Managing working capital in cooperative sugar mills: A study of Haryana state

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ABSTRACT
The main purpose of present study is to find present status of managing working capital in selected Co-operative mills in Haryana. For this study, a sample of five co-operative sugar mills was taken from the State of Haryana. For collecting the required information, annual reports of five co-operative sugar mills of 12 years from 2008-2009 to 2019-2020 have been considered. A self structured questionnaire was also utilized for data collection. To analysis the data, various accounting ratios, Mean, S.D, C.V and One-way ANOVA were used for the purpose. Necessary hypotheses were constructed to achieve the objectives. The data was analyzed using SPSS version 18. From the findings based on primary as well as secondary analysis, it can be concluded that different strategies, practices and procedures have been adopted by selected five co-operative sugar mills of Haryana state towards current assets, current liabilities, working capital (net) and current asset to total asset ratio. There is fluctuation in ratio in all selected co-operative sugar mills. In spite of the achievements, the performance of co-operative sugar mills is not up to the level. State govt. has introduced number of policies and programs towards boosting the profitability and performance of co-operative sugar mills.
Keywords: Working Capital, Co-operative, Mills, Reports, Ratio, Assets, Liabilities.

INTRODUCTION

It is very well known fact that all the organization rely on operating capital to stay afloat. Without appropriate and proper operating capital, a company cannot thrive. Working capital shortages and excesses are both detrimental to a business, as surplus capital raises costs. As a result, available money for any business should not be greater than or less than what is actually required. Managers should ensure that operating revenue investments yield as least as much as other types of investments. Because it has a significant impact on the organization's sales and profitability, the financial management environment in which it works provides value in the face of escalating financial and financial shocks.

A significant element is the recurring nature of expense. The hallmark of excellent financial management is a perfect balance between the creation and consumption of funds. Due to a lack of funds, manufacturing will be disrupted, sales will be lowered, and overpayments will be made, resulting in a significant increase in nonprofit costs. As a result, capital management's purpose is to integrate the necessary funds from the appropriate source at the suitable time. A company can continue without producing a profit for a while, but not for long. Working capital management in a business works in the same way that the heart does in the human body. The finance manager is in charge of identifying the appropriate operational capital level as well as the total mix of current assets and current liabilities. He or she must ensure that the proper funding sources are utilized to meet operating costs, as well as ensuring short-term business loans are paid back on time. A shortage of working capital is the leading cause of business failure. If a company's capital is well managed, it can be profitable. Operating cash management is the management of current assets and current obligations.

Sources of Working Capital Finance

Regular or stable (fixed) working capital, as well as permanent and variable working capital, are two sources of working capital. Variable working capital is financed by short-term finances, while permanent working capital is financed by long-term sources. Long-term funds are mostly derived through stocks, bonds, debentures, term loans, and retained earnings. Working capital is made up of a number of distinct and independent elements. The goal of financial management is to manage all available assets in order to keep the company's finances in tact while not exceedingly profitable.

Haryana State Co-operative Sugar mills

The first co-operative sugar mills were established in Haryana State in 1966 with the goal of increasing the capacity of existing co-operative sugar mills and constructing new modernized co-operative sugar mills. In Haryana, there are now 10 co-operative sugar mills that are members of the Sugar Federation.

