

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.257>

## Analysis of Liquidity Position Using Financial Ratios: A Case Study of Insurance Companies Operating in Saudi Arabia

Khalil Abu Saleem<sup>1</sup>

### Abstract

*Liquidity in business research refers to a company's ability to produce cash on demand. This sheds light on how effectively the company might perform in unforeseen situations. A business that has a high level of liquidity will be able to raise the money it needs to continue operating during difficult times. This research paper aims to study the best liquidity option that is suitable for business firms operating in Saudi Arabia by analyzing the financial ratios. The data was collected, as a secondary source, from the Saudi Stock Exchange (Tadawul) website for the Insurance Sector only. Three different liquidity approaches, current ratio, quick ratio, and working capital, were applied to evaluate the best practices in the Insurance sector. Thirty (30) Insurance companies were targeted for this study. We found that some corporations had solid traditional ratios on the surface, but their cash flow ratios gave a different impression. However, several organizations had seemingly subpar traditional ratios; in these cases, the cash flow ratios offered a more insightful view.*

**Keywords:** *Liquidity of Firm, Ratio Analysis, Cash Flow Analysis.*

### 1. Introduction

The era of internationalization and globalization has emerged with various challenges in areas of economics and finance (Kayani, F., 2022; Nawaz, F., 2023). The most significant measure of a company's financial activities is its liquidity (Johan, S., 2024; Kayani, U.N., 2023). The ease with which a corporation can turn its assets into cash is a measure of its liquidity. Since cash is the foundation of any business, liquidity is crucial to the continued success of any enterprise or individual investor in the current market (Hassan, M.K., 2023; Hasan, F., 2022). A business will quickly become bankrupt and be unable to pay its debts if it is unable to obtain actual cash from its clients consistently (Afeef, 2011; Nobanee & Alhajar, 2009). Examining a company's liquidity condition can help it stay out of trouble in the future because liquidity can indicate bankruptcy early on and prevent a company from going bankrupt (Kayani, U.N., 2021; Hasan, F., 2023). According to Sylvester (2022), there were 1053 business insolvencies in 2020. When statistical data is considered, the issue is suddenly considerably more relevant.

The concerns have been raised in corporate finance domain because of various crises (Aysan, A., 2020; Aysan, A., 2022; Kayani, F.N., 2022; Mumtaz, R., 2023). Concerns over the liquidity of companies generally, banks specifically, and more crucially, nations, have resurfaced because of the global financial crisis, as explained by Mills and Yamamura (2018). Financial ratios have been the most widely used approach among the different techniques for keeping an eye on a company's liquidity. The fast (acid test) ratio and the current ratio were historically used to analyze a company's short-term liquidity (Zeller and Stanko, 2014). However, because accrual accounting and the whims of accounting

---

<sup>1</sup> Arab Open University, Faculty of Business Studies, Accounting Department, Saudi Arabia, P.O.Box 84901 Riyadh 11681  
Email: [k.abusaleem@arabou.edu.sa](mailto:k.abusaleem@arabou.edu.sa)

measurement of asset values made these ratios unreliable, they relied only on figures from the Statement of Financial Position, commonly referred to as the Balance Sheet. The Saudi accounting profession established the Statement of Cash Flows to address the issues with accrual accounting and to give more focused attention to a company's cash position.

This addressed the absence of information regarding cash flow and made it possible to create a new set of measures that could be used to evaluate a company's liquidity. Many ratios have been established since the Statement of Cash Flows was first introduced, and it is appropriate to characterize their use as developing (Gombola and Ketz, 2019). There are undoubtedly only a few of these new cash flow ratios in elementary accounting course books. However, Gibson (2016) stated that there has not been much focus on their application or value in the analysis process. To be honest, not much has been done to include these in any of the models that are currently in use to forecast business failure. There is a dearth of research in the literature that incorporates such ratios in an attempt to expand the model or overcome the constraints brought about by relying too much on the figures found in the Statement of Financial Position.

By highlighting the value of the cash flow ratios in elucidating the results of the conventional liquidity ratios, this research aims to fill the vacuum in the literature. Therefore, the article focuses solely on short-term liquidity ratios and how they fit into the analysis process. The rest of the paper is structured as follow; Section 2 presents the literature review; Section 3 explains the research methodology followed by results and discussion in Section 4 and finally the article has been concluded in the Section 5.

