

WORKING CAPITAL AND CORPORATE STRATEGY PATTERNS IN WORKING CAPITAL OF ROMANIAN PHARMACEUTICAL COMPANIES QUOTED ON BUCHAREST STOCK EXCHANGE

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Abstract: *The competitive nature of the business environment requires firms to adjust their strategies and adopt good financial policies to sustain growth. Most firms have an important amount of cash invested in current assets, as well a substantial amounts of current liabilities as a source of financing. This paper therefore analyses the working capital structure and financing pattern of Romanian Pharmaceutical Companies quoted on Bucharest Stock Exchange. Structural differences in working capital and the financing pattern of the sample firms are analysed and the results showed significant structural changes over the 2009-2014 period. The research revealed a decrease in current asset investment in relation to sales and a decreasing trend in the short-term component of working capital financing; in particular equity funds of Romanian producers financed the major part of working capital.*

Keywords: *working capital structure, working capital financing, corporate strategy, liquidity ranks.*

GENERAL CONSIDERATION AND LITERATURE REVIEW

Success and survival of a business depends on how well its finance function is managed. The competitive nature of the business environment requires firms to adjust their strategies and adopt good financial policies to survive and sustain growth. Most firms have an important amount of cash invested in accounts receivable, as well as substantial amounts of accounts payable as a source of financing (Mian and Smith, 1992; Deloof and Jegers, 1999).

Financing of working capital has become a significant area of financial management, more specifically for the small and medium enterprises (Watson and Wilson, 2002). Given the changing economic conditions, which is more and more characterised by increasing competition, the area of working capital financing has assumed added importance as it greatly affects firm's liquidity and profitability (Shin and Soenen, 1998; Deloof, 2003; Padachi, 2006).

Generally working capital is financed by a combination of long-term and short-term funds. Long-term sources of funds consist of capital (equity from owners) and long-term debt, which only provide for a relatively small portion of working capital requirement. This portion is the net working capital; that is the excess of current assets over current liabilities. On the other hand, short-term sources of working capital finance consist of trade credit, short-term loans, bank overdraft, provisions and other current liabilities used to finance temporary working capital needs.

Sometimes, working capital deficit exists if current liabilities exceed current assets. In such a situation, short-term funds are used to finance also part of non-current assets and the firm is said to be adopting an aggressive working capital policy (Bhattacharya, 2001). No doubt, easy accessibility of finance is important factor to decide about the source of finance, but its impact on risks and return cannot be ignored (Gitman, 2000).

The financing preferences of firms are often explained using Myers's pecking order theory (1984). Though this theory was developed for large quoted companies, it is equally applicable to medium and small firms. Firms tend to use cash credit as a first choice for financing their working capital needs.

However, the excessive reliance on the banking system for working capital financing exerts some pressure on the banks and a significant part of available resources are first channelled to the large firms (Narasimbhan and Vijayalakshmi, 1999). They also noted that the long-term source of funds for working capital seems to be dominant in many industries and cash credit is the next major source of financing of working capital. Another source of funding working capital requirement is trade credit.

There are a few studies that have addressed the financing and capital structure of medium sized enterprises, mostly for developed countries (Hughes, 1997; Eatson and Wilson, 2002; Zoppa and McMahon 2002) and a few developing counties (Peterson and Shulman, 10987; Aidis, 2005; Abor, 2005).

Filbeck and Krueger (2005) highlighted the importance of efficient of working capital management by carrying out analysis of working capital management policies of 32 non-financial industries in United States of America. The result revealed that significant differences exist between industries in working capital practice overtime.

However, Weinraub and Visscher (1998) have discussed the issue of aggressive and conservative working capital management policies by using quarterly data for a period of 1984 to 1993 of US firms. Their study looked at ten diverse industry groups to examine the relative relationship between their aggressive/conservative working capital policies. The authors concluded that the industries had distinctive and significantly different working capital management policies. The study also showed a high and significant negative correlation between industry assets and liabilities policies and found that when relatively aggressive working capital asset policies are followed, they are balanced by relatively conservative working capital financial policies.

Afza and Nazir (2007) conducted an investigation into the relationship between aggressive/conservative working capital for 17 industrial groups and a large sample of 263 public limited companies listed on the Karachi Stock Exchange for a period 1998-2003. The study revealed significant differences among their working capital investment and financing policies across different industries.

