WORKING CAPITAL MANAGEMENT APPROACHES IN WELFARE NON-PROFIT ORGANISATIONS IN SOUTH AFRICA.

Manuscript Info

Manuscript History

Key words:-

Working capital management approaches, non-profit organisation, aggressive, moderate, conservative.

Abstract

The non-profit organisations (NPOs) sector constitutes a significant portion of the South African economy. However, they have recently faced financial challenges, leading to the closure of several organisations that provide critical services to vulnerable communities. A key factor contributing to this problem is the internal financial control measures employed by these organisations and their suitability to the rapidly changing economic environment in which they operate.

This study examines the working capital management approaches employed by welfare organisations and their impact on liquidity status. To achieve this, a stratified random sample of 626 organisations from all nine provinces of South Africa was surveyed using an electronic questionnaire. The data collected included the working capital approach utilized and the organisation's liquidity status.

Data analysis was conducted using statistical software to investigate the relationship between the three different working capital approaches: aggressive, moderate, and conservative, and the resulting liquidity status. The results indicate that 54.5% of the sample population adopted a conservative approach, achieving a meagre liquidity status of 0.5% of greater than 1. In contrast, 10.9% and 34.3% adopted aggressive and moderate approaches, respectively, and achieved a 72.1% and 77.9% liquidity status of greater than 1.

These findings suggest that the majority of the sample population is employing an ineffective approach to working capital management. As such, corrective measures are necessary to enhance the financial stability and sustainability of NPOs in South Africa.

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Introduction:

- 5 Effective management of working capital is critical to the success and sustainability of an organisation. In South
- 6 Africa, the non-profit sector plays a vital role in providing essential services to disadvantaged communities, with
- 7 welfare organisations accounting for over a quarter of the 257,000 registered non-profit organisations as of March
- 8 2022 (DSD, 2022). These organisations provide a range of services, including feeding centres, orphanages, care for
- 9 the elderly, disabled individuals, abused women and children, and other essential care services to the communities
- 10 they serve.

11 Funding is a significant driver in ensuring that these organisations can continue to provide these vital services.

However, the sustainability of increased resources has not kept pace with the growing demand, resulting in a drastic

reduction in funding over the years (Trialogue, 2021:226-227). As such, there is a pressing need for NPOs to review

their internal financial management processes and policies to ensure that they can continue to deliver much-needed

services to those in need.

Working capital management is guided by three primary approaches: aggressive, moderate, and conservative. Each approach is based on different investment and financing ideologies and requires different applications. This research study aims to investigate the working capital management approaches employed by welfare NPOs in South Africa to determine which approach provides the best liquidity status for these organisations. The welfare sector was chosen as the focus of the study due to its significant role in the non-profit sector, providing services to over 18 million people in South Africa (DSD, 2022). The study's findings will enable organisations to realign their internal financial management processes to the most appropriate working capital management approach, enhancing their liquidity status and ensuring their continued ability to provide essential services to the community.

Research Methodology:-

The research question of this study aims to examine the theory presented in the literature on the working capital management approaches adopted by welfare NPOs in South Africa. The philosophical approach adopted for this study is positivism, given its enquiring nature and the characteristics of the field of study. As such, the researcher will adopt a deductive research approach, intending to acquire quantitative data from a selected sample, which will be tested against pre-existing theories from finance literature. The study is exploratory in nature, as a hypothesis was generated, and the findings were used to establish the most effective working capital approach.

Due to the wide geographical distribution of the target population across nine provinces in South Africa, a survey research design was employed to collect data. The sample was cross-sectional, covering all sub-sectors within the welfare organisation of the country. The collected data were analysed using Statistical Package for the Social Sciences (SPSS) software as depicted in Figure 1.

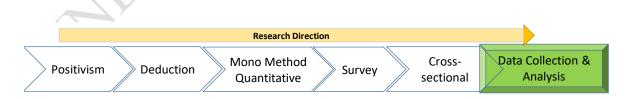


Figure 1: Study route based on "research onion"

Source: Saunders *et al.*, (2019:174) This study employed a survey research design to collect data on working capital approaches utilized by welfare

organisations, given their dispersed geographical location. A survey questionnaire was developed to collect