## 2. Literature Review

Ratio analysis is one of the most extensively used and well-liked techniques for analyzing financial statements (Giacomino and Mieke, 2020). Examining the links between the many components that make up a set of financial statements is part of the ratio analysis process. The mathematical relationship between two numbers is called a ratio (Carslaw and Mills, 2017). A percentage, a rate, or a straightforward proportion can be used to express the ratio (Figlewicz and Zeller, 2022).

When performing ratio analysis, there are a few key concepts to grasp. The calculated ratio is not "the answer," (Laing, 2020). This is the first aspect. The ratio serves as an indicator of a certain facet of a business's performance; it shows what transpired but not why. Discrepancies in accounting policies, both inside and across organizations, can distort ratios; as a result, modifications to the financial data may be necessary for a meaningful comparison. This is a key aspect of ratio analysis. Thirdly, not every ratio holds significance for a given analysis. Analytical skills include the capacity to select an appropriate ratio or ratio to address the study topic. Lastly, computations are not the sole constraint on financial analysis. Interpreting the ratio computation's findings is crucial (Laing, 2020). There are various categories into which ratios fall. Three sorts of ratios are highlighted by certain authors from the perspective of financial management: solvency, profitability, and liquidity ratios. A popular strategy is to split them up into the following groups (Webster, 2023):

- ✓ activity ratio
- ✓ solvency ratio
- ✓ profitability ratio
- ✓ debt ratio
- ✓ liquidity ratio

As new technologies have emerged, the insurance industry has seen several changes. To stay competitive, businesses have had to make significant investments to keep up with these changes (Berg, 2014). Many noteworthy events in the Saudi insurance industry have highlighted the need to keep an eye on companies' cash flow. The industry has experienced significant infrastructural improvements and heightened rivalry from foreign businesses (More & McGrath, 2019). The implications of these adjustments have made working capital and liquidity requirements more important. As a result, the insurance industry offers a perfect setting for comparing the usefulness of cash flow ratios to traditional ratios.

Numerous ratios are available to help in the process of assessing a company's liquidity condition. Inventory turnover ratios, interest coverage (or interest earned), and accounts receivable turnover are the most widely used. The interest coverage ratio serves as a comparable cash flow ratio for this research.

Many ratios from the Statement of Cash Flows can be simply compared to the conventional ratios to provide a comparative viewpoint. The cash flow ratio, cash interest coverage ratio, and essential requirements cash coverage ratio are the three ratios that will be the main emphasis of this article because they are the most equivalent in terms of short-term liquidity analysis. These ratios have been given names that reflect their similarity to the traditional ratios since they share some characteristics with them. Table 1 presents the specifics of the ratios.

**Table 1:** Comparison of Ratios.

Traditional Ratios		Cash flow Ratios	
Ratio	Formula	Ratio	Formula
Current Ratio	$\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$	Cash flow Ratio	$\frac{\text{Net Operating Cash Flow}}{\text{Total Current Liabilities}}$
Quick Ratio (Acid-Test)	$\frac{\text{Total Current Assets} - \text{Inventories} - \text{Prepayments}}{\text{Total Current Liabilities}}$	Critical needs cash coverage	$\frac{\text{Net Operating Cash Flow} + \text{Interest paid}}{\text{Total Current Liabilities} + \text{Interest}}$
Interest Coverage	$\frac{\text{Net Operating Profit} + \text{Interest} + \text{Tax (EBIT)}}{\text{Annual Interest}}$	Cash Interest Coverage	$\frac{\text{Net Operating Cash Flow} + \text{Interest} + \text{Tax}}{\text{Annual Interest}}$

Since there is already a significant amount of research on the nature and interpretation of many ratios, this study does not aim to provide a detailed analysis of every ratio's interpretation. The study's main objective is to give a foundation for comparing the traditional ratios with the ratios that come from the cash flow statement.

### 3. Research Methodology

This study's methodology is based on techniques from other studies (Figuewicz, and Zeller, 2022; Gibson, 2016). The study compared the ratios of businesses across five years in the same industry. From their websites' financial statements, the information for the previous five years was collected. There were thirty (30) firms in the data collection; however, five (5) were removed from consideration since their data was incomplete for all the years under investigation. As a result, there are only 25 firms in the study. Table 2 contains the names of the final twenty-five firms in the data set. The ratio analysis was completed by both Traditional and Cashflow approaches.

