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IMPACT OF WORKING CAPITAL MANAGEMENT ON FIRM'S PERFORMANCE: EVIDENCE FROM AUTOMOBILE SECTOR

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ABSTRACT

This research aims to analyse the factors that influence the profitability of enterprises in automobile sector of developing economies. This research aims to analyse impact of working capital management on the profitability of the private and publicly traded automobile firms. This research employs secondary data for data collecting, which comprises10-year financial data from 2011 to 2020. The study used descriptive statistics, OLS, random effect, and fixed effect models to define the sample and evaluate the influence of working capital on automobile industry. Findings suggested that working capital management proxies have a major impact on the performance of the company. The findings suggested that sales growth had a little impact on a company's performance. Findings suggested that size of a company had no influence. In conclusion, it is stated that good management of the working capital results in the improved financial performance. Study would benefit company investors and managers in the non-financial sector of developing economies. This offers investors with a framework for making investment selections.

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INTRODUCTION

Corporate finance is a very important aspect for business firm. The decisions made by financial managers considerably impact the complete gain of that firm as well as benefits of a wide range of stakeholders (Lefebvre, 2022). In organizations for the liquidity management, financing of working capital plays vital role to fulfil the firm's day-to-day needs smoothly, it not only affects liquidity management but also profit the firm earns (Alkadmani & Nobanee, 2020). Basically it is a managerial aspect in which financial manager decide to set amount of current asset present as well as current liabilities. Managers keep in touch with the risk minimization strategies and therefore, make different kinds of routine operational softness, which make organizations on the

safe side and keep it in touch with the profit maximization. Improper management of working capital being a major reason for failure of most of small business in developed as well as under developing countries (Mardones, 2022). For every successful organization, it is important to have proper understanding about working capital. As it directly affects profitability and liquidity of the particular firm so it is considered as not less than management of the fixed capital even though it deals with current liabilities and current assets at all the aspects (Kayani, Silva & Gan, 2020).

The academics have conducted large amount of research on topic of working capital management and its impact on the performance of corporations (Ahmad, Bashir, & Waqas, 2022). The great majority of academics found significant links between the management of working capital and the achievement of business goals. Managers use the wide range of methods to evaluate working capital, the majority of which are not based on well-established financial principles but rather depend on more arbitrary criteria or models. Working capital is defined as cash available for immediate use in a business (Wang, Zhao, & Huchzermeier, 2020). As a result, the inconsistent results that were found in previous research revealed that there is a knowledge gap that needs to be addressed in order to have the better grasp of the working capital management and how it affects the profitability of a firm. The establishment of more accurate instruments for analysing firm financial performance is accepted as critical foundation of contemporary financial research (Busch, Bassen, Lewandowski, & Sump, 2022). Financial performance extent is critical in any business as it allows managers to determine extent to which corporate goals are being met; it assists managers in making decisions and realizing them; and it provides detailed information about firm financial position and shareholder wealth creation (Agyemang, Yensu, Ivy & Otchere, 2019).

However, accounting performance indicators like NP, NOPAT, ROI, and EPS have been attacked for their failure to effectively represent an organization's entire cost of the capital, meaning that accounting income cannot be used to gauge corporate success or interpret firm value reliably (Ilham, 2020). As a result, the considerable gap exists due to the fact that both economic value addition (EVA) and Tobin's Q are ignored as potential measures of the performance of a vehicle firm. This leads to new discussion and the creation of a research gap. Financial managers spend a lot of time trying to figure out what drives working capital and how much of it they should have on hand at any one time (Faria, Tindall, & Terjesen, 2022). Making money at the expense of the company's liquidity may have a detrimental effect on the company's capacity to maintain its financial stability. As a result, the balance between the objectives of the two companies is necessary. In this connection, working capital cannot be kept at a minimum in the absence of operational limitations. In order to sustain future revenues and sales, businesses must optimize and safeguard their working capital. Different scholars have worked upon this topic worldwide by employing different sectors data. Therefore, there is shortage in the emerging countries under specific field notably on vehicle sector, if any of studies have been done is out to date (Vuong, 2022).

