Agricultural Credit Card Innovation:

The Case of Financiera Trisan

Mark D. Wenner Rodolfo Quiros

Inter-American Development Bank

Washington, D. C.

Sustainable Development Department

Best Practices Series

Cataloging-in-Publication provided by the Inter-American Development Bank Felipe Herrera Library

Wenner, Mark D.

Agricultural credit card innovation : the case of Financiera Trisan / Mark D. Wenner, Rodolfo Quirós.

p. cm. (Sustainable Development Dept. Best practices series ; MIC-107)

Includes bibliographical references.

1. Agricultural credit. 2. Credit cards. 3. Agricultural credit corporations--Costa Rica--Case studies. 4. Financiera Trisan S.A. I. Quirós Rodríguez, Rodolfo. II Inter-American Development Bank. Sustainable Development Dept. Microenterprise Unit. III. Title. IV. Series.

332.71 W46--dc21

Mark Wenner is a financial specialist in the Microenterprise Unit of the Inter-American Development Bank and Rodolfo Quirós is president and principal researcher of Academia de Centroamérica, a policy research institute, located in San José, Costa Rica. The authors would like to thank Juan Buchenau of Frontier Finance, Monica Brand of Accion International, and Glenn Westley of the Microenterprise Unit for useful review comments. The views and opinions expressed herein are those of the authors and do not necessarily represent the official position of the Inter-American Development or the Academia de Centroamérica. All errors and omissions are the sole responsibility of the authors.

December 2000

This publication (Reference No. MIC-107) can be obtained through:

Micro, Small and Medium Enterprise Division Mail Stop B-0800 Inter-American Development Bank 1300 New York Avenue, N.W. Washington, D.C. 20577

e-mail: <u>sds/mic@iadb.org</u>
Fax: <u>202-623-2307</u>

Web site: http://www.iadb.org/sds/mic

Foreword

Credit cards are ubiquitous in industrialized countries and becoming more commonly used by the urban middle and upper classes of developing countries. In the rural areas of developing countries, however, they are less common due to the greater seasonality in income flows and the higher rates of poverty. Financiera Trisan, a finance company in Costa Rica, has introduced a rural credit card, targeting agricultural input suppliers and farmers. The promise of this product is that it can dramatically reduce transaction costs for clients and merchants accepting the card. This paper analyzes the experience of Financiera Trisan in developing and expanding its credit card program. The principal findings are that the credit card is a viable and profitable product; that a culture of innovation is critical in the company to sustain and refine the product; and that infrastructural and legal obstacles present in the country require creative solutions.

Marguerite Berger Senior Advisor Micro, Small and Medium Enterprise Division

Contents

1.	Introduction	1
2.	The Genesis of an Agricultural Credit Card	1
3.	Credit Card Product Description and Service Delivery Mechanism	2
4.	Performance Analysis	8
5.	Challenges Facing the Expansion and Deepening of the Product	16
6.	Conclusions	20
Refere	ences	23

1. Introduction

The purpose of this paper is to analyze a program that extends credit cards to agricultural input suppliers and rural producers in Costa Rica and to determine whether this program is financially viable and potentially replicable in other rural areas of Latin America.

A credit card program is very innovative and unusual for a rural setting. Normally, credit cards have been promoted in urban areas with business firms and salaried employees who have steady cash flows. Credit cards in rural areas are not as

common because potential clients, especially agricultural producers, have more seasonal and uncertain monthly cash flows. This paper seeks specifically (1) to recount the genesis of an agricultural credit card program (section 2); (2) to describe the product, the typical client, and service delivery methodology (section 3); (3) to analyze the financial performance of this product (section 4); and (4) to conclude with outstanding challenges facing the expansion and replication of the product (sections 5 and 6).

2. The Genesis of an Agricultural Credit Card

The agricultural credit card offered by Financiera Trisan S.A. grew out of a confluence of factors—a company tradition of product innovation, changes in capital control laws in the country, the desire to lower administrative costs, and compliance with a ruling of the Superintendency of Banking.

Tradition of Innovation

Financiera Trisan S.A. is a registered and regulated finance company that operates in Costa Rica and is part of a conglomerate that has a long-established record of innovation. It is a member of the Trisan Group, a family-owned holding company, consisting of three related agribusiness undertakings (Trisan S.A., TransAgro S.A. and Agro Agil S.A.). Trisan S.A., the parent company and core business specializes in

the import and wholesale distribution of agricultural and industrial chemicals. TransAgro S.A. specializes in providing farm management consulting services to commercial farmers. Agro Agil S.A. specializes in the retail sale of agricultural and industrial chemicals.

The parent company dates back to 1961 when Fritz Trinler van der Water, a Swiss immigrant, arrived in the country and started selling veterinary medicines and agricultural chemicals on a small scale. His company, Trisan S.A., grew over time to become one of the three largest agricultural input wholesalers in the country with approximately US\$10 million in sales (as of December 1998).

Since the beginning, the Trisan Group has developed a reputation for being a pioneer and inno-

vator. It was the first agricultural input wholesaler in the country to use radio phones to place and receive orders, cold rooms to store veterinary products, a fleet of trucks to deliver products to retailers, elaborate showrooms to promote particular lines of products. Trisan, S.A. was also the first to hold demonstration seminars on the premises of retailers. At present, it is a leader in promoting the use of bioengineered agricultural inputs and environmentally friendly technologies for textile dyeing and food preparation. Thus, the idea to spin-off a financial subsidiary and to introduce a credit card fits the pattern of visionary leadership and corporate development.

Changes in Capital Account Controls

Up until 1992, Costa Rica had capital account controls in place that rationed foreign exchange, requiring applications for access to hard currencies. Financiera Trisan was formed in 1985 to handle foreign exchange transactions, account receivables, and factoring for all companies within the Group. At the time, it made administrative and economic sense for the company to consolidate all financial aspects of import transactions in one entity. As financial markets were gradually liberalized and capital account controls finally eliminated in February of 1992, the principal activity of the Financiera became factoring or the discounting of account receivables.

Administrative Convenience and Superintendent Ruling

In the early 1990s, the impetus to introduce a credit card came from two sources. First, the management of Trisan Group started to think of ways to improve the financial management of account receivables. The administrative costs of making personal visits to collect on overdue accounts were rising rapidly. Second, the Superintendency of Banking (Auditoría General de Entidades Financieras (AGEF), now known as the SUGEF) believed that Financiera Trisan was engaging in excessive related party financial dealings because one hundred percent of its factoring was with the Trisan Group. Financiera disagreed and argued that it was Trisan purchasing account receivables from the various retail distributors affiliated with Trisan Group and, thus, had more than one client. The consensus solution that emerged out of a series of discussions was to introduce a credit card for retailers affiliated with Trisan S.A. The credit card would serve as a substitute for a traditional 30-day line of supplier credit. As a consequence, this innovation would lower transaction costs, increase credit sales volumes, and resolve the conflict with the Superintendency because there would clearly be distinct individual accounts in the portfolio.