This paper attempts to examine the differences in working capital structure of medium-sized manufacturing and distribution companies operating in Romanian pharmaceutical, quoted on BVB. A second objective of the research is to analyse the working capital financing pattern of the sample firms and to investigate the role of short term funds as a source of financing. The next section provides support for the methodological approach and briefly elaborates on the data collection.

WORKING CAPITAL AND CORPORATE STRATEGY

Executives spend a great deal of time designing and planning their corporate and competitive strategies. The strategic plans typically focus on operational matters, leaving aside questions related to their financial consequences. Even in those cases in which some financial planning is performed, it is usual to see the forecast stop at the operational level, with a profit and loss estimate of earnings before interest and tax (EBIT), as it is usually argued that EBIT captures the operational performance of the firm. However, unless we consider the financial implications of a firm's operational plans, we cannot know whether a given strategic plan is financially feasible. It is not surprising, therefore, that this lack of balance sheet forecasting so often observed causes many firms to find themselves in a difficult financial situation.

To see how a firm's operational strategy can influence its financial standing, consider a firm pursuing an aggressive growth strategy. The firm will typically need to lower prices, offer extra days of financing, or promise a more aggressive schedule of deliveries. When customers are allowed to repay their bills over a longer horizon, the clients' accounts will grow; similarly, when firms agree to deliver goods under a more aggressive schedule, the inventory balance will grow. In either case, the firm's growth strategy will cause the firm's financial needs for operation (FNOs) to increase.

We can decompose the impact of growth into two components: an extra day component and a sales growth component. Even if the days of receivables or days of inventory are not expected to increase, an adequately forecast of the operational consequences of the projected sales growth has to be performed to make sure the firm has a complete and accurate estimate of funds needed to finance the proposed growth plan.

Once a firm has projected the financial implications of the proposed corporate strategy, it is imperative that top management makes decision regarding the level of working capital that it will commit in order to finance forecasted level of growth and its related investment in operational assets. The usual objective of matching asset and liability maturities implies that if the firm is forecasting a permanent increase in FNO's, then it will need to find a way to increase its working capital (increase working capital by raising long-term debt or equity or by divesting itself of fixed assets).

If we consider the case of some emerging economies and/or of some specific economic events, it may be difficult for a firm to issue long-term debt or equity even to finance profitable projects or growth strategies, given the absence of efficient capital markets. In these cases, increasing working capital might be more complicated or even impossible. Such difficulties, however, need to be considered at the corporate strategy planning stage. Otherwise, the firm might run into serious financial problems from increases in FNO's that cannot be adequately financed.

The theory indicates that a firm should measure the FNOs implied under the proposed corporate strategy, and then choose the appropriate level of working capital. Unfortunately, this decision is not always feasible, since in some illiquid and inefficient financial markets it is not always possible to establish a chosen level of working capital. While the strategy should determine the size and riskiness of assets, which should in turn

influence the size and type of optimal financing, markets or financial constraints might induce decisions to be made in the opposite direction.

Working capital management has several important implications for the implementation of a company's strategic plan. First, while FNOs depend in large part on the firm's activity level and the terms of trade agreed upon by the firm and its trade partners (suppliers and clients), these are not generally under the firm's control and hence it is difficult to anticipate FNOs exactly.

Trading conditions vary significantly over time in response to changes in market dynamics. Because such changes are outside a firm's control, they further complicate the firm's ability to forecast FNOs. Business experience should help manager's better forecast changes in market dynamics and their effects on firms' operating ratios. An industry is affected by the extent of competition among its players, the competitive threat posed by potential new entrants to the industry, the existence of actual or potential substitute products, and firm's ability to negotiate with suppliers and clients.

The ability to negotiate with suppliers and clients, which depends on a firm's relative strength within the value chain, is the competitive force that has the greatest effect on the trade conditions of an industry. This negotiation capacity can be forecasted if management has a good understanding of the competitive market dynamics of the corresponding industry. This implies that even though FNOs are out of a firm's complete control it is not necessarily the case that they cannot be forecasted. The firm can forecast the level of FNOs and decide the corresponding level of working capital, by choosing the level of long-term capital in excess of fixed assets.

In addition to market dynamics affecting a company's operations, managerial decisions also have a potential impact on them. The sales manager increasing sales or changing the firm's commercial credit terms, the purchasing manager setting the level of purchases or changing the number of days taken to repay suppliers, and the production manager choosing a different production schedule are all examples of operating decisions that have an effect on the level of the firm's FNOs. The main problem with this is that managers are often not aware of the financial implications of their operating decisions. This is because they do not realize that every operating decision has an effect on the firm's operating investment.