Iqbal, Hussain, Khalique, and Tabassum (2020), as well as Siraj, Mubeen, and Sarwat (2019), examined the significant effect of WC on company performance. WCM has been utilised before in studies such as the effect of WCM on the financial performance (Ilham, 2020), the impact of WCM on profitability and sustainable development (Kumar, Vishal, Jindal, & Sonia, 2019), and the impact of WCM on financial and values (Arcuri & Pisani, 2021). To the best of researcher's

knowledge, relatively few studies exist that examine influence of working capital management and EVA. Investing decisions may also be influenced by this data. After conducting a study of WCM, the organization's management may adopt the variety of activities. Regulatory agencies will be able to utilise the results of this study to carry out activities related to law and order in non-financial sectors. These findings might help other firms improve their WCM operations. Working capital management in the automobile industry will improve as a result of this study, according to the findings. In this regard, the students, scholars, accountants, financial managers, and policymakers in the emerging economies should all benefit from an economic conceptual framework. According to the findings, producers calculate their profitability in a variety of the methods. Thus, managing a company's working capital is another way to evaluate how well it is doing.

LITERATURE REVIEW

Poor techniques of working capital management hinder company ability to function successfully. The management of working capital is consequently a primary issue for CEOs. The majority of the research on WCM has been on the performance and profitability of WCM-using companies. Repeatedly, research demonstrates substantial correlation between successful WCM practices and enhanced corporate profitability (Lefebvre, 2022). Thus, depending on the industry and the environment in which an organisation works, there are a range of connections between WCM strategies and company performance. According to Akbar, Akbar, Nazir, Poulová and Ray (2021), after-global-financial-crisis WCM policies of majority of organisations suggest that short-term financial goals are prioritized above long-term ones. According to GMM approach, a concave connection exists between WCM practices and firm performance. Accounts payable turnover is the period required for suppliers to receive payment for the things acquired (Arcuri & Pisani, 2021). To achieve these goals, it is essential that each component be well managed to optimize working capital. Working capital management is therefore a managerial concern (Akbar et al., 2021). A crucial aspect of effective working capital management for any business is ensuring that short-term obligations are thus fulfilled on schedule and long-term assets are adequately insured.

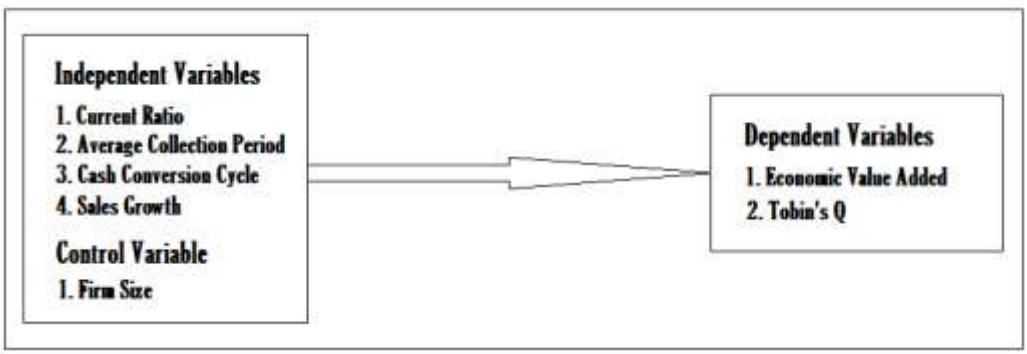
Using the current ratio, you may determine whether an asset has capacity to satisfy its current liabilities, which are commitments due in near future. Having received a return on its assets, Ilham (2020) says that an elevated current ratio indicates that company's profits are likewise elevated. If earnings are elevated, investors may anticipate a high rate of return. The current ratio has a beneficial effect on stock returns (Maheshwari, 2019). Current Ratio is calculated by dividing current assets by current liabilities (Warrad, 2014) found that current restrictions on stock returns had a small but positive influence; meanwhile, Alkadmani and Nobanee (2020) concluded that the present current rationing had no effect on stock returns. This research will be conducted to determine the influence of WCM on EVA when the governance quality has a moderating role. The study's findings will be useful to the non-financial sector investors and managers in developing and emerging countries. "Collection time is inversely related to the number of days before payment is due in the short-run activities. In this connection, there are several types of accounts that the company or organisation may give its consumers. Successful receivables management means being paid more quickly once sales are made. In return, the customers have a responsibility to treat organisation that provides the goods or services with respect.

Reduce the amount of clients who are behind on their payments. Customers that owe money are those who have done business with company but have not yet paid for products or services they got. Account holder management's major goal is to reduce the time it takes from the time a bid is submitted to the time an instalment is accepted" (Mielcarz, Osiichuk, & Behr, 2018). Sales growth, according to Mukti and Milikan (2015), define sales growth as an increase in the sales that occurs over the course of a year or on irregular basis. Managers use the wide range of methods to evaluate working capital, majority of which are not based on well-established the financial principles but rather depend upon more arbitrary criteria or models. A concave connection exists between WCM practices and firm performance. Accounts payable turnover is the period required for suppliers to receive payment for things acquired. There will be a need for further investment in various asset kinds for the businesses that are experiencing substantial sales growth, whether fixed assets or current assets. According to Hantono (2018), the firm can predict how much profit it will make by estimating the amount of the rise in sales. Using the sales growth ratio is one way to measure the company's year-over-year sales growth. Sales growth ratios have effect on profitability and profitability has impact on company operational performance.