- 42 information on the components of working capital approaches, which was distributed electronically due to time
- 43 constraints, sample coverage, study timeline, and the potential to avoid sample bias (Cooper & Schindler, 2014). To
- ensure reliability and validity, the survey instrument was piloted prior to its administration.
- 45 The study aimed to obtain financial information and policies implemented by organisations, irrespective of their
- 46 size. The target population comprises welfare organisations with audited financial statements and compliance with
- 47 accounting standards, drawn from the National Lottery Commission (NLC) beneficiary list. By utilizing the NLC's
- 48 published yearly financial statements, the 2020 beneficiary list was identified as a sample population, consisting of
- 49 organisations that had received funding above ZAR 500,000. The sample selection process used a probability
- sample technique, namely a stratified random sample, ensuring representation across the nine provinces of South
- 51 Africa.
- A total of 626, respondents were randomly selected from the nine provinces, and electronic questionnaires were
- distributed using Google Forms (Google, 2022), with a response deadline of one month. The collected data were
- 54 transferred to SPSS were statistical analysis, with the aim of identifying statistical relationships between the
- 55 liquidity status of organisations and the working capital approaches adopted. The study intended to determine which
- of the three working capital approaches results in a positive liquidity status.

57 Research Question:-

- Is the liquidity level of welfare NPOs in South Africa affected by the type of working capital management approach
- 59 adopted?

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- 60 H₁: The liquidity level is affected by the working capital approach.
- 61 H_o: The liquidity level is not affected by the working capital approach.
- This then leads to establishing which of the three approaches contributes positively to the liquidity level and how
- 63 effectively it's been used in the sector. Therefore, the primary goal of this investigation was first to understand the
- 64 relationship between the liquidity level and the working capital approach. Next was to identify which approach to
- 65 working capital management is most effective in achieving a positive liquidity level in NPOs. By doing so, the study
- 66 aims to offer insight to organisations struggling to achieve positive liquidity levels and encourage them to consider
- alternative working capital management strategies. The potential benefits of adopting alternative strategies include
- 68 improved internal financing options and advancement.

Research gap and significance:-

- To date, no empirical research in working capital management has been conducted on NPOs operating in the welfare
- sector in South Africa. This is an important gap in the literature, as South Africa is a developing country with unique
- 72 economic, political, and socio-economic characteristics that may impact the financial health of NPOs. This study
- 73 aims to address this gap by examining the internal financial control and working capital management approaches of
- NPOs in the South African welfare sector.

75	Working capital is used as an internal performance measure to assess the liquidity status of NPOs operating in the
76	welfare sector. This sector is particularly important in South Africa, as NPOs play a crucial role in providing
77	services to vulnerable communities and individuals, such as disabled individuals, orphanages, and those who are
78	physically and emotionally scarred, as well as animal care. If these organisations fail, the most vulnerable members
79	of society will suffer the most. Therefore, it is important to ensure that NPOs can maintain good financial health to
80	provide the common good in society.
81	Gitman and Zutter (2013) noted that financial managers spend a significant portion of their time managing current
82	assets and liabilities. However, a study by Maboya and McKay (2019) found that only 20% of the finance team in
83	non-profits in South Africa understand the importance of financial suitability. In contrast, profit organisations invest
84	significant time and resources in working capital management and liquidity. The reasons for this disparity need to be
85	explored.
86	The significance of this study lies in its potential to provide better financial management direction to NPOs
87	operating in the South African welfare sector. By examining the internal financial control and working capital
88	management approaches of NPOs, this study can offer insights and guidance to improve their financial health and
89	sustainability.

Theory and Calculation:-

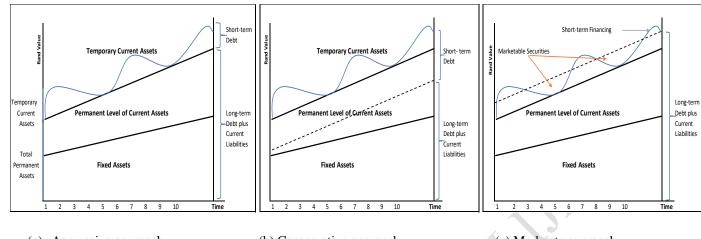
Working capital represents the financial resources necessary for an organisation's operations. It comprises current assets and current liabilities, both of which are crucial to an organisation's financial management. Current assets include inventory, accounts receivable, and cash or bank deposits, all of which have a positive effect on working capital. Current liabilities, on the other hand, comprise accounts payable, short-term liabilities, bank overdrafts, and marketable securities, which are outside the scope of this study. The current ratio is as follows:

Total current assets 1 Total current liabilities

The level of liquidity of an organisation is determined by the ratio of current assets to current liabilities, known as the current ratio. A current ratio greater than 1 indicates that the organisation has more current assets than current liabilities, indicating robust liquidity. Conversely, a current ratio of less than 1 implies that the organisation has more current liabilities than current assets, indicating poor liquidity. Therefore, managing working capital is critical to an organisation's financial performance, as it impacts the organisation's liquidity, solvency, and profitability. There are three distinct approaches to managing the components of working capital, which are the aggressive,

conservative, and moderate approaches. Each approach has a different composition of components and applies a different financing or investment strategy, resulting in varying levels of liquidity. The specific variations are

105 explained below:



(a) Aggressive approach

(b) Conservative approach

(c) Moderate approach

Figure 2: Working Capital Approaches

Source: Adapted from Els et al. (2019: 185)

(a) Aggressive approach:

The aggressive approach to working capital management entails funding a portion of the current asset requirements with short-term fund sources, which is considered a low-cost approach but with high levels of risk and profitability for the organisation. This approach involves minimizing the cash held in the bank while keeping receivables, inventory, marketable securities, and deposits at a low level. Furthermore, any seasonal fluctuations in working capital needs and permanent working capital requirements resulting from organisational growth must be funded from current assets. The aggressive management approach achieves this by reducing the cash conversion cycle, typically by increasing accounts payable terms, reducing debtor days, or shifting towards a more cash-based business and reducing inventory turn days. This, in turn, results in faster cash flow within the organisation without additional loans or security facilities. (Zimon, 2020b; Pakdel & Ashrafi, 2019).

(b) Conservative approach

The conservative approach to working capital management represents an alternative to the aggressive approach and is characterised by the philosophy of funding the entirety of current assets by long-term financial sources. Short-term funding sources are only used as a bridge during seasonal funding requirements. Marketable securities are used to invest any surplus cash. Although the conservative approach is considered low in risk, it is deemed very high in cost due to the interest rates on long-term financial sources, which impact negatively on profitability (Zimon, 2021). As Zimon (2021) notes, the impact of reducing inventory and accounts receivable or increasing accounts payable only occurs when necessary during seasonal peaks or emergencies. In some cases, only one of the three levels may occur, such as when organisations have inventory clearance sales (Pakdel & Ashrafi, 2019).

(c) Moderate approach

The moderate approach, also known as the hedging approach, involves a hybrid of the aggressive and conservative approaches to managing working capital, as depicted in Figure 2(c). In this approach, the organisation applies a matching methodology whereby long-term financing covers the permanent level of current assets and fixed assets

134 while short-term financing covers the temporary requirement for current assets (Els et al., 2019:185). According to Zabolotnyy and Sipiläinen (2020), this approach balances the proportionally high cost of permanent current assets 135 136 with a low financing cost for the short-term financing requirement. The trade-off of the interest cost of finance is 137 balanced between the temporary and permanent levels of requirements. 138 However, the impact on the cash conversion cycle to finance the temporary requirement is more strenuous than the 139 conservative approach. In this approach, the current assets are managed more vigorously and based on fluctuations 140 in business cycles. Thus, any of the three levers of inventory, accounts receivable, or accounts payable could be 141 pulled together or in combination based on the required amount. This method is a more active management between 142 business requirements and financial leverage (Pakdel & Ashrafi, 2019). Policy Formulation Techniques for Working Capital Management:-143 144 The acquisition of financing for fixed assets, which are the permanent assets of an organisation, is typically covered 145 by long-term finance. Subsequently, the next levels of financing required are for permanent and variable working 146 capital. Permanent working capital is a requirement for any organisation to function within an accounting period, 147 and is divided into two categories: primary working capital for the sustainability of the business, and normal 148 working capital for operational activities. Conversely, variable or temporary working capital is based on changes in 149 an organisation's situation in one period and can be categorised into seasonal, emergency, cyclic, special, and 150 reserve working capital. Matching the various types of working capital to financing options will allow for the 151 establishment of a working capital policy formulation technique that best suits an organisation. Factors that 152 influence working capital requirements must also be taken into consideration during this process. 153 NPOs can obtain long-term financing in two ways: through initial capital contributions from founding members or 154 through a long-term loan. Lines of credit and trade credit are additional funding sources that can be used to match an 155 organisation's working capital requirements. Factoring is another short-term or long-term financing option that can be used when trade credit is difficult to obtain or when there are limited financing options. Short-term loans can also 156 157 be secured or unsecured based on an organisation's credit history and are used as a bridge between project or cyclic 158 requirements. 159 The decision to choose the right financing option is based on factors such as interest rates and the risk associated 160 with the option. Risk analysis matrices are useful tools in determining the best financing option for an organisation's 161 situation. Additionally, an organisation's ability to meet its financing commitments must also be considered in 162 relation to payback periods and cash flow projections. The chosen financing techniques should be related to the 163 economic conditions, the organisation's circumstances, and the most effective option available from the market, specifically financing institutions. 164 165 Combination of policies and models: 166 In the pursuit of financing options that accommodate both long-term and short-term needs, it is advisable for 167 organisations to establish policies that cover both periods with an overlapping approach to ensure comprehensive

