

# A Critical Evaluation of Working Capital Management Strategies and Profitability

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## ABSTRACT

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The well-implemented working capital management strategies enhance profitability through various transmission mechanisms. On these theoretical grounds, this study analyses the association between working capital strategies and profitability in selected public limited companies in Trinidad and Tobago. We apply widely accepted gauges of working capital management strategies, including the average inventory turnover period, average receivables collection period, average payment period, and cash conversion cycle as the working capital management strategies. Applying statistical and non-statistical approaches, we perform aggregate and disaggregate analyses of the working capital management strategies. The results of the disaggregate analysis reveal mixed, and in one case, we could not find evidence of an association between working capital management strategies and profitability. However, the aggregate analysis shows a strong negative and significant association between working capital management and profitability. We further expand this analysis to the individual components of working capital. These results indicate a robust positive relationship between all individual working capital components and profitability, except for the average receivables collection period, where interestingly, there was a statistically weak association.

**Keywords:** Working Capital Management; Average Inventory Turnover Period; Average Receivables Collection Period; Average Payment Period; Cash Conversion Cycle Profitability.

## INTRODUCTION

### 1.1 Background to the Study

Long-term corporate survival depends on profitability, and managers are always implementing tactics to increase profit. To keep a sufficient liquidity position, working capital management must be done well, maximizing profitability, and ensuring company valuation and shareholder value. Two strategies are typically adopted: conservative and aggressive approaches (Alamm et al., 2011). However, limited research has been conducted in this area, mainly in developed and older economies like India, Pakistan, Belgium, Jordan, and Greece.

In Trinidad and Tobago (T&T), most firms are small to medium-sized and rely on short to medium-term borrowings without a developed bond market. By investigating the connection between working capital parts, working capital management techniques, and profitability across a subset of public limited enterprises, this research seeks to close a gap in the literature on Trinidad and Tobago (T&T) in T&T during 2016-2020 (Alavinasab & Davoudi, 2013).

The research objectives include analyzing individual working capital components of Trinidad and Tobago (T&T) public listed conglomerates using suitable ratios, identifying the kinds of working capital management policy strategies these conglomerates have adopted (conservative vs. aggressive), assessing the profitability of T&T public listed conglomerates using suitable percentages, and examining the connections between working capital management strategies and individual working capital portions and profitability with appropriate statistical tools and ratios (Dong & Su, 2010).

Empirical conjectures suggest that a significant correlation exists between the profitability of working capital components and that of working capital management strategy (Osuji & Agbada, 2020; Sensini & Vazquez, 2021). The findings will add to the body of Trinidad and Tobago (T&T) financial literature and provide a foundation for further studies. The Revised Securities Bill 2012 encourages increased activity in the Trinidad and Tobago (T&T) capital/security market and economic diversification, providing empirical evidence and tools for players and decision-makers in the market (Eljelly, 2004).

## **2. Theoretical Framework and Review of Literature**

In this section, some focus will first be placed on the theories that relate to this study to define the key concepts clearly. A review of literature on similar research will be done to guide this study. This review will analyze the material published on the topic critically.

### **2.1 Theoretical Framework and Related Concepts and Terms**

Working Capital (WC) measures the effectiveness and immediate financial stability of a business. It shows how well a business can use its short-term assets to fund its short-term operating activities. Three ideas can be used to classify working capital: Gross working capital is the sum of all current assets; net working capital is the sum of all current assets less all current liabilities; and operational working capacity is a more limited term that focuses on process-related items rather than financial ones. Consequently, only inventories, accounts accounts payable, and accounts payable will be included.

According to finance theory, managers should aim to minimize net working capital (as well as operational financing) to a level that does not negatively impact the company's financial operations. Current liabilities are subtracted from present assets to determine net working capital. The Working Capital Theory states that businesses must determine their profit or loss in order to submit their financial statements. The management of its current wealth, which makes up a significant portion of a business's working capital, will primarily be responsible for the calculated profit and the cash and liquidity accumulated. In theory, there should be a negative correlation between profitability and net liquidity; as net working capital decreases, profitability should increase (and vice versa).

#### **2.1.1 Policy Strategies to Working Capital**

There are three main types of working capital policy strategies: aggressive, conservative, and moderate. Determinations on investments or financing are part of aggressive policies, which lead to low current assets and high current liabilities. These rules are designed to enhance revenue while avoiding unnecessary expenses. Conservative policies, on the other hand, strive to collect payments on schedule, leaving little to no balances for debtors, and paying creditors as late as feasible.