3. Credit Card Product Description and Service Delivery Mechanism

Products

and rural producers in Costa Rica: (1) a credit

Financiera Trisan, S.A. has developed two credit card products aimed at agricultural input suppliers card *Agrimax*; and (2) a value-added enhancement to Agrimax called *Maxicuenta* ¹

Agrimax

There are two types of Agrimax cards, the green card, which is aimed at retail distributors of agricultural chemical products, and the silver card, which is aimed at individuals who desire to purchase agricultural inputs and services from merchants accepting the card. The same terms apply for affiliated retailers as for individual users. The only differences are that the typical maximum limits are much higher for businesses than for individuals and that the guarantees required from businesses are, accordingly, more substantial. The absolute maximum limit is ¢30 million (US\$117,187) as per the Superintendency (SUGEF) ruling that no more than 20 percent of paid-in capital can be loaned to a single party). In practice, each applicant's limit is set according to repayment capacity and both cards carry a market-adjusted rate of interest. In 1998, the interest rate was 45 percent per annum.² Both cards have a billing cycle of 30 days and the typical guarantees used are co-signers who must have pledgeable assets in the case of individual xcounts and real property in the case of business accounts. If the balance is not paid in full, the client has to pay a minimum of 33 percent of the outstanding balance the first month. Thereafter, interest would accrue on the unpaid balance. As of December 1998, Agrimax credit card xcounts represented approximately half of the outstanding credit balances. Approximately, 250 were green cards, or distributor accounts, and 1,950 were silver cards, or individual accounts.

The green card, which was introduced in August 1992, predates the introduction of the silver card introduced in 1993. Initial positive results with the green card, led the managers of the Financiera to believe that end-user clients would use the Agrimax card to charge more of all types of products purchased, and while not restricted to purchasing only products exclusively distributed by Trisan, the widespread use of the individual card would contribute to an increased in consolidated profits for the Trisan Group. Preferred customers were able to receive cash from the silver card. Cash advances, however, are only disbursed from Financiera Trisan's two offices.

Maxicuenta

Maxicuenta is an enhancement service available to preferred *Agrimax* individual clients that takes into account the seasonality of rural household cash flows. It is intended to be used to help fnance short-term agricultural and livestock production and marketing. Instead of having to make regular payments within 25 days of billing, the client can make his or her first payment as a balloon once he or she has had the opportunity to harvest and market the product. It is granted to current Agrimax cardholders with good repayment records (minimum of three months standing). The maximum limit is negotiable and depends on the type of agricultural/livestock activity and the repayment capacity of the individual. The Financiera Trisan sales agent must visit the farm, verify the viability of the farming enterprise and review bank statements and sales receipts of previous crops. Another visit is scheduled 15 days prior to the due date of the first payment to ascertain if there will be problems with repayment. Maxicuenta has the same rate of interest as Agrimax and the same conditions apply. As of

¹ The finance company also offers other financial services to the larger public, namely, loans to individuals and corporations, factoring, investment management services, and certificates of deposit.

² Exchange rate as of June 1998 US\$1=¢256

December 30, 1998, the Financiera reported 273 *Maxicuenta* holders with an outstanding balance of ¢151 million (US\$556,333), representing 26 percent of the Financiera's portfolio.

The logic behind this additional service is that rural clients desire more flexibility in managing finances. *Maxicuenta* is essentially a product enhancement that serves to increase the average outstanding balance and to keep clients satisfied and loyal.

Service Delivery Mechanism

Product Marketing

At the start of the credit card program, Financiera Trisan depended on indirect marketing; it later switched to more direct marketing campaigns. In 1992 and 1993. Financiera Trisan asked distributors affiliated with the Trisan Group to use the credit card as opposed to the traditional supplier credit financing arrangements. The advantage to Trisan S.A. was that the management of accounts receivable was essentially being transferred to Financiera Trisan with two attractive financial benefits: lower administrative costs and improved cash flow. The advantage to the retailers was the promise of improved service in the future due to cost savings and efficiencies realized by Trisan S.A. The marketing campaign sometimes relied on aggressive tactics such as threatening cancellation of distribution rights if the credit card was not accepted. Once the retailers responded, Financiera Trisan followed three distinct stages of product promotion at the individual client level.

In the first stage, Financiera Trisan strongly encouraged distributors affiliated with the Trisan Group to promote the use of *Agrimax* among

individual clients who had existing credit accounts. The credit card was presented as a substitute for traditional supplier credit provided by the retailer to end users (farmers).

The advantage to the retailer was that the management of accounts receivable was essentially being transferred to Financiera Trisan with three attractive financial benefits: lower administrative costs, improved cash flow, and the elimination of default risk. The retailer received immediate payment for charges made on the Trisan credit card within 24 hours of presentation of a claim.

In the second stage, Financiera Trisan requested lists of clients from the retailers affiliated with the Trisan Group. It issued cards to persons on these lists with little or no further screening. The goal was rapid growth in the number of clients in order to lower unit operating costs.

In the third and current stage, the promotion process is more direct and selective. Growth in clients is slower due largely to the fact that the strategy of contacting clients from affiliated retailers proved to contain inherent moral hazard risks.³ Personnel of Financiera Trisan now promote the product with prospective clients through presentations or *charlas* held in the locales of various agricultural input vendors, many of whom are not affiliated with the Trisan Group. The advantages of affiliation with the Trisan Group and of the card are touted and the mechanics of the program explained. In addition, to the direct presentations, the sales representatives request retailers to identify preferred clients with excellent

4

³ Retailers had vested interests in promoting the widespread acceptance of its clients regardless of creditworthiness, since the possession of a credit card was bound to increase sales without the attendant default risk for the retailer.

credit histories and reputations for technical and managerial capacity. These preferred clients are then visited at home or at their place of business.

Evaluation, Approval, Issuance and **Billing Processes**

The evaluation and approval procedures for obtaining credit cards are rigorous in the first instance but less involved and more automatic at the time of increasing the maximum credit availability. The steps are briefly described below.

