

N.A. Tovma^{*1}, K.T. Akimbaeva¹

Al-Farabi Kazakh national university,
Almaty, Kazakhstan

*E-mail: natalivictor45@mail.ru

IMPROVEMENT OF QUALITY ANALYSIS

Current study analyses the relationships between working capital management and profitability for Kazakhstan firms. Previously no studies have been conducted on the same topic in Kazakhstan, and therefore there is no available empirical evidence on the issue. The analyses are based on the OLS regression and covariance analysis applied to the sample of 133 firms listed in Depository of Financial Statements. The empirical results found the significant relationship between working capital management and firms' operating performance. Firms with better working capital management determined by shorter cash conversion cycle were more profitable than those with longer cash conversion cycle. The results of the study indicate that owners and managers of firms can improve overall operating efficiency and profitability by reducing cash conversion cycle to the reasonable minimum: avoid excessive inventory balances, decrease receivables collection period, and defer payments to suppliers. The study contributes to the existing literature by examining the effect of working capital management on profitability in the context of the emerging market of Kazakhstan.

Key words: working capital, cash conversion cycle, profitability, market, managers.

Н.А. Товма, К.Т. Акимбаева

Сапалық талдауды жетілдіру

Бұл жұмыста қазақстандық компаниялардың айналым капиталын басқару тиімділігі мен табыстылығының өзара байланысы талданған. Қазақстан Республикасында бұл сұрақ бойынша жалпы қол жетімді зерттеулер нәтижелері жоқ болғандықтан эмпирикалық дәлелдеулерде жоқ. Жұмыста ең аз қалдықтар әдісімен регрессия талдауы, сонымен қатар Қаржылық Есептілік Депозитарийінен алынған ақпараттар бойынша 133 компания арасында іріктеу негізінде айнымалылардың ковариациялық байланысының талдауы жасалған. Эмпирикалық талдау нәтижелері компаниялардың айналым капиталын басқару тиімділігі мен операциялық пайдасы арасында едәуір байланыс бар екендігін анықтады. Қолма-қол ақшаның айырбасталу кезеңі қысқа мерзімді болып келетін, яғни айналым капиталын анағұрлым тиімді басқарушы компаниялар қолма-қол ақшаның айырбасталу кезеңі ұзағырақ уақытқа созылатын компаниялармен салыстырғанда неғұрлым табысты болып шықты. Жұмыстың нәтижелері қазақстандық компаниялардың иелері және менеджменті операциялық тиімділікті, демек, қолма-қол ақшаның айырбасталу кезеңін ең төменгі мүмкін болатын деңгейіне дейін қысқарту жолымен табыстылығын көтере алады. Бұл жұмыс дамушы Қазақстан нарығы мысалында компаниялардың айналым капиталын басқару тиімділігі мен табыстылығының өзара байланысын зерттей келе ғылыми әдебиеттерге қосқан үлес болып табылады.

Түйін сөздер: айналым капиталы, қолма-қол ақшаның айырбасталу кезеңі, рентабельділік.

Н.А. Товма, К.Т. Акимбаева

Совершенствование качественного анализа

Данная работа анализирует взаимосвязь между эффективностью управления оборотным капиталом и прибыльностью казахстанских компаний. Нет общедоступных результатов исследований по данному вопросу в Республике Казахстан и, следовательно, отсутствуют эмпири-

ческие свидетельства. В работе использован анализ регрессии методом наименьших остатков, а также анализ ковариационной зависимости переменных, примененных к выборке из 133 компаний, информация по которым была получена из депозитария финансовой отчетности. Результаты эмпирического анализа выявили значительную взаимосвязь между эффективностью управления оборотным капиталом и операционной прибылью компаний. Компании с более эффективным управлением оборотным капиталом, выраженном в более коротком цикле конверсии наличности, оказались более прибыльными по сравнению с компаниями, в которых цикл конверсии наличности занимал более длительный период. Результаты работы указывают на то, что владельцы и менеджмент казахстанских компаний могут повысить операционную эффективность и, следовательно, прибыльность, путем уменьшения цикла конверсии наличности до минимально возможного уровня. Работа вносит вклад в научную литературу, исследуя вопрос взаимосвязи эффективного управления оборотным капиталом и прибыльностью компаний на примере развивающегося рынка Казахстана.

