

Impact of Working Capital Management on Profitability of Non-Financial Firms

Srijana Khadka¹

Ajaya Kumar Khadka²

Abstract

The managers of today's non-financial enterprises are more concerned with working capital management. This study used a descriptive and comparative causal research approach to examine working capital management's effect on profitability. Regression and correlation test was performed for 15 observations from three non-financial institutions based on a purposive sample design. The result shows a strong positive correlation between the current ratio (CR) and returns on assets (ROA), cash conversion cycle (CCC), receivable conversion period (RCP), and payable deferral period (PDP) have no significant correlation. Regression results show that CR, PDP, and CCC are significant predictors of ROA, and RCP has no significant effect. It is recommended that non-financial managers focus on maintaining a favorable current ratio while reducing the cash conversion cycle and optimizing payment periods. By doing so, they can improve their firm's liquidity position, effectively manage cash flow, and ultimately enhance profitability.

Keywords: *Business Activities, Financial Planning, Liquidity, Operation Management, Gel Codes: G23, G31, G39*

Introduction

Working capital is company capital employed in daily operations. It's a company's current asset-liability discrepancy. Working Capital Management (WCM) affects company profitability and liquidity condition, making it crucial to business performance (Yakubu et al., 2017). These difficulties vary by organization and period. Internal and external variables affect company working capital choices (Adusei, 2017). Successful company operation requires sufficient funds to operate at the right moments. Atseye et al. (2015) defined working capital as the stuff a corporation needs to produce products for sale. Thus, current asset overflows over current liabilities. WCM involves the

1 Ms. Khadka, principal author, is the lecturer of Management at Shanker Dev Campus, T.U. Kathmandu, Nepal

2 Mr. Khadka, corresponding author, is the lecturer of Management at Nepal Commerce Campus, T.U., Kathmandu, Nepal

company's existing assets and obligations, linking liquidity and profitability (Alvarez et al., 2021; Pant et al., 2022). Financial managers must handle day-to-day usable capital well to succeed (Filbeck & Krueger, 2005; Mwangi et al., 2014). So, working capital management was an essential point for managers at firms long ago.

For determining factors, cash conversion cycle (CCC) management significantly affects WCM. The cash conversion cycle begins with raw material procurement and finishes with cash or supplier payment (Nimalathasan & Brabete, 2010; Shah, 2016). Working capital for a company is assets minus liabilities (Nguyen et al., 2020). Current assets comprise a firm's total assets, and current ratios (CR) are fundamental indicators. By renting or leasing equipment and machinery, a corporation may minimize its investment in fixed assets but not working capital. High current assets may minimize liquidity risk from the opportunity expense of cash that might have been invested in long-term assets (Nazir & Afza, 2009). Profitability shows a firm's capacity to benefit from all operations. It illustrates how a corporation may help by employing all its resources (Ghimire et al., 2021). Clendenin et al. (1953) defined profitability as "the ability of an investment to earn a return from its use". Book value (accounting-based) and market value (marketing-based) evaluate profitability and shows profitability, like Return on Asset (ROA) (Bui, 2016; Mohamad & Saad, 2010; Nguyen et al., 2020; Rahman & Saima, 2018).

WCM involves short-term finance and working capital decisions (Nimalathason & Brabete, 2010). The stages of the cash conversion cycle, involving the receivable conversion period (RCP), the inventory conversion period (ICP), and the payable deferral period (PDP), have an unfavorable association with a company's profitability. A decrease in either the RCP or the ICP will increase the profits of the business. Mansoori and Muhammad (2012) concluded that profitability could be increased by reducing the receivable and inventory conversion periods. Working capital balances with profitability and liquidity throughout the company's operations; operations might smoothen due to sound management of RCP. Firms must put aside capital for everyday expenses and fixed asset investment. To satisfy short-term compulsions, a corporation should avoid liquidity issues.

Managing working capital is the issue at hand; the company must take into consideration all of the things in both accounts and make an effort to strike a balance between the risks and rewards associated with the business (Dahal, 2022; Wasiuzzaman, 2015). Working capital is a crucial factor in financial decision-making, as it is a component of the asset investment that necessitates adequate financing. Frequently, a lack of operating capital is cited as the primary cause of a business's failure. What are the status and trends of working capital management with ROA and ROE for a sample of non-financial companies? How do CR, CCC, RCP, and PDP affect the Return on Assets of

Nepalese non-financial firms? Is there a connection between CR, CCC, RCP, and PDP with the Return on Assets of Nepalese non-financial firms? To resolve these issues, the research's primary objective is to determine the effect of working capital mechanisms on effectiveness across industries.