## 4. Results and Discussion

Table 2 presents the list of participating insurance companies in Saudi Arabia for this study. Initially, there were 30 companies selected, 5 of them could not provide financial data as required for the ratio analysis, hence removed from the list and 25 companies listed in the table used.

**Table 2:** List of Insurance Companies Operating in Saudi Arabia.

S. No.	Code	Company and Name
1	AACI	Al Ahlia for Cooperative Insurance
2	ACE	ACE Arabia Cooperative Insurance Company
3	ACI	AXA Cooperative Insurance
4	ACIG	Allied Cooperative Insurance Group (ACIG)
5	AI	Alamiya insurance
6	AICC	Arabia Insurance Corporative Co.
7	AJT	Aljazira Takaful
8	ART	Al Rajhi Takaful
9	ASC	Al Sagr Cooperative
10	ASCIC	Arabian Shield Cooperative Insurance Company
11	ASF	Allianz Saudi Fransi Co.
12	BA	Bupa Arabia
13	GUCIC	Gulf Union Cooperative Insurance Company
14	IHC	Insurance House Co
15	MAA	MetLife AIG ANB
16	MGCIRC	The Mediterranean and Gulf Cooperative Insurance and Reinsurance Company
17	MI	Malath Insurance
18	SAICO	Saudi Arabian Cooperative Insurance (SAICO)
19	SCIC	Saudi IAIC Cooperative Insurance Company
20	SECI	Saudi Enaya Cooperative Insurance Co.
21	SI	Saudi Insurance
22	TAW	Tawuniya
23	UCA	United Cooperative Assurance
24	WCIC	Wala cooperative insurance company
25	WIC	Wataniya Insurance Company

There are five years' worth of ratios, therefore the ratios are provided company by company. Finding patterns and signs of discrepancies between the cash flow ratios and the conventional ratios is the focus of the comparison study. 5 years (from 2015 to 2019) data used for computing the ratio analysis and information presented in Table 3.

**Table 3:** Ratio Analysis of the Firm for the 5 Years (2015-2019).

Firm	Year	Current Ratio	Cash Flow Ratio	Quick Ratio	Critical needs coverage	Interest Cover	Cash interest coverage
AACI	2015	0.6	0.59	0.54	0.57	34.99	30.93
	2016	1.04	1.29	0.96	1.19	13.53	17.06
	2017	1.06	0.96	1	0.88	11.43	12.69
	2018	1.27	0.95	1.21	0.88	32.7	15.77
	2019	3.45	1.17	3.38	1.1	23.81	20.34
ACE	2015	1.24	-0.17	1.22	-0.17	12.79	-66.03
	2016	1.17	0.04	1.16	0.04	28.26	--
	2017	1.74	1.37	1.74	1.37	-14.73	--
	2018	1.4	1.47	1.4	1.47	--	--
ACI	2015	4.21	-1.32	4.21	-1.27	-39.73	531.24
	2016	0.86	-0.03	0.6	-0.03	23.23	-47.78
	2017	1.07	-0.05	0.65	-0.05	411.9	-38.27
	2018	1.65	0.33	1.65	0.32	8.56	14.63
	2019	1.16	-0.27	1.16	-0.27	7.79	-19,339
ACIG	2015	0.59	0.18	0.59	0.17	-98.5	17.88
	2016	0.49	0.15	0.49	0.15	10.66	11.85
	2017	0.48	0.04	0.48	0.04	-8.14	2.49
	2018	0.42	0.05	0.42	0.05	-2.61	1.12
	2019	0.54	-0.04	0.54	-0.04	--	-24.31
AI	2015	1.94	-1.42	1.84	-1.39	26.56	-57.66
	2016	1.61	-2.62	1.48	-2.32	-28.76	-19.22
	2017	1.35	-0.29	1.31	-0.29	43.27	-13.71
	2018	1.64	0.18	1.58	0.18	18.88	23.81
AICC	2015	11.31	-3.95	11.19	-3.92	10.93	-562.00
	2016	5.7	-3.09	5.59	-3.07	11.41	-707.88
	2017	3	-5.50	3	-5.47	43.74	-1,422.99
	2018	2.37	-7.28	2.36	-6.67	-421.86	-84.51
	2019	0.65	-1.83	0.63	-1.71	-85.74	-37.93
AJT	2015	11.31	-3.95	11.19	-3.92	10.93	-562.00
	2016	5.7	-3.09	5.59	-3.07	11.41	-707.88
	2017	3	-5.50	3	-5.47	43.74	-1,422.99