Another potential problem that can arise when managerial decisions that increase FNOs are made is that they are simply not communicated to the financial department, resulting in unexpected cash shortages; the resulting shortages can be particularly severe in the case of small firms. Some companies try to mitigate this problem by raising the topic during weekly manager meetings. Other companies require that certain actions receive approval from the financial department to help reduce such issues.

Implementation of a firm's strategic plan should start with managers forming the operational plan; in doing so, the managers should assess the plan's main implications and identify the tools to be used to achieve the plan's targets. Next, given this input, the financial department needs to forecast the firm's financial position by projecting all relevant statements making sure that the FNOs are adequately considered. Finally, with this information, and a recommendation from the finance department, the board should decide the level of working capital that will accommodate the firm's strategic plan.

Usually, volatility is not considered at this stage. However, good practices suggest that the effects of volatility be considered in these projections. The more common procedures for doing so include scenario analysis, Monte Carlo simulations, and stress testing at the planning stages. These methodologies can help managers analyse potential alternative plans that can help the firm solve problems that may arise as it moves forward. Finally, during the implementation stage, it is critical to establish specific controls on the execution of the plan. To do so, firms typically design ratios and control panels that help managers identify any deviations with respect to the planned scenario.

Firms that choose to have a low level of working capital, relying mostly on short-term debt and issuing long-term capital only when required, might capture some extra profitability as these firms are never overcapitalized. In this case, they avoid holding idle cash. However, this is sustainable if the need for funds does not appear during a period in which the market is illiquid; if that does happen, the firm might not be able to finance growth (through financing of FNOs) and hence might lose competitive position against more capitalized competitors.

The opposite position is one in which a firm has excess long-term financing (either long-term debt or equity). The firm is likely paying a high cost of capital for its financing, but that high cost buys the firm flexibility in the event that it need extra financing to support its FNOs. Such a firm would be able to obtain extra profits from predation in periods in which its less conservative competitors are forced into financial distress due to cash shortages that cannot be financed.

In some markets, securing high level of working capital with large level of long-term debt or equity financing, or developing an ongoing relationship with the capital markets, facilitates access to adequate financing and can be used to attack a competitor's market position. This is especially valuable for firms operating in countries with unstable financial environments in which access to financing is usually severely curtailed, and is especially important in those cases in which FNOs are extremely difficult to forecast and control. In other words, firms knowing the market and their competitors' strengths and weaknesses might anticipate these opportunities by setting a more conservative working capital policy, which leaves them in a position to predate on their competitors' competitive position.

In economies where access to financing (especially long-term debt and equity) is likely to be limited, working capital management becomes more important than in countries with efficient capital markets. When long-term capital is not available, firms might revise their capital expenditure plans to reflect the lack of financing opportunities, but even in this case they may need to raise capital to finance their investment in current assets. Unfortunately, the increase in financial needs for operation might drag an undercapitalized firm into financial distress.

PATTERNS IN WORKING CAPITAL OF ROMANIAN PHARMACEUTICAL COMPANIES QUOTED ON B.V.B.

This section analyses the medium-sized manufacturing and distribution pharmaceutical firms' working capital structure to examine the structural changes over

the period of study. It also analyses the pattern of working capital financing and to establish whether short-term funds have a major role in the financing of working capital, as confirmed in the literature.

The scope of the study was limited to see the impact of working capital on the liquidity of Romanian pharmaceutical distributors (Remedia and Ropharma) and producers (Antibiotice, Biofarm and Zentiva) quoted on Bucharest Stock Exchange.

The objectives of the study:

- To find the change in working capital for 2009-2014 period
- To measure the overall efficiency of working capital
- How much is the fluctuation in working capital
- To identify the strategies in terms of working capital

The study used aggressive investment policy as measuring variables of working capital management.

Aggressive investment policy (AIP) results in minimal level of investment in current assets versus fixed assets.

In contrast a conservative investment policy put a larger proportion of capital in current assets with the opportunity cost of lesser profitability.

In order to measure the degree of aggressiveness, following ratio will be used:

$AIP = \text{Total current assets (TCA)} / \text{Total assets (TA)}$, where a lower ratio means a relatively aggressive policy.