The objectives of the study are presented as follows:

- ❖ To analyze the relationship between CR, CCC, RCP, and PDP with the return on assets of Nepalese non-financial firms.
- ❖ To examine the effect of CR, CCC, RCP, and PDP on the return on assets of Nepalese non-financial firms.

A year of improved working capital and debt management could make purchasing, manufacturing, and selling more affordable and flexible. Finally, working capital concerns and proposed solutions to enhance business operations are examined. Working capital management may reduce expenses and benefit the organization. The success of a business depends on having sufficient operating currency on hand when required.

This research article is divided into four main headings: Introduction, Literature Review, Methodology, Presentation and Analysis. This major heading has guided to achieve the study's objectives and helped it become a reliable and valid study in the market.

Literature Review

Many firms' finance team handles working capital decision-making daily. Working capital management should increase business value. Business firms need liquidity (Sunday, 2011). Tanveer et al. (2016) examined the impact of WCM on businesses' profitability throughout several economic cycles in 65 non-financial enterprises listed on Pakistan's Karachi stock market; the study found a considerable inverse link between the profitability of a firm's operations and the cash conversion cycle and its constituent parts. WCM and company effectiveness at revenue is impacted by the economic progression. It concluded that financial planning should consider effective WCM. RCP negatively correlated with profitability only during the financial crisis (Oseifuah,2018). Second, during the problem, the connections between profitability, cash conversion cycle, ICP, and PDP are negative and positive, though that's minor. Company managers should implement effective working capital management procedures during non-crisis times to survive an unexpected economic recession.

Hossain (2020) found a negative association between ROA and CCC, suggesting that reducing the cash conversion cycle, average payment duration, and average collection period may boost manufacturing profits. ICP favorably correlated with ROA and ROE. This study suggested that manufacturing organizations' profitability depends

on working capital management. Alvarez et al. (2021) found that return on asset was positively and significantly linked to IN, AR, AP, CCC, CR, and Size. Oladipupo et al. (2019) found that cash collection and spending negatively affect the rate of return on assets. The current ratio of payment and inventory period, both have positive effects. Inventory management, account receivables, account payables, cash conversion cycle, current asset, current ratio, and firm growth have an advantageous effect on return on assets (ROA), whereas debt has a negative impact. Basyith et al. (2021) conducted a study to examine the effects of WCM on profits and the working capital conditions of several Indonesia Stock Exchange (IDX)-traded companies. The results indicated that the useful capital investment approach has a positive and significant effect on ROA; the working capital financing approach has a negative but not significant impact on ROA; the practical capital expenditure approach has a significant and adverse value for the gross profit margin in all examples; and the working capital financing approach has a negative and important sign for all capital used.

Aldubhani et al. (2022) sought to figure out if working capital management strategies affect the profit of manufacturing businesses traded on the Qatar Stock Exchange. The average collection period, inventory turnover, average payment period, and the cycle of cash conversion were used as proxies for working capital management, and profitability was measured by operating profit margin (OPM), return on assets (ROA), bear in invested capital (ROCE), and return on equity (ROE). The study found that companies with faster times to collect on debts and turn debts into cash are more profitable. There is a link between a company's ability to make money and the time it takes to turn over its goods and pay its bills.

Abdullah et al. (2022) discovered a high correlation between WCM and profitability and liquidity. Jaworski and Czerwonka (2022) discovered a correlation between measures of working capital management (cash conversion cycle, working capital value, and financial flow) and the profits of Warsaw Stock Exchange-listed firms. The study revealed a nonlinear relationship between working capital (WC), current ratio (CR), and income; when WC and CR prices increase, profits increase, but not as rapidly. However, a linear link between CCC and pay would point in the opposite direction.

When the cash exchange cycle is shortened and financial debt is reduced, there is an increase in the amount of profit made, and there is not a statistically significant connection between the amount of time it takes to shift inventory and the firm's level of fixed financial assets (Naumoski & Naumovska, 2022).