Firm	Year	Current Ratio	Cash Flow Ratio	Quick Ratio	Critical needs coverage	Interest Cover	Cash interest coverage
	2018	2.37	-7.28	2.36	-6.67	-421.86	-84.51
	2019	0.65	-1.83	0.63	-1.71	-85.74	-37.93
	2015	1.04	0.52	1.03	0.48	16.77	7.99
ART	2016	0.5	0.76	0.49	0.74	366.06	43.51
	2017	0.57	0.6	0.56	0.58	18.36	25.82
	2018	0.48	0.65	0.47	0.64	18.63	31.35
	2019	0.56	0.91	0.52	0.84	9.35	13.49
	2015	--	--	--	--	--	--
	2016	1.02	0.24	1.01	0.21	4.99	2.68
ASC	2017	1.17	0.45	1.15	0.36	-4.74	3.95
	2018	1.3	0.63	1.28	0.53	1.66	4.68
	2019	0.93	0.4	0.91	0.34	-0.5	3.26
	2015	1.26	0.31	0.9	0.3	-44.1	15.08
ASCIC	2016	1.24	0.42	1.24	0.41	5.39	24.26
	2017	1.49	0.65	1.49	0.65	-11.63	69.53
	2018	1.93	0.72	1.93	0.71	-6.9	155.79
	2019	1.75	0.97	1.75	0.97	-7.17	2,355.39
	2015	0.73	-0.84	0.73	-0.84	74.89	-141.87
ASF	2016	0.4	-0.26	0.4	-0.26	59.78	-72.95
	2017	0.49	0.11	0.49	0.11	-6.39	26.39
	2018	0.69	0.25	0.69	0.25	-26.41	44.76
	2019	0.86	0.34	0.86	0.33	-11.02	62.84
	2015	4.47	0	4.47	0	--	--
	2016	1.49	-0.08	1.49	-0.08	20.75	1.25
BA	2017	1.45	-0.26	1.45	-0.26	14.54	-33.71
	2018	1.2	-0.37	1.2	-0.37	31.24	-84.12
	2019	1.8	0.53	1.8	0.52	-35.58	93.82
	2015	0.9	0.28	0.9	0.28	-15.86	302.2
	2016	1.06	0.26	1.05	0.26	94.66	28.97
GUCIC	2017	0.84	0.11	0.81	0.11	23.86	16.51
	2018	1.18	0.2	1.18	0.19	13.17	9.55
	2019	0.88	0.47	0.87	0.46	52.34	24.67
	2015	2.44	0.3	2.44	0.3	32.59	156.71
	2016	1.39	2.05	1.39	1.91	-101.98	34.55
IHC	2017	9.81	2.25	9.81	1.98	-393.7	21.45
	2018	0.82	1.72	0.82	1.47	-1,238.35	13.87
	2019	5.15	-7.73	5.15	-4.00	-56.77	-5.06
	2015	0.67	-0.56	0.59	-0.45	-2.61	-2.06
MAA	2016	0.73	-0.67	0.64	-0.65	-117.52	-26.65
	2017	0.76	0	0.69	0	-8.61	-0.09
	2018	1.06	0.21	0.97	0.21	0.68	2151
	2019	1.12	0.07	1.07	0.07	-3.91	50.39
	2015	10.54	1.57	10.28	1.57	-62.37	751.1
MGCRIC	2016	31.68	-0.72	31.45	-0.71	12.74	12.36