LITERATURE REVIEW

In his study by Swamy (1997) found that appropriate management of working capital for the bright future of the firm was evident during his research on "Management of Working Capital in Primary Agricultural Societies" with 19 main rural regions in the form of the Dakshina Kannada area in Karnataka. Mallick and Sur (1998) conducted an experimental study on "Working Capital and Profitability" to see if there was a correlation between a few working capital management ratios and ROI. They discovered that there were both positive and negative consequences with changes in W.C.M. In his study on "Working Capital Management of Horticulture Industry in Himachal Pradesh". Dutta (2000) discovered that maintaining a large amount of inventory causes the working capital to decline. There was no clear relationship between gross working capital and revenues. It has been discovered that the performance of sugar mills has never been satisfactory since their inception. In their findings, Kothari and Bansal (2004) discovered that state governments have advanced a large number of state-level open endeavors/beneficial foundations in Haryana. During a study, Gandhi (2007) found that the working capital management of public enterprises in Haryana faces a number of challenges linked to money management due to political impediments in their operations and the lack of clear and indicated aims. The Indian government has implemented a variety of policies and programmes aimed at improving the profitability and performance of the public sector. Even so, the outcomes are insufficient, and the Indian public sector is gradually disinvesting. Many researchers have proposed various reasons for India's public sector enterprises' poor performance, including increased use of external finance resources, a poor accounting and auditing system, long gestation periods, lack of strategic process and objective valuation of shares and high level of inventories. Furthermore, it is found that in public sector firms, there is a lack of proper management. In a study on the guidelines for Improving Financial Health," Kothari and Bansal (2004) stated that the guidelines were issued in July 2003 and that the guidelines include consistency in different operational areas, timely investment returns and Finance officials should be aware of the different strategy instructions and their expectations. In his study conducted by Ghosh (2007) while focusing his research on "Working Capital Management Practices in Some Selected Industries in India" for looking at impact of working capital on profitability. The basic purpose of the study was to use ratio analysis to estimate the productivity of WCM in the cement industry in India from 1992 to 2001. The findings of the study revealed that Profit and capital have been found to be linked, with more turnover indicating higher profits. In their study on Working Capital Management and Profitability in the firms of Pakistani," Raheman and Nasr (2007) found that profit and liquidity had a negative influence, whereas business size has a beneficial one. Rahman (2011) in his research in textile sector while focusing on "Working capital management and profitability, found that the textile industry's profitability and WCM position were both strong and meeting the requirement of the organization. In his study, Sunday (2011) focused on "Effective working capital management in small and medium-sized firms (SMEs)" and found that accounts payable was used as a credit facility. The author advised SMEs to establish a standard credit arrangement and managed framework in order to survive in the Nigerian economy. They keep track of working capital for this purpose. It was discovered that there was a systematic strategy for checking the organization's capacity to pay current liabilities, continuity, and growth. By assessing the liquidity status of the selected groups, Manjhi and Kulkarni (2012) focused on "Working capital structure and liquidity analysis in the research of Gujarat Textiles Manufacturing Industries noticed that chosen groups had a decent current ratio, however some other companies had a lower current ratio in comparison. Praveena and Mahendran (2013) in their study for looking into the efficiency of sugar mills in India for working capital management from 2007 to 2012 mentioned that the sugar sector as a whole performed well during study period, with Simbhaoli, Ugar, Bannari Amman, and Arooran sugars having the highest efficiency index average value. Working capital management was found to be the least efficient in SEBC sugars. Singh and Singh (2013), in their study found that with the exception of 2009-2010, the overall size of net working capital of the sample unit increased during the study period. The higher growth in the size of current assets is to blame for the increase in net working capital. Due to increased sales or activities, the size of current assets and current liabilities grew over the research period. The principal and key components of current assets in the sample unit were inventories and various debtors. In a study conducted by Joseph (2014) in which he has looked at "Impact of working capital

management on firm's profitability and liquidity, of Ashok Leyland Ltd." and found that company's profit and liquidity were not up to par as required by the organization. In her research, Gauri (2015) discovered that the cultivation of sugar mills is cyclical, as it is dependent on sugarcane yield. Sugar companies used a dual pricing scheme that included sugar prices in the welfare schemes and sugar prices for free sale. As a result, the companies were perceived as being overloaded with surplus inventory, and many of them had proper storage facilities, capacities, and cash flows, forcing them to resort to sugar distress sales, which merely lower prices. As a result, these sugar companies should retain an integrated and unique stock control department that may collaborate with the finance department. A stronger cash position would boost creditworthiness and lower the probability of a short-term disaster. In her study by Neelima (2017), she has mentioned that the co-operative sugar mills' present ratios are high, moderate, and low. A low ratio shows that the mills' current assets are insufficient to cover their current liabilities. Some mills' current assets are barely sufficient to cover their debts as mean quick ratio of a few co-operative sugar mills was very moderate, and the mean fast ratio of another sugar mill was slightly moderate, however the quick ratio of other co-operative sugar mills is low. Prasad and Laxmi in their study (2018) focused on "Working Capital Management Efficiency, to examine working capital overall effectiveness in 15 pharma companies noticed found that overall performance was ordinary and the required achievement was found far from the facts. According to Chandra and Gupta (2018), the planned and proper management of working capital elements found critical to any business's prosperity. In this study, it was discovered that the firm IISCO outperforms two other manufacturing firms on the basis of CCC, which is a compressive measure of working capital. IISCO has been shown to be more efficient in managing working capital than the other two corporations, DSP and ASP, on the basis of ICP and APP.

RESEARCH METHODOLOGY

The research was conducted at the corporate level in order to learn about the various tactics utilized by cooperative sugar mills for this goal. The purpose of this study is to discover the procedures and practices for managing working capital in five Haryana co-operative sugar mills, while taking into account the many elements that influence working capital management in these businesses. The major goal of this study is to gather descriptive information on how five Haryana co-operative sugar mills manage their working capital.

