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Five Trends That Will Change Your Bank Forever

Presented by

Jimmy Sawyers

Chairman & Co-Founder, Sawyers & Jacobs LLC

Southern Financial Exchange
2017 Conference & Expo

Beau Rivage Resort
May 4, 2017

Today's Session Topics

1. The Rise of Disruptive Automators
2. The Bank Tech Provider Oligopoly
3. Mobile Evolution
4. Payments Innovations
5. Cybersecurity

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1. The Rise of Disruptive Automators

Should bankers worry about FinTech companies boasting to reinvent banking with disruptive technology?
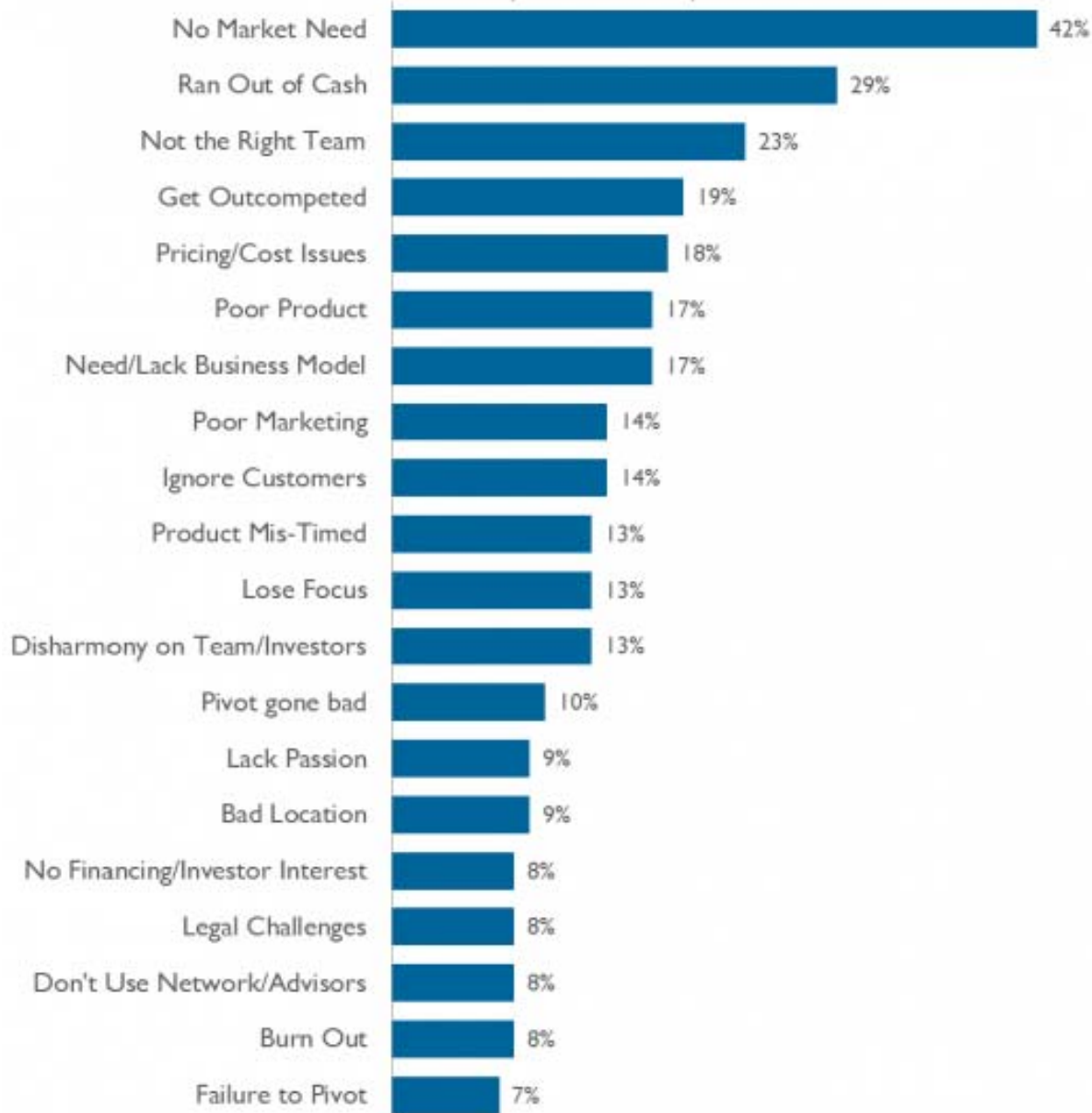
FinTech Failures

- 50% of all new businesses fail within five years

- Startups with co-founders succeed more often than startups with a single founder

- Fast growth is needed to secure the next stage of venture capital (i.e., grow fast, fail fast and fail big)

- The "façade of success"

- Number one reason for failure: Lack of a market need for the product

Source: Fortune/CB Insights survey of 101 failed startup founders

Top 20 Reasons Startups Fail

Based on an Analysis of 101 Startup Post-Mortems

Reason	Percentage
No Market Need	42%
Ran Out of Cash	29%
Not the Right Team	23%
Get Outcompeted	19%
Pricing/Cost Issues	18%
Poor Product	17%
Need/Lack Business Model	17%
Poor Marketing	14%
Ignore Customers	14%
Product Mis-Timed	13%
Lose Focus	13%
Disharmony on Team/Investors	13%
Pivot gone bad	10%
Lack Passion	9%
Bad Location	9%
No Financing/Investor Interest	8%
Legal Challenges	8%
Don't Use Network/Advisors	8%
Burn Out	8%
Failure to Pivot	7%

Source: Fortune/CB Insights survey of 101 failed startup founders

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FinTech Myopia

- The Payments World: Easy to enter; hard to succeed

- Not understanding the heavily regulated environment of banking

- Are FinTech companies potential partners for banks or are they the equivalent of tapeworms, fleas, and barnacles (i.e., host parasite relationships)?

