# **Appraising Corporate Finance Application in the Nigerian Banking Industry**

# Ibrahim Fari Okeji

Department of Business Administration, University of Abuja, Gwagwalada - Nigeria

**Abstract:** This study examined the issues involved in appraising corporate finance application in the Nigerian Banking Industry. As part of the methodology, questionnaires, oral interviews and documentary studies were used as research instruments. The study was analyzed using simple percentages, chi-square and ratio analysis. Research findings reveals that a critical appraisal of corporate finance application could have a positive effect in reducing non-performing loans in the Nigerian Banking Industry. The study further revealed that in Nigeria relationship with or connection to bank Chief Executives or Directors is a great determining factor in the success of a corporate finance application. We however, recommended that credit officers should appreciate the importance of default risk identification and measurement so as to enhance their ability to reduce the number and magnitude of non-performing loans.

Keywords: Corporate Finance application, Non-performing Loans, Default Risk, Credit Officers

#### 1. Introduction

Many banks in Nigeria have experienced grave problems in recent times which, has in a way threatened the profile and identity of the entire financial system. Generally, the Nigerian banking system has undergone remarkable changes over the years in terms of the number of institutions, ownership structure, as well as depth and breadth of operations. Recent special audits conducted by the Central Bank of Nigeria (CBN) had revealed non-performing loan ratios as high as 40% at five of the initial ten banks that were audited. The CBN quickly replaced the bank's management and announced plans to bolster their balance sheets with N420 billion – as an intervention structured to restore confidence in the banking system and attract foreign and local investors to the sector (EFCC, 2009).

A subsequent special audit conducted on some of the banks considered unhealthy due to non-performing loans running into billions which resulted in the sack of the Chief Executive Officers of Bank PHB, Spring Bank and Equatorial Trust Bank. The CBN intervention was necessitated by the fact that the capital base of these banks had been eroded and thus, needed to act swiftly by coming up with some bail-out policy measures which helps in rescuing the sector and restore investors confidence.

This study examines the issues involved in appraising corporate finance applications. The incidence of bank distress in Nigeria has been phenomenal due to insider abuses, disregard for corporate governance and huge non-performing loans which were the major problems of banks as revealed by the post consolidation audit conducted by the CBN under Charles Soludo. The implication was that the capital bases of these banks had been eroded and this resulted in a loss of confidence in the Nigerian Banking Industry by their customers and the international investors.

The huge non-performing loans which run into billions of Naira in the books of some of the banks raise the question as to whether such loan applications were properly evaluated. A critical appraisal of such loan applications could have saved some of the banks from the embarrassing situation they found themselves. As a result the focus of this paper is to examine the issues involved in appraising corporate finance application for effective performance. The limitation of the study is that the research focuses only on selected banks and some marketing companies within the FCT and thus, cannot be generalized.

# 1.2 Research Objectives

The main objective of this study is to examine the techniques for appraising and evaluating corporate finance application. The specific objectives are:

- 2. To examine the impact of such techniques on loan repayment
- 3. To suggest some guidelines for appraising corporate finance application.

# 2. Conceptual Issues and Theoretical Framework

## 2.1 Credit Analysis

When a business firm applies to a bank for a loan, it is usual for the bank to make an appraisal of the risk involved in lending to such a corporation, against the benefits the bank expects to derive from making the loan. According to Altman (1993) Credit risk assessment has both qualitative and quantitative dimensions. The qualitative dimensions of risk are generally the more difficult to assess, as observed by Archibong (1995). The steps in qualitative risk assessment according to Cornett and Saunders (1999) are primarily gathering information on the borrower's records of financial responsibility, determining his or her true purpose for wanting to borrow funds, identifying the risks confronting the borrowers business under future industry and economic conditions and estimating the degree of commitment the borrowers will have regarding payment. Cornett and Saunders (1999) say that the quantitative dimension of credit risk appraisal consists of the analysis of historical financial data and the projection of future financial results to evaluate the borrower's capacity for timely repayment of the loan and, indeed the borrower's ability to financially survive possible industry and economic reverses.

