Gaining an Understanding of Your Customers Using Portfolio Analysis

By: Ruby C. Kerr

To successfully manage a process, you must control and measure that process. To manage the credit process, today's credit executive must go beyond traditional "customer" analysis and move to analysis of the entire receivables portfolio. This is as true for the management of the accounts receivable portfolio as it is for the production of any goods or services.

Many firms still focus on the number of customers they serve – an important issue for operations planning – without giving sufficient attention to the profitability and risk associated with each group of customers. By applying the concept of portfolio analysis to the company's accounts receivable, we can measure the performance of that asset along several dimensions.

Artists and writers often prepare a portfolio of their work to show to prospective purchasers or employers. The term "portfolio" is also used to describe the collection of financial instruments held by an investor or the loans advanced by a bank. In financial services, the challenge of portfolio analysis is to determine the mix of investments appropriate to one's needs, resources, and risk preference. The contents of the portfolio should change over time in response to the performance of individual portfolio elements and changes in the customer situation or preferences.

Using portfolio analysis to analyze the accounts receivable will help the credit professional understand the company's exposure to risk at any point in time. It will also help us determine what sort of customers we should seek to serve and which business segments best fit the mission and capabilities of the organization. This value-added service provides information that can be used by the organization in deciding which markets to serve.

Portfolio analysis serves as a good planning system that provides information for use in strategic business decisions to maximize long-term earnings growth and to minimize bad debt. It encourages management to evaluate the business along multiple dimensions on an aggregate basis and explicitly raises the issue of the cash flow implications as management plans for growth.

This analysis gives management the tools to evaluate each business segment in the context of both its environment and its unique contribution to the goals of the company as a whole. It addresses the issue of potential value of a particular customer to the firm. This value has two variables: first, the potential for generating attractive earnings levels now; second, the potential for growth (i.e., significantly increased earnings levels) in the future.

Management needs to understand how promising the current set of customers is with respect to long-term return and which customers should be developed or liquidated. The portfolio analysis approach provides for the simultaneous comparison of different customers and leads to a targeted marketing focus. It also underlines the importance of cash flow and risk management as strategic variables.

The Forest and the Trees

As a credit executive, one of your primary responsibilities is to manage the credit risk of the accounts receivable asset. Risk management is the process of judging individual firms, assessing both the risk and the opportunity associated with those firms, establishing credit lines and terms, and monitoring the customer relationship for the mutual benefit of the customer and your organization.

Your firm's risk preference will determine how much risk it is willing to take in granting credit to its customers. A comprehensive approach to risk management is to classify customers on a multi-level scale, with excellent customers at one end of the spectrum and marginal customers at the other end. Marginal customers would be reviewed more frequently than excellent and good accounts. This method places emphasis upon those accounts that need attention. These one-at-a-time evaluations are considered transaction-level decisions.

The credit professional is also responsible for establishing the credit and collections policy, which is a general course of action developed for recurring situations, designed to achieve established objectives within the credit function. These decision rules are applied across a broad group of customers. Defining and establishing effective credit and collection policies are considered portfolio-level decisions that involve stepping back to look at the forest, not just the daily examination of the individual trees.

As discussed in an earlier Credit Research Foundation publication, "How to Write a Credit Policy", without an established policy, each credit decision stands alone and each credit decision-maker within an organization operates in isolation. There is no opportunity to learn from the collective experience of the group or the acquired judgement of the most experienced members of the credit team. On the other hand, a consistently implemented policy ensures that the same mistakes are not made over and over again and that resources are not wasted on decisions that can be made quickly and easily on the basis of documented experience. Having a policy allows an organization to systematize and apply its learning. Over time, refining a credit policy allows for adaptation to changing markets and conditions. Collection policies also need to evolve, based on changes in the composition and payment performance of active customers.

The successful credit professional understands that these two types of decisions are made in tandem, reinforcing each other over time. To be truly effective at managing the risk and opportunity of the customer base, its necessary to do both well. It’s analogous to the general manager of a business who has to make both tactical and strategic decisions. Both types of decisions are important and must work together to be productive. For many credit professionals, however, the focus is so heavily weighted towards the day-to-day transaction-level decisions that the development of important skills and resources needed to improve portfolio decisions is left as an inappropriately low priority.