Based on the study's literature review, the research framework presented in Figure 1 shows the standing of independent and dependent variables.

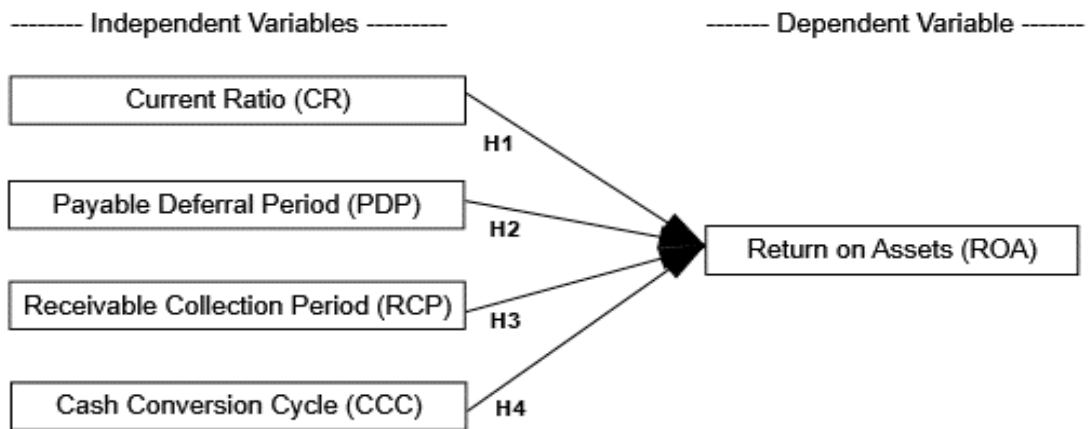


Figure 1 Research Framework

The following hypothesis statement is employed for the above framework for this study:

- H1: The Current Ratio (CR) significantly impacts the ROA of non-financial firms.
- H2: There is an impact of the Payable Deferral Period (PDP) on the ROA of non-financial firms.
- H3: There is a significant impact of the Receivable Conversion Period (RCP) on the ROA of non-financial firms.
- H4: The Cash Conversion Cycle (CCC) significantly impacts the ROA of non-financial firms.

Methodology

Descriptive and causal-comparative research designs were used to compile the data for this analysis. The population of this research is thought to consist of non-financial companies that are traded on the Nepal stock exchange. The study aims to determine whether or not there is a connection between these non-financial organizations' profitability and their level of working capital. In this study, three leading non-financial firms are selected as the sample using a purposive sampling technique.

- ❖ Himalayan Distillery Limited
- ❖ Unilever Nepal Limited
- ❖ Salt Trading Corporation Limited

For the study, necessary data were collected from the financial statements of selected Nepalese non-financial companies listed in the Nepal Stock Exchange for five years from 2016/17 to 2020/21. The data was extracted from the website of each firm. This study also took the annual report of selected Nepal Stock Exchange Limited companies.

It is the quantitative approach of acquiring insight into a company's liquidity, operational efficiency, and profitability by reviewing its financial statements, such as balance sheets and income statements. There was a regression analysis as well as a correlation analysis carried out.

As per the research study, a model has been developed that states that the dependent variable ROA depends on CR, RCP, PDP, and CCC.

Regression equation:

$$ROA_t = \beta_0 + \beta_1 (CR_t) + \beta_2 (PDP_t) + \beta_3 (RCP_t) + \beta_4 (CCC_t) + \epsilon_i$$

Where,

ROA_t = Return on Assets level for time t,

CR_t = Current Ratio level for time t,

PDP_t = Payable deferral period level for a time t,

RCP_t = Receivable Collection Period level for a time t,

CCC_t = Cash Conversion Cycle level for a time t,

β₀ = Constant

ε_i = the residual error term.

Presentation and Analysis

This section includes an analysis of collected data and their presentations. Following the study technique outlined in the third section, the data has been analyzed and evaluated using financial and statistical tools. The estimated outcomes of the investigation have been arranged in an appropriate fashion and displayed.

Descriptive Statistics

Descriptive Statistics depict the mean and standard deviation values for chosen variables.

