Original Research Article

Working Capital Management and Working Capital Policies on Firm's Value: A Special Reference tothe Listed Companies in Sri Lanka

Abstract

The aim of this paper is to investigate the influence between working capital management and firm value in the Sri Lankan context.This research has usedpooled panel data of 475 observations from 95 listed firms across 18 sectors. Secondary data which are gathered from the annual report published by the CSE for the five years periodfrom 2014/2015 to 2018/2019.The findings states that this model in the study explains a rise in the number of days in the cash conversion period decreased the firm's valuation by 43%. Further, working capital investment policy increases, or in other terms, the degree of WCIP's aggressiveness rises, the firm valuedecreases, and increases in financing policy leads to decreasesin firm value.This study includes both working capital investment policy and working capital financing policy with control variables in Sri Lanka. This research provides limited literature on working capital management, working capital policies, and firm value in Sri Lanka.

Keywords–Firm value, working capital management investment and financing policies, working capital management

1. Introduction

Working capital management is a critical factor that the financial manager may address in addition to capital structure and capital budgeting. Rising profitability and shareholder equity have a direct impact on working capital management. Budgeting effectively is associated with greater liquidity, higher value, and minimized constraints on working capital. While there might be undercapitalization and overcapitalization, the effective investment would boost a business's value. A significant volume of current asset expenditure may decrease company profitability, however, a moderate investment in current assets eliminates the risk of large asset requirements and causes lower liquidity and less inefficiency issues.

Companies also made working capital management a high priority in dealing with the recent financial crisis in order to ensure the everyday operations of the firm are met during these challenging economic times. Return on investment is a function of the company's cash flow, within one year's time frame, is a balancing act between time and return, which has an effect on firm valuation. These businesses must have higher cash flow, improved receivables, and

reduced inventories to gain working capital. To lower operating capital, companies would have to incur additional debt or raise payables and/ payables.

The aim of working capital management is to keep liquid working capital, inventory, and payables at optimal levels (Nazir and Afzal, 2007). More spending on working capital also decreases the return on investment for the firm. the company's worth is calculated by its ordinary shares, which is derived from the market price of ordinary shares as well as acquisition and dividend decisions Cash kept in the working capital decreases equity value, according to Weston and Copeland (1992). Previous studies have found that while firm management is aware of their optimum level of spending, they are unaware of the real optimal level in working capital management (Afrifa, Tauringana, and Tingbani, 2014 and Knauer &Wohrmann, 2013). Because of a lack of knowledge of the optimal level of working capital, the firm's returns would suffer (Knauer &Wohrmann, 2013). Inadequate working capital spending results in reduced profits and a decrease in the firm's valuation (Cumbie and Donnellan, 2017; Knauer &Wohrmann, 2013). Some working capital management techniques are used by managers of firms that are not based on financial standards and use incorrectly designed templates. As a result, this approach leads to inefficient control of a variety of usable working capital component mix, resulting in either overcapitalization or undercapitalization. As a result, this approach leads to inefficient control of a variety of usable working capital component mix, resulting in either overcapitalization or undercapitalization. Many business scandals have arisen in the past as a result of financial managers' reluctance to control working resources (Egbide, 2009). According to Eljelly(2004), a cash shortage will result in more debt in the short term, but it affects the smooth activity in the long run, and a sudden cash demand cannot be financed by a financial manager. Some financial officers disregard the company's working time, which admits to allowing debtors to have a longer collection period and borrowers to have a shorter payout period (Mengesha, 2014).

This working capital problem increases the possibility of more research into the effect of working capital management on firms' valuation. There have been previous studies on working capital management, but there have been few studies on how effective working capital management helps to improve performance and firm worth (Knauer &Wohrmann, 2013). According to Atkas et al., (2015), if a firm's management understands the impact of working capital management on firm value, and if the firm's management understands how components of working capital are determined and managed, and how components of

working capital impact firm's value, the firm's management can help maximize firm's value by adding or subtracting components of working capital. The cash exchange period is used in this analysis to calculate working capital management, and there are few studies in the Sri Lankan context (Anandasayanan, 2014). The majority of previous analysis has focused on established markets; however, Sri Lanka is a developing capital market, and studying the Sri Lankan background will provide more information and data on working capital management (Azeema and Jahfer, 2015). According to Morawakage and Lakshan (2009), the majority of listed firms have expended a large portion of their resources in working capital, and it is essential to investigate this strategy and its effect on firm valuation. In Sri Lanka, however, there is inadequate proof of working capital management activities. Companies play a significant role in the growth of Sri Lanka's GDP. Despite the fact that businesses are still in the early stages of growth, they make a substantial contribution to national income (Perera and Wickremasinghe, 2010; Bei and Wijewardhana, 2012). Maintaining an optimal amount of working capital to stay afloat in the economy is a real challenge for Sri Lankan businesses. The findings from this study would aid management in increasing profitability and increasing the worth of the company. As a result, investors would have more interest in the Sri Lankan capital sector, which would contribute to potential economic development.