First, a six-page application form is filled out and analyzed. Most often a representative of Financiera Trisan completes the application in the home or business of the prospective client and makes whatever additional visits to third parties that are necessary. The form gathers socio economic and business/household income data. The analysis focuses on determining repayment capacity for the business/household, the willingness to repay, and the quality of guarantees that can be offered. To determine the repayment capacity, current debt servicing burdens are compared to projected income flows. To determine willingness to repay, credit bureau reports are used. To determine the quality of guarantees, points are assigned for the four commonly accepted forms of guarantees: (1) personal guarantee (most risky, least points), (2) lien (somewhat risky, a few points), (3) titled property (less risky, more points), or (4) a certificate of deposit (least risky, high number of points). Three risk classifications can be assigned to an application based on the total number of points: A (acceptable), B (marginal), and C (poor). If the classification is C, the application is automatically denied.

Second, once the application is evaluated a recommendation is made whether to issue a card with corresponding limits. The higher the limit, the more persons are involved in the decision (Table 1).

Third, once the application has been approved, legal contracts are drawn and signed by the cardholder and guarantors. A card is printed and delivered to the residence of the client. Financiera Trisan usually assumes the lion's share of the transaction costs involved.

Fourth, once the card is activated, monthly statements are sent by mail no later than four days after the close of the billing cycle.⁴ Clients have 25 days to pay from the end of the billing cycle, thus resulting in a maximum 55-day credit term. Payments can be made in one of four ways. These are, in order of descending frequency: (1) deposit in an account of the Financiera in one of the state-owned banks conveniently located throughout the country (very reliable); (2) to the sales agent of Financiera Trisan on routine visits (very reliable); (3) in person at the regional or headquarters offices of the Financiera (most reliable); or (4) by mail (least reliable and rarely used).

From 1992-97, several problems were encountered

with the postal service but since 1998 the quality of service has improved, and the number of lost and returned to sender statements have diminished considerably. In the earlier years, due to poor postal services, marketing and sales agents either delivered the statements personally or made arrangements for pick-up at a central location, normally a dry goods store or input supply store.

Table 1. Credits Limits and Composition of Credit Approval Committee

Credit Limits ^a	Persons Involved in Approval
¢0.5 to 1.5 million (US\$1,953 to 5,859)	Credit analyst and credit manager
¢1.5 to 7 million (US\$5,859-27,343)	Credit analyst, credit manager, operations manager, and deputy manager
¢7 to 20 million(US\$27,343-73,529)	Credit analyst, credit manager, operations manager, deputy manager, and manager
¢20 to 30 million(US\$78,125-117,187)	Board of directors

Notes:

a. Exchange rate as of June 1998 US\$1=¢256

Collection Processing

Normally, the personnel of Financiera Trisan monitor *Agrimax* clients periodically (once or twice during the growing season), and occasionally when Trisan's representative runs into its clients at the input store, gas station or on the road. Monitoring of *Maxicuenta* holders may be more frequent. Billing statements are mailed after the close of one of the 5 billing cycles in the month (the 5th, 10th, 15th, 20th, and 25th of each month). If payment is not received within 2 days of the official due date, the following steps are taken:

- (1) a phone call is made;
- (2) a telegram is sent after the 5th day and the co-signers are contacted by phone;
- (3) a letter is sent after 10 days;
- (4) a letter from a lawyer is sent after 15 days;
- (5) a marketing and sales agent from Financiera Trisan visits the client in person after 30 days;
- (6) if a mutually satisfactory agreement cannot be made, legal enforcement begins.

At each of the above steps, additional charges are added to the outstanding balance (each phone call ¢500 (US\$1.84); telegram ¢1000 (US\$3.68); letter from the Financiera ¢2,000 (US\$7.37); letter for retained lawyer ¢2,500 (US\$9.21); and each visit by a marketing and sales agent ¢3,000. Late penalty interest charges are also added to the balance. Financiera Trisan has a total staff of 27, most of whom are located in the headquarters in the capital. A small number (four) are located in a branch office in Muelle, in the northern zone. It is difficult for the company to maintain an aggressive collection presence in the countryside due to the distances. Approximately 9 sales and marketing executives visit clients on a route basis.

Client Profiles

The typical credit card client of Financiera Trisan is a primary school educated, middle-aged, male, medium-sized farmer with a substantial asset base and relatively high yearly income. The cardholders tend to be more

Table 2. Client Profile: Individual End-Users ^a

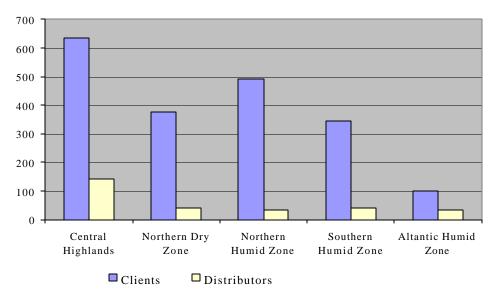
Variable	Value
Number surveyed	100
Mean age	39.9 years
Education (% with completed level)	Primary 58.0
	Secondary 25.7
	University 3.0
Gender (%)	Male 97.0
	Female 3.0
Average farm size (owned land)	15.5 ha
Total assets	US\$26,517
Average gross income	US\$23,197
Average yearly household net income	US\$10,850
Value of principal crop	US\$18,424
Main agricultural activities (%)	Horticulture 39.0
	Coffee/Tobacco 10.0
	Livestock 7.0
	Dairy 3.0
	Grains 28.0

Note: a. Sample excludes retail distributors

commercially oriented and specialized than the typical farmer in the country (Table 2). For example, Financiera Trisan's clients tend to generate close to 79 percent from income of one activity. The most common agricultural activity is horticultural production. In comparison, the typical farmer in Costa Rica has a farm of less than 10 ha. and depends on a mix of field crops and livestock to generate income and subsistence for his family. Likewise, whereas 26 percent of Trisan's clients have completed secondary schooling, only 16 percent of the general population has done so Dirección General de Estadística y Censos, 1999). Lastly, the household income levels are above the norm for rural areas but roughly equal to national per capita income level (US\$10, 849/4.1 average rural household size=\$2,646; national per capita income level in 1997 was \$2,640) (World Bank, 1998 and Dirección General de Estadística y Censos).

As can be seen in Figure 1, the largest number of clients and distributors are concentrated in the central highlands, the area of the country with the highest population density and the most developed infrastructure. In the central highlands, average farm size is smaller and the predominant cash crop is coffee but other main crops include sugar cane, vegetables, and basic grains. The second largest concen- tration of clients is in the northern humid zone that runs from the central mountains north, northeast to the frontier with Nicaragua. It is an area characterized by lower population density, more rudimentary infrastructure, and larger farms dedicated to dairy, beef cattle, and the cultivation of export tree crops (citrus, African palm and heart of palm). Average farm sizes are larger in this region compared to the central highlands.