Disruptors or Doomed to Fail?

- Per~~kStreet~~ FAILED
- WePay
- Lending Club
- OnDeck
- Bit~~Instant~~ FAILED
- Avant

- Prosper
- We~~bbe~~ FAILED
- Stripe
- Clinkle
- Affirm
- Kabbage

Headlines

Dave Ramsey: PerkStreet 'slimeballs' told me they were selling the company

Aug 15, 2013, 5:34pm EDT

INDUSTRIES & TAGS   Banking & Financial Services, Startups

PEER-TO-PEER

Lending Club's CEO Has Left and Its Stock Has Plunged. Should Lenders Bail Out?

Ian Salisbury
Jun 13, 2016

Layoffs, Big Losses for OnDeck in Q4

February 16, 2017 | By: Sean Murray

JAN 22, 2016 @ 01:50 PM   55,955 ⦿

Sell In May & Walk Away: 6 Stocks to Dump

Clinkle Up In Smoke As Investors Want Their Money Back

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The Internet "Busy Signal"

← → C ⓘ www.clinkle.com
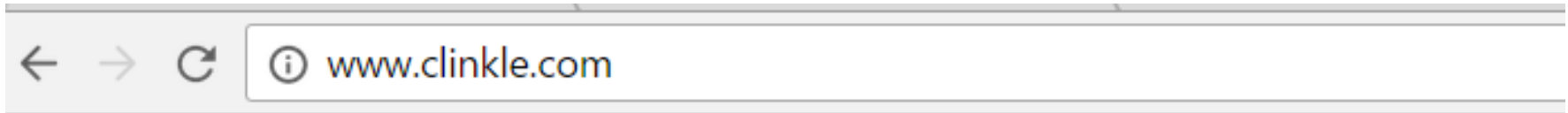
If you would like access to your account history, please email support@treatsapp.co

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Likely Reasons for Bank Survival

- You have…
  - CUSTOMERS!
  - Checking Accounts (the deposit relationship)
  - Experience
  - History
  - An understanding of the industry
  - The gift of speaking the language of banking
  - The ability to navigate and adapt to regulation
  - The trust of your community
  - The infrastructure (brick and mortar and tech)

Bank Killers

- Losing the payments battle (e.g., not being the credit card of choice loaded in user profiles for online purchases)

- Erecting obstacles for customers (e.g., ridiculous overcompliance and misguided security measures)

- Not being responsive to customer requests (e.g., raising mobile deposit limits)

- Not planning for or adapting to technological change

- Not asking "Why not?"

Digital Channels Driving Customers to Physical Locations

- Do your digital channels complement your physical locations?

- Can I walk in a branch and get help with digital services?

- Are some branch locations becoming hybrids?

Robotic Process Automation (RPA)

- Automating standardized processes
- Financial reporting
- Reconciliation
- Exception Item Processing
- Financial Analysis

Artificial Intelligence (AI)

- AI is a collection of technologies, not just one.

- Examples:

- **Natural Language Processing (NLP)**
  - Verbal interaction between computers and humans