2. Literature Review

2.1. Working capital management and its components

There was no concern for the idea of working capital management other than for long-term investment and financial decisions. However, the critical function of various measures of the liquidity position of the organization must be understood because the inability of managing the liquidity management leads to losses to a particular company (Richards and Laughlin, 1980). Richards and Laughlin (1980) introducedthe cash conversion cycle approach to measure working capital management. The current ratio and the capital asset valuation formula are considered key indicators of a company's liquidity from a statistical perspective. (Delima, 2020). According to Finnerty (1993), current ratio and quick ratio are employed under conventional liquidity measures. However, it measures only liquidity and statistically, these measures are not proficient in determining the future cash flows. Then operating cycle measurement was introduced which is referred to as average days needed for a particular business to obtain the inventory from supplier, trade the inventory to customers, and receive the cash from customers (Richards and Laughlin, 1980). Still, it failed to consider the time

dimension and liquidity requirement (Delima, 2020). According to Eljelly (2004), the cash conversion cycle is realistic in terms of liquidity and time dimension with the nature of the cash cycle. Because of this dynamic concept, it is consideredbest for measuring working capital management.

2.2. Cash Conversion Cycle

The cash conversion cycle s described by Van Horne and Wachowicz (2008) as "the length of time from the actual outlay of cash for purchases until the collection of receivables resulting from the sale of goods or services". The firm's performance can be understood through a positive or negative cash conversion cycle. A lengthy cash conversion time of investment in working capital leads to higher cost when obtaining external financing sources compared to internal sources. The gap inthe cash conversion cycle can be reduced by increasing account payables by monitoring inventories and account receivables (Hillier et al., 2010). A shortertime to convert the moneyoughtto be maintained to maximize the company's profitability (Pouraghajan and Emamgholipurarchi, 2012). The number of account receivable days, number of inventory days, and number of account payable days are indicators of cash conversion cycle measurement.

2.2.1. Number of account receivable days

The number of account receivable days is period needed for customers to settle their credit amount therefore companies should have good policies for maintaining the account receivable. According to Berry and Jarvis (2005), companies must consider the trade-off between retaining revenue and earnings, the effect of opportunity expense and operating costs on increasing account receivables, the amount of risk the organization can tolerate when stretching the credit time on an account receivable, and the expenditure in handling debt management from account receivables when developing account receivable policies.

2.2.2. Number of Inventory Days

Raw materials, finished products, and work-in-progress materials are all part of inventory control (Arnold, 2008).This inventory cost is an unavoidable cost for the firms (Lantz, 2008). Raw materials can be defined as goods that are delivered by suppliers to a firm, however, those goods are not utilized for the production process (Birt et al., 2013). Reducing raw materials is good, but it should be decided based on producer order volumes. Work in progress can be defined as materials are left from the warehouse for the production

process,however, until the last day of the financial day, raw materials are not converted into finished goods (Birt et al., 2013). In dealing with work in progress, it is necessary to consider reducing buffer supplies, replacingthe manufacturing process, and shortening the totaloutput cycle period. Finished products can be defined as goods that are an output of the production process and stored in a warehouse to deliver to customers. The firm's manager has to make plans to dispose of the finished good to the customer. Inventory management is a challenging task for the firm's manager because inventory can be kept to a minimum to shortenthe cash exchange timeand save cash. However, keeping low inventory also causes out of stocks situation when the firm has to face the high level of demands in the market and it can be either makes losses to a firm without meeting demands or has to spend more money to purchase stocks in critical situations (Maness and Zietlow, 2005). Therefore, the firm's manager has to maintain a proper balance in inventory that would be beneficial for the firm (Pass & Pike, 2007).

2.2.3. Number of Account Payable Days

Accounts payable is a financing by a supplier for purchasing immediate production inputs and allowing for delayed payment. This delaying payment helps the company to receive payment which is given to the company's customer and settle payment to the supplier. This type of company can still purchase material from the supplier without accessing to bank credit facilities (Baños- Caballero et al., 2010). Account payable management is managing of account payable by extending the time of payment for certain period which is beneficial for the firm because it can be used for other investment within the firm. In order to receive money quickly, suppliers offer different discount opportunities. However, it is not profitable to the firm because funds which can be used as investment for maintaining inventory or cash therefore firm can utilize its credit period and pay its payable on time. It is important to concern that paying payments beyond the due date causes additional cost for the firm (Dolfe and Koritz, 1999). If the supplier forces to settle credits to financially constrained companies which would lead to bankruptcy by accessing outside financing (Tauringana& Afrifa, 2013).