A moderate strategy takes a middle-of-the-road stance on issues. The components of working capital are current assets and current liabilities. Working capital oversight, or WCM, is the financial strategy used by a business to maximize the impact on its financial components. Among the criteria used to assess WCM are the working capital ratio, cash conversion cycle, and average payment period (Jose et al., 1996). Understanding profitability requires taking into account the average time it takes to collect, pay, and turn over merchandise. A moderate strategy adopts a middle-of-the-road position.

Profitability is the ability to generate returns on a continuous basis. Net Operating Profit measures a company's profitability and its management's growth (Yenni et al., 2021). Listed public companies are publicly traded companies that offer securities for sale on the open securities market, typically through a stock exchange.

### **2.2 Review of Related Literature:**

The components of working capital are current assets and current liabilities. Working capital oversight, or WCM, is the financial strategy used by a business to maximize the impact on its financial components. Among the criteria used to assess WCM are the working capital ratio, cash conversion cycle, and average payment period. Understanding profitability requires taking into account the average time it takes to collect, pay, and turn over merchandise, while more profitable firms had shorter ACP, higher sales growth, and lower debt financing.

Lazaridis and Tryfonidis (2006) found similar findings to Deloof (2003), but with a smaller sample size of 131 firms. They considered more variables, including fixed financial assets, sales, financial debt ratio, and CCC, and found negative correlations with profitability measures.

The study by Ganesan (2007) found mixed results on the correlation between profitability and various components of the CCC (Components, Costs, Costs, Capital) in the telecommunication equipment industry. While a positive association was found between APP and profitability, no relationship was found with IA, suggesting poor management of these components may have little effect on profitability. Raheman and Nasr (2007) analyzed 94 Pakistani firms using a different profitability measure, operating income plus depreciation/total assets–financial assets. They used Pearson's correlation, regression analysis, and other tools to determine relationships. They found a strong negative correlation between WC components, liquidity, and debt used and profitability, but a positive relationship between firm size and profitability. García-Teruel and Martínez-Solano (2007) found a negative correlation between ACP and profitability in small and medium-sized Spanish firms, suggesting a need for a shorter ACP. Nazir and Afza (2009) found a negative relationship between aggressive and conservative WC policies on profitability in listed Karachi Stock Exchange companies. Sur and Chakraborty (2011) studied Indian pharmaceutical companies using current ratio, ITP, and ACP as independent variables and profit before tax interest and tax margin as dependent variables. However, their study failed to solve the working capital profitability issue due to mixed results. Mathuva (2015) found a significant negative relationship between CCC and ACP and profitability, while Falope and Ajilore (2009) found negative correlations of all working capital components and profitability in 59 Nigerian firms. The analytical tools used were Pearson, Kendall and multiple correlation coefficients; multiple regression, t-test and F test. Viskari et al. (2011) and Shah and Sana (2005) agree on the negative correlation between CCC and profitability. However, Shah and Sana (2005) found a negative relationship between APP and profitability. Limited research on this topic shows inconsistent results, with no definitive conclusions. This study aims to measure WCM using Working Capital Ratio (WCR) and CCC as a separate component. The mixed results of a study may be due to differences in dynamics at different times, such as the banking sector, government policy, economies, and firms surveyed. These variables may have contributed to the inconclusiveness of the findings. The study also examined the key concepts, methodology, and correlations among variables, revealing varied findings despite using similar measures for WC components and probability.

## **RESEARCH METHODOLOGY**

The existing literature on working capital management and profitability lacks subjectivity and value judgments. This exploratory quantitative study uses a positivist approach to collect empirical data, focusing on public limited liability companies' financial operations. Following existing literature, we use the following gauges of working capital management: Working capital ratios (WCR), cash conversion cycle (CCC), accounts payable payment period (APP), inventory turnover period (ITP), and accounts receivable collection period (ACP).