- **Machine Learning**
  - Programs that "learn" when presented new data

- **Expert Systems**
  - Provide advice

Personal Digital Assistants

- Apple Siri
- Microsoft Cortana
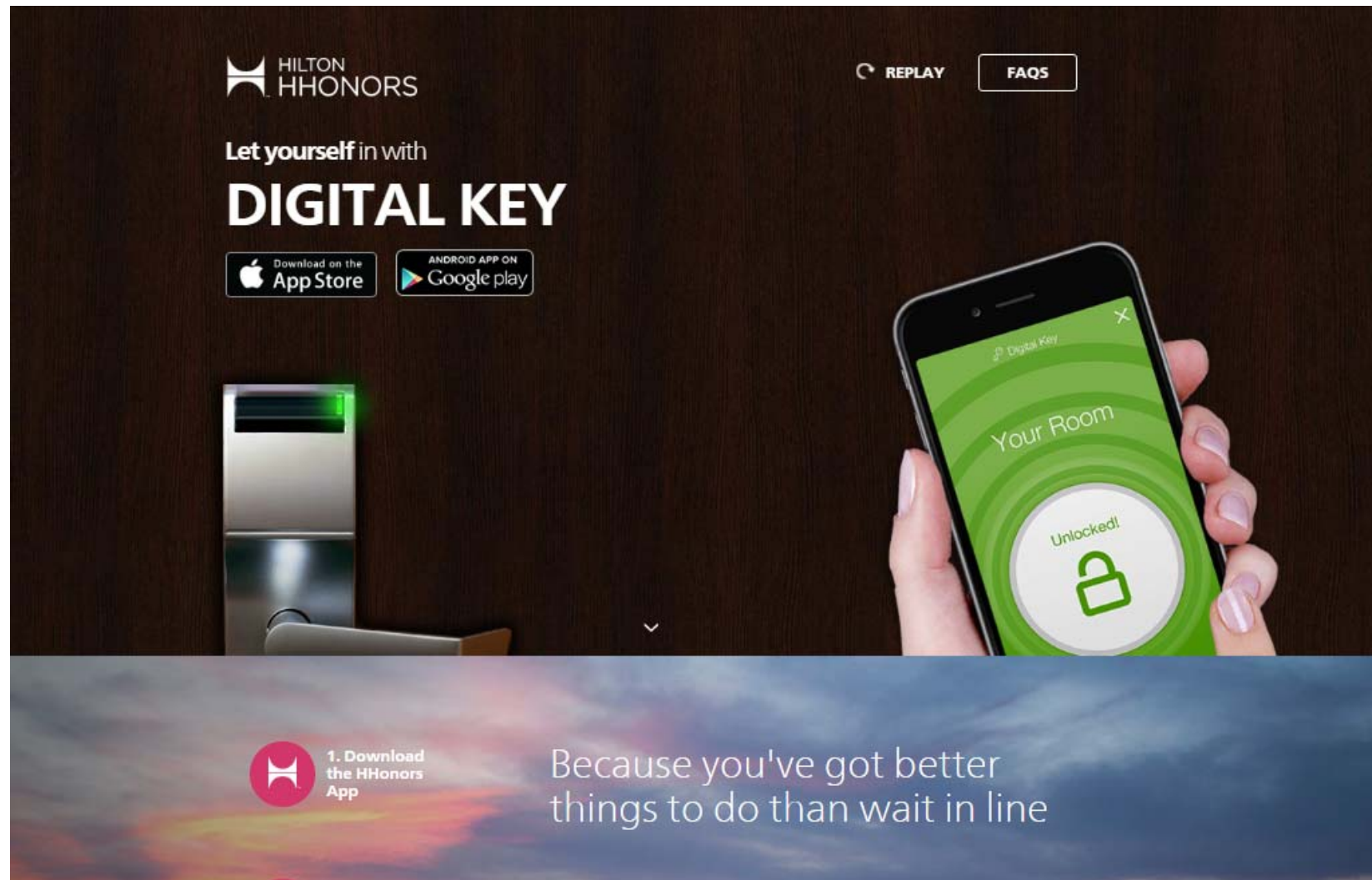- Google Now
- Dragon Go
- Amazon Echo
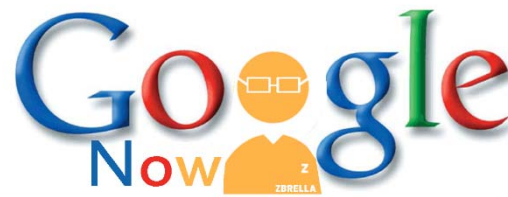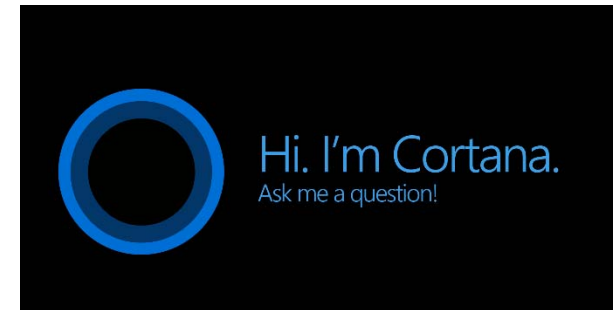
Airline Automation

- Compare flights and airlines

- Purchase tickets online

- Check in online

- Boarding passes via smartphones

- In-airport kiosks

- Self-tagging of bags

Hilton Digital Key

Savioke Relay

© Savioke

No-Card ATMs

Amazon Prime

Amazon Dash Buttons

Amazon Echo Look

echo look

Built-in LED lighting
Take photos with four built-in LEDs

Hands-free camera
Make your head-to-toe photos pop with intelligent background blur

Microphone array
Ask Alexa to take a photo or video of your daily look

Speaker
Listen to the weather forecast, news, and more

Mic & camera off button

Standard tripod socket
Adjustable base mounts on your wall with included kit

You Look "Mah-velous"

SEE YOUR STYLE FROM EVERY ANGLE

Take full-length photos or short videos so you can see a 360-degree view of your outfit. Use the app to create a personal lookbook, browse your outfits, and use computer vision-based background blur to make your outfits pop.

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"If I'd asked people what they wanted they would have said faster horses."

- Henry Ford

2. The Bank Tech Provider Oligopoly

Can bankers depend on their traditional technology service providers to supply the horsepower needed to perform at a high level in the digital space?

A Brief History of Vendor Management in Banking

- In the 1980s, community banks left correspondent banks in droves and spawned many of the core banking systems in use today

- Between 1984 and 2011, the total number of federally insured bank and thrift charters declined by 59 percent, from 17,901 to 7,357 (Source: FDIC)

- Vendor mergers and acquisitions of the late 1990s and early 2000s consolidated the industry and reduced the number of bank technology providers

Core Processing Trends

- Core processing provider decisions are no longer just about core processing. They are multi-pronged:
  - Account processing and traditional services
  - EFT (ATM/Debit)
  - Image Item Processing
  - Online banking
  - Mobile banking (basic services plus consumer remote deposit capture)
  - Payments (P2P, bill pay, wallets)

Right-Sized Solutions

- Community bankers must choose solutions that fit their operations and markets

- Rarely is a Bank of America vendor the right solution for a community bank

- "Googling" is not "due diligence"

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"True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information."