2.3. Working Capital Management Policies

Policies on working capital optimizationare essentialfor controlling the short-term assets and liabilities. Previous researches suggest that working capital policy can be viewed as defensive policy, aggressive policy, and conservative policy (Arnold, 2008). Defensive policy is to fundthe majority of current assets and fixed assets with long-term debt and equity. Arnold

(2008) states that defensive policy reduces the uncertain situation by diminishing current liabilities which affects profitability of the firm because the cost of financing can be increased by high interest rate of long term debts. Therefore, this kind of firms are not willing to take risks because mostly the firms are operating risky environment due to changing in price, interest rate and demand in the market.

Aggressive policy is seen as more profitable and a firm uses current asset to finance short-term debt by using lower interest rate. Short-term debt comes at a higher degree of risk than long term debt. Short-term assets are funded by short-term debts and sometimes part of long-term assets arefunded by short term sources (Paramasivan and Subramanian, 2009). Conservative policy is seen as a mixture of defensive and aggressive working capital management to balance return and risk of firms. The company uses short term liabilities to short-term assets and long-term liabilities to long term assets (Weston and Brigham, 1978). This policy is selected when the firm is operating under moderate level of working capital and moderate risk.

As a result, more aggressive working capital policies are related to higher returns and higher risk, whereas lower risk and return are the results of conservative working capital strategies (Carpenter and Johnson, 1983). It further explains, if an organization has an aggressive working capital management strategy, it would have a higher rate of return, reduced liquidity, and a higher degree of risk, both of which are unhealthy. On the other hand, efficient implementation of working capital policy has gained little recognition but has yielded more important outcomes. Working capital policies that are more progressive are correlated with higher returns and expense, whereas working capital policies that are more cautiouslower risk and return (Gardner et al., 1986; Weinraub and Visscher, 1998).

On the flip side, investment policies and financing policies are two types of working capital management policies. If the decision are being made for investment on current asset, it is considered as investment policies and financial policies denotes the way firm finances its short-term assets through short-term debt (Sharma, 2009).Aggressive investment policy is investing the money on higher income yielding assets by maintaining low level of current assets therefore this policy is seen as high risk for a firm due to inadequate liquidity and shortage of stocks. Through this method, the cost can be reduced by maintaining low level of stocks and minimizing default account receivable risk (Delima, 2020). Reduced revenue,

weakened reputation and benefit due to a scarcity of stocks, and a shortage of trading credit to the company's consumers are all limitations of this strategy.

Conservative investment policy can be seen as maintaining a sufficient number of liquid assets by having high level of inventory, cash reserves, and credits for customers. This approach is suitable when there is any uncertainty circumstance in the macro economic factors. The disadvantages of this policy are higher holding cost, reduced goodwill because of using extended amount of trade credit, and increasing risk for debtors of the company.

Aggressive financing policy is an approach in which high level of short-term liabilities. Using the aggressive financing policy generates profitability to the company because short-term assets are less expensive compared to log-term assets (Murdock, 2010). The company does not need to engage in lot of procedure to obtain short-term financing compared to long-term financing methods (Odhiambo, 2014). According to Sharma et al., (2011), the advantages of aggressive financing policy are flexibility of borrowing of short-term liabilities, low level of restriction, lowest interest rate compared with long-term debt.

Under the conservative financing policy, firm's short-term assets are financed by long-term assets and part of the short term assets. Short-term financing options are ignored by company and focused on long-term financing in order to fulfill the objective of preserving the assets in the account (Odhiambo, 2014). This policy is used by conservative investor who has risk tolerances of either lower level or moderate level. The advantages of policy are protection against inflation and protection against unexpected financial problems (Odhiambo, 2014).

2.4. Firm's value

According to Robert, Mark and Rabhi (2008), the firm value is defined as "the present value of the future flows discounted at the rate of return required by investors". According to Carini et al., (2017), firm value can be measured by market measure, accounting measure, and mixed measure. Market measures. Market measure is based on market capitalization which determines the firm's value. It uses Capital Asset Pricing Model to value the firm which is widely used in financial management. It provides a correlation between the overall market's projected return and the portfolio's expected return. Accounting measures uses return on equity and return on asset to value the firm. The term "return on equity" is used to describe as percentage of net income based on company's equity. Return on assets is defined as percentage of profit is earned from the company's assets. Mixed measure uses market value addition as measurement to calculate firm value (Simerly and Li, 2001). Cochran and Wood

(1984) state that thecontrast between the actual firm market valuation and the capital added by the investor is known as market value. Market value addition is defined as related with economic value added that means it is present value of future value (Baum, Sarver, and Strickland, 2004). A positive of Market value addition increases firm value and negative market value addition decreases firm value (Carini et al., 2017). This is also seen as a mixed measure in which combining both market and account values. Researchers suggest that market measures and accounting measures are lacking to measure future profit potential therefore market value addition is widely used to overcome limitations of market and accounting measures (Shahzad and Sharfman, 2017).