### **3.1 Data Group and Sample Selection**

Calculating differences and comparing data values was made simple by the aggregate numeric-ratio nature of the supplementary, quantitative, continuous, and financial information. The information was taken from yearly audited financial reports of businesses from 2016 to 2020, all publicly available documents. Auditing the conglomerates' financial statements was an annual activity carried out by two of the internationally renowned 'Big Four' chartered auditing firms, PricewaterhouseCoopers and Ernst & Young. The data were collected from a population of publicly listed companies on the Trinidad & Tobago Stock Exchange (TTSE). The TTSE has stratified these listed companies into ten categories which can generally be further grouped as financial, quasi-financial and non-financial. Grace Kennedy Ltd., ANSA McAL Group, and Massy Holdings Ltd. Grace Kennedy Ltd. was excluded from our analysis for the following reasons: it is a conglomerate established in Jamaica, and its financial data is expressed in Jamaican dollars. As a result, conversion to T&T dollars was required. Conversion rates for the years under investigation were not easily accessible. Likewise, the same years' financial reports were unavailable when this study was conducted. Unavoidably, the sample size was two (2) conglomerates, covering five (5) years of financial data.

### **3.2 Framework for Data Analysis**

The analysis begins by calculating working capital and profitability ratios (ITP, ACP, APP, CCC and WCR) and profitability ratios from the aggregated financial data from financial data, using them to generate objective

information. Bivariate descriptive and inferential statistical analyses are conducted, and contingency tables are created for selected conglomerates. Graphical analysis is performed to understand the working capital management process, trends are determined using indices, and bivariate correlation analyses are conducted using Pearson's product-moment correlation coefficient (PMCC)/Pearson's *r* test. Index numbers are used to examine the relative differences and trends of each company's variables.

$$\text{Index Number} = \frac{\text{Data Value for Year}}{\text{Data Value for the Base Year}}$$

In the end, the analysis was extended to the *t*-tests to test whether or not the two groups or conglomerates were statistically related. The next section presents the scope and limitations of the study.

### **3.3 Scope and Limitations of the Study:**

#### **3.3.1 Scope:**

The T&T capital market is comparatively small. Therefore, the sample size consists of the only publicly listed conglomerates comprising two companies from the conglomerate group on the TTSE. To the best of our knowledge, this study is the first to be conducted in Trinidad & Tobago – there was no published evidence to suggest otherwise. As such, there was no foundation upon which to build or compare. This study used the data from 2016 to 2020 since the data was collected from the individual companies' documents. The in-depth analysis of this data provides a wide range of information on relatively current practices. The audit practices for the case of private companies in the area have a couple of internal controls-related issues. Therefore, it was decided to exclude private companies from the sample. The findings may, therefore, not be very applicable and representative of this or other sectors.

This study used the Net Operating Profit x (1 – Tax Rate) gauge to measure a company's profitability. It applied aggressive and conservative working capital management policies, not a moderate policy, as it may have subjectivity in determining variables.

#### **3.3.2 Limitations**

The study was limited due to time constraints, limiting the sample size and requiring a larger sample. Only two of the three conglomerates could be studied, and financial data was unavailable. Profitability was the only independent variable, and other control variables were not possible. Time constraints prevented comparative analyses with other non-financial categories of companies and there was no published research on this topic in the T&T environment.

In conclusion, the section began by recognizing that the positivist philosophical stance would have guided the research approach to be adopted in this study. So that such areas as the methodology, the method of data collection and the framework for data analysis would all have been consistent with this philosophy. The next section advances the research to the next level, where it highlights the findings and analysis of the data.

## **4 Data Analysis, Key Findings, and Conclusion**

The results and the several analyses that were produced using the data that was gathered are shown here. Furthermore, where necessary, recommendations are made along with comments and implications of the findings.

### **4.1 Working Capital Strategies Analysis:**

The data for two publicly listed conglomerates, MHGS and AMG, shows varying results in inventory turnover periods (ITP) and average collection periods (ACP). In 2016, AMG had a slower inventory turnover period (ITP) and slower inventory sales, resulting in deteriorating profitability. MHGS reported lower inventory turnover periods and better inventory management. The indices for both companies showed unpredictable fluctuations, with MHGS decreasing to 96 in 2017 and increasing to 100 in 2018. AMG's fluctuating index may be due to inconsistent management of ITP. The average collection period (ACP) for both companies showed varying results, with MHGS having a lower ACP in 2016 and 2017, and AMG having a lower ACP in 2018. However, inconsistencies in ACP results were observed in the following three years, with AMG's average collection being 72.71 days, 69.44 days, and 60.14 days, respectively. MHGS had a lower average collection, indicating improved efficiency in managing ACP, potentially impacting profitability. Absolute days also showed fluctuations at the individual company level.