	2017	10.32	-0.42	9.61	-0.42	24.64	-176.29
	2018	27.78	-0.50	26.35	-0.49	0.56	-24.17
	2019	14.83	-1.54	13.22	-1.52	41.26	-162.90
	2015	1.78	2.34	1.77	2.32	-140.16	417.64
	2016	1.55	2.89	1.54	2.84	-99.83	266.77
MI	2017	0.75	1.56	0.75	1.52	280.51	111.16
	2018	1.1	2.02	1.1	1.92	40.31	52.97
	2019	1.78	0.96	1.77	0.96	-140.16	--
	2015	0.61	0.14	0.58	0.12	-2.09	2.63
SAICO	2016	0.55	0.3	0.51	0.27	0.03	4.08
	2017	0.72	-0.06	0.67	-0.05	-0.48	0.26
	2018	0.67	0.17	0.62	0.16	-0.1	3.75
	2019	0.79	0.24	0.76	0.23	2.29	5.69
	2015	1.16	1.25	1.14	1.12	13.63	12.68
SCIC	2016	0.7	0.95	0.68	0.89	14.22	15.73
	2017	0.74	1.01	0.71	0.95	14.09	16.25
	2018	0.75	0.78	0.7	0.74	15.53	17.49
	2019	0.77	0.71	0.73	0.68	14.16	17.26
	2015	1.94	1.04	1.89	0.88	5.14	7.19
	2016	0.81	0.74	0.79	0.66	7.41	7.55
SECI	2017	0.8	1.05	0.74	0.9	4.23	7.45
	2018	0.79	1.24	0.75	1.09	4.07	9.68
	2019	0.67	0.75	0.64	0.68	4.12	8.24
	2015	0.57	0.9	0.53	0.81	5.32	8.86
SI	2016	0.68	1.09	0.64	0.95	5.73	8.96
	2017	0.8	1.16	0.77	1.03	7.29	11.01
	2018	0.83	1.12	0.79	1	6.75	10.59
	2019	0.87	0.94	0.84	0.82	5.02	7.55
	2015	--	--	--	--	--	--
	2016	1.14	0.29	1.13	0.29	-3.19	--
TAW	2017	1.17	0.1	1.15	0.1	-3.46	--
	2018	1.04	0.1	1.03	0.1	-2.71	12,443.60
	2019	0.93	-0.20	0.88	-0.20	8.04	-14,364.39
	2015	1.75	0.28	1.72	0.26	3.67	6.51
	2016	0.78	0.12	0.77	0.11	-5.99	5.02
UCA	2017	0.51	1.02	0.51	0.94	3.94	14.94
	2018	0.25	0.75	0.25	0.7	6.89	12.54
	2019	0.27	0.79	0.27	0.7	5.14	7.54
	2015	1.07	1.65	1.01	1.25	4.26	7.11
	2016	0.77	0.96	0.69	0.76	3.49	5.47
WCIC	2017	0.61	1.04	0.54	0.84	3.69	5.53
	2018	0.56	0.93	0.49	0.83	5.07	9.41
	2019	0.54	0.87	0.46	0.77	6.1	8.83
	2015	42.63	0.88	42.63	0.88	1.34	--
	2016	32.29	-0.58	32.29	-0.58	0.47	--
WIC	2017	57.98	-0.22	57.98	-0.22	0.39	--
	2018	1.08	0.38	1.08	0.37	16.27	17.2
	2019	0.92	0.76	0.92	0.74	405.23	39.5