#### Basic Credit Factors

Van Horn (1990) stated that the analysis involved in appraising corporate finance applications can be captured under four basic credit factors. The borrowers' characters, use of loan funds, primary source of repayment and secondary source of repayment

#### Character

Most bankers agree that the paramount factor in a successful loan is the honesty and goodwill of the borrower. Dishonest borrowers do not feel morally committed to repay their loan through misrepresentation. Because loan officers must spread their time over many loan relationships, they do not have time to uncover elaborate scheme to defraud the bank. Archibong (1995), while analyzing bank failures in Nigeria asserted that the bank must protect itself from dishonest borrowers by thoroughly investigating the credit background of the borrower. According to Pandey (2006) the borrower's previous credit relationship can be evaluated from customers, suppliers, and past banking relationship. If the borrower has built a record of prompt payment of interest and principal, it is likely that future loans will be similarly served. If the borrower has been routinely late in paying past debts, the reason should be determined. If previous creditors have experienced losses, the loan officer should almost automatically reject the credit.

#### Use of Loan Funds

On the surface, the borrower's need and proposed use of funds usually seem perfectly clear. In many commercial loans, such is frequently not the case as observed by Edmister (1999). More often than not, determining the true need and use for funds requires good analytical skills in accounting and business finance. An understanding of the loans intended use helps the analyst to understand whether the loan request is reasonable and acceptable.

# Primary Source of Repayment

The analyst accounting and finance skills are crucial in determining the ability of the borrower to repay a loan from cash flow. For seasonal working capital loans, cash flows are generated by means of orderly liquidation of the seasonal buildup in inventories and receivables. In term loans, cash flows are generated from earnings and non-cash expenses (depreciation, depletion etc) charged against earnings. Theyner (1995) advices that the analyst must ascertain the timing and sufficiency of these cash flows and evaluate the risk of cash flow falling short

## Secondary Source of Repayment

In general, cash flow from business operations is the most dependable source of loan repayment. However, if sufficient cash flows fail to materialize, the bank can prevent a loss if it has secured a secondary source of repayment. According to Van Horne (1990) collateral should always be viewed as a secondary and not a primary source of repayment. Banks hope to avoid foreclosing on collateral because foreclosure entails much time and expense. Collateral value should cover, in addition to the loan amount

and interest due, the legal costs of foreclosure and interest during foreclosure proceedings. Collateral is the preferred secondary source of repayment. Other secondary sources are guarantors. However, collection from guarantors often requires expensive litigation and results in considerable ill-will, between the bank, borrower and guarantor.

#### Credit Risk

To analyze the loan applicant's credit risk according to Fadel and Heintz (2000) the credit officer must understand the customer's character, capacity, collateral, conditions and capital (sometimes referred to as the five Cs of credit). As Gilson (2001) observed, the following questions provide information on the five Cs of credit (*appendix A*).

# 2.2 Cash Flow Analysis

Banks require corporate loan applicants to provide cash flow information, which provides the bank with relevant information about the applicant's cash receipts and disbursements that are compared with the principal and interest payments on the loan. Cash receipt includes any transaction that results in an increase in cash assets (i.e receipt of income, decrease in a non-cash asset, increase in a liability, and increase in equity account). Cash disbursements include any transaction that results in a decrease in cash assets (i.e cash expenses, increase in non cash asset, and decrease in a liability and decrease in equity). The cash flow statement (or cash-based income statement) reconciles changes in the cash account over some period according to three cash flow activities; operations, investing and financing. (Weston & Brigham, 1999).

While the historical picture is essential to cash flow analysis, it is only a foundation. To build on it according to Altman (1993), the analyst must look forward and judge whether cash flow will increase or decrease and how fast; foresee future claims on cash flow, judge their urgency and flexibility if supply proves inadequate and assess the likely overall economic climate, specific market conditions which will affect generation of cash flow and supplemental financing.

