



# Credit Card Portfolio Analysis for Community Banks

Courtney Hrdy  
IST 659





# Introduction: ICBA

Rob Birgfeld, their new executive vice president, went to Syracuse University!

## POWER PLATFORM DEVELOPER

📍 Washington, DC   ⌚ Full Time   👤 ICBA   🎓 Mid Level

### Summary:

The Power Platform Developer will design, develop and implement business intelligence apps, reports and dashboards utilizing Microsoft Power BI and PowerApps in support of ICBA business objectives.

### Duties and Responsibilities:

- Responsible for developing and maintaining Power BI Apps and Reports according to business requirements.
- Develops PowerApps integrated with data sources in the SharePoint and Azure infrastructure, both stand-alone and embedded within Power BI.
- Assists in managing the deployment, maintenance and updating of Power BI Apps, Reports and Datasets.
- Works with stakeholders to develop organizational Power BI report themes and maintain consistency across Apps and reports.
- Assists in maintaining data resources, including databases, cloud storage, data sets and data models.
- Facilitates business users to create their own reports using Power BI datasets and/or Azure Analytics Service.
- Provide training for staff on the use of Power BI, PowerApps and Power Automate.
- Assists in creating and monitoring data integrations using Azure Data Factory.
- Assists in creating documentation, cataloging and maintenance of ICBA Global Data Dictionary.
- Assists in managing Power BI Licensing and access control.
- Monitors and assists with technical tickets related to data and reporting requests from ICBA staff.
- Adopts agile methodology to deliver continuous improvement of apps.



# Introduction: ICBA

ICBA Bancard is the wholly owned payment services subsidiary of the Independent Community Bankers of America® and has been managing payments solutions for the nation's community banks since 1985. ICBA Bancard provides community banks with access to comprehensive, affordable payments solutions with the best group pricing, service levels, and unique benefits that would otherwise not be available to individual banks. ICBA Bancard is the 11th largest debit card issuer and the 24th largest credit card issuer in the United States (Source: The Nilson Report).


## Unparalleled Consultation and Support for the Nation's Community Banks

As the Independent Community Bankers of America's® (ICBA) payment services provider, ICBA Bancard also serves as an advocate for independent community banks in national policy discussions about the payments ecosystem. Part of ICBA and ICBA Bancard's mission is to educate community banks about the need to actively offer payment services in order to retain their best customers, earn profitable returns and be respected as full-fledged participants in the marketplace.




# Introduction: ICBA

## Digital Payments Strategy Assessment - Small Business Edition



### Request and Read the Guide


Please be sure to login - only ICBA members will have access to the report.



### Take the Assessment

This tool will help strengthen your digital payments strategy. Its results will help plan a profitable and sustainable strategy.

TAKE THE ASSESSMENT




### See the Results

See where your bank falls on the digital payments spectrum. For questions about this digital payments strategy assessment, contact [bancard@icba.org](mailto:bancard@icba.org).

ICBA Bancard Digital Payments Strategy Guide – Small Business edition is the second interactive tool, designed in partnership with Aite Group, that helps community banks create a custom digital payments strategy for their small business customers.

Answering these questions will help identify where your institution lies in its small business payments maturity—developing, emerging, strategic, or market leading—and create a realistic roadmap with actionable steps to capture the small business market for your bank.


## Digital Payments Strategy Assessment - Consumer Edition



### Login and Read the Guide

ICBA Bancard Digital Payments Strategy Guide, produced by Aite Group, provides a market overview of the digital payments landscape.


DOWNLOAD THE GUIDE



### Take the Assessment

This tool will help strengthen your digital payments strategy. Its results will help plan a profitable and sustainable strategy.

TAKE THE ASSESSMENT



### See the Results

See where your bank falls on the digital payments spectrum. For questions about this digital payments strategy assessment, contact [bancard@icba.org](mailto:bancard@icba.org).

ICBA Bancard Digital Payments Strategy Guide is a unique interactive tool, designed in partnership with Aite Group, that helps community banks create a custom digital payments strategy for their **consumer customers**.

As community banks evolve to meet their customers' diverse payments needs, a payments strategy can help align disparate initiatives—creating a roadmap that feeds into a bank's strategic plan and expedites its execution.