Figure 1. Geographic Distribution of Clients and Distributors



Source: Financiera Trisan, July 1998

4. Performance Analysis

Outreach and Growth Indicators

Financiera Trisan has exhibited high growth in the number of clients and nominal outstanding balances, but a slight drop in average outstanding balance. The nominal dollar portfolio in the same period increased from US\$1.58 million in December of 1995 to US\$2.32 million in December of 1998, or 47 percent. The number of clients increased in the same period from 1,658 to 2,467, or 49 percent. Over the same period the average outstanding balance declined from US\$953 to US\$940 (Table 3). Also, the average number of new cards issued monthly has fallen over time,

from 69 in 1996 to 14 in 1998 (Table 4). Similarly, the number of cards cancelled or revoked has made up a sizeable percentage of the total number issued up to May 1999 (715 out of 2,289 or 31 percent) (Table 5). These trends reflect a switch from a 'massification" strategy toward a more deliberate selection process and greater concern about delinquency management.

Despite the growth in the credit card portfolio over time (Table 3), the number of cards with transaction activity has trended downward in the last two years on a monthly basis (Figure 2).

Table 3: Growth of Outreach, Financiera Trisan 1995-1998

	Total Credit Car	rd Portfolio	Number of Active Clients		Average Ba	lances
Year*	Total Portfolio (US\$ millions)	Growth %	Total #	Growth %	Average Outstanding Balance (US\$)	Percent Change %
1995	1.58		1,658		952.95	
1996	2.09	32%	2,375	43.2%	880.74	-7.5%
1997	2.25	7.6%	2,746	15.6%	819.37	-6.8%
1998*	2.32	3.1%	2,467	-10%	940.41	14.7%
Total Change		46.8%		48.79%		-1.3%

Source: Financiera Trisan

Figure 2: Agrimax: Number of Credit Cards with Transactions January 1997 to November 1998

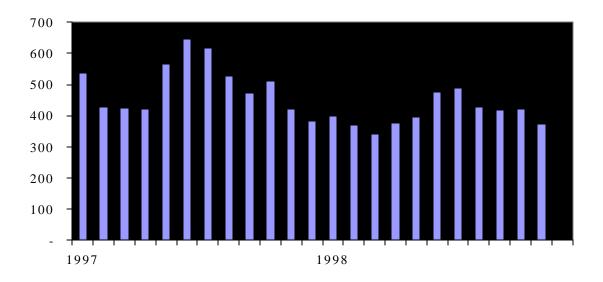


Table 4. Number of Cards Issued

Month	1996	1997	1998
January	33	53	
February	46	67	18
March	72	59	11
April	35	65	9
May	109	86	8
June	69	65	13
July	70	58	9
August	92	45	24
September	87	19	12
October	88	16	11
November	74	21	18
December	51	15	14
Total	826	569	166
Average	69	47	14

Source: Financiera Trisan

Table 5. Agrimax: Closure Rates November 1997 to May 1999

Reason for Closing Credit Card Account	Number of Closed Accounts	Percentage
Client's request	366	51
Poor repayment performance	283	39
Other	66	9
Total	715	100

Source: Financiera Trisan

In January of 1997, slightly over 500 accounts had transaction activity while in November of 1998, the number of accounts with transaction activity dipped below 400. The account activity coincide peaks with in the agricultural cycle. In Costa Rica there are two agricultural seasons, one that starts in May-June and one that starts in October-November. During these months, the volume of monthly transactions increases as producers purchase inputs. During the harvest periods and the dry season (January to March), the number of transactions fall as clients tend to pay down balances. At the end of 1998, 64 percent or 1,240 accounts had transaction activity at some time during the year, with transactions totaling ¢1,180 million (US\$4.3 million). A fifth of these transactions were cash advances.

Financial Analysis

The two credit card products constitute nearly 75 percent of Financiera Trisan's assets; thus, the

performance of these products largely shape and determine the performance of the entire finance company (Table 6). On the liability side, the finance company accesses funds strictly on commercial terms; it receives no concessionary loans or grants.

Structure of Assets, Liabilities, Capital and the Portfolio

As can be seen in Table 7, Financiera Trisan had, on average, 67 percent of its assets in the credit card and loan portfolio. However, a sizeable share was in liquid assets, on average, 25 percent between 1992 and June 1998. Over time the ratio of capital to assets has declined. The ratio delinquent loans to net loans tended to be high in the mid-1990s but has declined. The loan loss reserve to net loan ratio has mirrored the previously mentioned indicator, reflecting a prudential response on the part of management.

Table 6. Principal Assets and Liabilities at December 31, 1998

Table 6. Trincipal Assets and Elabinities at December 31, 1776						
Туре	Balance (millions of US\$)	Percent share				
Credit	2.17	100.0				
Agrimax	1.03	47.5				
Maxicuenta	.556	25.6				
Loans in local currency	.438	20.1				
Loans in dollars	.138	6.4				
Factoring	.008	0.4				
Deposits from public ^a	2.14	100.0				
Certificates of deposit-stock exchange	1.55	72.3				
Certificates of deposits-walk-in	.59	27.7				

Note: a. Financiera Trisan issues certificates of deposits in the national securities exchange and to walk-in clients. Source: Financiera Trisan

Table 7. Financial Indicators: Structure of Assets, Liabilities, and Capital

Indicator	1992 ^a	1993	1994	1995	1996	1997	1998 ^b	Avg.
Asset Structure								
Cash/Total Assets (%)	15.2	19.6	13.3	14.3	15.1	14.0	15.1	15.2
Temporary Investments/Total Assets (%)	10.9	15.9	11.1	2.3	10.8	7.6	8.9	9.6
Net Revolving Credit/Total Assets (%)	68.6	60.0	61.3	69.5	65.2	71.7	71.1	66.8
Fixed and Other Assets/Total Assets (%)	4.0	3.6	14.9	14.5	9.0	7.0	6.2	8.5
Liability Structure								
Deposits/Total Assets (%)	52.7	44.6	60.0	60.5	63.8	68.2	68.8	59.8
Other Liabilities/Total Assets (%)	4.5	1.7	1.0	1.1	9.7	1.4	1.5	3.0
Capital Structure								
Paid in Capital/Total Assets	35.3	41.9	28.9	25.7	16.1	24.2	21.7	27.7
Reserves/Total Assets	1.5	1.5	1.2	1.2	0.9	1.0	0.9	1.2
Portfolio Structure								
Gross Portfolio/Net Loans	103.9	103.9	104.6	106.3	102.6	102.9	103.4	104.0
Delinquent Loans/Net Loans	18.2	25.0	46.4	40.8	45.7	33.2	21.9	27.0
Loan Loss Reserve/Net Loans	3.9	3.9	4.6	6.3	2.6	2.9	3.4	4
Total Assets (US\$ millions)	1.511	1.608	2.140	2.03	2.861	2.833	3.004	2.28