# 2.3 Ratio Analysis

In addition to cash flow information an applicant requesting specific levels of credit substantiates the business needs by presenting historical audited financial statements and projections of future needs. Altman (1993) maintained that historical financial statement analysis can be very useful in determining whether cash flow and profits projections are plausible in quantifying many of the qualitative issues just discussed and in highlighting the applicant's risks. Calculation of financial ratios is useful when performing financial statement analysis on a corporate applicant. Although stand-alone financial ratios are essential for determining the sizes of the credit facility, the analyst may find relative ratios more informative when determining how the applicant's business is changing over time (Theyner, 1995).

Ratios according to Altman (1995) are particularly informative when they differ either from an industry average (or Banks determined standard of what is appropriate) or from the applicants past history. An optimal value is seldom given for any ratio because no two companies are identical. As observed by Lawrence (2001), a ratio that differs from an industry average or a Bank's determined standard, however, should cause the credit analyst to investigate further. A ratio that shifts radically from accounting period to accounting period may reveal a company's weakness, change in policy or normal business operations. The credit analyst must determine which the case is by obtaining additional information.

Although hundreds of ratios could be calculated from any set of accounting statements, Cornett and Saunders (1999) observed that the following ratios are particularly useful to a credit analyst:

1. Liquidity Ratios:

i. Current ratio = <u>Current Assets</u>

**Current Liabilities** 

ii. Quick ratio (acid test ratio) = <u>Cash + Cash Equivalent + Receivable</u>

**Current Liabilities** 

Liquidity provides the defensive cash and near-cash resources to meet claims on the firm. Liquidity ratios express the variability of liquidity resources relative to potential claims.

## 2. Asset management ratios:

i. Number of days sales in receivables = Accounts Receivable x 365

Credits Sales

ii. Number of days in inventory =  $\underline{\text{Inventory x 365}}$ 

Cost of Goods Sold

iii. Sales to working capital = <u>Sales</u>

Working Capital

iv. Sales to Fixed assets = <u>Sales</u>

**Fixed Assets** 

v. Sales to total Assets = <u>Sales</u> (Asset Turnover) Total Asset

The asset management ratios give the credit analyst clues to how well the applicant uses his assets relative to his past performance and the performance of the industry. However, according to Pandey (2006) inventory aging schedules give more information than single ratios and should be requested by the credit analyst concerned about deteriorating ratios. Archibong (1995) observed that most often the business the applicant describes in words differs substantially from what the ratio analysis reveals. There is need for further investigation if a company claims to be a high-volume producer but has low sales – to – assets ratios relative to the industry

# 3. Debt and Solvency Ratio:

i. Debt-asset ratio  $= \frac{\text{Short-term Liabilities} + \text{Long-term Liabilities}}{\text{Short-term Liabilities}}$ 

**Total Assets** 

ii. Fixed-Charge coverage ratio = Earnings Available to meet Fixed Charges

Fixed Charges

iii. Cash-flow debt ratio = <u>EBIT + Depreciation</u>

Debt

Where EBIT represents Earnings before Interest and Taxes

According to Cornett and Saunders (1999), adequate levels of capital are as critical to the health of a credit applicant as they are to the health of the financial institutions. The credit officer analyzing a credit application or renewal wishes to know whether a sufficient equity cushion exists to absorb fluctuations in earnings and asset values and sufficient cash flow exists to make debt-service payments. Clearly, the larger the fluctuation or variability of cash flows; the larger is the need for equity cushions. Whether a debt burden is too large can be analyzed with the help of a fixed-charge coverage ratio. This ratio according to Edmister (1999) can be tailored to the applicant's situation depending on what really constitutes fixed

charges that must be paid. The cash flow debt ratio is a variant of the fixed-charge coverage ratio. It measures the cash flow available for debt service in proportion to the debt being serviced. The more the ratio exceeds the interest rate, the larger is the debt-service cushion.