Table 4 reveals the results summary of ratio analysis computed by using both the approaches as mentioned above in Table 3.

**Table 4:** Analysis of Ratio Calculations for the Selected Firms.

S. No.	Company	Analysis of the Ratio Results
1	AACI	Although the cash flow ratios and the traditional ratios were initially extremely similar, in 2019 they started to diverge. Take note of the lower short-term liquidity situation shown by the cash flow ratios.
2	ACE	Compared to the traditional ratios, the cash flow ratios for this company demonstrate a stronger liquidity position.
3	ACI	Compared to the traditional ratios, the cash flow ratios for this company imply a weaker liquidity situation.
4	ACIG	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Interestingly, the result shows that the cash flow situation was getting worse.
5	AI	A lower liquidity position than that suggested by the standard measures is revealed in this corporation by the cash flow ratios. Despite this, it is evident that the trend for liquidity was improving.
6	AICC	A lower liquidity position than that suggested by the standard measures is revealed in this corporation by the cash flow ratios. Interestingly, the results reveal that the cash flow situation was becoming better.
7	AJT	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the pattern shows that, despite this, the cash flow position was improving.
8	ART	The cash flow ratios for this company demonstrate a more robust liquidity position than the conventional measures suggest. Interestingly, the pattern shows that the cash flow position was getting better throughout the period, although the traditional ratios show a decline.
9	ASC	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the trend for the cash flow and traditional ratios both show a decrease throughout the period.
10	ASCIC	A lower liquidity position than that suggested by the standard measures is revealed in this corporation by the cash flow ratios. In the cash interest coverage ratio across the time, however, the interest coverage is noticeably stronger.
11	ASF	A lower liquidity position than that suggested by the standard measures is revealed in this corporation by the cash flow ratios. With the cash interest coverage ratio and the interest coverage ratio being in reverse during the term, the interest coverage offers an alternative viewpoint.
12	BA	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the trend for the cash flow and traditional ratios both show a decrease throughout the period.
13	GUCIC	A lower liquidity position than that suggested by the standard measures is revealed in this corporation by the cash flow ratios. The cash flow ratio trend shows a noticeable improvement over time.
14	IHC	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the trend for the cash flow and traditional ratios both show a decrease throughout the period.
15	MAA	Compared to traditional ratios, the cash flow ratios for this company imply a poorer liquidity situation. Notably, the pattern shows improvement throughout the period for both the cash flow and traditional ratios.
16	MGCIRC	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the cash flow ratio trend shows a decrease over time.
17	MI	More liquidity is shown in this firm than is suggested by the standard measures, according to the cash flow ratios. Interestingly, during the course of the period, the cash flow ratios show a drop.
18	SAICO	A lower liquidity position than that suggested by the standard measures is revealed in this firm by the cash flow ratios. During the period, there appears to have been a fall in both the traditional and cash flow ratios. The cash interest coverage ratio, which shows a better scenario than the interest coverage ratio over the period, offers a distinct perspective from the interest coverage as well.
19	SCIC	Compared to the traditional ratios, the cash flow ratios for this company indicate a somewhat healthier liquidity situation. Throughout the period, the ratios are notably approximations.
20	SECI	The company's cash flow ratios demonstrate a little healthier liquidity position than the conventional ratios suggest. The ratios are notably quite close to each other throughout the time.
21	SI	Compared to traditional ratios, the cash flow ratios for this company indicate a somewhat healthier liquidity situation. It is noteworthy that the ratios are reasonably close to one another throughout the time.
22	TAW	The cash flow ratios for this organization reveal a weaker liquidity situation than the standard measures do. Notably, the trend for the cash flow and traditional ratios both show a decrease throughout the period. A contrasting viewpoint is also offered by the interest coverage, with the cash interest coverage ratio initially reflecting a better situation than the interest coverage ratio until experiencing a sharp fall in 2019.
23	UCA	The cash flow ratios for this company indicate a slightly healthier liquidity position than the traditional measures suggest. Notably, over the period, the ratios are rather near to each other.
24	WCIC	The cash flow ratios for this company indicate a slightly healthier liquidity position than the traditional measures suggest. Notably, over the period, the ratios are rather near to each other.
25	WIC	The cash flow ratios for this company demonstrate a more robust liquidity position than the conventional measures suggest.

## 5. Conclusion

This research shows how crucial it is to validate the findings drawn from the analysis of traditional liquidity measurements alone by utilizing the cash flow ratios. Some corporations had solid traditional ratios on the surface, but their cash flow ratios gave a different impression. However, several organizations had seemingly subpar traditional ratios; in these cases, the cash flow ratios offered a more insightful view. The analysis emphasizes how helpful the cash flow

ratios are when examining a company's financial accounts. The study's conclusions suggest that calculating cash flow ratios offers a more comprehensive method for analyzing a company's liquidity condition, which in turn helps decision-makers make better choices based on the information. The cash flow ratios offer a useful way to support or challenge the applicability of the results of conventional ratios when evaluating financial data. Only a small number of the available cash flow ratios are represented by the ratios utilized in this study, with the purpose to clarify the contrast between the traditional ratios. The availability of more cash flow ratios in comparison to a larger range of traditional ratios could prove advantageous for the future study.

### **Acknowledgment:**

The author extends his appreciation to the Arab Open University for funding this work through AOU research fund No. (AOUKSA-524008)