Maja's (2010) in general, EVA is a useful metric since it considers the interests of shareholder. Based on the value of shareholders, EVA may be used as an indicator of the company's overall success. As a result, the considerable gap exists due to fact that both economic value addition (EVA) and Tobin's Q are ignored as potential measures of the performance of a vehicle firm. This leads to new discussion and creation of a research gap. As a financial theory tool, Tobin's Q has been widely utilised to explain many aspects of economics. TQ has been examined extensively by a broad spectrum of scholars, including psychologists (Muhtadi, 2019; Singhal, Fu, & Parkash, 2016). According to Perera and Priyashantha (2018), TQ is defined as the sum of equity and liabilities multiplied by total assets. As it directly affects profitability and liquidity of the particular firm so it is considered as not less than management of the fixed capital even though it deals with current liabilities and assets at all aspects. As a result, balance between objectives of two companies is necessary. Company TQ is equal to the market value multiplied by cost of replacing its assets. It is possible to resell company's property for profit if TQ is larger than one as opposed to one. Businesses with higher TQ values, according to (Fitriani, 2020), perform better over the time than those with lower TQ values that are likely to do significantly worse.

Figure 1

Theoretical Framework



Research Hypotheses

H1a: There is a significant impact of Average collection period on firm performance.
H2a: There is a significant impact of Cash conversion cycle upon firm's performance.
H3a: There is a significant impact of Current ratio on automobile firm's performance.
H4a: There is a significant impact of sales growth on automobile firm's performance.
H5a: There is a significant impact of Firms Size on the automobile firm performance.

RESEARCH METHODOLOGY

This is an explanatory research since it shows how independent variables affect the dependent variable and how much of an influence they have. Based on the positivist ideology of objectivity and logical techniques, quantitative research is study that employs quantitative methodologies (Kivunja & Kuyini, 2017). WCM and performance were examined using quantitative research approach. This research study's target demographic comprises of five privately held and twelve publicly traded firms. According to statistics from the Pakistan stock market, there are now 12 publicly traded automobile firms operating in Pakistan. Honda, Toyota and Suzuki now dominate the automobile industry. While Pakistan's "Auto Policy 2016-21" was launched on March 19th. Researchers chose FAW and KIA as sample firms and excluded other companies owing to a lack of data. The tool for data collection used in our research study is secondary data which consists of 10-year financial annual report of each of selected as our target sample. This study examined the influence of working capital in automobile sector using descriptive statistics, OLS, random effect, and fixed-effect models. A combination of inferential statistics, correlation, and panel regression analysis was used to look into the relationship between independent and dependent variables.

$$\mathrm{EVA} = \alpha + \beta_1 \mathrm{ACP} + \beta_2 \mathrm{CR} + \beta_3 \mathrm{CCC} + \beta_4 \mathrm{SG} + \beta_5 \mathrm{FS} + \mathrm{e}$$

$$\mathrm{Tobin's\ \ Q} = \alpha + \beta_1 \mathrm{ACP} + \beta_2 \mathrm{CR} + \beta_3 \mathrm{CCC} + \beta_4 \mathrm{SG} + \beta_5 \mathrm{FS} + \mathrm{e}$$

DATA ANALYSIS

Table 1
Descriptive Statistics

Variables	Observation	Mean	SD	Minimum	Maximum
EVA	140	.1044493	.1368	-.64	.61
TobinQ	140	.3063714	.1819	- .005	.998
ACP	140	.206	.2222	-.652	.992
SG	140	.2847571	.1793	-.478	.79
CCC	140	1.202414	.9706	-3.103473	5.172
CR	140	.1776957	.1941	.0134	.983
lnSIZE	140	.1155634	.0959	6.049706	.443

For a total of 140 observations, the aforementioned factors were examined using financial data spanning a period of ten years. According to the data in the table above, the EVA averages are .1044493, and the standard deviation is.1379. Another predictor of a company's performance is Tobin's Q with average value of.3063714, as well as the standard deviation for the Tobin's Q is .1819. Consequebtly, further working capital management and control variables are included in the table.