## 4. Profitability Ratios:

i.	Gross Margin	=	<b>Gross Profit</b>
			Sales

Sales

iii. Income to Sales = <u>EBIT</u> Sales

iv. Return on assets =  $\frac{EAT + Interest Charges (1-T)}{Average total Asset}$ 

v. Return on Equity  $= \underbrace{\text{EAT}}$ Total Equity

vi. Dividend Payout = <u>Dividends</u> EAT

Where EAT represents earnings after tax

A profitable firm that retains its earnings increases its level of equity capital as well as its creditworthiness. The analyst should be concerned about large swings in profitability as well as trends (Deakin 1996). According to George (1986) a credit analyst should also consider changes in sales, in profit at various levels and in each major type of cost to assess the predictability, stability and sustainability of profit and cash flow.

## 2.4 Common Size Analysis and Growth Rates

An analyst can compute sets of ratios by dividing all income statement amounts by total sales revenue and all balance sheet amounts by total assets. These calculations yield Common-size financial statements that can be used to identify changes in corporate performance. Year to year growth rates also give useful ratios for identifying trends Common-size financial statements may provide quantitative clues as to the direction that the firm is moving and that the analysis should take. (Cornett and Saunders 1999)

#### 3. Methodology

The study used both primary and secondary sources of data to gather relevant information on the study. The author identified four banks in Abuja, which indicated interest to participate in the study. A total of 120 questionnaires (30 questionnaires per bank) were administered to randomly select senior staff in the loan and advances department of those banks that indicated interest in the study. 100 questionnaires were filled and returned giving a response rate of 83.33%. The questionnaires administered were followed up by GSM interviews with some of them who were required to supply more details. In addition, data were also collected from the annual report and accounts of some of the studied banks in Abuja. The data was analyzed using descriptive and inferential statics; Simple Percentage, Chi-square distribution and financial ratios were employed in the analysis.

#### 4. Data Analysis and Discussions

This section deals with the analysis of the data collected from the questionnaire respondents and the financial statement of the sampled company. For the purpose of clarity, simple percentage, chi-square method and ratio analysis were employed.

**Table 1:** Distribution of Respondent on the Credit Factor Considered Most Important in Granting Loans

Option	Frequency	Percentage (%)
Character	50	50.00
Capacity	12	12.00
Collateral	10	10.00
Conditions	13	13.00
Capital	15	15.00
Total	100	100

Source: Questionnaire Administered, 2014

The respondents were asked to indicate the credit factor they considered most important in granting loans to companies and their responses are as shown in table 1. As table 1 reveals 50 percent of the respondents indicated that character is the most important credit factor in granting a loan. They argued that the willingness to pay the loan back or not depend on the character of the person representing the company. 15 percent of the respondents indicated capital, while 13 percent, 12 percent and 10 percent of the respondents indicated condition, capacity and collateral respectively as the most important credit factor in granting loans to corporations.

However, it is understandable that a good credit analyst must consider all the five credit factors before granting a loan. In our follow-up interview some of the respondents explained that apart from the above five "Cs" of credit, there is another factor that is more important than the five Cs put together. They claimed that in Nigeria an applicants' connection to the Chief Executive of the bank or any of the Banks' directors gives a greater guarantee of getting the credit facility. Thus, they refer to connection as the capital "C" of credit.

**Table 2:** Distribution of Respondents on the Most Dependable Source of Loan Repayment

Option	Frequency	Percentage (%)
Cash flow from operation	84	84.00
Sales of fixed assets	3	3.00
Collateral	5	5.00
Guarantors	2	2.00
Planned equity injection	6	6.00
Total	100	100

Source: Questionnaire Administered, 2014

As shown in table 2, 84% of the respondents indicated that cash flow from operation is the most dependable source of loan repayment by corporations. 6% of the respondents claimed that planned equity injection is the most dependable source of loan repayment. 5% of the respondents indicated collateral, while 3% and 2% of the respondents indicated sales of fixed assets and guarantors respectively as the most dependable sources of loan repayment.