The co-operative sugar mills' practices were evaluated based on feedback from top management using a self-structured questionnaire. On a dichotomous type scale, i.e. Yes (1) and No (2), the management of these companies were asked to indicate their opinion on each statement (2). The data was examined using SPSS version 18 and the statistical approach independent sample 't' test. The results have been evaluated, and conclusions have been drawn based on them.

Objectives of the study:

The basic objectives of the present study is to study performance of working capital management of co-operative sugar mills in Haryana.

Hypothesis: Based on the above objectives, the present study seeks to test the following null hypothesis:

$\mathbf{H_{01}}$: There is no significant difference in the ratio of current assets to total assets in selected five co-operative sugar mills in Haryana.

Sample Design

A research design is a thorough blueprint for how a study or investigation will be carried out. A research design instructs researchers on how to collect information and which instruments will be used in the study. The purpose of this study is to discover the procedures and practices for managing working capital in five Haryana co-operative sugar mills, while taking into account the many elements that influence working capital management in these businesses.

Sample Size

A clear arrangement for obtaining a sample from a given population is sample size. It enables the researcher to choose a representative sample of the population for the study. Because the study's topic is Managing Working Capital in Co-operative Sugar Mills in Haryana, the researcher has chosen the following five co-operative sugar mills for the study from the state's available co-operative sugar mills:

1. Panipat Co-operative Sugar Mill(PSM)
2. Karnal Co-operative Sugar Mill, Karnal(KSM)
3. Sonipat Co-operative Sugar Mill, Sonipat(SSM)
4. Meham Co-operative Sugar Mill, Meham(MSM)
5. Ch. Devi Lal Co-operative Sugar Mill, Gohana(GSM)

Data Collection

The core data for this study was gathered through a survey that was meant to gather information about the management of working capital in co-operative sugar mills. Information gathered through discussions with administrators of these co-operative sugar mills was added to the questionnaire. Secondary data was gathered through published reports, articles, periodicals, journals, and other sources from various units during the study's time period. The data will be studied using various accounting ratios and statistical methods in order to assess the practices and performance of Haryana's co-operative sugar mills in terms of working capital management.

Period of the Study

The period of the study taken is twelve years from the years 2008-2009 to 2019-2020

TECHNIQUES AND TOOLS USED FOR ANALYZING DATA.

The relevant data was obtained from various sources and processed, tabulated, analyzed and interpreted using financial instruments and statistical techniques. Statistical technique entails the computation of particular measures in order to establish a relationship between the various variables. For achieving the objective of the study, accounting ratio analysis methodologies and statistical tools were applied. The data was analyzed using statistical tools such as Mean, Coefficient of variation (C.V.), Standard Deviation (S.D.), t-test, trend, ANOVA test. In addition, just one working capital management variable, the ratio of current assets to total assets, has been considered.

RESULTS AND DISCUSSION

Analysis of Capital

The analysis of the working capital has been carried out in terms of the following ratios:

1.: Position of Current Assets, Current Liabilities and Net Working Capital towards Absolute amount and Relative terms in Cooperative Sugar Mills

Current Liabilities: These are funds that must be returned to the owner within a year of purchase.

Current Assets: These are type of money that must be converted into cash within a year.

Net working capital is calculated by subtracting current obligations from current assets. It has the potential to be both beneficial and detrimental. Positive working capital is attained when current assets exceed current liabilities, showing that the company can meet its current obligations. The fundamental assumption of net working capital is that it is a method of determining a company's credit worthiness.

Table 1 shows the present asset and current liability positions in the Panipat sugar mill. It has been noted that the year 2019-2020 has the highest current assets. In 2009, the lowest current assets were recorded. The year with the highest current liabilities was 2018-2019, while the year with the lowest current liabilities was 2016-2017. The year with the highest working capital was 2012-2013. Furthermore, working capital has been negative for the majority of the years. As a result, this sugar mill has a negative working capital, indicating that it lacks sufficient funds to pay its obligations due to maturing short-term debt and anticipated operational expenses. Furthermore, in the years 2008-2009, 2009-2010, 2010-2011, 2012-2013, and 2016-2017, current assets exceeded current liabilities, indicating that this sugar mill's working capital was positive and it was able to pay off its short-term liabilities. Furthermore, the current liabilities exceed the current assets in the next years, indicating negative net working capital, indicating that this sugar mill is unable to pay off its short-term creditors. In the case of the Karnal sugar mill, the year 2019-2020 was found to have the most recent assets. The lowest current assets were recorded in 2009-2010. 2019-2020 had the most current liabilities, while 2008-2009 had the lowest current liabilities. 2013-2014 was the year with the largest working capital. In addition, no year had a negative working capital balance. As a result, from 2008-2009 to 2019-2020, it is feasible to conclude that this sugar mill has positive working capital, proving the sugar mill's operational efficiency and financial health in the short term. In the case of the Meham sugar mill, we can see that the year 2019-2020 has the largest current assets. In 2009-2010, the lowest current assets were recorded. The highest current liabilities were found in 2019-2020, while the lowest current liabilities were discovered in 2009-2010. The year with the highest working capital was 2016-2017. Furthermore, except for 2016-2017, working capital is negative in almost every year. As a result, this sugar mill has a negative working capital, indicating that it lacks sufficient funds to pay its obligations due to maturing short-term debt and anticipated operational expenses.