Aggressive financing policy utilizes higher level of current liabilities and less long-term debt. In contrast, a conservative financing policy uses more long-term debt and capital. The degree of aggressiveness of a financing policy adopted by a firm will be measured by:

$AFP = \text{Total current liabilities (TCL)} / \text{Total assets (TA)}$, where a higher ratio means a relatively aggressive policy.

For measuring the overall efficiency of working capital one parameter namely Working Capital Utilisation Index has been used, calculated as follows:

$$UI (wcm) = A (t-i) / A (t)$$

Where: A = Current assets / Sales in period

According with the table 1 and 2, distributors' current assets constitute on average 76% of total assets and 66% of total assets' producers which confirms the importance of trade credit as a source of financing for firms.

Stocks, another major component of current assets are on average 19% from current assets for distributors (15% of total assets) and 14% of current assets for producers (9% of total assets).

However, in the case of distributors, on average 64% of assets are financed with short-term financial debt and another 7% is granted as cash credit by banks.

The share of long-term debt used to finance working capital is insignificant for distributors and thus confirm that firms face difficulties to secure long-term financing and it accords with pecking order hypothesis. Average long-term distributors' debt is about 1% of total assets.

Table 1: Summary statistics for distributors: Remedia & Ropharma

	2.009	2.010	2.011	2.012	2.013	2.014	Average	Mix %
Assets								
Fixed assets	64.659.4 29	88.432.1 53	106.417. 465	125.610. 127	133.939. 444	136.085. 292	109.190. 652	24%
Current assets	233.745. 597	335.735. 291	440.930. 036	431.717. 482	368.000. 425	301.274. 257	351.900. 515	76%
Total	298.405. 026	424.167. 444	547.347. 501	557.327. 609	501.939. 869	437.359. 549	461.091. 166	
Sources of funds								
Short-term funds	219.053. 240	309.585. 842	413.470. 938	396.276. 392	342.592. 068	270.715. 587	325.282. 345	71%
ST financial debt	186.462. 424	268.799. 749	378.327. 570	363.050. 572	313.599. 621	258.564. 121	294.800. 676	64%
ST bank debt	32.590.8 16	40.786.0 93	35.143.3 68	33.225.8 20	28.992.4 47	12.151.4 66	30.481.6 68	7%
Long term Funds	79.351.7 86	114.581. 602	133.876. 563	161.051. 217	159.347. 801	166.643. 962	135.808. 822	29%
LT financial debt	5.082.93 8	5.584.28 6	5.599.39 3	12.158.5 70	4.889.14 1	2.317.20 4	5.938.58 9	1%
Equity	74.268.8 48	108.997. 316	128.277. 170	148.892. 647	154.458. 660	164.326. 758	129.870. 233	28%
Total	298.405. 026	424.167. 444	547.347. 501	557.327. 609	501.939. 869	437.359. 549	461.091. 166	
Investing policy	78%	79%	81%	77%	73%	69%	76%	
Financing policy	73%	73%	76%	71%	68%	62%	71%	

Source: author's computation based on published financial statements.

Table 2: Summary statistics for producers: Antibiotice, Biofarm and Zentiva

	2.009	2.010	2.011	2.012	2.013	2.014	Average	Mix %
Assets								
Fixed assets	311.247. 951	308.925. 949	329.068. 339	362.395.6 45	367.311.9 35	366.835.0 98	340.964.1 53	34%
Current assets	549.463. 103	648.334. 327	653.030. 714	673.529.4 40	714.945.3 60	733.804.1 92	662.184.5 23	66%
Total	860.711. 054	957.260. 276	982.099. 053	1.035.925 .085	1.082.257 .295	1.100.639 .290	1.003.148 .676	

Sources of funds								
Short-term funds	167.004.136	180.775.925	255.403.636	246.034.912	242.455.741	235.167.182	221.140.255	22%
ST financial debt	92.258.407	111.474.320	172.987.060	153.744.618	169.619.611	180.383.841	146.744.643	15%
ST bank debt	74.745.729	69.301.605	82.416.576	92.290.294	72.836.130	54.783.341	74.395.613	7%
Long term Funds	693.706.918	776.484.351	726.695.417	789.890.173	839.801.554	865.472.108	782.008.420	78%
LT debt	33.656.760	28.760.364	32.145.402	26.945.003	43.198.454	35.668.637	33.395.770	3%
Equity	660.050.158	747.723.987	694.550.015	762.945.170	796.603.100	829.803.471	748.612.650	75%
Total	860.711.054	957.260.276	982.099.053	1.035.925.085	1.082.257.295	1.100.639.290	1.003.148.676	
Investing policy	64%	68%	66%	65%	66%	67%	66%	
Financing policy	19%	19%	26%	24%	22%	21%	22%	

Source: author's computation based on published financial statements.