**Table 3:** Distribution of Respondents on the Incidence of Loan Diversion

Option	Frequency	Percentage (%)
Yes	100	100.00
No	-	-
Total	100	100

Source: Questionnaire Administered, 2014

As revealed in table 3, all the respondents indicated that there have been several incidence of loan diversion. They claimed that on a greater number of times, the loan applicants do not reveal their true purpose for wanting to borrow funds

**Table 4:** Distribution of Respondents on the Analytical technique frequently used in appraising corporate finance application

Option	Frequency	Percentage (%)
Cash flow analysis	12	12.00
Ratio Analysis	75	75.00
Common size analysis and growth	8	8.00
Credit Scoring Model	-	-
Altman Z score model	-	-
Total	100	100

Source: Questionnaire Administered, 2014

In response to the question on the most frequently used analytical technique for appraising corporate finance application 75% of the respondents indicated ratio analysis as the most frequently used analytical technique while 12% and 8% of the respondents indicated cash flow analysis and common size analysis and growth respectively as the most frequently used analytical technique for appraising corporate finance application. None of the respondents indicated the credit scoring model and the Altman z score model.

**Table 5:** Distribution of Respondents on Effect of Proper Appraisal of Corporate Finance Application on Reducing Non-Performing Loans

Option	Frequency	Percentage (%)		
Strongly agreed	40	40.00		
Agreed	33	33.00		
Disagreed	18	18.00		
Strongly disagreed	9	9.00		
Total	100	100		

Source: Ouestionnaire Administered, 2014

From Table 5, 40% of the respondents strongly agreed and 33% agreed that a proper appraisal of corporate finance application will have a positive effect in reducing non-performing loans. However, 18% of the respondents disagreed while the remaining 9% strongly disagreed that proper appraisal of corporate finance application will have a positive effect in reducing non-performing loans. In order to examine the analytical reasoning used in credit evaluation, we analyzed some key financial ratios computed from the balance sheet and income statement of the company selected as our case study. These ratios and the most recent comparable data on a local competitor as well as the industry average ratios are presented in Table 6. The calculation of financial ratios provides the basis for most technical, quantitative credit analysis. Table 6 shows that the firm's current ratio of 1.7 is in line with that of the industry and exceeds that of the local competitor. However, the firm's quick ratio of 0.4 is well below the industry average ratio. Together, the current and quick ratios indicate that the firm's balance sheet liquidity depends predominantly on inventory. If inventory is obsolete or otherwise not readily marketable, the firm would have great difficulty meeting its short-term obligations. It should be noted that there is no provision for the current portion of long-term debt, a current liability. If a portion of long-term debt is to be repaid currently, the firm's liquidity would be further squeezed.

Table 6: Financial Ratio Analysis					
	2009	2010	2011	Local	Industry
				Competitor	Average
<u>Liquidity ratios</u>	1.2	1.5	1.7	1.4	1.7
Current					
Quick	0.3	0.4	0.4	0.4	0.7
<u>Leverage Ratios</u>					
Debt to total Asset	0.86	0.85	0.87	0.72	0.54
Interest Coverage	1.7	2.0	1.2	2.6	3.5
Fixed Charge coverage	1.4	1.5	1.1	2.3	N/A
Activity Ratios					
Inventory turnover	5.4x	5.2x	4.3x	4.9x	5.7x
Average Collection period (days)	14	15	18	20	27
Fixed Assets turnover	34x	41x	39x	30x	13x
cash to cash cycle (days)	87	90	109	101	98
Profitability Ratios					
Profit margin on sales	1.0%	1.0%	0.3%	2.6%	2.8%
Return on (Average) total Assets	4.6%	4.6%	1.1%	7.4%	6.8%
Return on (Average) Net worth	32.6%	29.8%	7.9%	26.2%	17.5%

Source: Published financial statements

The firm's 2011 debt ratio of 0.87 indicates that, in relation to its peers, it offers a very small equity cushion for its creditors. Only 13 percent of its funds come from its owners, whereas 28 percent of its local competitor's and 46 percent of the industry average funds come from owners. The 2011 interest coverage ratio of 1.2 and the fixed charge ratio of 1.1 are far short of the comparative ratios. This indicates insufficient earnings or excessive interest payments or a combination of these two factors.