coverage. A mutually beneficial relationship with a financial institution can enable negotiations for facilities that meet both short-term and long-term requirements simultaneously, fostering a unified approach to financing the organisation (Lofton, 2021).

An organisation's working capital, which encompasses accounts payable, accounts receivable, inventories, and short-term loans, is a strategic management tool that is essential to achieving success. It is therefore crucial that the

organisation (Zabolotnyy & Sipiläinen, 2020). Figure 3 depicts the decision process that organisations must undertake to determine the optimal strategy for current assets and financing components, which will inform the

respective managers of these areas collaborate to develop a comprehensive working capital strategy for the

Asset Liquidity: Aggressive Approach Level of Current Low CA Assets (CA) High STF Working Working Moderate Approach Match CA Capital Capital Match STF Decision Conservative Approach High CA Financing Low STE Liquidity: Level of Short-Term

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Figure 3: Working capital decision process

Finance (STF)

Organisations also tend to adapt internal financing strategies when seeking funding for growth or additional projects. The first option is usually internal cost-cutting, which involves reducing operational expenses. Another approach is the pecking order theory, which involves adjusting internal costs and investments to release cash for investment. Rather than seeking external finance through means such as delaying supplier payments, reducing the days outstanding for debtor payments, using approved financing facilities such as overdrafts and revolving credit, reducing inventory, purchasing goods from suppliers as required, and stopping the carrying of buffers (Lofton, 2021). Overall, organisations must prioritize the development of comprehensive internal financing strategies to secure long-term success.

Approaches that can be adopted:

overall strategy adopted by the organisation.

The issue of determining the optimal type of debt - whether short-term or long-term - is a matter of perennial concern. In any given organisation, cost always looms as a significant consideration. For instance, the upward-sloping yield curve of debt is indicative of the higher cost associated with short-term debt in comparison to long-term debt. This discrepancy arises from the term nature of the debt and the prevailing market conditions (Lofton, 2021). Given that short-term debt is riskier and subject to fluctuations based on economic circumstances, long-term debt tends to be more stable as the cost of the debt remains consistent over an extended period. In the event that an organisation borrows heavily in the short term, it exposes itself to the vagaries of changing costs, but also benefits

from the flexibility to negotiate the terms of the debt. On the other hand, long-term debt is typically characterized by fixed amounts, and it behoves an organisation to ensure that the correct amount is fixed, lest it becomes overburdened with financing costs (Brigham & Houston, 2015:526). Examining the debt preference of NPOs in welfare organisations presents an opportunity to gain a better understanding of their perspective on interest cost and risk, as well as the long-term financial outlook of the organisation.

Results and Discussion:-

In this study, a sample of 626 participants was surveyed to investigate the correlation between liquidity levels and working capital approaches in various strata, covering different age groups, occupations, and qualification levels. The survey resulted in a response rate of 63.29%, with the highest percentage of respondents falling within the 41-50 age group at 44.2%, and the highest occupation being the Chief Finance Officer at 61.1%. Postgraduates represented the highest qualification group at 59.3%.

Normality tests were performed using Kolmogorov-Smirnov and Shapiro-Wilk tests on all predictor variables, revealing non-significance (p < 0) for all variables and homogeneity of variance for categorical variables. Consequently, non-parametric Spearman testing was applied to establish the correlation relationship between the variables using descriptive statistics.

Chi-Square Tests

Symmetric Measure

Approximate

			Asymptotic		
	Value	df	Significance (2-sided)		
Pearson Chi-Square	251,279³	6	<,001		
Likelihood Ratio	306,586	6	<,001		
Linear-by-Linear					
Association	185,406	1	<,001		
N of Valid Cases	396				

a. 13 cells (25,0 %) have expected count less than 5. The minmum expected count is
,21.