[digital-payment-assessment-tool](#)

## Getting Started With ACE

Secure, accurate, and free to all ICBA Bancard participants, ACE provides instant data on all of your credit card plans so you can track key activity, thereby improving the profitability and health of your entire program.

ACE is a one-of-a-kind tool to help you analyze, compare, simulate and market your credit card portfolio. The Step-by-Step section of ACE is designed for your bank to view key metrics that are important to the health of your portfolio and includes several columns of valuable information such as "Peer Averages," giving you customizable peer bank data or a default selection of other banks with account totals similar to yours.

The Step-by-Step section of ACE is designed for your bank to view key metrics that are important to the health of your portfolio and includes several columns of valuable information such as "Peer Averages," giving you customizable peer bank data or a default selection of other banks with account totals similar to yours.

[LOGIN TO ACE](#)

[ACE TOOL TUTORIAL](#)

## Strategies and Info

# ICBA Bancard assessment driven services

# Overview: ACE

## Get a Free One-on-One Credit Card Portfolio Analysis

ICBA Bancard offers free an analysis performed by ICBA Bancard staff experts, to provide insights into your credit card portfolio. With data provided by you below, and utilizing our own ACE credit portfolio analysis tool, we provide insights into your portfolio's accounts, outstanding balances, revenue, and sales volume growth.

We look at both your own year over year trends, and how your portfolio performs compared to your peer group. Once completed, Bancard conducts a call with you to discuss results and provides a write up with recommendations for improving your portfolio.

To initiate the analysis, please complete the form below. Complete as many fields as possible. Once submitted, we will follow up with you soon to schedule a call and discuss results.



As a reminder  
community  
cards/debit  
[connect](#)

# Overview: ACE



“The Automated Card Expert is a portfolio assessment tool developed by ICBA Bancard exclusively for our participating banks. It analyzes your bank numbers (Account Growth, Penetration and Activity; Credit Lines, Outstandings, Volume, and Usage; Receivable Aging; and Revenue, Expenses and Profitability) using spreadsheets and graphs. It also allows you to research proven growth strategies and tactics (Acquisition/Penetration, Activation, Usage and Retention) from VISA, MasterCard and other community banks to keep your portfolio moving in the right direction.”





# Overview: ACE

Please complete the following information:

**\*Bank Name**

**\*City**

**\*State**

**\*Contact Person:**

**\*Phone Number**

**\*Email:**

Credit Card Portfolio Information:

**Total Number of Consumer Checking Accounts:**

**Total Number of Business Checking Accounts:**

**Cost of Funds Rate:**

**Annual Personnel Expense Allocated to Credit Cards:**

**Does your bank participate in promotions from:**

- ☐ Visa
- ☐ MasterCard
- ☐ Internal
- ☐ Employee Incentives

**What would you like to learn during the consultation?**

**How can we help you?**

**\*Authorization:**

I authorize, as a bank officer, that ICBA Bancard & TCM Bank, N.A. are allowed to review the card plans listed above.



## Problems to solve

1

Improve accessibility to assessments for community banks and enhance dataflow to ICBA Bancard staff experts

2

Establish a user-interface for displaying easy-to-read charts and graphs that rank performance metrics according to which would have the largest incremental revenue impact

3

Refine data aggregation to better compare “Peer Averages” among banks scaled to individual portfolios

4

Automate data integration of existing portfolios with activation, usage, and retention strategies for individual use and customization





# Understanding the Problem



# Understanding the Problem

1

Who are the stakeholders?

3

What is the scope and boundaries?

2

What are the other systems involved?



# Key Stakeholders

## 01

### ICBA Bancard Analysts:

- Transitioning ACE to PowerApps allows easier access to aggregate data and better analytical insight

### Client Implications:

- Collectively, ICBA Bancard participants contribute to the several columns of valuable information such as “Peer Averages,” giving customizable peer bank data or a default selection of other banks with account totals similar.



# Systems Involved

## 02

- Currently there exists a form that is separated from the analysis process.