Notes: a. Change in Accounting Calendar. b. Up to June 1998

Source: Financiera Trisan

Profitability and Sustainability

Financiera Trisan has consistently posted profits and respectable returns on assets (Tables 8 and 9). The return on equity has not been as high due to the relatively strong equity position, a high share of paid-in capital compared to total assets. However, between 1995 and 1997, Financiera Trisan, reported high levels of extraordinary income that made substantial contributions to net earnings. The average share of extraordinary income in net income before taxes and distributions for the three years was 39 percent. This income was generated, by the sale of property. As a result of this high dependency on extraordinary income combined with a large bad debt write-off, Financiera Trisan did not attain financial self-sufficiency in 1997 because extraordinary

income does not enter the numerator. Due to sustained profitability, Financiera Trisan has been able to attain operational self-sufficiency in all years for which data is available.

The yield on portfolio compares favorably with medium-scale microfinance institutions in Latin America that target a broad set of clients. For example, the peer group including ProEmpresa (Peru), FAMA (Nicaragua), FUNDADEH and FED (Ecuador), CHISPA (Nicaragua), AC-TUAR (Colombia) and others for which portfolio size ranges from US\$1 to US\$8 million, reported a group average portfolio yield (interest income/avg. loan portfolio) of 62.6 percent compared to Financiera Trisan's average of 68 percent (Micro Banking Bulletin, 1999). As can be seen in Table 8, Financiera Trisan's two principal

sources of income are interest paid on the credit card and loan products (financial margin) and commissions received from affiliated vendors and merchants who accept Trisan's cards (net operating income). These two sources of income generate a clear surplus over administrative costs, yielding a positive profit margin or positive rate of return in all years.

Asset Quality

Financiera Trisan's portfolio at risk has been consistently high (Table 9). However, the finance company has improved its collection efficiency over time. The aging structure of arrears shows a divergent pattern. Whereas the portfolio with payments overdue of more than 90 days has consistently remained greater than 5 percent in the period 1994-97, the portfolio with overdue payments less than 30 days and

between 30 and 90 days has improved dramatically. One would expect higher rates of delinquency with a credit card product compared to a normal loan product, but the deliquency tends to be pronounced in the near term rather than the long term. This is an area of weaknesses for Financiera Trisan and a

number of factors explain the less than ideal delinquency control performance: (1) difficult

economic times (e.g. 2.4 percent GDP growth rate in 1995 and –0.6 percent in 1996); (2) difficulties in screening and monitoring clients; (3) a pervasive culture of late payment or no repayment; and (4) weakness in the legal framework of contract enforcement and the distribution of creditor and debtor rights.

Liquidity and Leverage

In the mid-1990s, Costa Rica has experienced macroeconomic and financial sector fragility. This is reflected in weak economic growth in 1991 and 1995, a slight economic recession in 1996, some bank failures in 1996 and 1998, and successive years of high public budget

deficits. Against this background, Financiera Trisan has decided to maintain a fairly liquid position, largely to satisfy the potential demand of savers how may not renew certificates of deposits and to avoid extending credit in weak economic times. Many other financial

institutions in the country followed the same course. Nonetheless, the leverage ratio has increased slowly over time indicating that Financiera Trisan is not totally risk averse and has acquired more confidence in managing the credit card program.

Table 8: Financial Margins and Costs in Financiera Trisan (Percent)

Table 0. Tilialiciai	Table 6. Thanklar Marghis and Costs in Phianciera Trisan (Percent)							
	1992*	1993	1994	1995	1996	1997	1998**	
a. Financial Margin/Avg. Assets	16.07	11.85	22.97	21.06	20.18	15.69	7.86	
b. Write-offs/Avg. Assets	0.00	0.00	1.39	1.70	2.41	5.13	0.31	
c. Net Operating Income/Avg. Assets	4.05	11.91	1.34	1.23	0.79	7.06	3.31	
d. Administrative Costs/Avg. Assets	12.63	18.01	20.09	20.46	16.34	16.77	8.38	
e. Other Income/Avg. Assets	0.00	0.00	0.00	3.54	1.49	2.95	0.00	

f. Rate of Return on Assets	7.49	5.75	2.84	3.67	3.71	3.79	2.49

Sources: Profit and Loss Financial Statements of Financiera Trisan

Notes: *Accounting Calendar Change ** As of June 1998 * a-b+c-d+e=f

Operating Efficiency and Staff Productivity

Financiera Trisan reports average operational efficiency (operating expenses/average total assets) of 19 percent and average operating income as a percent of average total assets of 40 percent for the period 1993-98 (Table 9). These figures compare well with other microfinance institutions in Latin America.⁵ Where Financiera Trisan is weak is in staff productivity. It has a total staff of 27 and as of March 1999 had 2,289 active cardholders, yielding a productivity ratio of 84. What explains the mostly favorable efficiency ratios are large average balances and a high degree of automation. In short, its streamlined operating processes and structure of costs compensate for small portfolio (scale) and low staff productivity.

Structure of Interest Rates

Financiera Trisan historically has charged high rates of interest, because it must compete

_

with large state banks to capture deposits and to cover the higher costs associated with operating in a rural setting (Table 10). The effective rate of interest paid for raising funds (issuing certificates of deposits) is increased due to legal reserve requirements. Similarly, on the lending side, the effective lending rate of interest charged to clients is lower than the nominal lending rate because clients can pay in full at the end of the billing cycle and many do. ⁶ Thus, the difference between the effective lending and cost of funds rates is 7.6 percent. In comparison, the average margin for the banking system is 9 points. Financiera Trisan's lower margin is due to two factors. First, it has to compete for public deposits with strong state banks, which dominate the financial market and enjoy implicit deposit insurance, by offering higher rates on certificates of deposits.⁷ Second, it has largely agricultural clients with marked seasonal income flows. There are limits as to the interest rates that agricultural projects can bear.

⁵ See *MicroBanking Bulletin* Issue No. 3 July 1999 (medium Latin American (broad targeting) and small Latin American (low-end targeting) peer groups). Note that Financiera Trisan is not the typical microfinance organization (MFO). It is a deposit-taking, regulated entity that is self-sustaining. In contrast, most MFOs are not regulated and depend on donor funds. Financiera Trisan shares much in common with American Express Corp. and banks that issue VISA cards. These include high delinquency rates and a high dependence on computer automation. However, its small scale, low average outstanding balances, high operating costs, and its focus on a difficult to serve clientele, makes it similar to MFOs.