		Value	Significance
Nominal by Nominal	Phi	,797	<,001
	Cramer's V	,563	<,001
N of Valid Cases		396	

 Table 1: Hypothesis Statistical Test

(Source: Primary data collection from SPSS)

Results show that there is a significant effect between liquidity levels and working capital approaches, with Cramer's V result of 0.563 indicating a large significant effect between the two variables. Pearson Chi-square result indicates a p-value of < 0.001, revealing a significant association between liquidity levels and working capital approaches. Therefore, the null hypothesis was rejected, based on the chi-square, phi and Cramer's V tests.

Table 2 provides a detailed analysis of each approach and its correlation with achieving a positive liquidity level, enabling the correlation of the correct liquidity status with the adopted approach.

WC_approach * Liquidity_level Crosstabulation Liquidity_level Total

			<1	= 1	>1	
WC_approach	Aggressive	Count	9 _a	3 _a	31 _b	43
		% within WC_approach	20.9%	7.0%	72.1%	100.0%
	Moderate	Count	21 _a	9 _a	106 _b	136
		% within WC_approach	15.4%	6.6%	77.9%	100.0%
	Conservative	Count	143 _a	72 _a	1 _b	216
		% within WC_approach	66.2%	33.3%	0.5%	100.0%
	Changes over	Count	O_a	O_a	1_a	1
	time	% within WC_approach	0.0%	0.0%	100.0%	100.0%
Total		Count	173	84	139	396
		% within WC_approach	43.7%	21.2%	35.1%	100.0%

Each subscript letter denotes a subset of Liquidity_level categories whose column proportions do not differ significantly from each other at the,05 levels.

Table 2: Crosstabulation liquidity levels and working capital approaches (Source: Primary data collection from SPSS)

Based on the results of Table 2 it is clear that the majority of organisations 72.1% that adopt an aggressive working capital policy achieve a liquidity ratio of greater than 1. This is then followed by the moderate approach which achieves a 77.9% and achieve a liquidity ratio of greater than 1. The conservative approach only achieves a 0.5% for a liquidity level greater than 1. Based on this only 35.1% of the total population has a liquidity level greater than 1.

A detailed look at the approach that yields a break-even liquidity level for the organisation is the conservative approach which has a 33.3% outcome. Of the conservative approach, there are 66.2% of organisations adopting this approach and they are illiquidity (less than 1). Based on this only 1 in 3 welfare organisations are in a positive liquidity level, which coincides with other studies like Trialogue and Maboya and McKay (2019).

Drawing upon the approaches to working capital management, it is found that both the aggressive and moderate approaches are capable of achieving a liquidity level of greater than 1 in over 70% of responses obtained from the survey. In contrast, the conservative approach yields a negative liquidity level in 66% of cases. Consequently, it is suggested that organisations should consider shifting from a conservative approach to either an aggressive or moderate approach. Such a shift would necessitate a review of the financing policy and approach, entailing a move away from long-term financing to a short-term financing level. Moreover, a more assertive collection of accounts payable is necessary to cover account payable commitments, and the holding of inventory should be carefully planned and financed through the rapid payment of accounts payable. Effective management and forecasting mechanisms are required to ensure this process is carried out actively.

Conclusions:-

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- An organisation's working capital management approach must not remain conservative, particularly given the rapid
- changes in the external environment. Reacting proactively to the management of working capital is essential, and
- this is the basis of both moderate and aggressive approaches. These approaches have both achieved a success rate of
- over 70% in being at a liquidity level of greater than 1. It is important for organisations to adapt and change their
- financing and investment levels with more short-term mechanisms. Though these are riskier, they enable more
- aggressive management of inventory, accounts receivable, cash, short-term liabilities, and accounts payable. With
- 248 advances in the finance environment, NPOs must take advantage of all modern financing options available in the
- 249 market and refrain from maintaining the conservative long-term financing option, which often drives them into a
- sluggish liquidity level of below 1.
- Although this study has focused only on welfare NPOs in South Africa, the findings can be adapted to other sectors
- of NPOs within South Africa. Lastly, the transition from one approach to another can be phased, starting with
- adjusting accounts payable and inventory and then moving on to accounts receivable and short-term liabilities to
- 254 transition to the moderate or aggressive approaches. This phased approach allows flexibility over a period of time
- and by working capital component.

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