Furthermore, in the years 2008-2009 and 2009-2010, current assets exceeded current liabilities, indicating that this sugar mill's working capital was positive and it was able to pay off its short-term commitments. Furthermore, the current liabilities exceed the current assets in the remaining years, indicating that it has negative net working capital, indicating that this sugar mill is unable to pay off its short-term commitments in

these years. When interpreting the findings of the Sonipat sugar mill, we discovered that the year 2019-2020 had the largest current assets. In 2009-2010, the lowest current assets were recorded. The year has seen the highest current liabilities. Furthermore, in the years 2014-2015, 2015-2016, 2017-18, and 2019-2020, working capital is negative. As a result, this sugar mill has a negative working capital in these years, indicating that the company does not have enough cash to satisfy its needs for maturing short-term debt and anticipated operational expenses, particularly in these years. Furthermore, in the years 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2-13, and 2016-2017, current assets exceed current liabilities, indicating that this sugar mill's working capital is positive and able to pay off its short-term liabilities. Furthermore, the current liabilities exceed the current assets in the remaining years, indicating that it has negative net working capital, indicating that this sugar mill is insolvent.

According to the Gohana sugar mill, the biggest current assets were seen in the years 2019-2020. In 2009-2010, the lowest current assets were recorded. The year with the highest current liabilities was 2019-2020, whereas the year with the lowest current liabilities was 2008-2009. The year with the highest working capital was 2015-2016. Furthermore, no year has a negative working capital. As a result, it is possible to conclude that this sugar mill has positive working capital from 2008-2009 to 2019-2020, demonstrating the sugar mill's operational efficiency and financial health on a short-term basis. Furthermore, in all years, current assets exceed current liabilities, implying that this sugar mill has its working capital in positivity and able to pay off its short-term liabilities in all the years.

Table 1: Current Assets, Current Liabilities and Net Working Capital in Absolute Amount and Relative Terms in respect of Cooperative Sugar Mills in Haryana

Years	Description	Cooperative Sugar Mills									
		PSM		KSM		MHM		SHM		GHM	
		Amt.	R.T.	Amt.	R.T.	Amt.	R.T.	Amt.	R.T.	Amt.	R.T.
2008-2009	Cas	5072.98	100.00	4716.83	100.00	3874.66	100.00	424.90	100.00	2961.71	100.00
	CLs	3910.00	100.00	471.21	100.00	2544.05	100.00	298.03	100.00	185.64	100.00
	NWC	1162.08	100.00	5538.21	100.00	1330.61	100.00	2758.38	100.00	2776.07	100.00
2009-2010	Cas	4958.68	97.75	3365.41	71.35	1569.69	40.500	249.00	58.72	1624.32	54.84
	CLs	4121.42	10.53	483.41	92.99	926.36	36.399	407.12	136.57	127.60	68.64
	NWC	837.26	72.03	3646.99	65.83	643.33	48.34	1973.27	71.53	1496.72	53.89
2010-2011	CAs	6934.39	45.47	7431.39	157.56	3230.66	83.37	4643.04	1095.04	4458.56	150.55
	CLs	7995.51	337.05	1306.57	277.28	3540.06	139.15	1828.18	613.42	339.19	183.24
	NWC	(-) 1061.12	(-)13.22	6124.82	110.58	(-)309.40	(-)23.23	2814.86	663.67	4125.37	148.59
2011-2012	CAs	8024.05	52.62	7952.53	168.61	7222.96	186.42	5527.26	1303.53	6743.93	227.72
	CLs	10477.97	441.69	2001.71	424.84	12168.65	478.30	2784.53	934.22	2536.46	1385.40
	NWC	(-)2453.92	(-)30.57	5950.82	107.43	(-)4945.69	(-)371.80	2742.73	99.41	4207.47	151.54

(Source: Annual reports published by Finance Department Haryana.)