Table 2
Correlation Matrix

Variables	EVA	TobinQ	ACP	SG	CCC	CR	InSIZE
EVA	1.0000						
TobinQ	-0.005	1.0000					
ACP	0.7679	0.1193	1.0000				
SG	-0.072	0.3356	-0.0160	1.0000			
CCC	-0.293	0.4224	-0.1216	0.2291	1.0000		
CR	-0.528	-0.116	-0.3780	0.0792	0.3812	1.0000	
InSIZE	0.1368	-0.019	0.0699	-0.1159	-0.1673	-0.2300	1.000

The above table of correlation matrix indicated that majorly, there is a positive and significant correlation between variables. Further the table indicated negative relationship between some variables. Table indicated that EVA has significant and negative correlation with TobinQ with a value -0.005. Similarly, EVA correlate with ACP (0.7679) positively and significantly. The table indicated that no value of r is higher than .80, that's why there is no chance of multicollinearity in data.

Table 3
Multicollinearity Test

Variables	Variance Inflation Factor	1/VIF
ACC	1.59	0.629382
CCC	1.32	0.757640
CR	1.28	0.779142
ACP	1.10	0.911351
Size of the company	1.04	0.960534
SG	1.27	0.7875

$$EVA = \alpha + \beta_1 ACP + \beta_2 SG + \beta_3 CCC + \beta_4 CR + \beta_5 InSIZE + e$$

Table 4
Table Regression Model EVA as Dependent

OLS			REM			FEM		
V	Coeff.	t-Stat	V	Coeff.	z-Stat	V	Coeff.	t-Stat
ACP	0.4064	11.52***	ACP	.4148871	12.33**	ACP	.4822774	9.20**
SG	0.0101	0.26	SG	.01300	0.33	SG	.0132033	0.24
CCC	-0.0191	-2.45**	CCC	.0182975	2.30**	CCC	-.0078964	-0.60**
CR	-0.1565	3.81***	CR	.1489086	3.53**	CR	-.1037125	-1.65**
InSIZE	0.0027	0.53	InSIZE	.0312617	0.41	InSIZE	.0034078	0.02**
CONS	0.036254	0.03	CONS	.0600479	2.81	_CONS	.0288706	0.93
F-Stat	53.60		Wald-x2	18.35		F-Stat	12.98	
R2	0.6667		R2within	0.5503		R2within	0.4492	
Adjs.R2	0.6542		between	0.8711		between	0.5203	
			Overal	0.6667		overall	0.4331	

Significant at level of 1% shown *** significant at 5% shown **

Table 4 displays the results of economic value added using three models: Ordinary least sequre, Random Effect Model, and Fixed Effect Model. Findings shows that automobile Sector should have proper management of cash regarding speedy collection. Proxy of Sales growth indicates that there is insignificant effect on firm's performance in all three models. The proxy of cash conversation cycle and current ratio has significant relationship with performance. Similarly, the outcome reveals that size of company as a control variable has insignificant effect on firm's performance. Value of R square in each of three scenarios represents predictive ability of the model. In each case, numbers 0.6667, 0.5503, and 0.4492 show the prediction ability of model. Value of F is predictive of the model's fitness. Findings suggest that model is suitable for future study.

$$\text{Tobin'sQ} = \alpha + \beta_1 \text{ACP} + \beta_2 \text{SG} + \beta_3 \text{CCC} + \beta_4 \text{CR} + \beta_5 \text{InSIZE} + e$$

Table 5

Regression Model Tobin's Q

OLS			REM			FEM		
V	Coeff.	t-Stat	V	Coeff.	z-Stat	V	Coeff.	t-Stat
ACP	0.1117	0.111***	ACP	0.0431	0.71	ACP	-.0240525	-0.36
SG	0.2677	0.267***	SG	0.0234	0.34	SG	-.088641	-1.28
CCC	0.0973	0.097***	CCC	0.0685	4.35***	CCC	-.0445276	-2.64**
CR	0.2527	0.252**	CR	0.1269	1.66**	CR	.06897	0.86**
InSIZE	-0.0190	-0.019**	InSIZE	-0.0041	-0.3	InSIZE	.1081302	0.49
_CONS	0.5814	0.581***	_CONS	0.3294	1.06	_CONS	.2827866	7.15
F-Stat	14.55		Wald-x2	40.41		F-Stat	7.96	
R2	0.3519		R2within	0.0593		R2within	0.3188	
Adjs.R2	0.3278		Between	0.4683		between	0.9067	
			Overall	0.2895		Overall	0.2987	

Significant at level of 1% shown *** significant at 5% shown **

Table 5 displays the results of economic value added using three models: Ordinary least sequre, Random Effect Model, and Fixed Effect Model. In OLS model, working capital management which is determined through Average collection period indicate significant effect in OLS model by considering Tobin's Q as an outcome variable. The proxy of Sales growth also indicate that there is insignificant effect on firm's performance in case of REM and FEM models. The proxy of cash conversation cycle and current ratio has significant link with performance. Similarly, the outcome reveals that size of company as a control variable has insignificant effect on firm's performance.