Inventory turnovers of 4.3 times in 2011 for the firm compares unfavorably with 4.9 times for the local competitor and 5.7 times for the industry average, again suggesting excessive investment in inventory. A similar unfavorable comparison exists for the firm's cash – to – cash cycle of 109 days versus 101 days and 98 days, respectively, for its competitor and the industry average. This factor, when considered along with the firm's favorable average collection period of 18 days, is further indicative of an abnormally large inventory, specifically, the short average collection demonstrates that receivables are not the cause of the long cash-to-cash cycle and that the cause is too much inventory. The firm's fixed-asset turnover of 39 times compared with 30 times and 13 times for its peers indicate that relatively little is invested in illiquid buildings and equipment.

Table 6 also shows that the firm's profitability lags far behind that of its peers. Its return on sales of 1.0, 1.0 and 0.3 percent for the last three years compares with its competitors 2.6 percent and the industry average ratio of 2.8 percent. A similar unfavorable return on asset, bottoming out at 1.1 percent in 2011, further reflect poor earnings and may indicate excessive investment in assets, particularly inventory. Despite poor earnings performance the firm's return on net worth figures for 2009 and 2010 are biased upward, in relation to those of its peers, because of the small amount of equity in the firm (the dominator in the return on net worth ratio). If the firm operates at a loss in the future, its return on net worth would be dramatically biased negatively by the small amount of equity.

Financial analysis alone is not always sufficient to determine the credit worthiness of a firm. As a loan applicant, the firm would have to provide additional information such as the purpose of the loan and how the loan would affect the financial statement and ratios. However, the previous evidence indicates that the historical earnings, liquidity, inventory management, pricing, and equity support of this firm are all deficient. Based on the above analysis, substantial doubt is created about the advisability of lending of credit to this firm.

# 4.1 Hypothesis Testing

The only hypothesis tested in this study is to find out whether a proper appraisal of corporate finance application will have a positive effect on reducing non-performing loans:

**Ho:** A proper appraisal of corporate finance application will have a negative effect on reducing non-performing loans.

**Hi:** A proper appraisal of corporate finance application will have a positive effect on reducing non-performing loans.

The respondents were asked to indicate whether they strongly agreed, agreed, disagreed or strongly disagreed that a proper appraisal of corporate finance application will have a positive effect on reducing non-performing loans and their responses are as shown in Table 5. The data from table 5 is used to test the hypothesis using chi-square distribution.

**Table 7:** Contingency Table

	Observed	Expected	O – E	$(O-E)^2$	$(O-E)^2/E$
	Frequency	Frequency			
Strongly agreed	40	25	15	225	9.00
Agreed	33	25	8	64	2.56
Disagreed	18	25	-7	49	1.96
Strongly	9	25	-16	256	10.25
disagreed					
Total	100			$X_{C}^{2} =$	23.76

**Source:** Computed by the Author

The  $X^2_c$  calculated = 23.76. We compare this with  $X^2$  tabulated at 5% level of significance and 3 degrees of freedom. Hence at 5% level of significance and 3 degrees of freedom  $X^2$  tabulated = 7.815. since  $X^2_c$  calculated is greater than  $X^2_c$  tabulated, we reject the null hypothesis and accept the alternative hypothesis, that a proper appraisal of corporate finance application will have a positive effect on reducing non-performing loans.

#### 4.2 Summary of Major Findings

The following are major findings of the study:

The credit officers cited character, capital capacity, conditions and collateral as the most important factors they consider in granting credit to corporations.

The credit officers also all agreed that the purpose of the facility, the amount being applied for and the proposed tenor of the loan are also of critical importance.

Most of the respondents revealed that in Nigeria a loan applicant's relationship or connection to the chief executive of the bank or any of the bank directors gives a greater guarantee of getting the credit facility. They refer to connection as the capital "C" of credit.