In order to obtain accurate findings, current ratio,firm size, sales growth, and debt ratio are considered as significant variables which are used as control variables in previous researches such as Sim (2013) and Nelima (2012). Durrah et al. (2016) state that the current ratio is a ratio of current assets and current liabilities which is used to determine the capability of the company to resolve short-term liabilities. Current ratio is an indicator to ensure whether a particular company has adequacy of working capital of the business and it assesses its capability to fulfill its day-to-day obligations (Krishnankutty and Chakraborty, 2011). Current ratio also measures the margin of safety which allows for imminent funds movement through current assets and current liabilities (Anthony at el., 2010). Current ratio measures company's liquidity and it comprises of current assets and current liabilities (Krishnankutty and Chakraborty, 2011). The ideal current ratio is 2:1 however current ratio is difficult to interpret due to changing working environment(Pandey, 2010and Chandra, 2008).

Firm size is production capacity of the entity and ability to deliver variety of services to its customers (Niresh and Velnamby, 2014). Firm's profitability and value are determined by size of firm due to economies of scale (Zadeh and Eskandari, 2012). The number of workers, profits and earnings, manufacturing capability, volume of production, and added value of production are all used to determine the size of a company (Ardishvili et al.,1998; Davidssonand Delmar, 1997). Employment, assets and sales are the factors which determine firm size (Kirchhoff and Norton, 1992).Sales, staff, inventory, and value-added features will also be used to assess the size of a business (Zadeh and Eskandari, 2012). The natural logarithm of sales is used to determine the size of a business which is widely used in researches. Previous researches identify that there is positive relationship between firm size and firm profitability (Deloof, 2003; Charitou et al., 2010). However, few researches identify that there is negative relationship between firm size and firm profitability (Evanoff and

Fortier, 1988). There is lack of studies that reveals the relationship between firm size and firm value (Setiadharma and Machali, 2017).

Sales growth is the difference between present year sales and previous year sales (Zariyawati, Annuar, Taufiq and Abdul Rahim, 2009). Sales growth is used as a control variable by Zariyawati et al., (2009); Falope and Ajilore, (2009); Nazir and Afza, (2009). Sales growth has positive relationship with firm profitability (Akinlo and Asaolu, 2012). Better quality of the products and quality of products and services lead to profitability. Previous findings have demonstrated that there is a favorable association between revenue growth and profitability(Deloof, 2003; Raheman et al., 2010).

The debt ratio is determined by dividing financial debt by total assets (Deloof, 2003). According to Gill, Biger and Mathur (2010), debt ratio is the total value of short-term loans and long-term loans divided by total assets. Debt ratio is employed as a control variable in previous researches such as Deloof (2003), Zariyawati et al., (2009), Sharma and Kumar, (2011). There is negative relationship between debt ratio and profitability (Allen and Mizuno, 1989; Jensen, Solberg, and Zorn, 1992; Tong and Green, 2005).

2.5. Past studies on working capital management on firm's value

A limited literature review is available regarding working capital management on firm's value.

Bandara (2015) investigates the impact of management of working capital policy on market value addition of 74 listed companies in the Colombo Stock Exchange during the period of 2009/2010 to 2013/2014. In this study, investment policy and financing policy are considered as independent variables and a market value addition is considered as the dependent variable to measure firm's value. Findings explore that there is a negative relationship between investment policy and market value addition and there is an insignificant negative relationship between financing policy and market value addition.

Cumbie and Donnellan (2017) examine the effect of working capital elements on firm value in 140 USA companies during the period of 2003 to 2012. Under or over investment on working capital would lead to increased debt level, increased bankruptcy risks, lostrevenue opportunities, and reducing the profitability of companies. The findings state that there is a curvilinear relationship accounts receivable, payables, inventory, and firm's value.

Lai (2012) explores the impact of working capital management on firm's value of 47 airline companies during the period of 2003 to 2011. The cash conversion period and market valuation are used to assess working capital management and the value of a company and findings state that strong negative correlation between the cash turnover time and the firm's valuation..Furthermore, it states that where a control variable such as current ratio is present, the negative relationship weakens. Working capital management has an effect on a company's liquidity, which in turn has an impact on its valuation.As a result, reducing the cash conversion time will increase the valuation of a company.

Sabri(2012) analyses the effect of working capital on the valuation of 41 Jordanian manufacturing firms from 2000 to2007, taking into account disparities in scale, growth, and debt.According to the results, smaller businesses had a greater effect than larger businesses.Tobin's Q for larger firms is greater than Tobin's Q for smaller companies.