### Proposed Application:

- Integrate a customized SharePoint form to a PowerApp
- Further integrate the PowerApp with other technologies
  - Portal
  - Dataverse
  - Power BI

Credit Card Portfolio Information:

**Total Number of Consumer Checking Accounts:**

**Total Number of Business Checking Accounts:**

**Cost of Funds Rate:**

**Annual Personnel Expense Allocated to Credit Cards:**

**Does your bank participate in promotions from:**

- ☐ Visa
- ☐ MasterCard
- ☐ Internal
- ☐ Employee Incentives

**What would you like to learn during the consultation?**

**How can we help you?**

**\*Authorization:**

I authorize, as a bank officer, that ICBA Bancard & TCM Bank, N.A. are allowed to review the card plans listed above.



# Scope and Boundaries

## 03

### Scope:

- This application is designed for ICBA participant assessment and facilitated data storage

### Boundaries:

- This is not the analytics interface of the portfolio
- This is not the Automated Card Expert Tool
- This is not the credit card portfolio analysis





# Project Requirements



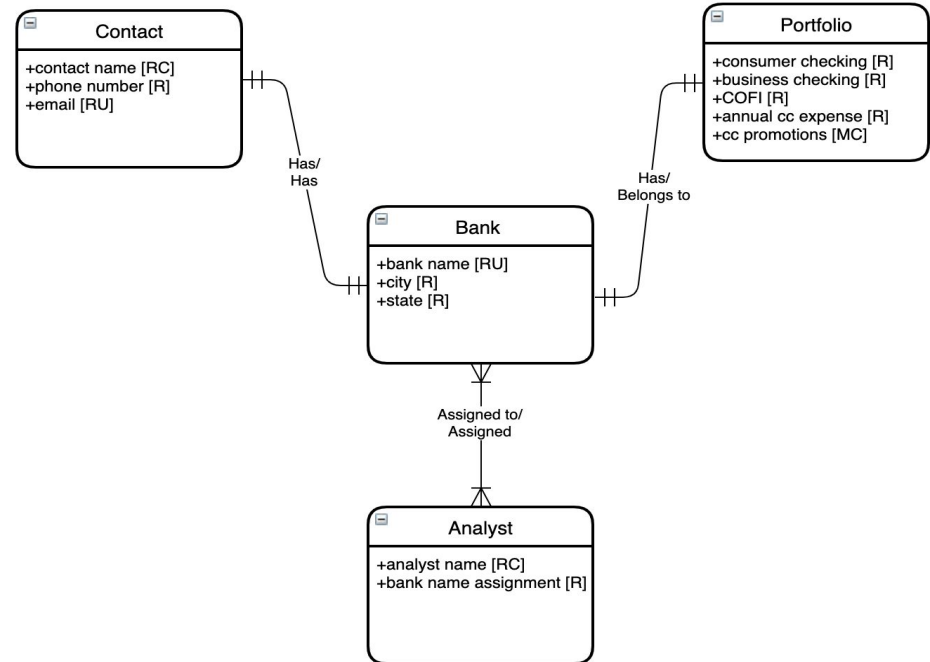
# ER Diagram

Entities and Attributes				Relationships					
Entity	Attribute	Props	Description	Relationship	Entity	Rule	Min	Max	Entity
bank	bank name	RU	ICBA Bancard participant name	bank-contact	<u>bank</u>	has	1	1	<u>contact</u>
	city	R	city of bank location		<u>contact</u>	has	1	1	<u>bank</u>
	state	R	state of bank location						
				bank-portfolio	<u>bank</u>	has	1	1	<u>portfolio</u>
contact	contact name	RC	name of one representative at bank		<u>portfolio</u>	belongs to	1	1	<u>bank</u>
	phone number	R	phone number of one representative at bank						
	email	RU	email of one representative at bank	bank-ICBA analyst	<u>bank</u>	assigned to	1	M	<u>ICBA analyst</u>
					<u>ICBA analyst</u>	assigned to	1	M	<u>bank</u>
portfolio info	consumer checking	R	total number of consumer checking accounts						
	business checking	R	total number of business checking accounts						
	COFI	R	cost of funds rate						
	annual cc expense	R	annual personnel expense allocated to credit cards						
	cc promotions	MC	does bank participate in visa, mastercard, internal, or employee incentives						
ICBA analyst	analyst name	RC	ICBA bancard analyst name						
	bank assigned	RM	assigned bank client portfolio						