- Winston Churchill

Happy Marriage?

- Vendor abides by the terms of the contract
- Vendor delivers on promises
- When problems occur (and they will), the vendor resolves them to your satisfaction
- Vendor supports the strategic business goals of the bank
- Requests for support are answered quickly and actually resolved, not just thrown into a ticketing system

Time for Counseling?

- Vendor treats the contract as a guide not a binding agreement
- Vendor has become unresponsive
- Problems go unresolved or are "swept under the rug"
- The bank has outgrown the vendor's capabilities
- The vendor opens support tickets but closes them before the problem is actually resolved

Time for Divorce?

- Your vendor can't explain their invoice

- Your vendor has multi-million dollar federal tax liens

- The regulators issue a letter regarding a bad exam or issue of concern at your vendor

- Your vendor, who told you that outsourcing with them would free you from worry about disaster recovery, has a disaster and can't recover quickly…and you're worried

- Your vendor approaches your bank for a loan

System Selection – Lessons Learned

- Providers are making outsourced pricing more attractive

- Proposals have become more complex with more line items and ancillary systems

- Future of acquired systems is uncertain

- Devil is in the details (i.e., is the system ready for prime time or is it still in beta?)

- Consolidation and displacement has spawned niche players, some legit, some not so much

Fewer Choices, More Changes

- Consolidation of core processors has led to fewer options for bankers (core provider oligopoly)

- Lack of competition leads to higher prices

- Core processors are looking for new revenue opportunities in a shrinking market

- Beware of deconversion fees, sunsetting of services, confusing contracts, and ambiguous pricing

- Banks are being encouraged/prodded/forced to outsource

Shrinking Market

FRED — Commercial Banks in the U.S.

Shaded areas indicate U.S. recessions

Source: Federal Financial Institutions Examination Council (US)

fred.stlouisfed.org
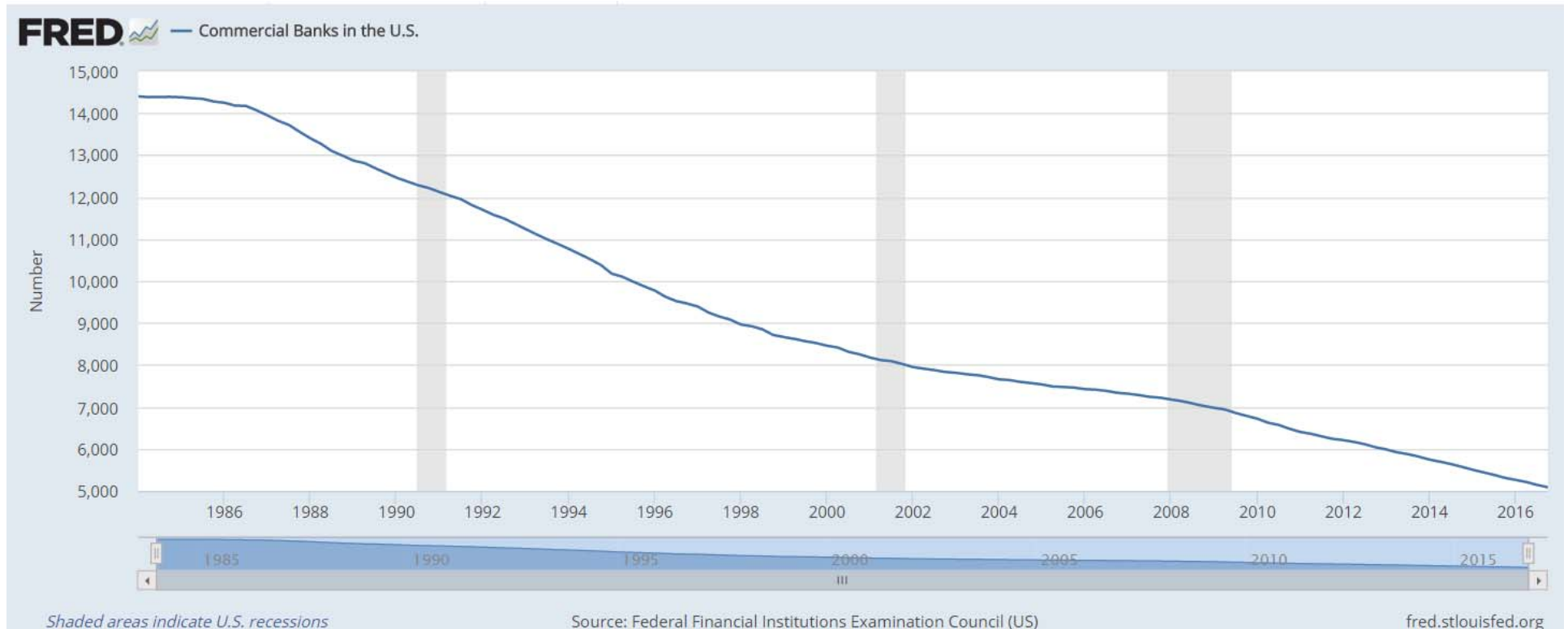
Outsourcing Myths

- Myth: Bank's FTE count will be reduced

- Fact: Most community banks run fairly lean. Outsourcing does not significantly reduce FTE just because the hardware is moved outside the bank.