For the study period, for distributors the average current assets to total assets was 0.76 and current liabilities to total assets was 0.71 that correspond with a moderate strategy in terms of working capital management (average liquidity, return and risk).

Producers are maintaining a low level of short term liabilities and a high level of current assets in total assets (total current assets to total assets 0.66 and total current liabilities to current assets 0.2) that correspond with the conservative strategy for working capital management (low return and risk and high liquidity).

There are now fluctuations in working capital strategies for 2009-2014 periods. Table 3 and 4 analyses the trends in gross working capital and net working capital for sample firms and also to see whether over six year period, the firms have adopted different working capital financing policies by calculating the ratio current liabilities to current assets. The period 2009 to 2014 displayed a positive working capital, the ratio of current liabilities to current assets shows that nearly 80% of the current assets are met out of current liabilities in the case of distributors and 20% in the case of producers.

Table 3: Trend in current assets, current liabilities and NWC for distributors: Remedia and Ropharma

Year	Current assets	Current Liabilities	Net working capital	CL/CA
2009	233.745.597	186.462.424	47.283.173	0,8
2010	335.735.291	268.799.749	66.935.542	0,8
2011	440.930.036	378.327.570	62.602.466	0,9
2012	431.717.482	363.050.572	68.666.910	0,8
2013	368.000.425	313.599.621	54.400.804	0,9
2014	301.274.257	258.564.121	42.710.136	0,9

Average 0,8
 Source: author's computation based on published financial statements

Table 4: Trend in current assets, current liabilities and NWC for producers: Antibiotice, Biofarm and Zentiva

Producers	Current assets	Current Liabilities	Net working capital	CL/CA
2009	549.463.103	92.258.407	457.204.696	0,2
2010	648.334.327	111.474.320	536.860.007	0,2
2011	653.030.714	172.987.060	480.043.654	0,3
2012	673.529.440	153.744.618	519.784.822	0,2
2013	714.945.360	169.619.611	545.325.749	0,2
2014	733.804.192	180.383.841	553.420.351	0,2
Average				0,2

Source: author's computation based on published financial statements

A firm may be said to have managed its working capital efficiently if the proportionate rise in sales is more than proportionate rise in current assets during a particular period.

For distributors for each year from 2009-2013 period, as it is presented in table 6, the growth trend index for current assets it was above the growth trend index recorded in net sales. In contrast, in 2014 growth trend index for current assets was 129% inferior with the growth trend index for net sales that was 151%.

More on that, working capital utilization index was calculated for each year, to indicate the ability of the firms in utilizing its current assets as a whole for the purpose of generating sales. If an increase in total current assets is coupled with the more than proportionate rise in sales, the degree of utilisation of these assets with respect to sales is said to have improved and vice versa.

Starting with 2012 the working capital utilization index were greater than one (maximum in 2014 it was 1.25) which correspond with an efficient management of working capital for distributors.

Working capital gap as a % of net sales for distributors, exhibits an overall decreasing trend from 13% in 2010 to 6% in 2014.

Table 5: Trend in Working Capital Utilization Index

		2.009	2.010	2.011	2.012	2.013	2.014
Total current assets / Net sales	Distributors	0,53	0,63	0,75	0,67	0,57	0,45
Working Capital Utilization Index	Distributors		0,84	0,84	1,13	1,18	1,25
Total current assets / Net sales	Producers	1,19	1,11	1,07	1,03	1,00	0,87
Working Capital Utilization Index	Producers		1,07	1,04	1,03	1,03	1,15

Source: author's computation

Table 6: Pattern of working capital finance: distributors (Remedia and Ropharma)