2012-2013	CAs	8272.89	54.24	10137.65	214.94	6175.29	159.39	5608.02	1322.64	7513.24	253.73
	CLs	6503.04	2.74	2772.41	588.53	7087.64	278.57	2293.68	769.46	4977.95	2690.27
	NWC	1769.85	22.04	7365.55	132.99	(-)912.35	(-)68.57	3314.34	120.15	2535.29	91.31
2013-2014	CAs	10170.47	66.69	10127.98	214.73	6365.93	164.30	270.95	63.67	10223.87	345.25
	CLs	10700.40	451.09	3768.77	135.93	9331.94	366.78	3624.76	1216.10	3721.96	2011.35
	NWC	(-)529.93	6.59	7948.51	143.51	(-)2966.01	223.00	14421.13	522.87	6501.91	234.18
2014-2015	CAs	11494.81	75.38	9364.86	198.55	6982.84	180.22	389.45	91.74	7991.62	269.81
	CLs	19661.00	82.95	6190.24	131.22	9284.78	698.04	6076.14	2038.92	6659.87	3599.45
	NWC	(-)8167	(-)101.79	3174.62	57.31	(-)2301.94	173.00	(-)5686.69	(-)206.16	1311.75	47.22
2015-2016	CAs	13214.47	86.66	9989.48	211.81	9800.88	252.96	497.48	117.21	11192.08	377.98
	CLs	22034.59	928.92	4418.69	93.63	13151.87	516.94	7308.60	2452.34	4621.65	2497.83
	NWC	(-)8820.12	(-)109.93	5570.79	100.57	(-)3350.99	251.87	(-)6811.12	296.54	6570.43	236.67
2016-2017	CAs	15248.96	300.63	9170.54	194.92	13402.83	395.94	9108.28	2148.11	10421.29	351.94
	CLs	2372.35	60.66	4654.35	988.11	8872.52	348.74	8107.56	2720.46	5784.14	3126.48
	NWC	(-)8023.39	690.44	4516.19	81.54	4530.31	340.60	1000.72	36.25	4637.15	167.04
2017-2018	CAS	14500.80	93.98	9772.27	207.20	8426.98	217.50	8576.43	2022.64	8300.42	280.31
	CLs	26443.25	1114.79	5326.19	1130.78	10176.49	39.97	11133.33	3535.90	7995.94	4321.62
	NWC	(-)11942.45	148.84	4446.08	83.28	(-)1749.51	131.50	(-)2556.90	92.67	304.48	10.95
2018-2019	CAs	23285.38	152.70	11589.81	245.73	14350.01	370.41	11474.28	2706.13	11810.05	425.43
	CLs	28939.78	1220.02	9421.40	2000.21	26682.62	1048.82	15883.76	5329.86	10354.33	5596.75
	NWC	(-)5654.40	70.42	2168.41	39.14	(-)12332.61	927.21	(-)4409.42	(-)159.86	1455.72	52.41
2019-2020	CAs	23285.38	152.70	11589.81	245.73	14350.01	370.41	11474.28	2706.13	11810.05	425.43
	CLs	28939.78	1220.02	9421.40	2000.21	26682.62	1048.82	15883.76	5329.86	10354.33	5596.75
	NWC	(-)5654.40	70.42	2168.41	39.14	(-)12332.61	927.21	(-)4409.42	(-)159.86	1455.72	52.41

(Source: Annual reports published by Finance Department Haryana.)
(Abbreviations: CAs – Current Assets, CLs – Current Liabilities, NWC – Net Working Capital, () shows negative working capital,
R.T. – Relative Terms RT=current year's working capital / Base year working capital × 100)

1.2: Ratio of Current Assets to Total Assets

This ratio shows the degree of the all assets contributed for working capital purposes.