- Myth: The outsourcing arrangement will cost less

- Fact: The bank's per unit cost of growth is typically fixed in an in-house environment with a low cost of funds. Not so when outsourced pricing is per account, per user, per transaction, etc.

Outsourcing Myths

- Myth: The bank never has to worry about disaster recovery again

- Fact: When outsourced the bank must worry about its disaster recovery plans AND those of the outsourced provider.

- Myth: The bank will no longer need IT Audits or Cybersecurity Assessments

- Fact: It doesn't matter where the core hardware is located. IT Audits and Cybersecurity Assessments are still needed and required.

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The Octavio Dotel Rule
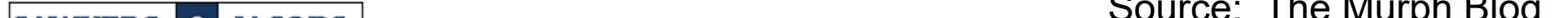
Changing Teams

- Salespeople sell for the company at which they are employed today. Their employer could change tomorrow.

- Contracts stay put; salespeople sometimes move on.

- Promises made by salespeople should be memorialized in the contract.

The Perceived Pain of Due Diligence

The Case for 6th Grade Math

Can You Tell the Difference?

Original Proposal → Negotiated Proposal → Contract → Invoice
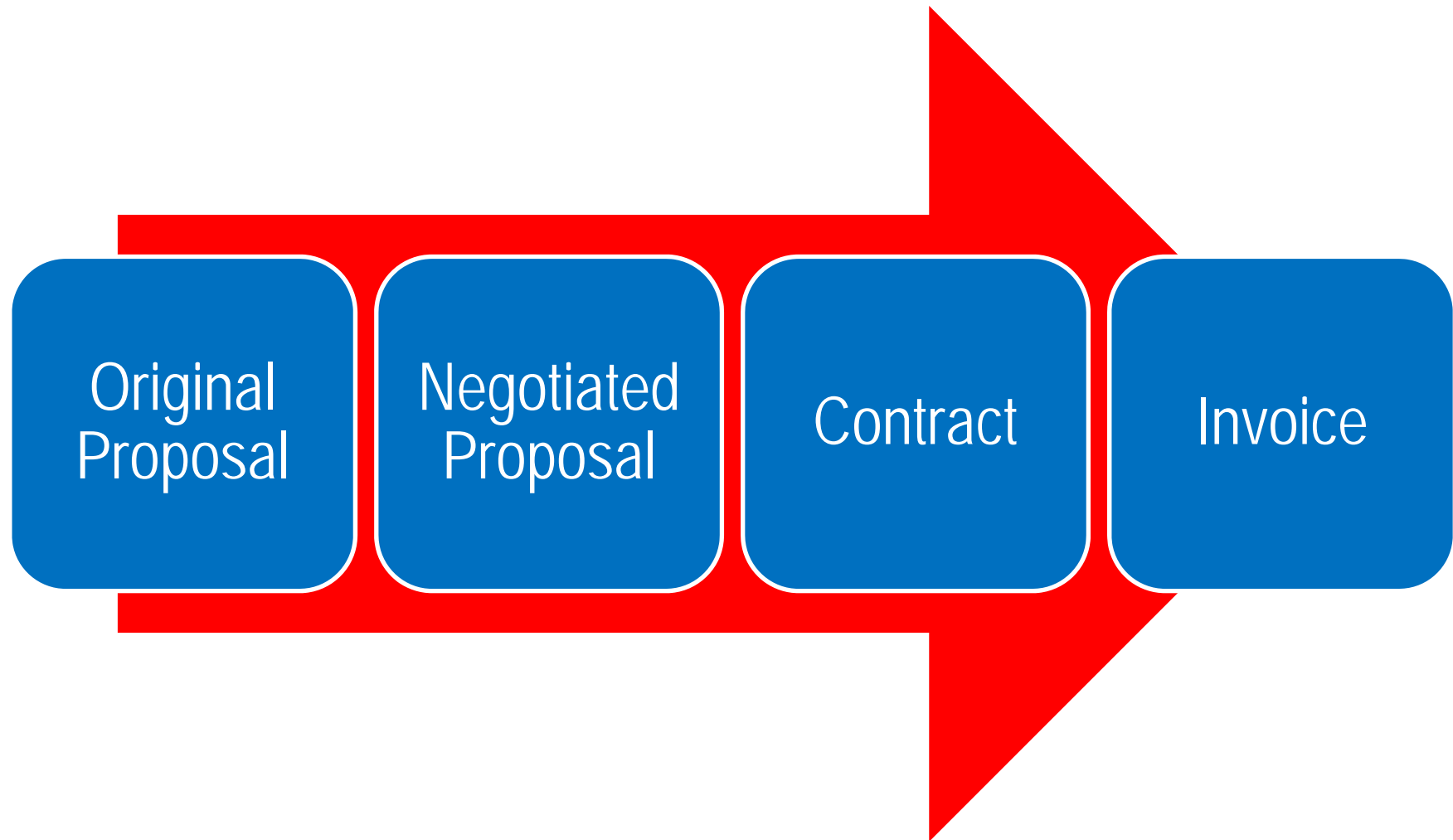
Seven Deadly Sins of TSPs