Table 1: Working Capital Components and Profitability

|                                                                                               | 2016    |         | 2017    |         | 2018    |         | 2019    |         | 2020    |         |
|-----------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                                               | MHGS    | AMG     | MHGS    | AMG     | MHGS    | AMG     | MHGS    | AMG     | MHGS    | AMG     |
| Inventory Turnover (Days) - (Inventory / Cost of Goods Sold) x 365 days                       | 68.93   | 119.29  | 66.31   | 109.35  | 69.28   | 125.75  | 63.77   | 108.45  | 70.4    | 104.97  |
| Average Collection Period (Days) - (Accounts Receivable / Sales) x 365 days                   | 67.49   | 55.16   | 125.78  | 59.26   | 90.13   | 72.71   | 76.29   | 69.44   | 73.69   | 60.14   |
| Average Payment Period (Days) - (Accounts Payable / Cost of Goods Sold) x 365 days            | 78.58   | 102.23  | 81.15   | 95.63   | 80.03   | 115.53  | 82.9    | 120.11  | 79.67   | 112.31  |
| Cash Conversion Cycle (Days) - (ACP + ITP - APP)                                              | 57.85   | 72.22   | 110.94  | 72.97   | 79.37   | 82.94   | 57.16   | 57.78   | 64.43   | 52.8    |
| Profit after tax (\$) - Operating Profit x (1 - Tax Rate) or Profit for the year (after tax). | 536,160 | 803,108 | 411,841 | 647,954 | 565,475 | 722,124 | 613,232 | 776,343 | 743,151 | 503,818 |
| Working Capital Ratio (Policy) - (Total Current Assets / Total Assets)                        | 0.559   | 0.4783  | 0.6231  | 0.402   | 0.5984  | 0.4236  | 0.5955  | 0.3984  | 0.5887  | 0.4279  |

**Note:** The above values are the summary of data values of working capital components and profitability for Massy Holdings Ltd and ANSA McAL Group. MHGS and AMG indicate the Massy Holdings Ltd and ANSA McAL Group, respectively. The values are rounded to two decimal points.

However, this analysis indicates that AMG may have done a slightly better job managing the working capital. In particular, the lower ACP is indicative of more effective management of this variable. MHGS showed a lower average payment period (APP) for all five years than AMG. This indicated that MHGS generally paid off its debt to creditors over a shorter period. Without the benefit of further inside information, this may not have necessarily been an advisable approach for MHGS. More specifically, the funds used to pay creditors early could potentially have been used, among other things, for the followings:

- Purchase more inventory,
- increase sales of stock, and,
- improve profitability.

It should be noted that prolonging or increasing APP is only advisable if this would not have negatively interfered with the creditability ratings of the company.

Table 2: Index Table for Trends

|     | 2016 | 2016 | 2017 | 2017 | 2018 | 2018 | 2019 | 2019 | 2020 | 2020 |
|-----|------|------|------|------|------|------|------|------|------|------|
|     | MHGS | AMG  | MHGS | AMG  | MHGS | AMG  | MHGS | AMG  | MHGS | AMG  |
| ITP | 100  | 100  | 96   | 92   | 100  | 105  | 93   | 91   | 102  | 88   |
| ACP | 100  | 100  | 186  | 107  | 134  | 132  | 113  | 126  | 109  | 109  |
| APP | 100  | 100  | 103  | 94   | 102  | 113  | 105  | 117  | 101  | 110  |
| CCC | 100  | 100  | 192  | 101  | 137  | 115  | 99   | 80   | 111  | 73   |
| PAT | 100  | 100  | 77   | 81   | 105  | 90   | 114  | 97   | 139  | 63   |
| WCR | 100  | 100  | 111  | 84   | 107  | 89   | 107  | 83   | 105  | 89   |

*Note.* ITP, ACP, APP, CCC PAT and WCR indicate Inventory Turnover Period, Average Collection Period, Average Payment Period, Cash Conversion Cycle, Profit after Tax, and Working Capital Ratio, respectively. Index Table showing trends of variables for Neal & Massy Holdings and ANSA McAL Group 2016 to 2020. MHGS and AMG indicate Massy Holdings Ltd and ANSA McAL Group, respectively. The values are rounded to the following highest index number. 2016 is the base year.