Arachci, Perera, and Vijayakumaran (2017) examine the effect of working capital management on firm value 44 listed firms in the Colombo Stock Exchange during the period of 2011 to 2015. The cash exchange period is used to determine working capital management, and the Tobin Q ratio is used to assess the valuation of a business.As influence factors, company scale, leverage, and revenue growth are used. The cash conversion cycle and Tobin Q have a negative relationship. The finding suggests the managers will generate value for shareholders by controlling working capital management.

3. Methodology

3.1. Conceptual Framework

Based on literature survey following conceptual framework was developed. This conceptual framework establishes link between corporate working capital management, working capital management policies and firm's value.

3.2. The study's population and sampling

All listed companies in Colombo Stock Exchange from 2012/2013 to 2016/2017 were included in this study's population. This research is focused on secondary data taken from the annual reports published in the CSE for the period of five years from 2012/2013 to 2016/2017 with the evidence supported by the literature. This study chooses 100 listed companies at random from 19 business sectors. The 100 listed companies were chosen as a sample for the analysis using a proportionate stratified random sampling process.

3.3. Variables

3.3.1. Summary of Research Variables

The summary table shows the working capital management components, policies, control variables and market value additions' measurements and supporting literatures.

Table 1 Summary of Research Variables

Variables	Measurement	Supported by Researchers
Working Capital Management Components		
Number of days of accounts receivables	$= \frac{Average\ Account\ Receivable}{Sales} \times 365$	Deloof (2003); Falope and Ajilore, (2009)
Number of days of inventories	$= \frac{Average\ Inventories}{Cost\ of\ Good\ Sold} \times 365$	Deloof (2003); Falope and Ajilore(2009)
Number of days of account payables	$= \frac{Average\ Account\ payables}{Cost\ of\ Good\ Sold} \times 365$	Deloof (2003); Falope and Ajilore(2009)
Cash conversion cycle	$= Number\ of\ Days\ of\ Account\ Receivables + Number\ of\ Days\ of\ Inventories - Number\ of\ Days\ of\ Account\ Payables$	Falope and Ajilore(2009); Gill, Biger and Mathur (2010)
Working Capital Management Policies		
Working Capital Investment Policy	$= \frac{\text{Total Current Assets}}{\text{Total Assets}} \times 100$	Afza and Nazir(2007)
Working Capital Financing Policy	$= \frac{\text{Total Current Liabilities}}{\text{Total Assets}} \times 100$	Afza and Nazir(2007)
Control Variables		
Current ratio	$= \frac{\text{Current Assets}}{\text{Current Liabilities}}$	Sharma and Kumar (2011); Charitou, Lois and Halim(2012)
Firm size	$= \ln(Sales)$	Raheman, Afza, Qayyum and Bodla (2010)
Sales Growth	$\frac{Sales_1 - Sales_0}{Sales_0}$	Falope and Ajilore(2009)
Debt Ratio	$\frac{Total\ Debt}{Total\ Assets}$	Deloof (2003); Gill, Biger and Mathur (2010)
Firm's Value		
Market Value Addition	$= Market\ Value\ of\ Company - Total\ Operating\ Capital\ Invested$	Bandara (2015); O'Byrne (1996);

	Vahid, Mohsen, and Mohammadreza (2012); De Wet (2005)

3.3.2. Model specification

Six panel data regression main models have been developed to inspectthe impact of working capital management components, working capital management policies on firm's value at the significance level of 0.01, 0.05, and 0.1. These regression models are developed based on models developed by Baveld (2012) for profitability of company however, the researcher has developed the regression models for firm's value. Therefore, there are six panel data regression models formed to examine the hypotheses which are developed based on research questions and objectives.

Model 1 : The effect of DAR on firm's value

$MVA_{i,t} = \beta_0 + \beta_1 DAR_{i,t} + \beta_2 CR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 GROWTH_{i,t} + \beta_5 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Model 2 : The effect of DI on firm's value

$MVA_{i,t} = \beta_0 + \beta_1 DI_{i,t} + \beta_2 CR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 GROWTH_{i,t} + \beta_5 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Model 3 : The effect of DAP on firm's value

$MVA_{i,t} = \beta_0 + \beta_1 DAP_{i,t} + \beta_2 CR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 GROWTH_{i,t} + \beta_5 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Model 4 : The effect of CCC on firm's value

$MVA_{i,t} = \beta_0 + \beta_1 CCC_{i,t} + \beta_2 CR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 GROWTH_{i,t} + \beta_5 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Model 5 : The effect of WCIP on firm's value

$MVA_{i,t} = \beta_0 + \beta_2 WCIP_{i,t} + \beta_3 CR_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 GROWTH_{i,t} + \beta_6 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Model 6 : The effect of WCFP on firm's value

$MVA_{i,t} = \beta_0 + \beta_2 WCFP_{i,t} + \beta_3 CR_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 GROWTH_{i,t} + \beta_6 DEBT_{i,t} + \eta_i + \lambda_t + \varepsilon_{i,t}$

Result and Discussion

4. Empirical analysis

4.1 Descriptive analysis

A summary of informative figures for independent and dependent variables, based on 475 firm-year observations of 95 limited companies from 18 industry sectors over a five-year period from 2012/2013 to 2016/2017.