Table 2 shows the ratio of current assets to total assets for five sugar mills in Haryana, which combines the degree to which all assets contribute to working capital. The table shows that more than half of the investment in Panipat sugar mill has been made in current assets, except for the year 2018-2019, when the investment was increased in non-current assets. Because the ratio of current assets to total assets is 0.25, business liquidity has been found to be significantly reduced. In the case of the Karnal sugar mill, more than half of the investment was made in current assets, with the exception of the last four years, when investment was increased in non-current assets. With current assets to total assets ratios of 0.05, 0.45, 0.46, and 0.32, respectively, business liquidity has been found to be significantly reduced. In the case of Meham sugar mill, more than half of the investment was made in current assets in the last five years, while the investment in non-current assets increased in the last five years, as the ratio of current assets to total assets was 0.46, 0.42, 0.04, 0.27, 0.28, and 0.30, respectively, indicating that business liquidity was found in increasing/decreasing orders. In the case of the Sonipat sugar mill, more than half of the investment was made in Current Assets for only two years, while the rest of the years saw an increase in Non-Current Assets. Because the ratio of current assets to total assets is less than fifty percent, business liquidity is found in increasing/decreasing order. When we looked at the results of the Gohana sugar mill, we discovered that more than half of the investment was made in Current Assets in all years except the last three, when the investment was increased in Non-Current Assets, as the ratio of current assets to total assets was 0.46, 0.45, and 0.39, respectively, indicating that business liquidity was found in increased/decreased orders in this sugar mill. When analyzing the current assets of all chosen public firms, it was discovered that Gohana sugar mill has invested significantly more in current assets than other sugar mills due to its high turnover. The ratio of current assets to total assets in the Sonipat sugar mill was found to be the lowest in the years 2008-2009, 2009-2010, 2013-2014, 2014-2015, and 2015-2016, indicating that current assets make up a small portion of total assets in these years, indicating that the benefits have been found to be hazard in this sugar mill. There is variance in the ratio of current assets to total assets in all five sugar mills in Haryna. It is highest in the year 2009-2010 in the Sonipat sugar mill. Because of the differences in investment positions across sugar mills, each sugar mill's strategy on industry investment is unique. As a result, in the years 2008-2009 in Karnal sugar mill, 2009-2010 in Gohana sugar mill, 2010-2011 in Panipat sugar mill, 2011-2012 in Gohana sugar mill, 2012-2013 in Karnal sugar mill, and 2014-2015 in Gohana sugar mills, there was a significant degree of liquidity. Among the selected sugar mills, the C.V. of Gohan sugar mill is the least one (i.e., 0.19) that shows a profitable condition. Sonipat sugar plant has the highest C.V. values, indicating inadequate control over present assets.

Table: 2
Ratio of Current Assets to Total Assets of Public Enterprises in Haryana
(Figures in times)

Years	Description	Cooperative Sugar Mills									
		PSM		KSM		MHM		SHM		GHM	
		Amt.	Ratio	Amt.	Ratio	Amt.	Ratio	Amt.	Ratio	Amt.	Ratio
2008-2009	C.A. T.A.	5072.98 5942.24	0.85	4716.83 3994.93	1.18	3874.66 3948.27	0.98	424.00 8291.41	0.05	2961.71 1757.69	1.68
2009-2010	C.A. T.A	4958.68 5525.10	0.89	3365.41 1949.37	1.72	1569.69 2568.50	0.61	249.00 7520.65	0.03	1624.32 493.26	3.29
2010-2011	C.A. T.A	6934.39 4867.93	1.42	7431.39 5426.66	1.36	3230.66 4901.60	0.66	4643.04 6264.09	0.74	4458.56 3939.12	1.13
2011-2012	C.A. T.A	8024.05 8324.11	0.96	7952.53 6245.79	1.27	7222.96 8891.00	0.81	5527.26 10538.95	0.54	6743.93 4685.91	1.43
2012-2013	C.A. T.A	8272.89 9701.45	0.85	10137.65 7302.23	1.38	6175.29 8823.65	0.69	5608.02 19516.73	0.28	7513.24 5795.75	1.29
2013-2014	C.A. T.A	10170.47 11596.11	0.87	10127.98 9802.51	1.03	6365.93 11469.12	0.55	270.95 21445.17	0.01	10223.87 9314.11	1.09
2014-2015	C.A. T.A	11494.81 19147.70	0.60	9364.86 11408.91	0.82	6982.84 15039.34	0.46	389.45 23348.57	0.01	7991.62 9568.52	0.83
2015-2016	C.A. T.A	13214.47 7940.00	1.66	9989.48 18072.48	0.55	9800.88 22900.49	0.42	497.48 34893.90	0.01	11192.08 18571.20	0.60
2016-2017	C.A. T.A	15248.96 28233.08	0.54	917.05 17856.50	0.05	13402.83 30426.72	0.04	9108.28 21546.04	0.42	10421.29 17665.98	0.58
2017-2018	C.A. T.A	14500.80 26026.32	0.55	9772.27 21421.02	0.45	8426.98 31041.16	0.27	8576.43 22444.28	0.38	8300.42 17187.49	0.46
2018-2019	C.A. T.A	17049.43 33882.75	0.25	11856.79 25563.56	0.46	10354.90 36318.81	0.28	8241.41 27285.00	0.30	11167.45 24612.91	0.45
2019-2020	C.A. T.A	23285.00 46448.81	0.55	11589.81 35845.35	0.32	14350.01 46487.83	0.30	11474.28 35117.30	0.32	11810.05 29734.65	0.39
C.V.		31		42		24		59		19	