⁶ Thirty-eight percent is the minimum possible effective interest rate, an estimate that is based in the assumption that the client pays the total outstanding balance, at the latest, on the official due date.

⁷ When a number of private finance companies failed in the late 1980s, depositors were not reimbursed. In contrast, the Government of Costa Rica paid all depositors in full when a state-owned bank, Banco Anglo Costarricense, failed in the mid-1990s. These circumstances probably strengthen the belief by depositors that similar actions will be taken in the event of the collapse of one of the three remaining large depositaking- state-owned financial institutions: Banco Nacional de Costa Rica (BNCR), Banco de Costa Rica (BCR), and Banco Crédito Agrícola de Cartago (BCAC). Therefore, depositors are more attracted to state-owned institutions despite lower rates of interest.

Table 9: Selected Financial Indicators

Indicator	1992 ^a	1993	1994	1995	1996	1997	1998 ^b	Avg.
Profitability								
Net Income (US\$)	113,242	89,683	53,252	76,560	90,752	107,874	72,585	86,278
Return on Assets (%)	7.49	5.58	2.49	3.77	3.17	3.81	2.42	4
Return on Equity (%)	12.69	10.41	7.00	9.82	10.86	12.50	11.19	11
Yield on Portfolio (%)	48.65	36.33	82.95	104.10	99.70	75.28	28.77	68
Asset Quality								
Portfolio at Risk (%)	18	26	43	38	44	32	21	31.71
Portfolio< 30 days past								
due/Total Portfolio (%)	16.88	24.91	26.56	19.00	20.76	13.28	5.90	18.18
Portfolio>31<90 days past								
due/Total Portfolio (%)	.04	.66	8.07	6.13	8.17	7.88	7.19	5.44
Portfolio >91 <180 days past								
due/Total Portfolio (%)	.58	.17	5.38	5.29	6.60	5.46	2.68	3.73
Liquidity								
Liquid Assets/Total Assets (%)	26.10	35.46	24.43	16.60	25.87	21.60	24.02	25
Capital Adequacy								
Total Equity/Total Assets (%)	59.05	53.55	35.55	38.40	29.19	30.45	21.59	38.26
Assets at Risk								
Total Equity/Total Assets less								
Cash Equivalents (%)	79.92	82.97	47.05	46.05	39.38	38.84	28.41	51.80
Leverage								
Total Assets/Equity (%)	1.69	1.87	2.81	2.60	3.43	3.28	4.63	3
Operating Efficiency								
Operating Costs/Average Total								
Assets (%)	12.70°	18.40	20.30	20.64	18.46	19.02	18.52 ^d	19.22
Total Operating Income/Avg.								
Total Assets (%)	37.49°	35.25	39.06	41.33	41.73	41.17	38.54 ^d	39.51
Overall Performance								
Operational self-sufficiency (%)	124.98	119.49	107.85	100.32	105.6	102.08	114.82	
Financial self-sufficiency (%)	1.21	113.73	104.63	97.92	103.5	100.28	110.97	

Notes: a. Change in accounting calendar. b. Figures up to June c. Not annualized, not included in average. d. An nualized. Included in average.

Table 10. Agrimax: Structure of Interest Rates (December) 1998

Rates of Interest	Lending Rate of Interest (Percent)	Cost of Funds (Percent)	Margin of Intermediation (Percent)
Nominal	45.0	26.5	18.5
Effective	38.1	30.5	7.6

Source: Financiera Trisán

5. Challenges Facing the Expansion and Deepening of the Product

Financiera Trisan faces a number of challenges in expanding and perfecting its credit card products. The challenges can be grouped into three broad areas: (1) marketing; (2) legal, institutional and technological constraints; and (3) competition.

Marketing Challenges

Financiera Trisan has three marketing options: (1) maintain current individual clientele but increase average outstanding card balances and add services/enhancements; (2) focus on expanding the distributor clientele and rural small retail business clientele; or (3) target more "down market" clients, those with less total household income, smaller asset bases, and more seasonality in cash flows. Each option has profound implications and could be mutually exclusive.

The first alternative marketing strategy (maintaining its current individual clientele base but increasing card transaction activity and the outstanding balance), would imply getting more vendors to accept the card, aggressively promoting its use through mailings and special discounts for selected products purchased with the card. In addition to the credit card, Financiera Trisan could entice its clientele to invest or purchase other products (such as certificates of deposits), offer a multifunctional smart card (debit and credit) as well as provide instant access to account balance/payment history information thereby further reducing transaction costs, and/or offer financial investment advice. The focus would likely have to be on high worth "up market"

individuals with very predictable cash flows. The strategy would be to build long-term relationships and develop brand loyalty.

The second alternative marketing strategy would be to target small non farm, retail businesses located in rural areas and convince them that it would be advantageous to use the credit card to finance inventory. Just as Financiera Trisan convinced agricultural input suppliers that there were administrative cost savings to be realized by using the card as opposed to the traditional 30-day supplier credit arrangements, it can do the same with dry good stores (pulperías), gasoline stations, restaurants, gift shops and a number of other retail establishments. Wholesalers extending more generous supplier credit terms (60 and 90day terms) as opposed to 30 days, however, could counter this strategy. Nonetheless, the credit card should be theoretically superior to traditional supplier credit and could effectively extend the term of financing beyond 60-90 days, increasing its attractiveness. In certain subsectors, such as handicrafts retailing, consignment arrangements may remain superior to a credit card arrangement and thus demand may not be high for a credit card product.

The third alternative marketing strategy would be to go "down market" and attempt to increase the volume of cards, cognizant that the outstanding balances on each card will be smaller due to the lower economic means of the clientele. The challenge of a "mass market strategy" is that new investments in techno-logy and changes in oper-

Table 11. Utilization Rate of Credit Card

Period	(A) Total Value of Approved Lines of Credit (US\$)	(B) Total Outstanding Balances (US\$)	Utilization Rate (B/A) (Percent)
December 97	5,622,193	1,537,396	27
December 98	5,343,141	1,613,773	30
December 99	4,496,922	1,664,705	37

Source: Financiera Trisán

ating procedures will be needed to keep the transactions costs down and to quickly evaluate and maintain collection discipline. The requisite investments in product design, technology, and staff training will be high in order to achieve a high level of productivity and efficiency in control systems. The focus would be on "standardizing" the process as much as possible.