### **References**

- Afeef, M. (2011). Analyzing the Impact of Working Capital Management on the Profitability of SME's in Pakistan. *International Journal of Business and Social Science*, 2(22).
- Aysan, A., Kayani, F., & Kayani, U. N. (2020). The Chinese inward FDI and economic prospects amid COVID-19 crisis. *Pakistan Journal of Commerce and Social Sciences*, 14(4), 1088-1105.
- Aysan, A. F., & Kayani, F. N. (2022). China's Transition to a Digital Currency does it threaten Dollarization? *Asia and the Global Economy*, 2(1), 0259994.
- Berg, C. (2014). The Revolution in Telecommunications, *Review-Institute of Public Affairs*, vol. 56. No. 4, 18-19.
- Carslaw, C. & Mills, J. (2017). Developing Ratios for Effective Cash Flow Statement Analysis, *Journal of Accountancy*, vol.172, no. 5, pp. 63-70.
- Figlewicz, R. & Zeller, T. (2022). An Analysis of Performance, Liquidity, Coverage, and Capital Ratios from the Statement of Cash Flows, *Akron Business and Economic Review*, vol. 22, no. 1, Pp.64-91.
- Giacomino, D. & Mieke, D. (2020). Cash Flows: Another Approach to Ratio Analysis, *Journal of Accountancy*, vol.175, no. 3, pp. 55-58.
- Gibson, C. (2016). *Financial Reporting & Analysis: Using Financial Accounting Information*, 11<sup>th</sup> Edn, South-Western, Cengage Learning: Mason, OH.
- Gombola, M. & Ketz, J. (2019). A Note on Cash Flow and Classification Patterns of Financial Ratios, *Accounting Review*, vol.58, no. 1, pp. 105-114.
- Hassan, M. K., Aysan, A. F., Kayani, U. N., & Choudhury, T. (2023). Working capital as a firm performance savior? Evidence from Scandinavian countries. *Research in International Business and Finance*, 65, 101959.
- Hasan, F., Al-Okaily, M., Choudhury, T., & Kayani, U. (2023). A comparative analysis between FinTech and traditional stock markets: Using Russia and Ukraine war data. *Electronic Commerce Research*, 1-26.)
- Hasan, F., Kayani, A. I., & Choudhury, T. (2022). Effect of interest rate changes and dividend announcements on stock returns: evidence from a frontier economy. *Pakistan Journal of Commerce and Social Sciences*, 16(4), 639-659.
- Johan, S., Kayani, U. N., Naeem, M. A., & Karim, S. (2024). How effective is the cash conversion cycle in improving firm performance? Evidence from BRICS. *Emerging Markets Review*, 101114.

- Kayani, U. N., Gan, C., Choudhury, T., & Arslan, A. (2023). Working capital management and firm performance: evidence from emerging African markets. *International Journal of Emerging Markets*.
- Kayani, U. N., Silva, T. A. D., & Gan, C. (2021). Corporate governance and working capital management—Inclusive approach for measuring the firm performance. *Review of Pacific Basin Financial Markets and Policies*, 24(02), 2150015.
- Kayani, F. N., & Gan, C. (2022). Foreign Direct Investment Inflows and Governance Nexus: Evidence from the United States, China, and Singapore. *Review of Pacific Basin Financial Markets and Policies*, 25(04), 2250030.
- Kayani, F. N. (2022). A Resilient China amid COVID-19 Pandemic Crisis: Innovative Lessons for Other Countries. *International Journal of Economics and Financial Issues*, 12(5), 135.
- Laing, G. (2020). *Butterworths Accounting Companions: Financial Statement Analysis*, Butterworths: Sydney.
- Mills, J. & Yamamura, J. (2018). The Power of Cash Flow Ratios, *Journal of Accountancy*, vol. 186, no. 4, 53-61.
- More, E. & McGrath, M. (2019). Working Cooperatively in an Age of Deregulation Strategic Alliances in Australia's Telecommunications Sector, *Journal of Management Development*, vol.18, no.3, 227-254.
- Mumtaz, R., Kayani, U. N., Aysan, A. F., Hasan, S. S., & Iqbal, U. (2023). Unleashing the financial aspect of Covid-19: How organizations managed the crisis? *Cogent Social Sciences*, 9(2), 2257919.
- Nawaz, F., Kayani, U., & Aysan, A. F. (2023). Nexus between foreign remittances and poverty alleviation: Empirical investigation of Tajikistan from Central Asia. *Cogent Social Sciences*, 9(2), 2275554.
- Nobanee, H., Abdullatif, M., & AlHajjar, M. (2011). Cash conversion cycle and firm's performance of Japanese firms. *Asian Review of Accounting*, 19(2), 147-156.
- Sylvestre, J. (2022). Effective Methods for Cash Flow Analysis, *Healthcare Financial Management*, vol. 48, no. 7, pp. 62-69.
- Zeller, T. & Stanko, B. (2014). Operating Cash Flow Ratios Measure a Retail Firm's "Ability to Pay", *Journal of Applied Business Research*, vol. 10, no. 4.