The Concept of Portfolio Analysis

Using information available from the customer’s accounting records combined with information provided from other sources, the credit professional, with input from the finance and sales/marketing functions, can stratify the customer database into meaningful segments. Exhibit 1

For the typical company, the following information should be available from their accounting records: sales, gross margin dollars, gross margin percentage, product line, industry sold to and geographical location. Another key element of portfolio analysis is the credit-risk score. The customer’s risk score is available from third-party vendors in two ways: by acquiring the credit risk score for each customer or by purchasing a credit scoring system, or you can manually develop one yourself.

The credit scoring system provides the company with the ability to define the parameters by which credit lines will be established. The advantage of a credit scoring system is that the uniqueness of an industry can be built into the decision matrix. The scoring system forces consistency in the credit review process. Either method can be electronically integrated into the customer accounting records.

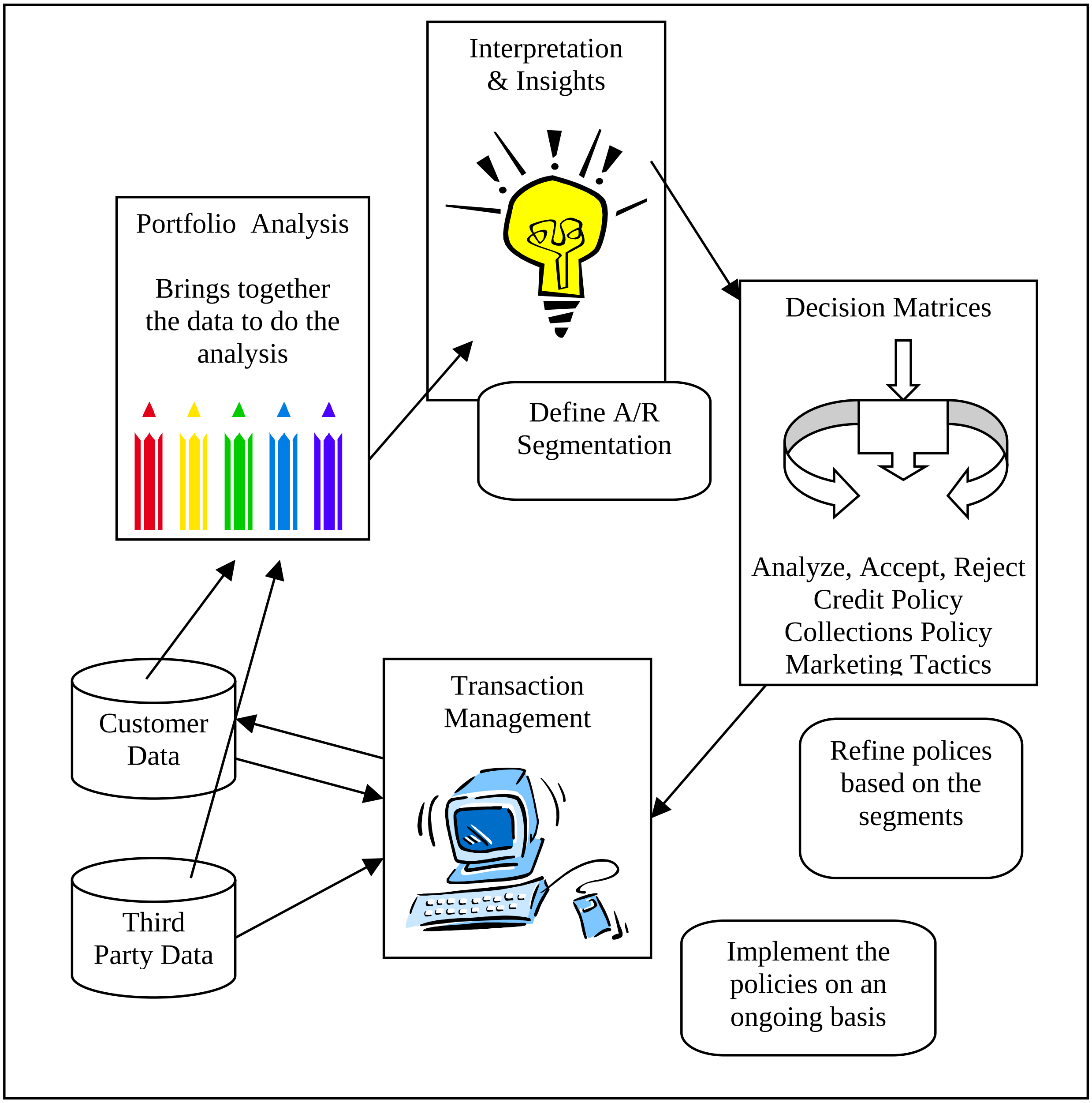
By categorizing these data into meaningful data sets, the credit function can add significant value to the organization. The company’s credit policy and preference for risk can be evaluated in real time. This analysis provides the credit professional with a global view of the day-to-day tactical decisions. The process brings together data from the customer’s accounting records and third-party suppliers. These data are segmented into meaningful data sets and processed using decision matrices. This ongoing process yields information that is used to develop credit and collections policy and marketing tactics.