WCM elements and WCM policies are listed as the independent variables in Table 2.The typical DAR, DI, and DAP in the WCM components are64,63, and 97 days, respectively, resulting in a CCC of 29 days on average.The average value of WCIP is 40 percent of total assets, while the average value of WCFP is 27 percent of total assets.For control factors, the average current ratio is2.27, the average firm size is14.50, and the average leverage ratio is 40%.In the dependent variables, MVA has the mean value of Rs.55,846,327,927.59. Minimum and maximum value for MVA are Rs. -38,163,967,000.00 and Rs.5,431,100,000,000.00.

Table 2. Summary of Descriptive Statistics of Limited Companies

Variable	N	Mean	Maximum	Minimum	Standard Deviation
DAR	475	63.74	517.35	3.43	52.65
DI	475	62.88	753.96	0.00	66.39
DAP	475	97.19	550.37	0.00	91.03
CCC	475	29.42	377.37	-419.90	114.06
WCIP	475	0.40	0.99	0.10	0.77
WCFP	475	0.27	0.98	0.10	0.48
CR	475	2.27	22.90	0.08	2.87
SIZE	475	14.50	18.53	10.53	1.66
GROWTH	475	0.33	16.99	-0.91	1.56
DR	475	0.40	1.63	0.03	2.57
MVA (Rs.)	475	55,846,327,927.59	5,431,107,000,000.00	-38,163,967,000.00	517,396,774,020.57

4.2 Correlation analysis

According to table 3, DAR and MVA have a negative insignificant relationship ($r=-0.001$, $p>0.05$), DI and MVA have a negative significant relationship ($r=-0.060$, $p<0.01$), DAP and MVA have a positive significant relationship ($r=0.462$, $p<0.01$), and CCC and MVA have a negative significant relationship ($r=-0.404$, $p<0.01$).

Table 3 shows that WCIP and MVA have a negative relationship (r=-0.173, p<0.05), while WCFP and MVA have a negative relationship (r=-0.121, p<0.05).

According to table 3, CR and MVA have a negative insignificant relationship (r=-0.049, p>0.05), SIZE and MVA have no relationship (r=0.000, p>0.05), GROWTH and MVA have a positive significant relationship (r =0.229, p<0.01), and DR has a positive significant relationship (r=0.136, p<0.01).

4.3 Regression analysis

The positive coefficient at a significant level of 0.1 (p-value0.913 >0.01) in Model 1 suggests that there is a positive insignificant relationship between DAR and MVA.It shows that adding a day to the amount of days on account receivable raised the firm's worth (MVA) by 0.5 percent.GROWTH and DR have a significant positiveassociation with MVA.However, there is a weak negative association between CR and SIZE and MVA.

Model 2 indicates a strong negative association between DI and MVA (p-value0.0160.05) using a negative coefficient at a significant level of 0.05. It reveals that raising the number of days of inventory by one day decreases the MVA of the company by 11.3 percent. MVA has a negative insignificant association with CR and SIZE.With MVA, GROWTH and DR have a significant positive relationship.

According to model3, DAP and MVA have a strong positive association with a positive coefficient at a significance level of 0.01 (p-value 0.000 > 0.01).It shows that raising the amount of account payable days by one day raised the firm's valuation (MVA) by 45.5 percent.GROWTH and DR have a significant positive connection with MVA. There is a positive insignificant relationship between CR and SIZE with MVA.

Model 4 reveals that DAP and MVA have a negative significant association with a negative coefficient at a significant level of 0.01 (p-value 0.000 0.01).It shows that adding a day to the amount of days in the cash transfer period decreased the firm's worth (MVA) by 43%.GROWTH and DR have a significant supportive interaction with MVA.The relationship between CR, SIZE, and MVA is insignificantly positive.

Model 5 which reflects listed companies' working capital investment policy (WCIP), shows a statistically significant negative association between WCIP and MVA at a significant level of 0.1 (p-value 0.000 0.01).The adjusted R^2 of 0.100 indicates that the firm's WCIP accounts for 10.0 percent of the difference in MVA. The overall model has an F-statistic of 11.503 and a

p-value of0.000, indicating that it is statistically valid. It means that as WCIP increases, the WCIP ratio, as determined by total current assets divided by total assets, decreases; in other words, as WCIP becomes more aggressive, MVA decreases.It can also be stated that an aggressive working capital investment policy results in a reduction in MVA (Bandara, 2015).If a listed company maintains more current assets compared to the total assets leads to lower level of MVA of that listed company. It can be explained as if a listed company has low level of current assets divided by total assets ratio or relatively aggressive working capital management investment policy leads to high level of MVA (Bandara, 2015).