Table 1**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
CR	15	.717	6.32	1.92	1.45
PDP	15	14.12	377.04	136.35	118.94
RCP	15	9.33	197.91	43.43	46.90
CCC	15	-184.38	232.55	21.67	113.22
ROA	15	.499	45.08	16.18	14.55

Table 1 shows insights into the characteristics of the variables. CR has a range from 0.717 to 6.32, with an average value of 1.92. This suggests that the values for CR are relatively low and not too widely dispersed, as indicated by the standard deviation of 1.45. The variable PDP has a wider range from 14.12 to 377.04, with a higher average value of 136.35 and a larger standard deviation of 118.94. This indicates a greater variability and a potentially more diverse range of values for PDP. Similarly, the RCP and CCC variables exhibit relatively wide ranges and higher standard deviations, suggesting greater variability in their values. In contrast, the variable ROA has a smaller range, with values ranging from 0.499 to 45.08 and a relatively lower standard deviation of 14.55.

Table 2**Relationship of Working Capital Management with ROA**

	CR	PDP	RCP	CCC
ROA	.751**	-.455	-.010	.237

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

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

Companies with higher current ratios have a tendency to create a bigger return on assets, as indicated by a substantial positive correlation between CR and ROA (0.751), while other factors do not have a significant link with ROA.

Table 3**Regression Result**

	Unstandardized Beta Coefficient	Standard Error	Standardized Beta Coefficient	t-statistics	p-value
R = 0.874 R ² = 0.764 F (4, 10) = 8.088, p = 0.004					
(Constant)	34.45	11.84		2.90	.016
CR	5.20	1.817	.520	2.86	.017
PDP	-.216	.077	-.760	-2.82	.018
RCP	.143	.086	.462	1.67	.125
CCC	-.230	.088	-.790	-2.62	.025

Dependent Variable: Return on Asset

Table 3 shows that the coefficient of multiple determination (R^2) is 0.764, indicating that the model's independent variables account for approximately 76.4 % of the dependent variable (ROA) variance. The model fits data on the independent variables on return on assets since $F(4, 10) = 8.088$, $p < 0.05$ indicates that the model is statistically significant. A p-value less than 0.05 is commonly used to determine statistical significance, indicating that CR, PDP, and CCC are significant predictors of ROA, whereas RCP has no significant impact on ROA. The regression analysis indicates that CR, PDP, and CCC collectively account for a substantial proportion of the variance in ROA. CR has favorable impacts on ROA, whereas PDP and CCC have negative effects.

Discussion

The current research findings make it abundantly clear that effective working capital management plays a critical part in determining the level of profitability that non-financial businesses may attain. To be more specific, CR, PDP, and CCC are significant components that influence company performance. Effective management of these periods has the potential to increase profitability. This may be accomplished by effectively managing the current ratio and the payable period, as well as by reducing the cash conversion cycle and improving liquidity. Arnaldo et al. (2021) discovered that the CC negatively affects profitability.

The current research discovered that the CCC substantially influences the ROA of non-financial enterprises. According to the recent results, which agree with Phuong and Hung (2020), CCC had a detrimental impact on the company's success. According to Marisetty and Shreelakshmi (2022), the cash conversion cycle was shown to be statistically insignificant, and its association with profitability was determined to be unfavorable; this conclusion is in contrast to the results of the current study. Nonetheless, according to Naumoski and Naumovska (2022), lowering the cash conversion cycle and increasing financial leverage result in increased profitability. When viewed as a whole, the most current study emphasizes how important it is for non-financial companies to have efficient management of their enterprises' working capital if they wish to boost their profitability. If businesses are able to effectively manage their current ratio, payable deferral period, and cash conversion cycle, they will be able to improve their liquidity position, optimize their cash flow, and ultimately reach higher levels of profitability. However, when making use of these results, it is vital to take into consideration the specific conditions as well as the characteristics of the company.

Conclusion

This study studied the possible links of linkage between various financial factors and the ROA of non-financial companies. These findings provide important information on the elements that influence the profitability of these firms. The CR, one of the

independent factors, had a beneficial effect on ROA. In contrast, the PDP and CCC had detrimental effects on ROA. An increase in the PDP ratio was correlated with a decline in ROA, indicating that firms with delayed cash conversion processes may experience diminished profitability. These findings highlight the significance of managing liquidity, investment, and efficient currency conversion, a payable period for non-financial firms' profitability enhancement. The results offer insights that can aid financial administrators and decision-makers in evaluating and enhancing their firms' financial performance.