1. Punitive deconversion fees

2. Hidden fees/new fees/creative fees/fee increases

3. Misleading cost projections

4. Desperation for new revenue streams in a shrinking market causing deviation from core competencies

5. Exclusivity clauses

6. Clawback clauses

7. Leadership and culture ceded to corporate lawyers

Seven Deadly Sins of Bankers

1. Not conducting the proper due diligence

2. Not engaging qualified help (e.g., consultants and lawyers)

3. Letting emotions override facts

4. Listening to biased peers

5. Failing to take the time to do the tedious hard work of breaking down proposals and projecting costs

6. Not questioning salespeople and asking simple questions

7. Failing to properly review the final contract

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3. Mobile Evolution

Mobile Banking Questions

- Does your bank's mobile banking solution…
    - support Touch ID on iPhones?
    - integrate well with your core for a real-time customer experience?
    - suffer from "app bloat" as more features get jammed on a small screen?
    - make it easy for customers to enroll in the service?
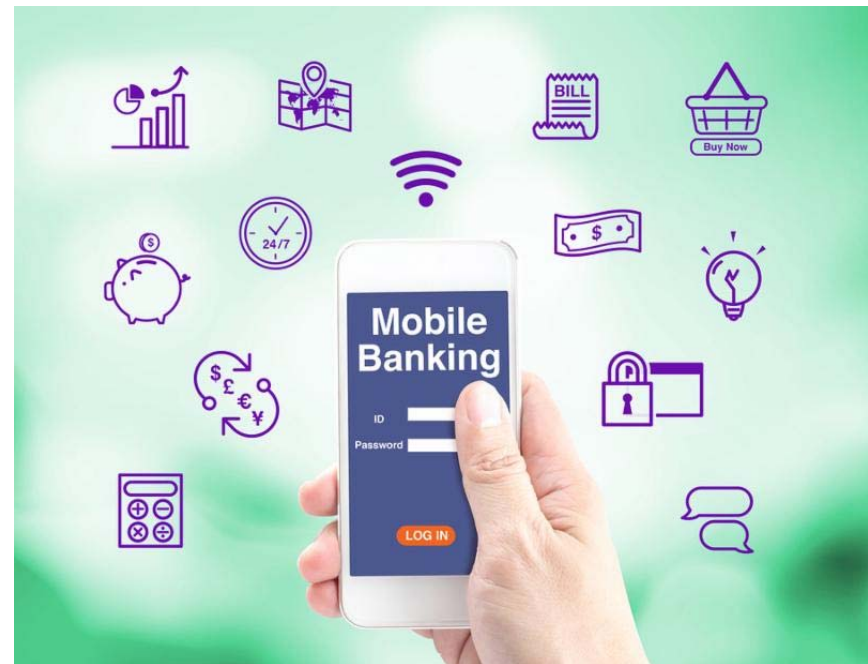
Mobile Banking Questions

- Does your bank's mobile banking solution…

    - have a strong mobile deposit app?

    - allow one to hover over a check to capture an image (without pressing a button) when making a mobile deposit?

    - allow a consistent user experience and interface no matter the access device?

Mobile Banking Evolution

- Why does your bank have separate offerings for online banking and mobile banking?

- On what access device do more of your customers access online banking services?

- Is your bank's website mobile-optimized?

- Have you raised mobile deposit limits to amounts commensurate with normal customer deposit activity and related risk?

Location-Based Marketing

Match's new feature shows you who you crossed paths with in the real world

Posted Jan 25, 2017 by *Sarah Perez* (*@sarahintampa*)
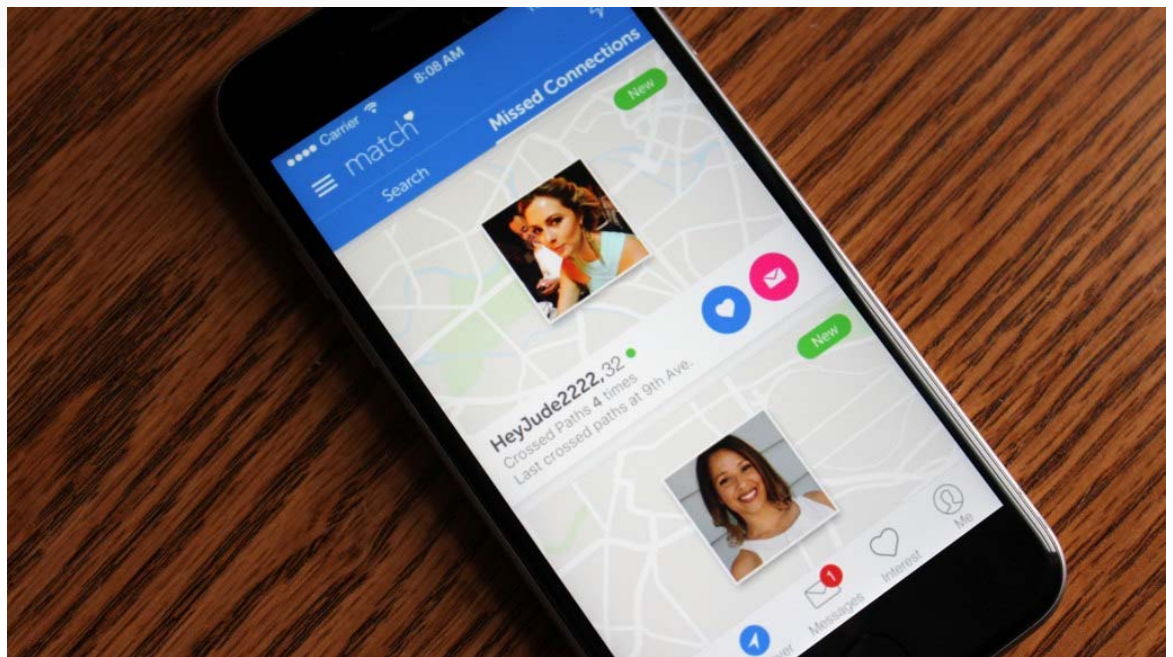
3. Payments Innovations

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Proximity Payments Evolve

2005

Exxon SpeedPass Watch

2017

Apple Watch

Average Tender Times

- Checks   64 seconds
- Credit/Debit   48
- PIN Debit   44.4
- Cash   28.5
- Biometrics   15.6
- Contactless   12.5

From point of "cashier total" to point of completion, in seconds, for different payment media.

