

DETERMINANTS OF ACCOUNTS RECEIVABLES: EVIDENCE FROM NEPAL

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ABSTRACT

Receivables are considered as a key component of the current assets of a business firm. Effective and efficient management of receivables is the most important determinants of effective management of current assets. The level of accounts receivables is affected by various factors. The objective of this study is to analyze the determinants of accounts receivable of Nepalese listed enterprises focusing manufacturing sector. In order to investigate the determinants of accounts achieve fifteen manufacturing firms have been taken as sample covering the period of time 2056/57–2065/66 B.S. Multiple linear regression models have been employed for the analysis of data. It is evident from the findings that accounts receivable are strongly affected by sales revenue, current liabilities, liquid assets, cost of production, depreciation expenditures and opportunity cost.

KEYWORDS: *Accounts Receivable, Liquid Assets, Loan And Advance.*

1. INTRODUCTION

Working capital plays a vital role for the success or failure of the business firms. The excess or inadequate working capital is harmful for business. This broad area covers the management of cash and bank balance, short term investment, receivables, inventories and current liabilities. One of the most important components of working capital is receivables. In their work on cost accounting Matz, Curry, Frank and Khan (1992) estimated that inventories, on average, cover one third of the value of total assets in a balance sheet. Similarly, receivables are another important element of the current asset. The receivables have constituted quite a considerable proportion of total assets in Nepalese manufacturing enterprises i.e. 25.03 percent. Rajan and Zingales (1995) compared non-financial companies in the G7 countries and found that relative part of accounts receivable differs between 29% Italy and 13% Canada. Official statistics show that Finnish manufacturing companies' accounts receivables are on average 9.7% and accounts payable 6.1% of total assets (firms with more than 20 employees). For retail firms the respective percentages are 8.1% and 16% and for wholesale firms the numbers are as high as 24.1% and 23%, respectively (Niskanen and Niskanen, 2000). Mian and Smith (1992) reported that in 1986 US manufacturing firms had 21 percent of accounts receivable of their total assets. Deloof and Jegers, (1999) reported that in 1995 Belgian non-financial firms' accounts receivable were 16% of total assets. Significance of receivables differs among the countries and it is expected to be

higher in the countries which produce more manufacturing products, although there is substantial difference across them (Marotta, 1998). Several studies have been conducted to simply analyze the existence of trade credit (Feriss, 1981; Frank and Maksimovic, 1998; Long, Malitz and Ravid, 1993; Brennan, Maksimovic and Zechner, 1988; Brick and Fung, 1984; and Emery, 1984 and 1987), but very few studies have discussed the reason behind the trade credit is offered or which corporations use it or delivers it most (Petersen and Rajan, 1997).

Numerous recent empirical studies have aimed to test the determinant factors of firms' receivables. All these previous studies focus their analysis on the determinants of receivables in the firms in the developed countries but the same issue has not been evaluated for corporate firms in developing countries like Nepal. Therefore, determinants of the level of receivables in Nepalese enterprises have been examined in this study.

2. LITERATURE REVIEW:

Mian and Smith (1992) have analyzed the various attitudes towards trade credit. They identify sales revenue (market power), tax advantages, scale economies (production volume) and organizational set up as the factors determining accounts receivables. They suggest that there are several non-mutually exclusive incentives for a firm to extend trade credit to its customers, rather than requiring cash sales. Trade credit is more likely to be extended if the additional earnings on a credit sale as compared to cash on delivery (COD) are higher than the cost of borrowing.

Niskanen and Niskanen (2000) analyzed the accounts receivable and accounts payable of Finnish listed firms and found that accounts receivable are most likely to be influenced by the firms' incentive to use trade credit as a means of price discrimination. Through increased demand for the trade credit level of accounts receivable increases with the increase in the interest rate level. Additionally, they found that the level of accounts payable is affected by the firm size, supply of trade credit, interest rate level, the ratio of current assets to the total assets, and insufficient internal financing.

Petersen and Rajan (1997) found that large firms maintain higher accounts receivables. One reason for this result can be the greater access of larger firms to capital markets which makes them less capital reserved. Second reason can be the demand component from capital rationed firms that causes the accounts receivable of larger firms higher than average.

Hossain (1996) studied on receivable management in public sector textile industry of Bangladesh. The objective of the study was to attempt to analyze and evaluate the receivable management in the public sector textile industry of Bangladesh by taking forty textile units working under the administrative control of Bangladesh Textile Mills Corporation (BTMC) covering a period of ten years starting from 1982/83 to 1991/92. On the basis of analysis, he found that the total receivables constituted more than one third of the total current assets and the turnover of total receivables was low and unsatisfactory. Receivable management has been found to be in poor shape in BTMC. BTMC was adopted the policy not to sell goods on credit basis except to the government organization and other public sector organization.

3. DATA AND METHODOLOGY

A sample of 15 listed manufacturing enterprises has been taken for the purpose of this study. The reason of choosing these enterprises is primarily due to reliability and availability of financial

statements. The enterprises listed in stock market have an incentive to present profits in order to make their shares more attractive. Contrary to listed firms, non-listed firms in Nepal have less incentive to present true operational results and financial position and usually their financial statements do not reflect real operational and financial activity. Hiding profits in order to avoid corporate tax is a common tactics for non-listed firms in Nepal, which makes them less suitable sample for analysis where one can draw inference, based on financial data. In this study, secondary data have been used. All required secondary data for this study have been taken from different sources such as SEBON, NEPSE and annual reports of concerned enterprise. The data cover a ten-year period starting from 2000/2001 to 2009/10. Multiple linear regression models have been employed for the analysis of data. To get the regression result, the statistical package SPSS-14 has been used.