Limitations and Future Scope

It is essential to observe that this study has several limitations. The study was grounded on a sample of manufacturing companies, and the results may not apply to other industries or contexts. In addition, variables not included in the analysis may also affect ROA. Future research could consider additional factors and execute a more exhaustive analysis to further investigate the profitability determinants in non-financial firms.

References

- Abdullah, A., Hashmi, M.A., & Iqbal, M.S. (2022). Impact of working capital management on firm profitability and liquidity: The moderating role of family ownership. *Accounting Research Journal*, 35(5), 676-697 <https://doi.org/10.1108/arj-07-2021-0212>
- Adusei, C. (2017). Accounts receivables management: Insight and challenges. *International Journal of Finance & Banking Studies (2147-4486)*, 6(1), 101-112. <https://doi.org/10.20525/ijfbs.v6i1.668>
- Aldubhani, M. A., Wang, J., Gong, T., & Maudhah, R. A. (2022). Impact of working capital management on profitability: Evidence from listed companies in Qatar. *Journal of Money and Business*, 2(1), 70-81. <https://doi.org/10.1108/jmb-08-2021-0032>
- Alvarez, T., Sensini, L., & Vazquez, M. (2021). Working capital management and profitability: Evidence from an emergent economy. *International Journal of Advances in Management and Economics*, 11(1), 32-39. ISSN: 2278-3369
- Amponsah-Kwatiah, K., & Asiamah, M. (2021). Working capital management and profitability of listed manufacturing firms in Ghana. *International Journal of Productivity and Performance Management*, 70(7), 1751-1771. <https://doi.org/10.1108/ijppm-02-2020-0043>
- Arnaldo, A., Novak, B., Roscigno, R., & Zhang, W. (2021). Working capital management and profitability: Empirical evidence. *International Journal of Business Management and Economic Research (IJBMER)*, 12(2), 1911-1917. ISSN:2229- 6247

- Atseye, F. A., Ugwu, J. I., & Takon, S. M. (2015). Determinants of working capital management. *International Journal of Economics, Commerce and Management*, 3(2), 1-11. ISSN 2348 0386
- Basyith, A., Djazuli, A., & Fauzi, F. (2021). Does working capital management affect profitability? Empirical evidence from Indonesia-listed firms. *Asian Economic and Financial Review*, 11(3), 236-251. <https://doi.org/10.18488/journal.aefr.2021.113.236.251>
- Bui, N. P. (2016). *The influence of working capital management on the profitability of listed companies in Vietnam*. [Master's Thesis, University of Vaasa]. OSUVA Open Science.
- Clendenin, J. C., Howard, B. B., & Upton, M. (1953). Introduction to business finance. *The Journal of Finance*, 8(3), 356. <https://doi.org/10.2307/2976407>
- Dahal, R. K. (2022). Individual investors in the Nepalese securities market: What they know and what they like. *Nepal Journal of Multidisciplinary Research*, 5(4), 71–81. <https://doi.org/10.3126/njmr.v5i4.49837>
- Filbeck, G., & Krueger, T. M. (2005). An analysis of working capital management results across industries. *Mid-American Journal of Business*, 20(2), 10-17. <https://doi.org/10.1108/19355181200500007>
- Ghimire, B., Rai, B., & Dahal, R. K. (2021). Corporate culture and organizational performance in the banking industry of Nepal. *Management Dynamics*, 24(2), 1–8. <https://doi.org/10.3126/md.v24i2.50031>
- Hossain, T. (2020). The effect of working capital management on profitability: A study on manufacturing companies in Bangladesh. *International Journal of Research in Business and Social Science*, 9(6), 114-122. <https://doi.org/10.20525/ijrbs.v9i6.872>
- Jaworski, J., & Czerwonka, L. (2022). Profitability and working capital management: Evidence from the Warsaw Stock Exchange. *Journal of Business Economics and Management*, 23(1), 180-198. <https://doi.org/10.3846/jbem.2022.15087>
- Mansoori, D. E., & Muhammad, D. (2012). Determinants of working capital management: Case of Singapore firms. *Determinants of Working Capital Management: Case of Singapore Firms, Research Journal of Finance and Accounting*, 3(11), 15-23. ISSN 2222-2847