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Doubling Down in the Drive-Thru

- McDonalds generates 65% of its sales in the U.S. from drive-thru customers

Source: QSR Magazine

Why EMV Will Fail

- Takes too long to complete the transaction

- "No card left behind"

- Confused cashiers

- 25% likelihood of getting card orientation right

- When formed in 1995, the first minute of a long distance phone call in Europe was $3.00

- The EMV User Experience is Awful

Securing the Payments Franchise

- Faster Payments
- Same-Day ACH
- P2P
- Debit Card Strategies
- Credit Cards (all in or all out?)
- Contactless Payments
- Danger of not being the issuer of the customer card stored on Amazon

Cybersecurity Defined

- The ability to protect or defend the use of the Internet and your bank's systems and applications that are accessible via the Internet, from attack by those wanting to steal customer information, intellectual property, trade secrets, or actual funds --- think ACH credits or wire transfers.

Cybersecurity

- The word "cybersecurity" evokes anxiety

- The last word to have this impact on bankers was "Y2K"

- Board members taking notice

- Bankers holding small business customer forums

- Regulators requiring more scrutiny, testing, audit coverage

- The attention is warranted

- No bank is immune

Hackers Steal $100 Million from Bangladesh Account at NY Fed

- Hackers remotely monitored activity for weeks and may have breached 32 or more computers at the Bangladeshi central-bank

- Sent dozens of secure messages requesting wire transfers to bank accounts in the Phillippines and Sri Lanka

- Malware was used; keyloggers stole credentials

- 5 of 30 SWIFT transfer requests succeeded

- Recovered $20 million in funds transferred through Sri Lanka

- Central bank's governor resigned after taking "moral responsibility" for the breach

Source: The Wall Street Journal, 3/22/16

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Three Most Overblown Cybersecurity Fears

The Most Overblown Cybersecurity Fears

- Our ATMs will be hacked and will start spitting out money

- Someone with an RFID reader will scan the contents of my wallet as I walk down the street

- We will not install wireless networking because it is not secure

Improbable ATM Hack

Source: BBC News, Dave Lee, Aug 3, 2016

Expanding IT Examinations

Federal Deposit Insurance Corporation
Each depositor insured to at least $250,000 per insured bank

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🖶 Printer Friendly

Financial Institution Letters

Information Technology Risk Examination (InTREx) Program

FIL-43-2016
June 30, 2016

Printable Format:
FIL-43-2016 - PDF (PDF Help)

Summary:
The FDIC updated its information technology and operations risk (IT) examination procedures to provide a more efficient, risk-focused approach. This enhanced program also provides a cybersecurity preparedness assessment and discloses more detailed examination results using component ratings.

Statement of Applicability to Institutions with Total Assets Under $1 Billion: This Financial Institution Letter applies to all FDIC-supervised institutions.

Highlights:
- The InTREx Program is an enhanced, risk-based approach for conducting IT examinations. The Program helps to ensure that financial institution management promptly identifies and effectively addresses IT and cybersecurity risks.

- All Uniform Rating System for Information Technology (URSIT) component and composite ratings assigned at each IT examination will be included in the Risk Management Report of Examination.

- An assessment of the financial institution's cybersecurity preparedness will be included on the Information Technology and Operations Risk Assessment Page of every Risk Management Report of Examination.

- The InTREx Program includes a streamlined IT Profile that financial institutions will complete in advance of examinations that replaces the IT Officer's Questionnaire (ITOQ). The IT Profile is intended to provide examination staff with more focused insight on a financial institution's IT environment and includes 65 percent fewer questions than appeared on the FDIC's legacy ITOQ.

Continuation of FIL-43-2016

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FFIEC CAT: Mandatory or Voluntary?

- Agency Information Collection Activities: Information Collection Renewal; Submission for Review; FFIEC Cybersecurity Assessment Tool

  A Notice by the Comptroller of the Currency on 12/16/15

- "…a financial institution is not required to use the Assessment and may choose any method the financial institution determines is relevant and meaningful to assess its inherent risk and cybersecurity preparedness."

The Assessment is <u>Voluntary</u>!

- As the Agencies stated when the Assessment was first published, **use of the Assessment by financial institutions is voluntary**. Financial institutions may use the Assessment or any other framework or process to identify their inherent risk and cybersecurity preparedness. **The Agencies' examiners will not require a financial institution to complete the Assessment.** However, if a financial institution has completed an Assessment, examiners may ask the financial institution for a copy, as they would for any risk self-assessment performed by the financial institution. **The Agencies are educating examiners on the voluntary nature of the Assessment** and including statements about its voluntary nature in examiner training materials.

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Risk Recognition

- Comptroller's Handbook:
  - "The OCC recognizes that banking is a business of assuming risks in order to earn profits."