	2.009	2.010	2.011	2.012	2.013	2.014
Net Sales	442.686	534.559	588.637	649.036	650.790	667.047
	.448	.680	.657	.441	.192	.138
Total Current Assets	233.745	335.735	440.930	431.717	368.000	301.274
	.597	.291	.036	.482	.425	.257
Financed by:						
Trade creditors and other payables	186.462	268.799	378.327	363.050	313.599	258.564
	.424	.749	.570	.572	.621	.121
Working capital gap						
Current assets - current liabilities	47.283.	66.935.	62.602.	68.666.	54.400.	42.710.
	173	542	466	910	804	136
as a % of current assets	20%	20%	14%	16%	15%	14%
as a % of net sales	11%	13%	11%	11%	8%	6%
Met by:						
Bank borrowings: Short-term	32.590.	40.786.	35.143.	33.225.	28.992.	12.151.
	816	093	368	820	447	466
Bank borrowings: Long-term	5.082.9	5.584.2	5.599.3	12.158.	4.889.1	2.317.2
	38	86	93	570	41	04
Net WC from equity	9.609.4	20.565.	21.859.	23.282.	20.519.	28.241.
	19	163	705	520	216	466
Total	47.283.	66.935.	62.602.	68.666.	54.400.	42.710.
	173	542	466	910	804	136
Growth trend index						
Net sales	100%	121%	133%	147%	147%	151%
Total current assets	100%	144%	189%	185%	157%	129%
Trade creditors and other payables	100%	144%	203%	195%	168%	139%
Bank borrowings: Short-term	100%	125%	108%	102%	89%	37%
Bank borrowings: Long-term	100%	110%	110%	239%	96%	46%
Net WC from equity	100%	214%	227%	242%	214%	294%

Source: author's computation based on published financial statements.

The working capital to sales ratio for distributors has reduced from 13% in 2010 to 6% in 2014. The overall average is 10% which indicates efficient use of short term financial resources of the companies.

For producers, the working capital to sales ratio has reduced from 99% in 2009 to 66% in 2014 but the average was 80% that representing a sign of inefficiency in the use of short term financial resources by the companies.

Table 7: Pattern of working capital finance: producers (Antibiotice, Biofarm and Zentiva)

	2.009	2.010	2.011	2.012	2.013	2.014
Net Sales	462.628	585.565	610.938	651.548	713.522	841.525
	.514	.324	.711	.748	.103	.757
Total Current Assets	549.463	648.334	653.030	673.529	714.945	733.804
	.103	.327	.714	.440	.360	.192
Financed by:						
Trade creditors and other payables	92.258.407	111.474.320	172.987.060	153.744.618	169.619.611	180.383.841
Working capital gap						
Current assets - current liabilities	457.204.696	536.860.007	480.043.654	519.784.822	545.325.749	553.420.351
as a % of current assets	83%	83%	74%	77%	76%	75%
as a % of net sales	99%	92%	79%	80%	76%	66%
Met by:						
Bank borrowings: Short-term	74.745.729	69.301.605	82.416.576	92.290.294	72.836.130	54.783.341
Bank borrowings: Long-term	33.137	0	0	0	0	0
Net WC from equity	382.425.830	467.558.402	397.627.078	427.494.528	472.489.619	498.637.010
Total	457.204.696	536.860.007	480.043.654	519.784.822	545.325.749	553.420.351
Growth trend index						
Net sales	100%	127%	132%	141%	154%	182%
Total current assets	100%	118%	119%	123%	130%	134%
Trade creditors and other payables	100%	121%	188%	167%	184%	196%
Bank borrowings: Short-term	100%	93%	110%	123%	97%	73%
Bank borrowings: Long-term	100%	0%	0%	0%	0%	0%
Net WC from equity	100%	122%	104%	112%	124%	130%

Source: author's computation based on published financial statements.

Table 8 and 9 also exhibits an increasing trend in the use of long-term funds for producers as a source of working capital during the period. It rises from 36% in 2011 and 2012 to 38% in 2014.

For distributors, it is generally believed that short-term borrowings finance the major portion of working capital needs and long-term funds may be employed for this purpose in case of necessity only. As an average only 17% of long term funds are used to finance working capital gap.

Table 8: Financing patterns of working capital finance for distributors (Remedia and Ropharma)

	2.009	2.010	2.011	2.012	2.013	2.014	Average
1. Gross Working capital	233.745.597	335.735.291	440.930.036	431.717.482	368.000.425	301.274.257	351.900.515
2. Sources of wc:							
(i) Short terms funds	219.053.240	309.585.842	413.470.938	396.276.392	342.592.068	270.715.587	325.282.345
ii) Long term funds	14.692.357	26.149.449	27.459.098	35.441.090	25.408.357	30.558.670	26.618.170
3. Total long term funds	88.961.205	135.146.765	155.736.268	184.333.737	179.867.017	194.885.428	156.488.403
4. % of LT funds used to finance WC	17%	19%	18%	19%	14%	16%	17%
5. Owners equity	74.268.848	108.997.316	128.277.170	148.892.647	154.458.660	164.326.758	129.870.233

Source: author's computation based on companies' published financial statements

For producers, as an average, 37% from long-term funds are used to finance working capital gap.