The cash conversion cycle (CCC) was inconsistent for both conglomerates in 2016 and 2017, with MHGS showing a higher CCC of 57.85 days and AMG showing a higher CCC of 72.22 days and 72.97 days. In 2018 and 2019, AMG showed a significant disparity of 82.94 days and 57.78 days compared to MHGS's 79.37 days and 57.16 days. This suggests that AMG would have been in a better financial position, as they would have effectively managed their working capital. However, a closer examination of their trends using indices showed a different picture.

Profitability for all the years was lower, with a relative increase in 2020 for MHGS compared to AMG. MHGS generated profitability levels of \$536,160 and \$743,151 for 2016 and 2020, respectively, increasing by approximately 38.601%. AMG, on the other hand, developed a decrease of 37.26% over the same years. The Working Capital Ratio (WCR), which was a proxy for the Working Capital Management Strategy (WCMS), was higher for MHGS for all five years, indicating a relatively less aggressive or more conservative WCMS.

Over the five years, the mean or average ITP for MHGS was 72.27 days and 123.22 days for AMG, with a 70.50% difference in the means. The mean ACP for MHGS was 63.502 days, with a standard deviation of 13.3269, suggesting that the ACP was slightly less effectively managed. AMG had a seemingly better efficiency level with their APP than MHGS, with a more extended average APP of 102.52 days and a narrower dispersion of 4.3199.

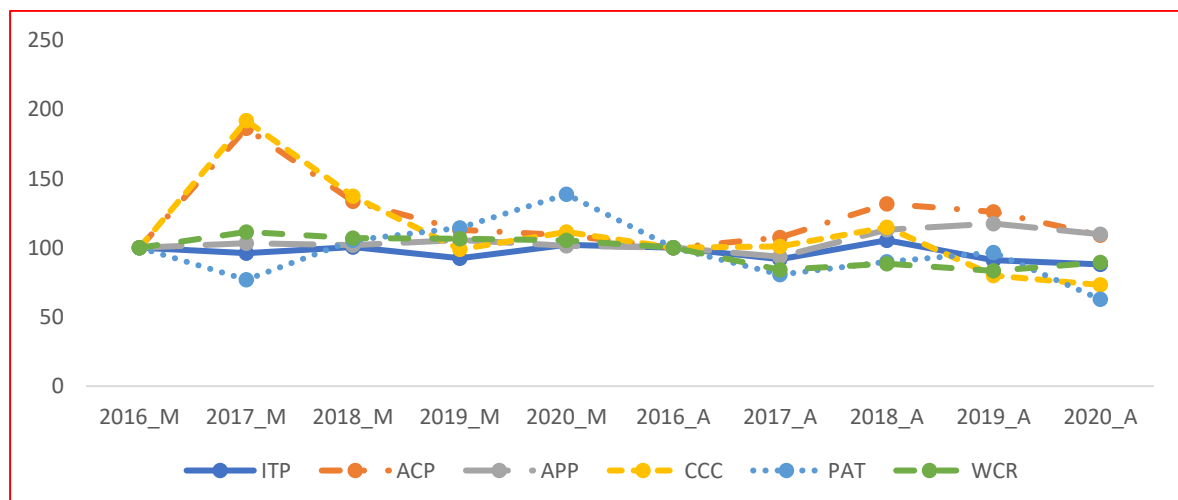


Figure 1. Working Capital Management Strategies

Table 3: Descriptive Statistics of Working Capital Management Strategies

|            | Company | N | Mean    | Std. Deviation |
|------------|---------|---|---------|----------------|
| <b>ITP</b> | MHGS    | 5 | 72.27   | 7.64592        |
|            | AMG     | 5 | 123.224 | 7.36976        |
| <b>ACP</b> | MHGS    | 5 | 63.502  | 13.32691       |
|            | AMG     | 5 | 58.644  | 8.26488        |
| <b>APP</b> | MHGS    | 5 | 86.24   | 7.26007        |
|            | AMG     | 5 | 102.52  | 4.31997        |
| <b>CCC</b> | MHGS    | 5 | 58.568  | 16.63195       |
|            | AMG     | 5 | 79.348  | 8.71882        |
| <b>PAT</b> | MHGS    | 5 | 402119  | 91326.37748    |
|            | AMG     | 5 | 681812  | 63060.77717    |
| <b>WCR</b> | MHGS    | 5 | 0.4923  | 0.04725        |
|            | AMG     | 5 | 0.3765  | 0.00522        |

Note. ITP, ACP, APP, CCC PAT and WCR indicate Inventory Turnover Period, Average Collection Period, Average Payment Period, Cash Conversion Cycle, Profit after Tax, and Working Capital Ratio, respectively. MHGS and AMG indicate Massy Holdings Ltd and ANSA McAL Group, respectively.