Model 6 shows that listed companies' working capital financing policies (WCFP) display a statistically insignificant negative association between WCFP and MVA, but it is significant at 0.1.The adjusted R^2 of 0.080 indicates that the firm's WCFP accounts for 8.0 percent of MVA difference.The total model has an F-statistic of 9.287 and a p-value of0.000, suggesting that it is statistically significance.It can be explained that increases in financing policy measured by the ratio of current liabilities divided by total assets which leads to reductionin MVA. Furthermore, increases in WCFP ratio means the degree of aggressiveness increases. It implies that as the WCFP ratio falls, or as the degree of aggressiveness of the WCFP rises, the MVA of listed firms rises.It can also be clarified that a policy of aggressive working capital financing contributes to a rise in MVA.

CCC, WCIP, and WCFP of the listed firms illustrate 27.2 percent of the difference in MVA, according to an adjusted R^2 of 0.272.The total model has an F-statistic of 26.246 and a p-value of0.000, indicating that it is highly significant.CCC and MVA have a significant negative relationship, whereas WCFP and MVA have an insignificant negative relationship.WCIP, CR, GROWTH, DR, and MVA all have considerable positive relationships, while SIZE and MVA have an insignificant positive relationship.

5. Conclusion

For the five years from 2014/2015 to2018/2019, this paper explores the effect of working capital management and working capital management policies on the firm valuation of listed Sri Lankan companies on the CSE in Sri Lanka.In the concern about the impact of working capital management on firm’s value of listed companies in Sri Lanka, there is a negative significant association between cash conversion cycle and firm’s value measurement of listed companies in Sri Lanka which is supported by Bandara (2015), Lai (2012), Sabri (2012), and Arachci et al. (2017). According to Lai (2012), the negative relationship can be explained as

working capital management is related with liquidity of listed companies and when listed companies applies shorten cash conversion cycle, then it will improve liquidity and finally it will improve firm's value due to better liquidity (Bandara, 2015).

There is a negative relationship between working capital management policies with the firm's value of listed companies in Sri Lanka which is supported by Bandara (2015) and Vahid, Mohsen, and Mohammadreza, (2012). According to Bandara (2015), a minimum level of current assets leads to an operational capital level which yields a high level of internal cash flows, which contributes to the firm's capital creation. Consequently, minimum ratio of WCIP means there is a high level of fixed assets that shows the firm has capacity to future expansion and revenue generation. Thus, it is attractive sign for investors which creates a strong degree of interest for a company's shares contributes to a rise in the company's stock value. According to Weston and Copeland (1992), investing more on stocks leads to have unsold stocks which tide up more money unnecessarily and having more debtors leads to possibility for bad debt. Therefore, these cause inadequacy of cash to settle creditors and it leads to high borrowing cost. Anything more than optimal level of working capital would raise the firm's asset without a proportionate increase in the return which lowers the rate of return on investment. Low market demand for the shares is created by a low level of return which reduces the MVA.

The negative relationship between WCFP and MVA is the degree of aggressiveness of financing policy increases, the value of the firm decreases. The relatively aggressive financing policy yields negative MVA which provides evidence that if the firms finance its total asset is greater than current liabilities which leads to lower MVA. According to Bandara (2015), there is no universally acceptable pattern in the financing policy and value of the firm's value. The financial policy is influenced by environmental conditions which are prevailing in different countries in different periods. Bandara (2015) indicates that there is no negative relationship between financing policies and MVA in Sri Lankan companies due to insufficiency of information to investors about working capital financing policies.