DISCUSSION

There is a considerable association between working capital proxies and the firm performance of both listed and unlisted automobile businesses operating in Pakistan, according to results of this research. The current ratio has a major impact on automobile firms, according to the data. Altaf (2020) found that the current ratio has a favorable influence on company performance, which is supported by the existing research. Kumar and Sharma (2011) found the correlation between company performance and WC. Kumar and Sun (2020) studied detrimental influence of WC on company performance. This study's findings provide evidence for Marttonen-Arola, Monto, and Kärri (2013) conclusion that liquidity, as assessed by Current Ratio, influences the value of a company. In addition, research indicated that the average collection time as a proxy

for working capital management has a significant and negative influence on EVA as a proxy for business performance, but negligible effect on Tobin's Q (Chancharat & Kumpamool, 2022). Customers' payment speed is determined by the average collection period, and late payments are possible cause of bad debts, that have negative impact on company financial performance. Literature supports present study's conclusions, since Lefebvre (2022) revealed the negative association between number of days' accounts receivable and gross operational profit-based profitability.

This negative finding revealed that businesses might raise their profit margins by reducing the loan terms offered to the clients. As a metric of profitability, Louw, Hall, and Pradhan (2022) observed a substantial negative correlation between the average number of days of accounts receivable and gross operating income. Cash conversion cycle is another indicator of working capital that has a large and positive relationship with firm performance; the shorter the time it takes a business to convert its inventory into cash, the higher its predicted performance. The results of prior studies are also relevant to those of the present study. The link between EVA and CCC is predicated on net operating profit, which ought to have a negative association with CCC (NOPAT increases, decreases CCC) (Mahdavikho, Imeni, & Edalatpanah, 2022). Thus, it is possible to assume that the shorter CCC, greater the EVA. Considering relationship between liquidity and profitability, it is reasonable to anticipate that, above a certain minimum liquidity level, the reverse effect will occur and a drop in CCC will be followed by a fall in EVA. The cash conversion cycle is recognized as one of finest metrics for evaluating performance of working capital management and its impact on company's liquidity (Arnaldi, Nowak, Roscigno & Zhang, 2021).

According to study's results, sales growth had negligible impact on both performance indicators. Similar to the conclusions of prior studies, Nastiti, Atahau, and Supramono (2019) concludes that Leverage has a considerable influence on business value, although Profitability and Sales Growth do not. In addition, Kabir, Usaini, and Elijah (2021) investigates impact of Profitability and Sales Growth on Firm Value, as modulated by Leverage. According to the findings of this research, neither Sales Growth nor Profitability has a substantial impact on the business value. Thus, Sales Growth cannot concurrently boost Company Value. Thus, lastly, the study results revealed that the firm's size as the control variable had no significant impact on the firm's performance. Haar, O'Kane, and Daellenbach, 2022 validate no significant association between Firm size and company performance. Similarly, the study's conclusions are consistent with those of other important research. In this regard, their findings indicate that security analysts' projections are connected to the business size, previous five-year EPS, average EPS for the industry, and the number of analysts offering forecasts, but not EVA adoption. Gregory (2022) demonstrate that firm size has no significant association with Tobin's Q as firm's performance measure.

CONCLUSION

This research looked at the factors that influence a company's profitability, specifically impact of working capital management, using data from Pakistan's automobile period from 2011 to 2020. Ratios used as a proxy for working capital management in public listed and non-listed firms operating in Pakistan were calculated using data from automobile companies' financial annual reports spanning the years 2011–2020. To test hypothesis, researchers utilised pooled regression, random effect model, and a fixed effect model. The results indicate that the current

ratio and cash conversion cycle, as proxies for working capital management, have a significant impact on EVA and Tobin's Q as predictors of firm performance. According to results, effective working management strategies in automobile firms, such as minimizing account receivable period, maximizing current ratio, and minimizing cash conversion cycle, contribute to efficient organisations. The findings of study bridging the gap of literature by stating working capital management and sales growths are vital indicators of automobile sector firm performance. The scope of study is limited to 12 listed automobile firms and two non-listed enterprises. The research was limited to secondary data acquired from all of PSX's respective yearly financial reports.

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