Average WCRs for both companies were relatively close; .4923 for MHGS and .3765 for AMG. All the above findings and analyses generally sought to present and describe the data values of the variables. This was done on an 'individual-variable' basis, which meant that each variable was individually presented, interpreted and analyzed without seeking to show in-depth statistical correlations between and/or among them.

#### 4.2 Pearson Coefficient Connection Analyses

Pearson's Product Moment Correlation Coefficient (PMCC) was the first statistical test to determine correlations between variables. The results showed weak correlations between individual working capital components (WCMS) and profitability for both companies. However, for MHGS, a strong negative correlation was observed between WCR and Profitability (-.701).

This signaled that as the company adopted an aggressive approach (lower WCR), its profitability increased or improved. This was the first indication that the research question of whether WCMS (Aggressive vs Conservative) was related to profitability. All other WC components were moderately weak. For MHGS, a strong negative and significant correlation between WCMS and CCC (-.963\*\*) was observed, which was unlikely to have occurred by chance and likely to exist 99% of the time. MHGS needed to take particular note of this.

Table 4: Correlation Analysis of Working Capital Strategies and Profitability

|     |      | ITP    | ACP    | APP    | CCC    | P      | WCR     |
|-----|------|--------|--------|--------|--------|--------|---------|
| ITP | MHGS | 1      | 0.304  | 0.44   | 0.068  | 0.402  | -0.049  |
|     | AMG  | 1      | -0.735 | 0.436  | -0.067 | -0.397 | -0.386  |
|     | COM  | 1      | -0.251 | .868** | 0.624  | .874** | -.866** |
| ACP | MHGS | 0.304  | 1      | 0.73   | .886*  | 0.472  | -0.862  |
|     | AMG  | -0.735 | 1      | -0.728 | 0.688  | -0.163 | 0.636   |
|     | COM  | -0.251 | 1      | -0.019 | 0.454  | -0.09  | 0.099   |
| APP | MHGS | 0.44   | 0.73   | 1      | 0.377  | 0.14   | -0.351  |
|     | AMG  | 0.436  | -0.728 | 1      | -0.817 | -0.137 | -0.723  |
|     | COM  | .868** | -0.019 | 1      | 0.589  | .762*  | -.828** |
| CCC | MHGS | -0.068 | .886*  | 0.377  | 1      | 0.485  | -.963** |

|              |      |         |        |         |         |         |         |
|--------------|------|---------|--------|---------|---------|---------|---------|
|              | AMG  | -0.067  | 0.688  | -0.817  | 1       | -0.422  | 0.636   |
|              | COM  | 0.624   | 0.454  | 0.589   | 1       | .670*   | -.867** |
| P            | MHGS | 0.402   | 0.472  | 0.14    | 0.485   | 1       | -0.701  |
|              | AMG  | -0.397  | -0.163 | -0.137  | -0.422  | 1       | 0.204   |
|              | COM  | .874**  | -0.09  | .762*   | .670*   | 1       | -.909** |
| WCR          | MHGS | -0.049  | -0.862 | -0.351  | -.963** | -0.701  | 1       |
|              | AMG  | -0.386  | 0.636  | -0.723  | 0.636   | 0.204   | 1       |
|              | COM  | -.866** | -0.099 | -.828** | -.867** | -.909** | 1       |
| t-statistics |      | -10.73  | -0.693 | -4.309  | -2.474  | -5.635  | 5.44    |
| DF           |      | 8       | 8      | 8       | 8       | 8       | 8       |
| Prob.        |      | P<0.05  | P>0.05 | P<0.05  | P<0.05  | P<0.05  | P<0.05  |

*Note. MHGS, AMG and COM indicate Massy Holdings Ltd, ANSA McAL Group and combined, respectively. ITP, ACP, APP, CCC PAT and WCR indicate Inventory Turnover Period, Average Collection Period, Average Payment Period, Cash Conversion Cycle, Profit after Tax, and Working Capital Ratio, respectively. \*\* indicates that correlation is significant at the 0.01 level (2-tailed). \* Indicates that correlation is significant at the 0.05 level (2-tailed).*

The Pearson's Test did not show a similar correlation between AMG and MHGS, but yearly indices suggest AMG may have been managing its CCC more effectively than MHGS. MHGS's CCC trended upward for all five years, while AMG's trend was downward except for the last year. A strong positive correlation was found between ACP and CCC, suggesting that as ACP increased, CCC would also increase. However, longer collection periods from debtors negatively affected profitability, indicating the need for more effective ACP management.