Segmenting the Customer Base for Improved Performance

There are two keys to successful segmentation analysis. The first is finding the characteristics that consistently do a better job of identifying the appropriate risk class. The approach calls for a comprehensive segmentation analysis of the customer base that can escalate in terms of sophistication. The starting point is to categorize your customers according to their basic demographics – who they are, what industries they operate in, where they are located, how large they are and how old they are.

Once you understand this, the next step is to look for differences in cash flow performance – identifying the high performing segments from the low performing segments based on payment patterns, gross margin contribution and risk. This

Exhibit 1
The Portfolio Process



fundamental analysis can often yield insights into how to improve credit policy and marketing strategy.

Each customer or potential customer does not represent the same risk and/or opportunity to your firm. They differ in terms of their risk of non-payment and/or slow payment and the resulting bad debt or delinquency carrying costs that might be incurred. Customers

and prospects also differ in terms of their importance to your firm's sales: how likely they are to buy, in what volume and whether they will be repeat buyers. In a world of diverse firms, if you treat all your customers the same for risk and opportunity, you are guaranteeing lower productivity than you might enjoy and sub-optimizing your firm's financial performance. Given these differences, it makes sense to treat individual firms differently, depending on their overall attractiveness to your firm.

For the best customers (low risk and high sales potential), it makes sense to have liberal credit lines, allocate more sales and customer service resources and structure any collection actions with a focus on sustaining the relationship for the long run. Alternatively, less attractive customers (higher risk and lower sales potential) call for tighter credit terms and lines, relatively less sales and service attention and more aggressive collections activities.

An understanding of your organization and the industry in which it operates will provide the basis for determining the parameters that will be measured. Profitability and risk are the two key attributes that should be measured. These attributes should be measured in the aggregate and by meaningful segments. Dimensions that are most often measured include product line, geographical, industry (SIC) sold to, and payment performance over time. When these segments are analyzed and measured against sales volume, gross margin contribution and risk levels, a true understanding of the firm's customer base is revealed. Using this analysis, the credit professional can insure that the credit policy that has been established is working.

By establishing or refining existing segmentation, proven policies can be implemented at a transaction level to improve bottom-line productivity and profitability. In addition, contributions to top-line growth can be achieved by applying the insights gained from the analysis of attractive market segments and a targeted selection of individual firms within those segments.

Credit Risk Scoring

A credit risk scoring system is an automated process that uses an array of decision rules that are defined by the credit profession to set credit lines for customers in a quick and reliable manner. Statistically-derived scores and other segmentation results are most appropriately applied to help systematize the handling of the black-and-white decisions. These decision rules, applied to the customer base in aggregate, define the firm's risk preference. For example, if the scoring model parameters are liberal and not very restrictive, the results will be reflected in the total risk of the portfolio. In the following example, the accounts receivable portfolio has been classified based on the level of risk in the portfolio at the end of a given month. (See Exhibit 2.) As can be seen in this particular example, 23 percent of the total receivables are owed by customers that represent significant risk for potential bad debt. In addition, of the total receivables over 60 days past due, the marginal accounts represent 36.5 percent. Without conducting a risk analysis of the receivables portfolio, you would not know the potential for bad debt.

Shifts in the economy or consumer confidence often require changes in credit policy: portfolio analysis allows these changes in policy to be effectively monitored. Our previous analysis can be extended to include multiple periods. After a review of the portfolio, it might be determined that our credit policy is too lenient, leading to more conservative credit terms. Over time, possibly year-to-year, we would be able to track the impact of this change in philosophy using portfolio analysis.

In addition to credit scoring software, companies are using the data warehouse concept to provide access to customers and product data in a centralized location that can be accessed electronically.