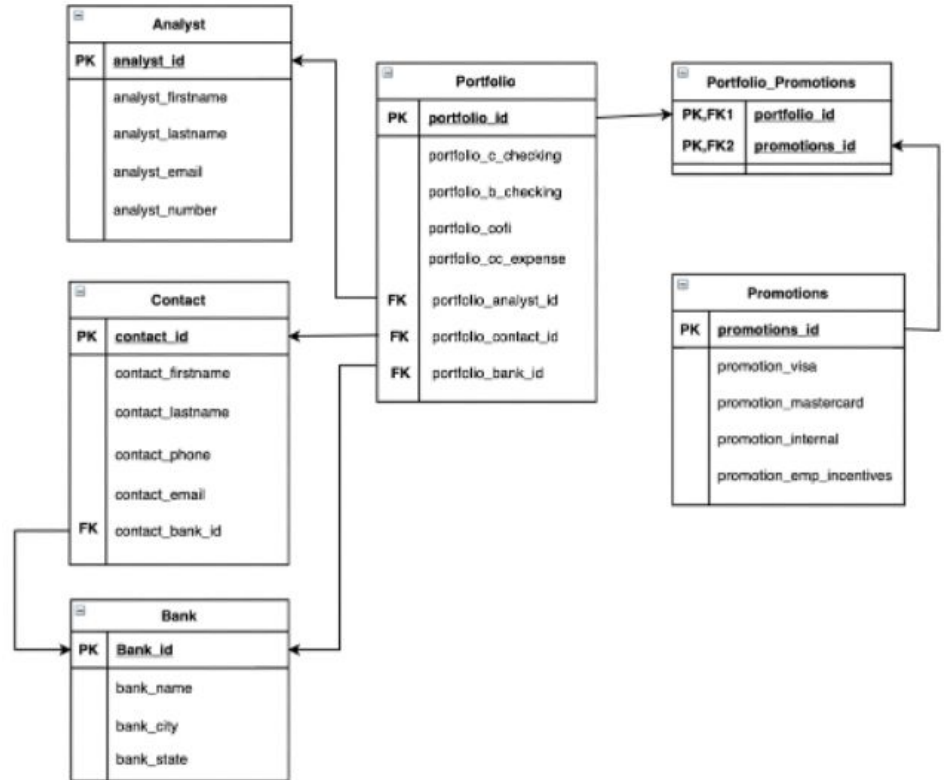


# Conceptual Model

Relationships					
Relationship	Entity	Rule	Min	Max	Entity
bank-contact	<u>bank</u>	has	1	1	<u>contact</u>
	<u>contact</u>	has	1	1	<u>bank</u>
bank-portfolio	<u>bank</u>	has	1	1	<u>portfolio</u>
	<u>portfolio</u>	belongs to	1	1	<u>bank</u>
bank-ICBA analyst	<u>bank</u>	assigned to	1	M	<u>ICBA analyst</u>
	<u>ICBA analyst</u>	assigned to	1	M	<u>bank</u>