In order to determine the correct strategy to pursue it is important to understand five factors: (1) size of the potential market segment; (2) patterns of card utilization among existing clients; (3) number and type of merchants acepting the card; (4) delivery features of the card; and (5) general market conditions. First, the company estimates that the total potential agricultural credit card market is 20,000. Thus, Financiera Trisan with its approximately 3,000 clients has sufficient market to grow. Second, utilization rate, as measured by the ratio of actual charges to total amount of credit approved, ranges from 27%-37%, (Table 11). Existing clients are not utilizing the card to the fullest extent but the rate is trending upward. Third, the numbered type of merchants accepting the card has increased markedly in the last three years (Table 12). Thus, acceptance of the card in the marketplace does not seem be a major factor explaining slow growth or low utilization ratio. By process of elimination, the two major constraining factors on more rapid portfolio and client growth seems to be (1) a poor business environment (negative or low positive economic growth rates 1996-99); and (2) unattractive delivery features, such as the need to authorize charges by a phone connection limited to the working hours of the headquarters office, inability to quickly handle problems at the point of sale; strong interest rate competition from traditional supplier lines of credit, and most importantly the condition that 33% of outstanding balance must be paid within a first month of charge on the Agrimax card. Given the poor business environment, the management is extremely concerned about delinquency management and has become increasingly selective and cautious in its approval policies. The challenge, in short, is to relax the unattractive features of the Agrimax card, especially the requirement to pay 33% of each new charge, without compromising asset quality.

Legal, Institutional and Technological Challenges

Regardless of the marketing strategy chosen,

Financiera Trisan has a series of legal, institutional, and technological challenges

Table 12. Number and Type of Merchants Accepting Agrimax

		1 0 0	
Type of Merchant	1997	1998	1999
Trisan Affiliated Agro-Chemical Distributors	4	4	4
Non-Affiliated Agro-Chemical Distributors	168	184	207
Hardware Stores	12	13	15
Gasoline Stations	0	1	2
Oil Change and Lubrication Shops	1	2	3
Vehicle and Equipment Repair Shops	1	2	3
TOTAL NUMBER OF MERCHANTS	186	206	234

Source: Financiera Trisán

that will have to be overcome. The choice of marketing strategy will depend on how binding these constraints are. The specific challenges can be identified as having to do with credit bureaus, the postal service, computer technology and connectivity, and delinquency control.

Credit Bureaus: Only three credit bureaus are functioning in Costa Rica. These credit bureaus have limited databases due to a financial secrecy law that protects consumers from having data on their repayment performance reported without prior permission. This legal restriction tends to limit the reach of credit bureaus. Those clients that appear in the databases tend to be high worth individuals and well-established businesses that clearly see it in their interest to grant permission. Many moderate and lower-income persons tend not to apply due to the absence of a formal credit history or refuse to grant permission for release of data in the event they do have credit. The information in the credit bureau helps mostly in determining if prospective clients have "negative marks", such as liens and collection actions and not positive indicators such as consistent ontime payment patterns. Accordingly, the absence

of "negative marks" on a credit report has limited predictive power. The current system helps to identify who should not be approved and less so the likelihood of someone with a certain set of characteristics repaying on time. The lack of fuller and more complete information on clients retards efforts to develop credit-scoring models appropriate for developing countries that could represent a significant cost-reducing innovation in credit analysis.

Postal Service: The quality of postal service has improved in the last two years, especially the ability to successfully deliver the mail, but it can be a limiting factor for an aggressive outreach campaign. The average time for the delivery of mail from one point to the other can still be quite variable (3-10 days). This variability in time needed to successfully deliver the mail, forces the Financiera to use a very long effective billing cycle, which has significant cost implications. A reduction in the delivery time could contribute to the ability to lower interest rates and thus increase the demand for credit card services. When the postal service fails and alternative arrangements have to be made, such as leaving the bill at a

centrally located store to be picked up by the client, it increases transaction costs and creates unreliability.

Computer Technology and Connectivity: Financiera Trisan invested a significant amount of its own resources in developing a management information system to handle the credit card operations.⁸ Furthermore, it has acquired realtime connectivity between its branch office in Muelle and the company's headquarters as well as with a number of vendors. Future growth and expansion will hinge on the ability to handle more types of individual client subaccounts and a greater absolute number of clients. The ability to recruit more vendors to accept the Trisan credit card will hinge on the reliability and cost of communicating and transmitting data. To date, data transmission is largely over fixed land-lines and the cost of the service is high. For example, the monthly cost for telecommunications averaged US\$3,932 in 1999.

Delinquency Control and Contract Enforcement: In Costa Rica, debtors rights outweigh those of creditors. Coupled with poorly functioning property registries and an overloaded judiciary system, this implies that financial institutions operate at a disadvantage and, subsequently, face higher intermediation costs and risk than would be the case if the environment were more favorable. The solution lies in improving the overall legal framework as well as refining the delivery and collection technology. Financiera Trisan has little ability to effect changes at the national level. However, more can be done to improve screening and collection systems within the organization.

0

This includes experimenting with the notion of dedicating staff to focus on accounts with peculiar risk factors, building rudimentary credit scoring models, and offering the staff performance incentives based on a composite measure of the number of clients served and the volume, and quality of the portfolio.

Competition

Currently, Financiera Trisan has no major competitors for credit cards in rural areas. Several private commercial banks offer VISA and MASTERCARD products, but the clientele consists of mostly of urban wage earners. The Banco Nacional de Costa Rica (BNCR), a stateowned bank which accounts for 32 percent of the total assets of the country's formal financial sector and has the most extensive network of branches in the country (135 branches), is experimenting with a similar product. In conjunction with the Central American Bank for Economic Integration (BCIE) BCNR is introducing a smart debit card (Futura 3000) in rural areas. To date, Futura 3000 is prepaid debit card with very low limits, (US\$105 for individuals and US\$3,500 for businesses). The card pays no interest for mandatory deposits and charges a 4 percent user fee. In addition to this rural focused product, BNCR has a VISA product that is well-accepted in urban areas. BNCR charges a rate of interest that is considerably lower than that of Agrimax, close to the average lending rate in the entire banking system (Figure 3). BNCR can charge a low lending rate because it enjoys s comparative advantages in capturing savings. The general public prefers to save with BNCR despite considerably lower deposit rates because of an implicit deposit insurance scheme. Given the size, reputation, and network of branches, BNCR could quickly emerge as a strong competitor in

⁸ According to the company's managing director, Financiera Trisan spent US\$250,000 starting in the late 1980s to develop software to manage the credit card program. This amount has been fully depreciated.

rural areas. If the state-owned banks were to enter the rural areas with a credit card product, Financiera Trisan would most likely have to compete on quality of service (timeliness in processing of applications, billing accuracy, and on-time payment of vendors), its reputation as an innovator, and the promise of product enhancements (insurance services, financial consulting, smart card).