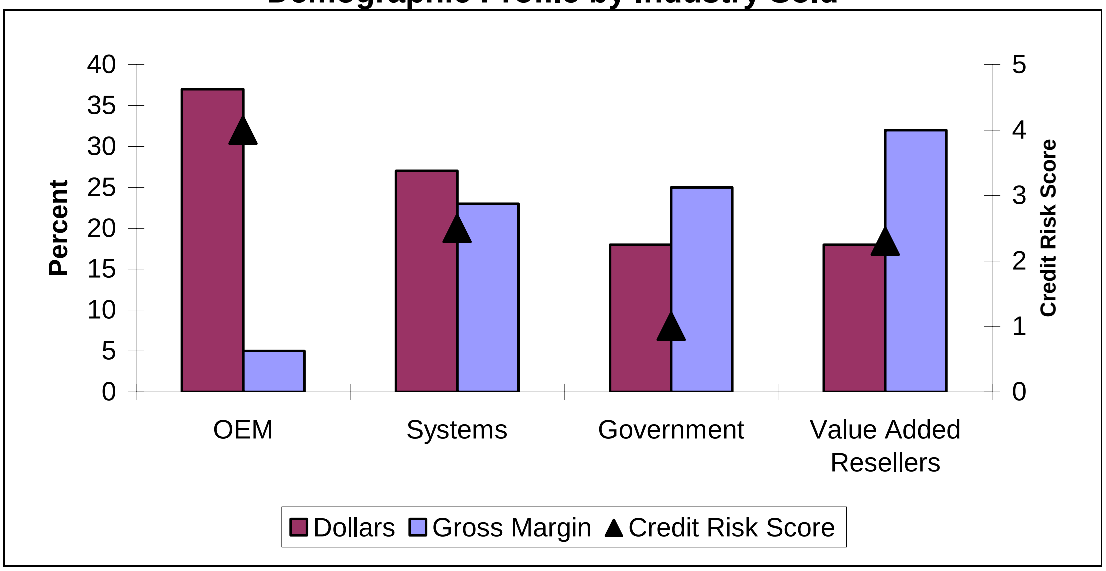
Exhibit 2
Accounts Receivable Portfolio by Risk Classification

RISK CLASS	ORE	TOTAL A/R ($000)	% OF TOTAL	CURRENT A/R ($000)	% CURRENT	OVER 60 DAYS	% OVER 60 DAYS
Best	**1**	$ 1,075	9 %	$ 860	10.6 %	$ 22	3 %
Better	**2**	2,340	19.7	1,665	20.5	67	9
Good	**3**	3,980	33.5	3,400	41.8	198	26.3
Average	**4**	1,745	14.7	1,150	14.2	192	25.5
Marginal	**5**	2,730	23.0	1,045	12.9	275	36.5
Total		$11,870	100 %	$ 8,120	100 %	$ 754	100 %