The study found moderately strong correlations between WCR and CCC (.636) and APP and CCC (-.817) in AMG, but these relationships were not statistically significant. However, when analyzed as a combined data set, most independent variables correlated with profitability. APP was positively correlated to profitability, suggesting that longer repayment periods led to more available cash, which could be used to purchase more inventory. The strong positive and significant relationship of ITP with profitability (.874\*\*) suggests that even though inventory turnover time increased, profitability improved. These variables, when analyzed independently, may normally negatively affect profitability, but when combined, they positively affect profitability.

The study found a strong negative correlation between WCR and Profitability, with a significance level of 0.01. However, a robust positive relationship was found between CCC and Profitability (.670), suggesting that as CCC increased, Profitability also increased. This could be due to a longer APP and ITP, allowing more available cash to buy more inventories, leading to increased sales. The study also found a fragile negative and insignificant association between ACP and Profitability. The t-test was used to analyze the two conglomerates, revealing that all the significance values of ITP, ACP, APP, and Profitability were greater than 0.05, indicating equality of variances. The t-test showed that all variables, except ACP, had significance values less than the p-value of 0.05, indicating statistically significant differences between each mean variable. However, the significance level for ACP was 0.508, indicating no significant difference in the mean value of this variable.

## DISCUSSION

The study analyzed data from a positivist perspective, focusing on the Working Capital Theory. The theory suggests that net working capital (Operational Working Capital) and profitability need to be negatively correlated, indicating that when operational working capital rises, profitability falls. The findings revealed a rather substantial association between WCR and profitability for MHGS, with a strong negative correlation of -.909\*\* in the aggregated dataset. Two viewpoints were used to address the research issues of whether there was a substantial correlation between profitability and WCR (Aggressive vs. Conservative) and specific working capital components. Moderate to fragile links were discovered on a company-by-company basis, particularly for AMG. But for N&M, a correlation between WCR and profitability was found, providing a favorable response to the query. In the case of MHGS, a strong negative correlation between CCC and WCR (-.963\*\*) was found, which would have had meaningful implications for the company and its profitability. This could be due to the company's WC management approach softening, causing cash receipt to slow down. The WCR, represented as WCR, also

strongly negatively correlated with profitability, as previously concluded by Nazir and Afza (2009). The Pearson's correlation test confirmed the hypothesis that a significant correlation exists between working capital management approaches and profitability (-.909\*\*).

### ***Implications, Recommendations and Further Studies***

It emphasizes how crucial effective working capital management is to a business's capacity to remain solvent and profitable. It emphasizes how WCMS and profitability are negatively correlated, while ITP, APP, CCC, WCR, and profitability are positively correlated. Increased ITP and ACP could have resulted from the weak correlation between profitability and ACP, which could have put the company in risk financially. On the other hand, higher ITP may eventually result in higher shareholder value, profitability, and sales. In order to prevent insolvency and unprofitability, businesses must constantly analyze and manage their working capital strategy.

The paper offers a framework for effective working capital management and raising shareholder value by presenting empirical evidence of the correlational value of variables in T&T enterprises. It also offers a platform for researchers to develop and enhance their studies. As the first study on public companies in T&T, it recommends further segmental studies within each conglomerate, such as AMG and MHGS, to understand which segments contribute most to poor performance. Further research on other publicly listed companies and qualitative research on managing working capital can also be conducted.