Ключевые слова: оборотный капитал, цикл конверсии наличности, прибыльность, рынок, менеджмент.

Introduction

Traditionally, the researchers in corporate finance have focused on the long-term financial decisions making, particularly capital structure, dividends, investments, and company valuation decisions [1]. But the investment that firm make in short-term assets, and the resources used with maturities of under one year, represent the main share of items on the firm's balance sheet [2]. Management of these short-term assets and liabilities warrants a careful investigation since the working capital management plays an important role in a firm's profitability and risk as well as its value [3, 4]. Though widely used to evaluate the health of firms, traditional measures of liquidity such as the current ratio reveal little about a firm's management on working capital. In fact, the use of these measures encourages managers to maintain higher levels of receivables and inventory relative to payables, and these assets must be financed by expensive debt and equity capital [3]. Decision about how much to invest in the customer and inventory accounts, and how much credit to accept from suppliers are reflected in the firm's cash con-

version cycle (CCC), which represents the average number of days between the date when the firm must start paying its suppliers and the date when it begins to collect payments from its customers [4]. Business success heavily depends on the financial executives' ability to effectively manage receivables, inventory, and payables [5]. The findings of Raheman & Nasr [5] and Afza & Nazir [5] suggested that managers can create a positive value for the shareholders by reducing CCC to a possible minimum level. The good working capital management is not only positively affecting profitability of the firm, it leads to increased cash flows, and thus leads to lesser need on external financing, therefore the probability of default for the firm is reduced [6].

Quality analysis. Working capital management is determined by cash conversion cycle and its components, namely, accounts receivable, accounts payable, inventory. Operating performance of the firm is represented by net operating profit margin. The following regression analysis model was specified to examine the relationship between components of working capital management and operating profitability:

$$NOP = \beta_0 + \beta_1 ITID + \beta_2 INVCA + \beta_3 FATA + \beta_4 CATURN + \beta_5 LEV + \beta_6 TALOG \quad (1)$$

$$NOP = \beta_0 + \beta_1 DSO + \beta_2 INVCA + \beta_3 FATA + \beta_4 CATURN + \beta_5 LEV + \beta_6 TALOG \quad (2)$$

$$NOP = \beta_0 + \beta_1 PDP + \beta_2 INVCA + \beta_3 FATA + \beta_4 CATURN + \beta_5 LEV + \beta_6 TALOG \quad (3)$$

$$NOP = \beta_0 + \beta_1 CCC + \beta_2 INVCA + \beta_3 FATA + \beta_4 CATURN + \beta_5 LEV + \beta_6 TALOG \quad (4)$$

The model is based on the study of Tauringana & Adjapong who used the similar approach to estimating the possible relationship between working capital management and firm's profitability in terms of RoA and RoE. The study focuses on net operating profitability rather than

profitability determined by RoA, RoE in order to ignore the effects of tax burdens and cost of financing. According to the Tax Code of Kazakhstan, firms may have previously carry forward tax losses which decrease their tax burden. In addition differences in cost of financing may

significantly affect to the overall profitability of the firm. Hence, EBIT is not affected by both of them and considered to be a reliable estimate of the firm's performance regarding its operating activity.

Descriptive Analysis. Descriptive analysis shows the general aspects of the variables considered in the model. The mean values, standard deviations, and other information may be derived which is helpful in descriptive analysis.