Adding Value Through Additional Analysis

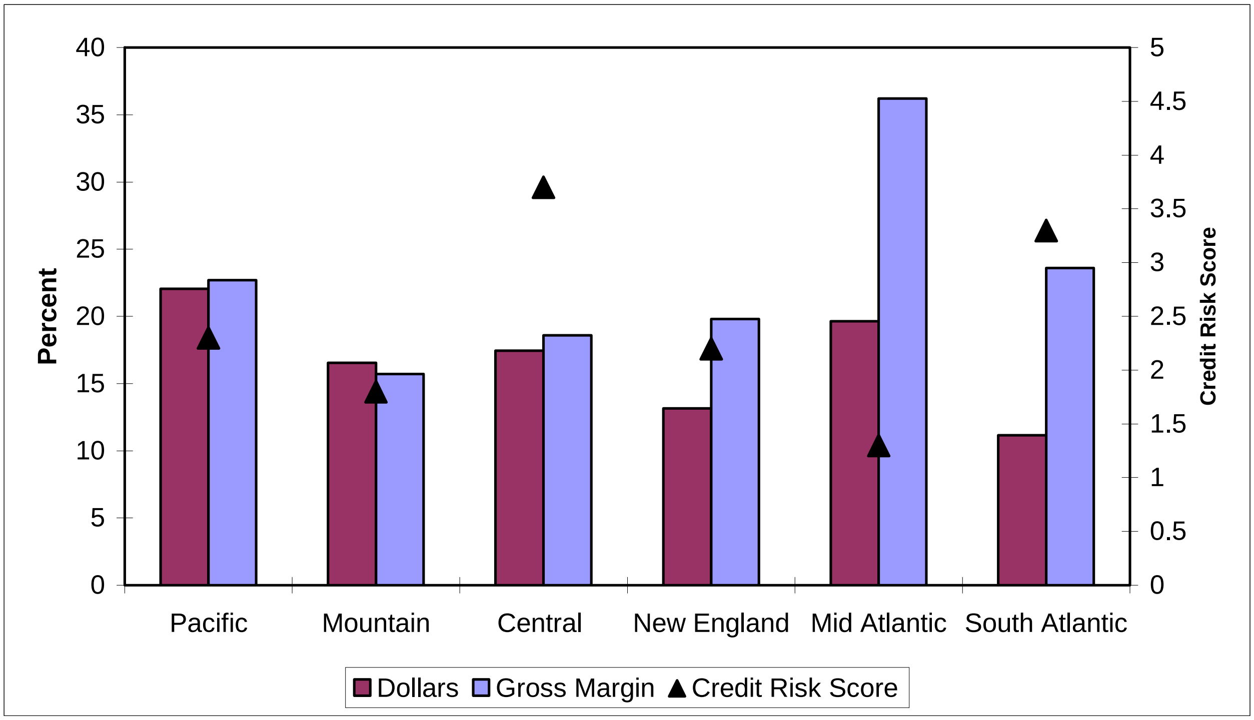
Through the use of portfolio analysis, the marginal and successful segments of the business will surface, and discussion can be initiated to determine if there are any lessons that can be learned. For example, in Exhibit 3 our analysis reveals that over 35 percent of our sales are components to original equipment manufacturers. These sales only generate 5 percent gross margin and the credit risk score for the group is 4, which represents higher than average risk. In addition, our sales to value-added resellers generates a gross margin of over 30 percent with a risk score for the group of about 2, representing good and better customers. Our analysis leads to the questions of why we are in the OEM component business and how we grow the value-added reseller business.

Exhibit 3
Demographic Profile by Industry Sold



An analysis of sales by region indicates that the mid-Atlantic region is second in sales volume. (See Exhibit 4.) However, these sales are generating in excess of 35 percent gross margin for the company. We can determine if there are any factors driving this difference and how we can integrate those factors into the way we do business in other regions. As you probably realize from these exercises, there is no limit to the value this process can add to your organization.

Exhibit 4
Demographic Profile by Region of the Country



The next step in this process is to determine how this information can be used to improve the performance of the organization. Using information provided by third-party vendors, an analysis can be conducted to determine the level of market penetration by segment. Although this analysis is a marketing exercise, the credit professional can help initiate the process. This review will help your organization know its strengths and weaknesses and provide the foundation for the development of the organization's strategic plan. This, in turn, will provide the basis for your credit policy.

Conclusion

An analysis of your customer portfolio can serve many purposes. The organization needs to examine its customers to see how each customer segment fits within the overall corporate goals. These models have helped managers to think more futuristically and strategically to understand the economics of their business better, to improve the quality of their plans, to improve communication between credit and sales/marketing management, to pinpoint information gaps and important issues, and to eliminate weaker customers and strengthen the company's investment in more promising customer segments.

While much of the above discussion has focused on risk and policies for more effectively handling risk, the analysis can be equally applied to the opportunity side of the equation. The customer base can be segmented according to the attractiveness of the customers and compared to other market segments in the economy. In this way, market segments that represent available opportunities for profitable growth can be identified. This part of the analysis requires the use of a comprehensive business universe benchmarking database, to make the identification of attractive individual prospect firms possible within the market segment.

With the analysis in hand, a manager with primary responsibility for managing the credit risk of a customer base has the opportunity to do much more and to exert influence beyond traditional boundaries. It is key to communicate the knowledge gained through the analysis to other parties in your organization – to sales/marketing and to senior management. Credit managers are often considered to have relatively little influence over the direction and results of the firm. Portfolio analysis can be used as a communication tool to break down this misconception, effectively summarizing the overall composition, performance and dynamics of the customer base. Beyond articulating the credit challenges succinctly, the analysis of market and prospect segments can be a tool to influence discussions on your firm's strategic direction. The key is to apply available resources to improve your understanding the firm's most precious asset - it's customers.

Another CRF study and publication, "The Future of Credit", made it clear that credit professionals must move out of their silos and become stronger contributors to their top management. The portfolio analysis concept is a tangible way for you as a credit professional to take an important step to value creation for your organization.

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