All the credit officers indicated that there have been several incidence of loan diversion.

The study revealed that most loan applicants do not disclose their true purpose for wanting to borrow funds.

84% of the respondents agreed that cash flow from business operations is the most dependable source of loan repayment. Foreclosing on collaterals and collection from guarantors are only used as a last resort because of the cost implications.

Most of the respondents claimed that the conditions precedent in the credit agreement were often not fulfilled.

The study revealed that analysis of trends in selected ratios of a corporation can be used to quantify default risk and enhance the bank management's ability to handle the risk.

The study revealed further that a proper appraisal of corporate finance application will have a positive effect on reducing non-performing loans.

#### 1. Conclusion and Recommendations

#### 5.1 Conclusion

In this paper, an attempt has been made to examine the issues involved in appraising corporate finance application. A critical appraisal of corporate finance application could have a positive effect in reducing the number and amount of non-performing loans in Nigerian banks. It is necessary for credit officers to use both qualitative and quantitative measures in appraising corporate finance applications. Credits should be monitored throughout the period of the loan to ensure that the borrower is living up to his commitments and to detect deterioration should it occur to protect the bank's interests.

#### **5.2 Recommendations**

The following recommendations are hereby made:

- 1. Credit officers should appreciate the fact that the credit process does not end when the applicant signs the loan agreement. Before allowing take down of a corporate credit, the credit officer must make sure that conditions precedents have been cleared.
- 2. Credit officers should appreciate the importance of default risk identification and measurement so as to enhance their ability to reduce the amount of non-performing loans.
- 3. It is important for Bank management to strengthen their credit monitoring unit to monitor credits after take down throughout the loan's life to ensure that the borrower is living up to his commitments and to detect deterioration should it occur to protect the bank's interests.
- 4. To enable the banks and the creditor identify and quantify default risks, while also quantifying the management's ability to handle such risks, we recommend the use of financial ratios such as the ones used in our analysis. Edward Altman's Multiple Discriminate Analysis model could also be used to great advantage, to avoid giving loans to very weak or failing firms.
- 5. Corporate finance applications should be analyzed thoroughly taking into consideration both the qualitative and quantitative factors before loans are granted.
- 6. The banks management should try as much as possible to prevent diversion of loans to uses other than the ones for which they were granted.
- 7. The bank must protect itself from dishonest borrowers by thoroughly investigating the borrower's previous credit relationship.
- 8. Credit analysts should be very much concerned with the timing of cash flows in their analysis. Credit analysts should note that amounts and ratios cannot tell them much until they can estimate the quality of the underlying assets and liabilities.

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# Appendix A: Questions on Five Cs of Credit Risk Measures

Production (Measure of capacity and conditions)

- 1. On what production inputs does the applicant depend?
- 2. To what extent does the cause supply risk?
- 3. How do input price risks affect the applicant?
- 4. How do costs of production compare with those of the competitors?
- 5. How does the quality of goods and services produced compare with those of the competition? Management (Measures of Character and Condition)
  - 1. Is management trustworthy?
  - 2. Is management skilled at production? Marketing? Finance? Building an effective organization?
  - 3. To what extent does the company depend on one or a few key players? Is there a successful plan?
  - 4. Are credible and sensible accounting, budgeting and control systems in place?

# Marketing (Measures of Conditions)

- 1. How are the changing needs of the applicant's customers likely to affect the applicant?
- 2. How creditworthy are the applicant's customers?
- 3. At what stage of their life cycles are applicant's products and services?
- 4. What are the market share and share growth of the applicant's products and services?
- 5. What is the applicants marketing policy?
- 6. Who are the applicant's competitors?
- 7. What policies are they pursuing?
- 8. Why are they able to remain in business?
- 9. How are the applicant meeting changing marketing needs?

# Capital (Measures of Conditions)

- 1. How much equity is currently funding the firm's assets?
- 2. How much access does the firm have to equity and debt markets?
- 3. Will the company back the loan with the firm's assets?