(Source: *(Source: Annual reports published by Finance Department Haryana for the period 2008 to 2020.)*
(Abbreviations: - Amt.- Amount, T.A.- Total Assets, C.A. – Current Assets)

1.3: Analysis of ANOVA Test Statistics on the ratio of Current Assets to Total Assets

H_{01}: There is no significant difference in the ratio of current to total assets in five co-operative cooperative sugar mills of Haryana.

The significant difference in the ratio of current assets to total assets of all five Haryanacooperative sugar mills was determined using one-way ANOVA. Table 3 shows the results of the ANOVA statistic for the ratio of current assets to total assets, and it was discovered that high standard deviation (0.78) of Meham co-operative sugar mills describes more variation in the ratio of current assets to total assets, while the lowest standard deviation (0.05) of Panipat sugar mill describes uniformity in the ratio of current assets to total assets in all five Haryana co-operative sugar mills. Furthermore, at the 0.05 level of significance, the obtained value of F (21.269) is greater than the tabulated value (2.196). There is also a statistically significant difference in the p-value for the current asset-to-total asset ratio (P0.05). As a result, we can deduce that one group differs significantly from the others.

Table: 3
ANOVA Statistics for Ratio of Current Assets towards Total Assets

Test / Attributes	N	M	S.D	F-Value	F-Critical Value	Sig. (2 tailed)	Stat. Sig. (Yes /No)	Accepted/ Not Accepted
PSM	12	0.27	0.05					
KSM	12	0.29	0.17					
SSM	12	0.23	0.09	21.269	2.192	4.81E (<0.05)	Yes	Not Accepted
MSM	12	0.24	0.27					
GSM	12	0.54	0.08					

(Source: Annual reports published by Finance Department Haryana.)

Therefore, it may be concluded that five co-operative sugar mills of Haryana are significantly different from each other. So, we can say that there are similarities and differences with respect to ratio of current assets to total assets in all five co-operative sugar mills of Haryana state.

Therefore, the null hypothesis H_{01} "*There is no significant difference in ratio of current assets to total asset in five co-operative sugar mills of Haryana*" is not accepted.

1.4: Working Capital Management Practices in Co-operative Sugar Mills

Information on working capital management procedures followed by all six public firms was also gathered using a survey method and questionnaires created specifically for the purpose. As a result, data was processed and interpretations were formed based on the results received after the data was analyzed.

Table: 4: Practices Adopted by Co-operative Sugar Mills in Managing Working Capital

Practices in Managing Working Capital	PSM	KSM	MSM	SSM	GHM
Causes Answerable for Obligation of Working Capital					
Estimation of Components	No	No	No	No	No
Percentage fixed capital	No	No	No	No	No
Percentage of the sales	No	No	No	No	No
Budget Formulation	Yes	Yes	Yes	Yes	Yes
Miscellaneous causes	No	No	No	No	No
Working Capital Controlling Tools					
Deciding related ratios	No	No	No	No	No
Controlling working capital through organizational budget.	Yes	Yes	Yes	Yes	Yes
Setting standards for controlling deviations	No	No	No	No	No
Using technique of Regression analysis	No	No	No	No	No

Working Capital Requisite Evaluation					
On Quarter basis	No	No	No	No	No
On half yearly basis	No	No	No	No	No
On the basis of whole Year	No	No	No	No	No
Other measures (November to April)	Yes	Yes	Yes	Yes	Yes
Effect of Shortage of Working Capital on Organizational Performance					
Weakness of liquidity	No	Yes	Yes	No	No
Increase/decrease in Profitability	No	No	No	No	No
Instability in shares Price	No	No	No	No	No
Sickness in the organization	No	No	No	No	No
Incidence of sluggish facilities.	No	No	No	No	No
Unable to fulfil obligations related to various claimant	Yes	No	No	Yes	Yes
Effect of Extreme Working Capital on Organizational Performance					
Interest loss due to idle funds	No	No	No	No	No
Reduction in profits	No	No	No	No	No
Weak turnover ratios	Yes	Yes	Yes	Yes	Yes
Liberty in customer's credits	No	No	No	No	No
Projected trades	No	No	No	No	No
Misuse of funds	No	No	No	No	No
Influence of Inflation on Working Capital Requirements	Yes	Yes	Yes	Yes	Yes
Long terms funds proportion	Yes	Yes	Yes	Yes	Yes
Short terms funds proportion	Yes	Yes	Yes	Yes	Yes