Figure 3: Nominal Interest Rates Charged for Agrimax and VISA-BNCR Compared to the Average Lending rate in the Financial System

September 1992 - December 1998



6. Conclusions

Financiera Trisan has pioneered the introduction of a wholly rural credit card. The card has been generally well accepted by the target population, demonstrating the viability of a new financial service that helps to better manage risk and I-quidity. More importantly, the product has been profitable and the entire firm is operationally self-sufficient. While outreach has been limited it is driven by attempts to better contain delinquency in a less than favorable economic environment. This section discussed the principal findings con-

cerning replicability, lessons learned that may help others contemplating the introduction of a similar product, and short- to medium-term institutional needs.

Replicability of the Product

The credit card product that Financiera Trisan has pioneered could be established in to other areas of Latin America if certain conditions hold; namely: (1) a density of rural clients with variable

but predictable cash flows, (2) a minimum level of functioning physical infrastructure (telecommunications, electricity, postal services, roads), (3) an appropriate legal and financial regulatory infrastructure that permits profitable intermediation, and (4) a profit-oriented, client-driven service provider with a history of active participation in the rural sector. Most of Financiera Trisan's clients are located in the densely populated central highland or in the northern zone which has a high agricultural potential and is characterized by high value agricultural production. Costa Rica has high rates of teledensity and rural electrification. For example, it has 155 main telephone lines per 1000 people compared to the average for low and middle income Latin American and Caribbean countries of 102 per 1000 in 1996 (World Bank, 1998). Also Costa Rica's consumption per capita of electric power exceeds the regional average; the country consumes 1,348 kilowatthours (kwh) per person versus 1,298 kwh (World Bank, 1998). The lack of a large manufacturing base suggests that consumption is evenly distributed across the country. Similarly, the financial regulatory framework does not hinder profitable intermediation, but the legal framework does increase the cost and risk of intermediation. Lastly, the parent company enjoys a strong reputation for quality service and innovation built up over nearly four decades of operations in rural areas. Its staff is also extremely knowledgeable about local conditions and skilled in agricultural credit analysis.

Lessons Learned

The key lessons to be drawn from the Financiera Trisan experience are:

? Incremental product innovation is a safe and proven route to sustainability. Financiera Trisan essentially promoted the credit card as a substitute to factoring and traditional 30 daysupplier credit provided by the parent agricultural input wholesale company to a "captive clientele" of agricultural input retailers. Once experience was gained, the card was introduced to individual end-users. A more massive intervention would have required a substantial investment of resources, resulting in a larger volume of clients but possibly greater delinquency. In short, Financiera Trisan is moving on a spectrum from enchanced agricultural supplier credit toward a widely accepted credit card.

- ? The typical first wave of adopters will be, most likely, higher income rural residents with large and predictable cash flows. An agricultural credit card is not best suited for lowincome subsistence producers. Nonfarm enterprises may be an even more attractive clientele than farmers.
- ? Infrastructural weaknesses such as slow postal service, high percentage of unpaved roads, and the limited utility of credit bureaus can be overcome by means of creative solutions such as leaving bills at centrally located stores and having sales agents visiting clients to deliver bills to other clients on the route. These steps, nonetheless, increase operating costs and may reach a threshold that makes the credit card product nonviable. Fortunately, the infrastructural weaknesses in Costa Rica are not severe.
- ? A clear and well-developed plan for product testing, expansion, and enhancement is crucial. Financiera Trisan constantly seeks feedback from clients and staff to fine-tune its product, pricing, and processing procedures. The company also is actively seeking to increase its scale of operations.

Institutional Needs

While Financiera Trisan is an interesting example

of how to engage in financial product innovation in a rural setting, it still faces some challenges and has short and medium-term institutional needs, as detailed below:

- ? Financiera Trisan needs to undertake cost accounting exercises, marketing studies and product testing in order to determine how best to expand and refine its product(s). At present, the company is serving two distinct segments—retailers and individual farmers and little is known about the costs of serving these two niches. Moreover, the company
- needs to research and test products suitable for new market segments such as nonfarm enterprises.
- ? Financiera Trisan needs the services of experts in credit card operations to learn about best management practices in developed countries and adopt them to its own setting.
- ? Financiera Trisan needs access to additional financing (deposits, debt, equity, or some combination) in order to grow.

References

- BAC & Asociados. 1998. Estrategia Competitiva, San José, Costa Rica.
- Baltrop, C. and Diana McHaughton. 1992. *Banking Institutions in Developing Markets: Interpreting Financial Statements*. Washington D.C.: The World Bank.
- Bartel, M., Michael McCord, and Robin Bell. 1995. *Financial Management Ratios I: Analyzing Profitability in Microcredit Programs*. Bethesda, MD: Development Alternatives, Inc.
- Calmeadow Foundation. 1999. *MicroBanking Bulletin*. Issue No. 3. July. Available at www.calmeadow.com.
- Dirección General de Estadística y Censos, 1999. Encuesta de hogares de propósitos múltiples. Modulo de empleo, julio 1998. Ministry of Economy, Industry and Commerce. Government of Costa Rica
- Financiera Trisan. 1998a. Manual de procedimientos para la concesión de créditos. San José, Costa Rica.
- _____. 1998b. Manual de procedimientos de cobro. San José, Costa Rica.

 ____. Various years. Financial and Statistical Reports. San José, Costa Rica.
- Gonzalez-Vega, Claudio. 1988. Dilemas del financiamiento del sector agropecuario costarricense. *Economics and Sociology Occasional Paper 1532*. Columbus, OH: The Ohio State University.
- Inter-American Development Bank. Social and Economic Database. Available at www.iadb.org.
- Lizano, Eduardo. 1999. *Ajuste y crecimiento en la economía de Costa Rica 1982-1994*. San José: Academia de Centroamérica.
- Quirós, Rodolfo. 1991. Access to Agricultural Credit in Costa Rica: A Multinomial Logit Analysis. Master's Thesis. The Ohio State University city.
- Superintendencia General de Entidades Financieras. 1999. Boletín estadístico. 31 de marzo. Government of Costa Rica.
- Wenner, M. and Sergio Campos. 1998. Lessons Learned in Microfinance Downscaling: The Case of Banco de la Empresa, S.A. Best Practice Study No. MIC-105. Sustainable Development. Washington. D.C., Inter-American Development Bank. Available at http://www.iadb.org/sds/mic.
- World Bank. 1998. World Development Report: Knowledge for Development. New York: Oxford

University Press.