Table 9: Financing patterns of working capital finance for producers (Antibiotice, Biofarm and Zentiva)

	2.009	2.010	2.011	2.012	2.013	2.014	Average
1. Gross Working capital	549.463.103	648.334.327	653.030.714	673.529.440	714.945.360	733.804.192	662.184.523
2. Sources of wc:							
(i) Short terms funds	167.004.136	180.775.925	255.403.636	246.034.912	242.455.741	235.167.182	221.140.255
ii) Long term funds	382.458.967	467.558.402	397.627.078	427.494.528	472.489.619	498.637.010	441.044.267
3. Total long term funds	1.042.509.125	1.215.282.389	1.092.177.093	1.190.439.698	1.269.092.719	1.328.440.481	1.189.656.918
4. % of LT funds used to finance WC	37%	38%	36%	36%	37%	38%	37%
5. Owners' equity	660.050.158	747.723.987	694.550.015	762.945.170	796.603.100	829.803.471	748.612.650

Source: author's computation based on companies' published financial statements

An attempt has been made to assess the liquidity of the 5 sample firms, using a comprehensive test based on liquidity ranks. This is calculated first by assigning individual ranking to the four main components of current assets of the distributors and for five components of current assets of the producers and then sum up the individual scores to arrive at an ultimate rank.

The five criteria as showed and table 9 and 10 are stock to current assets ratio (STCR), debtors to current assets ratio (DTCR), cash and bank balances to current ratio (CRCR), short investments to current assets ratio (ITCR) and other current assets to current assets ratio (OTCR).

Investment in the various categories of current assets has an incidence on the liquidity of an enterprise. The category of current assets which forms the largest component in total current assets will, therefore, affect liquidity of the enterprise in a significant way. A comprehensive test based on the sum of scores (liquidity ranks) of the separate individual ranking under the five criteria are given in table 9 and 10.

A high value of DTCR, CTCR, ITCR and OTCR indicate greater liquidity and ranking has been done in that order. On the other hand, a low STCR shows a more favourable position and hence ranking has been done in that order. In 2013 and 2014 for bowth distributors and producers, stock of raw materials, finished goods and merchandises are a significant item and a large proportion of current assets in stock means the business enterprise will face liquidity problems.

Table 10: Statement of ranking in order of liquidity for distributors (Remedia and Ropharma)

Year	Liquidity ranks					STCR	DTCR	CTCR	OTCR	Total rank	Ultimate Rank
	Stocks	Debtors	Cash	Other	term						
2009	22,9%	71,0%	5,8%	0,4%		5	4	4	1	14	4
2010	14,2%	79,8%	5,8%	0,2%		1	1	4	2	8	1
2011	15,2%	75,5%	9,2%	0,2%		2	3	2	2	9	2
2012	17,0%	78,3%	4,6%	0,1%		3	2	6	3	14	4
2013	18,9%	62,7%	18,2%	0,1%		4	5	1	3	13	3
2014	32,0%	60,6%	7,2%	0,2%		6	6	3	2	17	5

Source: author's computation based on published financial statements

Table 11: Statement of ranking in order of liquidity for producers (Antibiotice, Biofarm and Zentiva)

Year	Liquidity ranks											Total rank	Ultimate Rank	
	Stocks	Debtors	Cash	Short investments	term	Other	STCR	DTCR	CTCR	ITCR	OTCR			Other
2009	13,3%	61,0%	23,8%	1,7%		0,2%	4	4	3	3	14	3	31	6
2010	11,6%	45,6%	32,4%	10,2%		0,2%	1	6	1	1	9	3	21	1
2011	13,7%	62,3%	23,7%	0,0%		0,2%	2	5	2	2	11	3	25	3
2012	12,7%	77,2%	9,9%	0,0%		0,1%	3	1	6	0	10	4	24	2
2013	16,4%	69,5%	13,8%	0,0%		0,3%	5	3	4	0	12	2	26	5
2014	16,4%	69,8%	13,3%	0,0%		0,4%	5	2	5	0	12	1	25	4

Source: author's computation based on published financial statements

The values from tables, shows that the year 2010 recorded the soundest position for bought distributors and producers followed by 2011 for distributors and 2012 for producers.