(Source: Primary data through the survey)

Table 4 depicts the aspects that must be considered when determining working capital in co-operative sugar mills, and it can be seen that in all five co-operative sugar mills, the necessity for working capital is calculated through the drafting of a budget. As a result, all businesses use the same procedure to determine their W.C. The table depicts the statistics linked to working capital control, and it indicates that all businesses use budgeting as a technique to manage their working capital. As a result, we can claim that the identical technique is followed in these five Haryana co-operative sugar mills. Periodic evaluation of working capital is a must, and the

findings show that co-operative sugar mills assess working capital during the crushing season, which runs from November to April.

As a result, there is a similarity in the working capital review period among these co-operative sugar mills. While examining the elements affecting performance in the event of a working capital shortage. The cause for the scarcity of working capital firms in Karnal and Meham co-operative sugar mills is a lack of liquidity, while the mills in Sonipat and Gohana co-operative sugar mills are failing to meet commitments/ responsibilities to various elements claimants. In the case of surplus working capital, all co-operative sugar mills have stated that the turnover ratio suffers as a result of the excess working capital. Also, whether or not inflation has an impact on working capital requirements. All the co-operative sugar mills in Haryana have confronted the difficulty of understanding the problem of working capital long term and short term fund proportions.

FINDINGS, SUGGESTIONS, LIMITATIONS AND CONCLUSION

Panipat sugar mill, Karnal sugar mill, Meham sugar mill, Sonipat sugar mill, and Gohana sugar mill have a combination of positive and negative working capital and are unable to fulfill their short-term loan maturities and forthcoming operational expenses in the near future. These mills, on the other hand, have the potential to pay their short-term responsibilities during the study period. To a considerable extent, the business liquidity of all five co-operative sugar mills has been found in increasing/decreasing order. Because of its high turnover, the Gohana sugar mill has invested more in current assets than other sugar mills. As a result, differences in investment policies have been seen across the five co-operative sugar mills. Every one of Haryna's five co-operative sugar mills has a different ratio of current assets to total assets. Because co-operative sugar mills differ in their investment positions, their policies on industry investment differ. In the years 2008-2009, the Karnal sugar mill had a high level of liquidity, as did the Gohana sugar mill, the Panipat sugar mill in the years 2010-2011, the Gohana sugar mill in the years 2011-2012, the Karnal sugar mill in the years 2012-2013, and the Gohana co-operative sugar mills in the years 2014-2015. The Gohana sugar mill is profitable, but the Sonipat sugar mill has a low control over current assets. As a result, we can claim that there are parallels and discrepancies in the ratio of current assets to total assets in all five co-operative sugar mills in Haryana, leading to the conclusion that co-operative sugar mill working capital management is at various stages of development. In reality, working capital issues are more closely linked to excessive venture than to deficits.

SUGGESTIONS

Following are some ideas for better working capital management of co-operative sugar mills in Haryana, based on the findings of the study:

(a) Because working capital management needs quick decisions, each co-operative sugar mill should create a separate department to track environmental, climate, and economic developments.

(b) For a long-term strategy to address permanent and temporary working capital requirements, long-term and short-term finances are proposed.Recommendation for future research:

RECOMMENDATIONS

On the basis of the findings of this study, the following recommendations for future research are made:

(1) The research area can be separated into several different states.

(2) Because the study did not include all co-operative sugar mills in Haryana, future research could include additional sugar mills in the state.

(3) While this study only looked at managing working capital, additional important financial variables could be investigated in the future.

LIMITATION OF PRESENT STUDY

The purpose of this study is to learn about the financial situation of a group of co-operative sugar mills in Haryana, with a particular focus on the capital structure of these co-operative enterprises. As a result, the following are the major limitations encountered during the research: -

(a) The study's geographical scope was limited to the state of Haryana.

(a) The research was limited to five Haryana co-operative sugar mills.

(c) The management of co-operative sugar mills was unwilling to provide required information related to working capital management due to policy issue.

CONCLUSION

After considering the analysis, results and findings based on primary and secondary data, it can be concluded that selected five co-operative sugar mills in Haryana have adopted different strategies, practices and procedures in regards to current assets, current liabilities, net working capital, ratio of current asset to total

asset, determination of working capital requirement and working capital review. As a result, the five co-operative sugar mills in Haryana can be expected to use competitive strategies, policies, practices and processes in managing working capital for achieving organisational goals in a better way.

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