# Logical Model

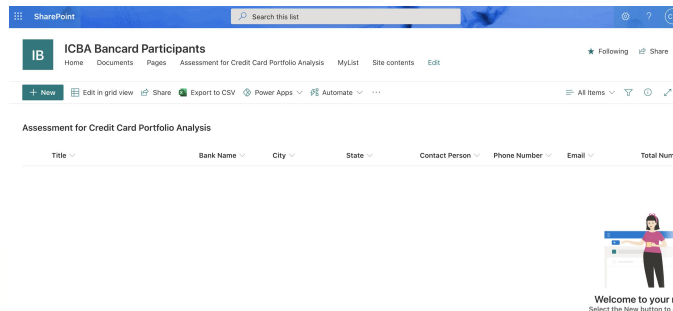


# SQL Up/Down Script

```
--UP
CREATE TABLE [dbo].[icba_banks]([
    [bank_id] [int] NOT NULL,
    [bank_name] [varchar](50) NOT NULL,
    [bank_city] [varchar](50) NOT NULL,
    [bank_state] [varchar](20) NOT NULL,
    CONSTRAINT [pk_icba_banks_bank_id] PRIMARY KEY ([bank_id] )
])
GO

create table icba_bank_contacts
(
    bank_contact_id int identity not null,
    bank_contact_firstname varchar(50) not null,
    bank_contact_lastname varchar(50) not null,
    bank_contact_email varchar(50) not null,
    bank_contact_number varchar(10) not null,
    bank_contact_bank_id int not null,
    constraint pk_icba_bank_contacts_contact_id primary key (bank_contact_id),
    constraint fk_icba_bank_contacts_contact_bank_id foreign key (bank_contact_bank_id) references icba_banks(bank_id)
)
GO

create table icba_portfolios
(
    portfolio_id int identity not null,
    portfolio_bank_name varchar(50) not null,
    portfolio_bank_id int not null,
    portfolio_bank_contact_id int not null,
    portfolio_total_number_consumer_checking_acct int not null,
    portfolio_total_number_business_checking_acct int not null,
    portfolio_cofi int not null,
    portfolio_cc_expense int not null,
    portfolio_q1 varchar(max) not null,
    portfolio_q2 varchar(max) not null,
    constraint pk_icba_portfolios_portfolio_id primary key (portfolio_id),
    constraint fk_icba_portfolios_portfolio_bank_id foreign key (portfolio_bank_id) references icba_banks(bank_id),
    CONSTRAINT fk_icba_portfolios_portfolio_bank_contact_id foreign key (portfolio_bank_contact_id) references icba_bank_contacts(bank_contact_id)
)
```





# Sample Data

```
71 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (1, 'Union Bank', 'Washington', 'DC')
72 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (2, 'Georgetown Bank', 'Washington', 'DC')
73 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (3, 'Spring Valley Bank', 'Bethesda', 'MD')
74 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (4, 'National Capital Bank', 'Rockville', 'MD')
75 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (5, 'NOVA Bank', 'Arlington', 'VA')
76 INSERT [dbo].[icba_banks] ([bank_id], [bank_name], [bank_city], [bank_state]) VALUES (6, 'Great Falls Bank', 'McLean', 'VA')
77
78 select * from icba_banks
```

## Results Messages

	bank_id	bank_name	bank_city	bank_state
1	1	Union Bank	Washington	DC
2	2	Georgetown Bank	Washington	DC
3	3	Spring Valley Bank	Bethesda	MD
4	4	National Capital Bank	Rockville	MD
5	5	NOVA Bank	Arlington	VA
6	6	Great Falls Bank	McLean	VA



# PowerApp



This is the first screen of a form, titled "Bank Name, State, and City". It has a blue header bar with a close button (X) and a back button (left arrow). The form contains three text input fields, each preceded by an asterisk (\*): "Bank Name", "Bank State", and "Bank City".

This is the second screen of the form, titled "Bank Contact Information". It has a blue header bar with a close button (X) and a back button (left arrow). The form contains four text input fields, each preceded by an asterisk (\*): "Bank Contact First Name", "Bank Contact Last Name", "Bank Contact Phone Number", and "Bank Contact Email".

This is the third screen of the form, titled "Bank Account and Expense". It has a blue header bar with a back button (left arrow) and a forward button (right arrow). The form contains five text input fields, each preceded by an asterisk (\*): "Total Number of Business Checking Accounts", "Total Number of Consumer Checking Accounts", "Cost of Funds Rate", and "Annual Personnel Expense Allocated to Credit". Below these fields is a section titled "Does your bank participate in promotions from:" followed by four checkboxes: "Visa", "MasterCard", "Internal", and "Employee Incentives".

This is the final screen of the form, titled "Consultation and Authentication". It has a blue header bar with a back button (left arrow) and a checkmark button (right arrow). The form contains two text input fields, each preceded by an asterisk (\*): "What would you like to learn during the consultation?" and "How can we help you?". Below these fields is a section titled "Authentication:" followed by a text input field. At the bottom of the screen is a black bar with white icons for navigation.