It indicates that the overall liquidity of distributors in the last year is worse than in the early years of the study due to high level of STCR (32%).

CONCLUSIONS

Using a sample of 5 medium firms operating in 2 different sectors for the period 2009-2014 period, the results confirmed that short-term sources more particularly trade credit and other payables play a significant role in financing working capital. Trade credit is primarily used to finance short-term assets (84% for distribution companies and 22% for manufacturing companies).

Short-term and long-term bank credit plays not only a significant but also a dominating role as a major external source of financing working capital requirement (10% for distribution companies and 11% for manufacturing companies).

For Romanian pharmaceutical producers, aggressive working capital asset policies are followed and are balanced by conservative working capital financial policies.

From the present study it can be concluded that distributors have performed well as far as the performance of working capital, utilisation of current assets to generate sales and efficiency of working capital for producers is concerned (in 2014 working capital utilization index for distributors was 1,25 versus 1,15 working capital utilisation index for producers that was 1,15). The distributors have high indexes comparing with the producers. Keeping larger current assets not doubt increases the liquidity of the firms but it has been observed that producers have been able to utilise the increased current assets in generation of the sales in those years. Thereby, such firms need to put in efforts to utilise the current assets properly to as achieve effective management of working capital.

The study suffers from certain limitations which are stated as follows:

- The study has been conducted over a limited period of six years only
- The study is limited to 5 companies. Hence, it will reflect only a partial view of the overall working capital management in the Romanian pharmaceutical sector.
- The study is based on annual financial statements on the selected companies, which may leave some error in context those annual positions to be different from monthly positions.

References:

- [1]. Afza, T. / Nazir M.S. (2007): Is it better to be aggressive or conservative in managing working capital ?, *Journal of Quality and Technology Management*, Volume III, Issue II, p. 11-21.
- [2]. Crowdhury, A. / Muntasir A./ (2007): Working capital Management practiced in Pharmaceutical companies listed in Dhaka Stock Exchange, *BRAC University Journal*, 2, p. 75-86.
- [3]. Deloof, M. (2003): Does Working Capital Affect Profitability of Belgian firms? *Journal of Business, Finance and Accounting* 30, (3-4), p. 573-588.
- [4]. Danuletiu, A.E. (2010): Working Capital Management and profitability: A case of Alba county companies, *Annales Universitatis Apulensis Series Oeconomica*, 12, Finance and Accounting 30,(3-4), p. 573-588.
- [5]. E.Y. (2014): Cash on prescription: Pharmaceutical companies and working capital management 2014, [http://www.ey.com/Publication/vwLUAssets/EY-cash-on-prescription-2014/\\$FILE/EY-cash-on-prescription.pdf](http://www.ey.com/Publication/vwLUAssets/EY-cash-on-prescription-2014/$FILE/EY-cash-on-prescription.pdf).
- [6]. Preve L. / Sarria-Alende V. (2010): *Working Capital Management*, Oxford University Press, p. 115-126.
- [7]. Onofrei M. (2006): *Management Financiar*, CH. Beck Publishing House, Bucharest, p. 55

- [8]. Owolabi S.A. / Alayemi S.A. (2012): The study of working capital Management as a Financial Strategy, *Asian Journal of Business and Management Sciences*, 2 (4), 01-08.
- [9]. Padachi K. / Howorth C. / Narasimhan M.S. / Durbarry R. (2010): Working capital structure and Financing Pattern of Mauritian SMEs, *Oxford Business & Economics Conference Program* http://www.theglobaljournals.gcbe.us/2010_OBEC/data/Kesseven%20Padachi,%20C.%20Howorth,%20M.%20S.%20Narasimhan,%20R.%20Durbarry.doc
- [10]. Rajdev A. (2013): Working capital management of Makson Healthcare PVT LTD: A trade-off between liquidity and profitability, An empirical study, *International Refereed Research Journal*, IV (3), 87-94.
- [11]. Seeger S. / Locker A. / Jergen C. (2011): Working capital management in the Swiss chemical industry, *Journal of Business Chemistry*, 8 (2), 87-98.
- [12]. Vineet H.K. (2011): Efficient Management of Working Capital: A study of healthcare sector in India, <http://www.strategiimanageriale.ro/papers/140305.pdf>