The limitations outlined earlier provide the basis for determining what and where any further studies may be carried out. Some of these possible areas of study are:

- i) Industry-specific research whereby studies on other publicly listed corporations in other sectors can be done to establish or determine if these findings are consistent with other sectors
- ii) If reliable and verifiable quantitative data can be accessed from private conglomerates, then 'follow-up studies to determine consistency across conglomerates can be done further studies incorporating other control factors (like firm size and inflation) should be conducted.
- iii) separate operation/ segmental studies to help in determining the level of contribution each segment/ operation is making toward the overall performance of working capital .Case studies of individual firms in different sectors

In addition, as also suggested by Viskari et al. (2011), other possible areas of relevance may be studies which will allow for a more in-depth understanding of the management of components. In particular, the following areas can be studied:

- Supply Chain Management research (which would further explain ITP),
- Management Accounting Research (which would explain the general overall management accounting policies), and
- Operations Research (which would focus on the firm as a whole).

### **CONCLUSION**

In conclusion, there is a strong negative correlation between the Working Capital Management Strategy (WCMS), measured by Working Capital Ratio (WCR) and Profitability, measured as Profit for Year. So that as WCR becomes higher (i.e. more conservative), Profitability will decline and vice versa. Given this result, we can accept the alternative hypothesis that states a significant relationship between these two variables. The first research question: Are working capital management strategies related to profitability among Selected Public Limited Companies in Trinidad and Tobago? Has also been answered in the affirmative. Mixed correlation results have also been observed between the separate working capital components and profitability.

### **REFERENCES**

- [1] Alam, H., Ali, L., Rehman, C., & Akram, M. (2011). Impact of working capital management on profitability and market valuation of Pakistani firms. *European Journal of Economics, Finance & Administrative Sciences*, 32, 48-54.

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- [2] Alavinasab, S. M., & Davoudi, E. (2013). Studying the relationship between working capital management and profitability of listed companies in Tehran stock exchange. *Business Management Dynamics*, 2(7), 1.
  - [3] Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of business finance & Accounting*, 30(3-4), 573-588.
  - [4] Dong, H. P., & Su, J.-t. (2010). The relationship between working capital management and profitability: a Vietnam case. *International research journal of finance and economics*, 49(1), 59-67.
  - [5] Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International journal of commerce and management*.
  - [6] Falope, O. I., & Ajilore, O. T. (2009). Working capital management and corporate profitability: evidence from panel data analysis of selected quoted companies in Nigeria. *Research Journal of Business Management*, 3(3), 73-84.
  - [7] Ganesan, V. (2007). An analysis of working capital management efficiency in telecommunication equipment industry. *Rivier academic journal*, 3(2), 1-10.
  - [8] García-Teruel, P. J., & Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of managerial finance*, 3(2), 164-177.
  - [9] Jose, M. L., Lancaster, C., & Stevens, J. L. (1996). Corporate returns and cash conversion cycles. *Journal of Economics and finance*, 20(1), 33-46.
  - [10] Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of financial management and analysis*, 19(1).
  - [11] Mathuva, D. (2015). The Influence of working capital management components on corporate profitability. *Research Journal of Business Management*, 4(4), 1-11.
  - [12] Nazir, M. S., & Afza, T. (2009). Impact of Aggressive Working Capital Management Policy on Firms' Profitability. *IUP Journal of Applied Finance*, 15(8).
  - [13] Osuji, C. C., & Agbada, A. O. (2020). Imperatives of effective working capital management and profitability in the banking industry in Nigeria. *International Journal of Financial Research*, 11(2), 229-242.
  - [14] Raheman, A., & Nasr, M. (2007). Working capital management and profitability—case of Pakistani firms. *International review of business research papers*, 3(1), 279-300.
  - [15] Sensini, L., & Vazquez, M. (2021). Effects of Working Capital Management on SME Profitability: Evidence from an emergent economy. *International Journal of Business and Management*, 16(4), 85-95.
  - [16] Shah, S. A., & Sana, A. (2005). Impact of working capital management on the profitability of oil and gas sector of Pakistan. *European Journal of Scientific Research* 15(3), 301-307.
  - [17] Sur, D., & Chakraborty, K. (2011). Evaluating relationship of working capital and profitability: A study of select multinational companies in the Indian pharmaceutical sector. *IUP Journal of Management Research*, 10(2), 7.
  - [18] Viskari, S., Lukkari, E., & Kärri, T. (2011). State of working capital management research: bibliometric study. *Middle Eastern Finance and Economics*, 5(14), 99-108.
  - [19] Yenni, Y., Arifin, A., Gunawan, E., Pakpahan, L., & Siregar, H. (2021). The Impact Of Solvency And Working Capital On Profitability. *Journal of Industrial Engineering & Management Research*, 2(4), 15-38.