The following model has been used to study the determinants of receivables. According to this model, receivables are a function of Sales Revenue, Current liabilities, liquid assets, cost of production, depreciation expenditures and opportunity cost,

The receivables model is given by the following equation:

$$\text{DEBTORS} = \alpha + \beta_1 \text{SALES} + \beta_2 \text{CL} + \beta_3 \text{LA} + \beta_4 \text{COP} + \beta_5 \text{DEP} + \beta_6 \text{INTEREST} + \epsilon_t$$

Where, DEBTORS measures the trade debtors; SALES, sales revenue; CL, current liabilities; LA, liquid assets; COP, the cost of production; DEP, the depreciation expenditure; INTEREST, opportunity cost and ϵ_t , error term

Variables Defined:

This study undertakes the issue of identifying key variables that determine the level of receivables in Nepalese enterprises. Choice of the variables is influenced by the previous studies on determinants of receivables.

To find the determinants of receivables, the receivables are used as the explained variable. The receivables include accounts receivable, bills/ notes receivables and loan and advances

Following explanatory variables have been used:

Sales Revenue:

Trade debtor depends upon the sales volume and credit policy of a firm. Sales revenue bears a direct relation to the receivables. Mian and Smith (1992) also include sales revenue in their equation explaining receivables from debtors, as a proxy for the market power of any given firm.

Short-term Liabilities:

Current liabilities have a positive relationship with the accounts receivable.

Liquid Assets:

It is assumed that liquid assets bear a negative relation to account receivables. It is calculated as total of cash in hand, cash at bank and marketable securities. All of these lead to an improvement in the liquidity position of a firm and a good liquidity position leads to a soft credit policy.

Cost of Production:

It hypothesizes that trade credit policy is indirectly related to the cost of production and to the pattern of corporate financing. The high cost of production is a cause of low credit sales.

Depreciation Expenditure:

It assumes that trade credit policy is inversely related to the depreciation expenditure. It means higher the depreciation expenditures lower the credit sales.

Opportunity Cost

Finally, the opportunity cost of the capital invested in receivables has been measured as short-term interest rate of commercial bank. It is assumed that opportunity cost is negatively related to receivables.

4. REGRESSION RESULTS:

From the regression analysis, it is found that there is positive relationship between sales revenue and accounts receivable. This confirms the direct relationship between sales and a credit facility. The results are also consistent with the findings of the Mian and Smith (1992) study. The relationship of accounts receivables with cost of production and depreciation expenditures is negative. It shows that higher cost of production and depreciation expenditure encourages a tendency to avoid credit sales. It is observed that the relationship of receivables with regard to current liabilities is positive. While, financing through short-term liabilities lead to the expansion of accounts receivable. Any increase in current liabilities will lead to the enhancement of accounts receivables. The result shows the negative relationship between receivables and liquid assets. It reflects that liquid assets are substitute for receivables. The result also shows a negative relationship with opportunity cost. It means higher opportunity cost is another cause of a lower level of receivables.

The coefficients of all variables are significant except current liabilities and depreciation expenditure. It is obvious that the regression equation does not suffer from any multicollinearity among independent variables as can be readily ascertained from the correlation matrix.

TABLE 1 REGRESSION RESULTS	
Variables	B
DEBTORS (Constant)	108.066** (1.916)
SALES	0.033*** (1.793)
CL	0.024 (0.477)
LA	-0.277** (-1.955)
DEP	-0.002 (-0.008)
CSTPRD	-0.265* (10.560)

INTEREST	-728.275*** (-1.658)
R Square	0.709
Adjusted R Square	0.700

Source: Computed from annual reports of concerned enterprise

Note: Figures in parenthesis denote 't' values.

*Significant at 1 percent **Significant at 5 percent***Significant at 10 percent

Variables	DEBTORS	SALES	CL	LA	DEP	COP
DEBTORS	1					
SALES	0.620	1				
CL	0.594	0.393	1			
LA	0.226	0.340	0.366	1		
DEP	-0.025	0.070	0.285	0.042	1	
COP	0.834	0.692	0.645	0.338	-0.050	1
INTEREST	-0.125	-0.049	-0.229	-0.096	-0.026	-0.071

Source: Computed from annual reports of concerned enterprise

5. CONCLUSION:

This study empirically analyzed the determinants of accounts receivable of Nepalese manufacturing enterprises. It has been observed that the sales revenue and current liabilities are positively associated with receivables whereas liquid assets, depreciation expenditure, cost of production and opportunity cost are negatively related with debtors/receivables. All the values of coefficients are statistically significant except for current liabilities and depreciation expenditure and signs of coefficients are as expected.

Therefore, it can be inferred that sales revenue, current assets, depreciation expenditure, cost of production, liquid assets and opportunity cost are the major determinants of level of receivables in Nepalese Enterprises.

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