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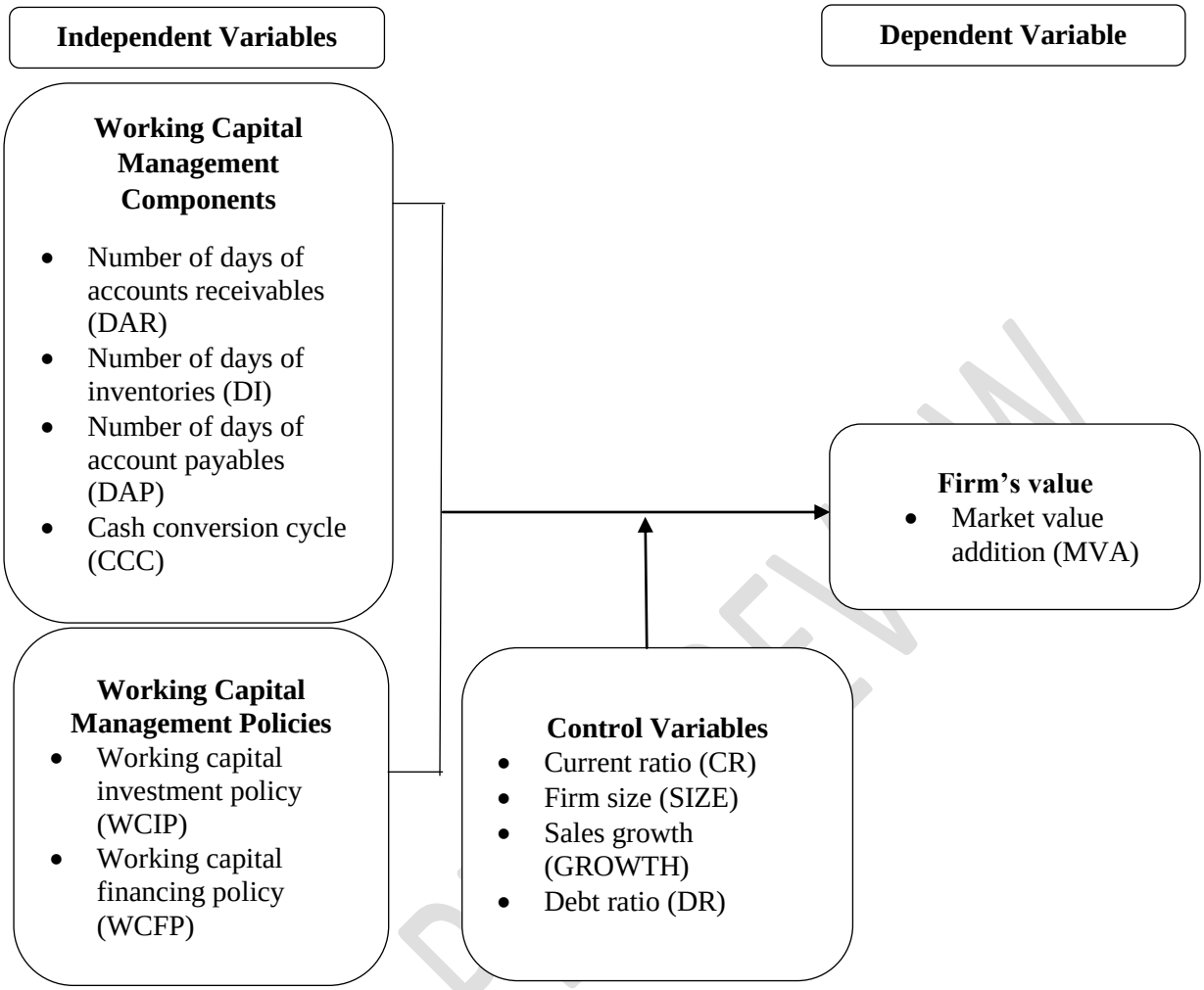

Source: Sim (2013), Bevald (2012), and Bandara (2015)

Figure 1 Conceptual Framework

Table 3 Correlation Analysis

	DAR	DI	DAP	CCC	WCIP	WCFP	CR	SIZE	GROWTH	DR	MVA
DAR	1										
DI	0.006	1									
DAP	0.158**	0.081	1								
CCC	0.338**	0.520**	-0.678**	1							
WCIP	0.393**	0.533**	-0.368**	0.785**	1						
WCFP	0.233**	0.304**	-0.079	0.348*	0.431**	1					
CR	0.066	0.143**	-0.143**	0.227**	0.237**	0.067	1				
SIZE	-0.171**	0.066	-0.216**	0.132**	0.040	-0.026	-0.188**	1			
GROWTH	-0.053	0.087	0.151**	-0.094*	0.011	-0.055	0.140**	0.074	1		
DR	0.000	0.212**	0.048	0.085	0.061	0.047	-0.365**	0.240**	-0.027	1	
MVA	-0.001	-0.060	0.462**	-0.404**	-0.173**	-0.121**	-0.049	0.000	0.229**	0.136**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4 Regression Analysis

Dependent Variable	Market Value Addition					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
DAR	0.005	-	-	-	-	-
DI	-	-0.113**	-	-	-	-
DAP	-	-	0.455***	-	-	-
CCC	-	-	-	-0.430***	-	-
WCIP	-	-	-	-	-0.187***	-
WCFP	-	-	-	-	-	-0.115*
CR	-0.043	-0.015	0.052	0.103**	0.015	-0.031
SIZE	-0.059	-0.056	0.068	0.012	-0.048	-0.062
GROWTH	0.244***	0.250***	0.151***	0.179***	0.237***	0.236***
DR	0.141***	0.175***	0.121***	0.213***	0.171***	0.152***
Adjusted R^2	0.067	0.079	0.251	0.231	0.100	0.080
F-Statistics	7.843	9.114	32.783	29.408	11.503	9.287

*** Significant at the 0.01 level ($p<0.01$)

** Significant at the 0.05 level ($p<0.05$)

* Significant at the 0.1 level ($p<0.1$)