Table 1 – Descriptive Statistics

№	Mean	Median	Std. Dev.	Minimum	Maximum
1	76.3385	49.8771	92.13086	1.15	584.58
2	64.7878	42.5810	81.93895	1.46	562.37
3	107.9774	63.3005	146.13485	1.99	913.75
4	33.1489	33.9222	169.99410	-801.35	505.26
5	.101135	.045734	.1417903	0.0004	.7679
6	.661651	.719787	.2238494	.0432	.9969
7	2.755145	2.341109	2.0328378	.2937	13.4961
8	16.554367	16.544457	1.6701967	10.9827	20.5660
9	.126445	.116240	0.2381263	-0.6550	0.6761

In general values of variables discussed in the study vary significantly in the data set. That means that there is a high dispersion from firm to firm. There are firms with DSO equal to 1 day, which means that the average receivable collection period is 1, it is possible if the firm's sales are generally in cash. However, this does not affect the results of our analysis, since ability to sell for cash positively affects the working capital management policies through shortening the cash conversion cycle.

Discussion of analysis results. The analysis attempted to give understanding of how the effectiveness of working capital management is related to firm performance. The CCC measurement was used to identify the level of effectiveness of firm's working capital management. The more efficient management of working capital accounts expected to be associated by shorter cash conversion cycle, which was a reasonable assumption based on the literature review. If the firm improves the efficiency of its receivables management through restricting credit terms, thereby shortening the receivables collection period, it will be able to improve its profitability since less capital investments in short-term assets will be needed. The same approach to the inventory management can also improve overall firm's efficiency and operating profitability. If the firm will be able to reduce inventory balance, and

avoid excessive investments in inventory, it will be able not only to improve its operational effectiveness and by this enhance its profitability, but also the amounts of inventory obsolesce and write-offs will decrease. The other factor determining the efficiency of working capital management is management of accounts payable. If the firm will be able to find suppliers who are able to grant them better credit terms, and decrease purchases of cash, then it will be able to finance more of its current assets by cheap trade payables. By this, the firm will decrease costly equity and debt investments, which will lead to improved profitability of the firm.

Conclusion. The scope of future research may be extended to the components of working capital in more detail, particularly management of cash, marketable securities, which I believe contribute much in working capital management of the firm. There is much to be done about working capital in Kazakhstan in future. I suggest further research be conducted on the same topic with extended number of firms and extending the time frame of the sampled data, include the time series analysis in research. In addition, in further researches, the differences in industries and operations should be considered, and the manufacturing firms should be assessed separately of those performing service operations. The results indicate that the cash conversion cycle, net trade cy-

cle and inventory turnover in days are significantly affecting the performance of the firms. Moreover, the firm size also have significant effect on the firm's profitability. The study also concludes that firms in Kazakhstan need to concentrate and improve cash

collection and payment policy. The effective policies must be formulated for individual components of working capital. Furthermore, efficient management and financing of working capital can increase the operating profitability of manufacturing firms.

References

- 1 Afza, T. and M.S. Nazir, Is it better to be aggressive or conservative in managing working capital // *Journal of quality and technology management*, 2007. 3(2): p. 11-21.
- 2 Juan García-Teruel, P. and P. Martínez-Solano, Effects of working capital management on SME profitability // *International Journal of managerial finance*, 2007. 3(2): p. 164-177.
- 3 Raheman, A. and M. Nasr, Working capital management and profitability—case of Pakistani firms // *International review of business research papers*, 2007. 3(1): p. 279-300.
- 4 Smith, K., Profitability versus liquidity tradeoffs in working capital management // *Readings on the management of working capital*, 1980: p. 549-562.
- 5 Tauringana, V. and G. Adjapong Afrifa, The relative importance of working capital management and its components to SMEs' profitability // *Journal of Small Business and Enterprise Development*, 2013. 20(3): p. 453-469.
- 6 Peel, M.J. and N. Wilson, Working capital and financial management practices in the small firm sector // *International Small Business Journal*, 1996. 14(2): p. 52-68.