- Marisetty, N., & Shreelakshmi, S. (2022). Impact of working capital management on profitability and market value of the logistics industry. *International Journal of Current Science Research and Review* 5(11), 4251-4263. <https://doi.org/10.47191/ijcsrr/v5-i11-24>
- Mohamad, N. E. A. B., & Saad, N. B. M. (2010). Working capital management: The effect of market valuation and profitability in Malaysia. *International Journal of Business and Management*, 5(11), 140-147. <https://doi.org/10.5539/ijbm.v5n11p140>
- Mwangi, L. W., Makau, M. S., & Kosimbei, G. (2014). Effects of working capital management on the performance of non-financial companies listed in NSE, Kenya. *European Journal of Business and Management*, 6(11), 195-205.
- Naumoski, A., & Naumovska, M. (2022). Impact of working capital management on profitability of Macedonian industrial companies. *Financial Studies*, 26(2), 18 – 38.
- Nazir, M. S., & Afza, T. (2009). Working capital requirements and the determining factors in Pakistan. *IUP Journal of Applied Finance*, 15(4), 28.
- Nguyen, A. H., Pham, H. T., & Nguyen, H. T. (2020). Impact of working capital management on firm's profitability: Empirical evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(3), 115-125. <https://doi.org/10.13106/jafeb.2020.vol7.no3.115>
- Nimalathasan, B., & Brabete, V. (2010). Capital structure and its impact on profitability: A study of listed manufacturing companies in Sri Lanka. *Young Economists Journal Revista Tinerilor Economisti*, 8(1), 15-29. <https://doi.org/10.4038/jm.v8i1.7556>
- Oladipupo, F. O., Adekanbi, J. A., & Oluwadare, O. E. (2019). Working capital management and firms' profitability: Evidence from quoted firms on the Nigerian stock exchange. *Intelligent Information Management*, 11(3), 43-60. <https://doi.org/10.4236/iim.2019.113005>
- Oseifuah, E. (2018). Global financial crisis, working capital management and profitability of non-financial firms listed on the Johannesburg Stock Exchange, South Africa. *Academy of Entrepreneurship Journal*, 24(3), 1-12. ISSN: 1528-2686
- Pant, R., Ghimire, B., & Dahal, R. K. (2022). Determinants of mutual fund performance in Nepal. *Nepal Journal of Multidisciplinary Research*, 5(5), 1–16. <https://doi.org/10.3126/njmr.v5i5.51798>

- Phuong, N., & Hung, D. (2020). Impact of working capital management on firm profitability: Empirical study in Vietnam. *Accounting*, 6(3), 259-266.
- Rahman, M. M., & Saima, F. N. (2018). Efficiency of board composition on firm performance: Empirical evidence from listed manufacturing firms of Bangladesh. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 5(2), 53-61. <https://doi.org/10.13106/jafeb.2018.vol5.no2.53>
- Shah, N. (2016). Impact of Working capital management on firm's profitability in different business cycles: Evidence from Pakistan. *Journal of Finance & Economics Research*, 1(1), 58-70. <https://doi.org/10.20547/jfer1601106>
- Sunday, K. J. (2011). Effective working capital management in small and medium-scale enterprises (SMEs). *International Journal of Business and Management*, 6(9), 271 - 279. <https://doi.org/10.5539/ijbm.v6n9p271>
- Tanveer, B., Nazir, M. I., Khan, M. A., Khan, M. A., & Razzaq, S. (2016). The impact of working capital management on firms' financial performance: Evidence from Pakistan. *International Journal of Economics and Financial Issues*, 6(3), 1097-1105.
- Wasiuzzaman, S. (2015). Working capital and profitability in manufacturing firms in Malaysia: An empirical study. *Global Business Review*, 16(4), 545-556. <https://doi.org/10.1177/0972150915581098>
- Yakubu, I. N., Alhassan, M. M., & Fuseini, A. A. (2017). The impact of working capital management on corporate performance: Evidence from listed non-financial firms in Ghana. *European Journal of Accounting, Auditing and Finance Research*, 5(3), 68-75. Online at <https://mpra.ub.uni-muenchen.de/95113/>