AND RECOMMENDATIONS

The first major limitation encountered by the research was on collecting data. The companies have not readily provided the data on the online sources. Therefore, has to consider extracting the figures from annual reports. Despite a successful completion of this process, it was a challenging process that affected the rate of data collection. The other challenging part was finding financial reports relating the chosen periods. Given that the chosen timeframe was based on a past time (2009-2018), the research had to look through numerous reports to find the appropriate one that fits with the study. In some cases, some of the chosen companies in the sample size had distributed the reports in different links, therefore the researcher had to use a lot of time determining evaluating the data's validity against the provided links (Mackenzie et al., 2012). Again, the other issue was based on a sample size of ratios for independent variables used in the evaluation of the companies. Therefore, the research had to perform calculation to derive outcomes that relate to the required data for the variables as required in the study. Again, given that the companies are using financial reports with diverse financial years, it was challenging to reconcile the periods so that the analysed figures appropriately meet the set criteria. Some of the companies have financial reports that begin from the month of August, whilst others from January. Therefore, combining this data for analysis caused the research to utilise more time determining the validity of data within a chosen timeframe[14]. Based on the conducted study, the future researchers should investigate on the role of business policies to influencing performance of companies in terms of profit margins and working capital. Given that the research has already established that the relationship of the two variables triggers diverse effects to a firm, it is appropriate that the next study should evaluate on how to control the type of relationship between the two variables. Again, the policies will have the capacity to manage the level of effects on one variable as compared to the other. This study will be crucial as it will assist in identifying the available alternatives that manage the levels of performance for both independent and dependent variables [24]. Furthermore, based on the analysis and findings in this study, the research will have sufficient resources that assist them to identify how policies are the potential solution to managing the negative relationships and boosting the positive ones for the purpose of increasing the profits. On the other hand, it is an important scope of study as it mainly extends on the concepts already mentioned in this research. As a result, the study will have the capacity of covering all the critical areas that relate to company performance based on financial behaviour.

11. CONCLUSION

Based on the mentioned rationale in chapter one, the results and analysis section provide the required quantitative evidence. Natural selection in the business environment helps to remove the weak companies and retain the strong ones that are ready to meet the changes in the market. The analysis of the variables indicates the different kinds of relationships that exist between elements of a business. A transition in the performance of one area conducts a similar or excessive effect n the other. Throughout the study, the research has cover on the importance of profitability in the sustainability and performance of companies. Furthermore, the research has established how the working capital of a business has significant contributions towards its performance and growth. In essence, for a company to record high profit margins, there has to be proper management of the operational working capital.

On the other hand, the analysis also shows that independent variables have an effect in the overall company performance. Generally, they could be perceived as the initialisers of an evaluated performance for the companies. This aspect is based on the fact that the research utilised data gathered based on this variable to conduct the different types of analysis done in the study. For instance, the positive relationship of the inventory turnover ratio to company performance is based on its collected data. Therefore, basic management of a company's inventory will result to an efficient result of investment thereby contributing to positive performance of the company based on profit margins. Therefore, proper working capital management in terms of the independent variables will assisting in promoting the performance of the companies.

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