"Waiting on a piece of paper from the government to tell your bank what to do regarding cybersecurity is a surefire recipe for disaster."

- Jimmy Sawyers

Top Cybersecurity Threats

- Debit/Credit Card Processor Breach

- Retailer Breach

- Corporate Account Takeover (CATO)/ACH & Wire Fraud

- Ransomware

- Employee Illicit Internet Activity

- Backup Failures and/or Inadequate Backup Procedures and Methods

- Lost or Stolen Laptops or other Media

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Top Cybersecurity Threats

- Disaster at Outsourced Vendor

- Employee Embezzlement

- Spear Phishing Resulting in Infected PC/Network

- Regulatory Enforcement

- Network Intrusion Due to Unpatched Systems/Vendor Default Passwords/Inadequate Security

Five Ways to Improve Your Bank's Risk Mitigation Now

1. Ramp up your IT Audit & Cybersecurity Assessment Coverage

2. Implement a multi-pronged, multi-layered approach to security (and test it)

3. Perform a Cybersecurity Risk Assessment and a Vendor Management Risk Assessment

4. Promote security awareness from the front line to the board room

5. Don't ignore the fundamentals (i.e., employee account reviews, account reconciliation, policies)

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Can compliance and security be balanced with convenience and delivery to improve the customer experience?

Compliance versus Security

- Do not confuse "compliance" with "security"

- One can be in compliance but not secure

- Today's banks must go beyond basic compliance and practice practical risk mitigation
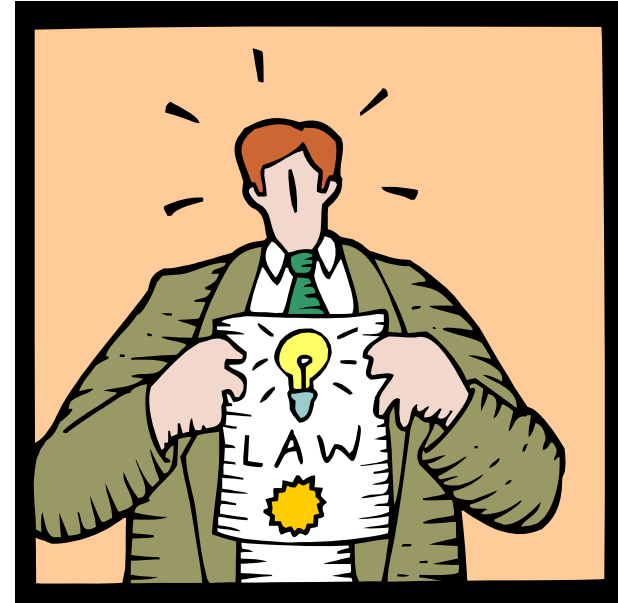
Cybersecurity Risk Appetite

| Risk Appetite Level	Descriptor	Definition
5	Basic on a Budget (Baseline)	We do the minimum required by law and regulations, frequently choosing the low-cost provider to get by.
4	Developing and Detecting (Evolving)	Still identifying and learning how to improve our cybersecurity posture; in the early stages of establishing the proper controls and periodic testing.
3	Moderate and Mitigated (Intermediate)	Controls are in place to mitigate the most common cybersecurity threats; integrating these controls into our strategic plan; tested on a regular basis by qualified experts.
2	Advanced and Aware (Advanced)	Have been addressing cybersecurity issues for quite some time with proper risk assessments and audit coverage combined with sound policies and procedures; history of successful examinations, assessments, reviews, and audits.
1	Sophisticated and Secure (Innovative)	Cybersecurity is managed as a business issue critical to the bank's reputation and success; expert help is engaged frequently and testing is performed on a periodic and regular basis; systems are real-time and alert bank management immediately when significant threats are detected; actively engaged in the industry for continual learning and awareness of the latest threats and risk mitigation techniques.

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E-Scorecard Monitors Digital Progress

E-Scorecard

Ref#	Service	2016						
		Jan	Feb	Mar	Apr	May	Jun	Jul
1	ACH Originated							
2	ACH Received							
3	ATM Cardholders							
4	ATM transactions (foreign)							
5	ATM transactions (on-us)							
6	Bank-to-Bank Transfers							
7	Bill Pay Customers (Commercial)							
8	Bill Pay Customers (Retail)							
9	Bill Pay Transactions (Commercial)							
10	Bill Pay Transactions (Retail)							
11	Branch Capture Transactions							
12	Broadcast Email Addresses							
13	Debit Card Transactions							
14	Debit Cardholders							
15	E-statement Customers							
16	Facebook Likes							
17	Interchange Revenue							
18	Image Exchange (Inclearings)							
19	Image Exchange (Transit Items)							
20	Lockbox Customers							
21	Lockbox Transactions							
22	Mobile Banking Customers							
23	Mortgage Loan Applications (online)							
24	Online Banking Customers (Commercial)							
25	Online Banking Customers (Retail)							
26	Person-to-Person (P2P) Transfers							
27	Remote Deposit Capture Customers							
28	Remote Deposit Capture Transactions							
29	Telephone Banking Transactions							
30	Twitter Followers							
31	Wire Transfers (incoming)							
32	Wire Transfers (outgoing)							
33	Credit Cardholders							
34	Credit Card Transactions							
35	Mobile Deposit Capture Customers							
36	Mobile Deposit Capture Transactions							

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Measuring Digital Progress

Bill Pay Customers (Retail)
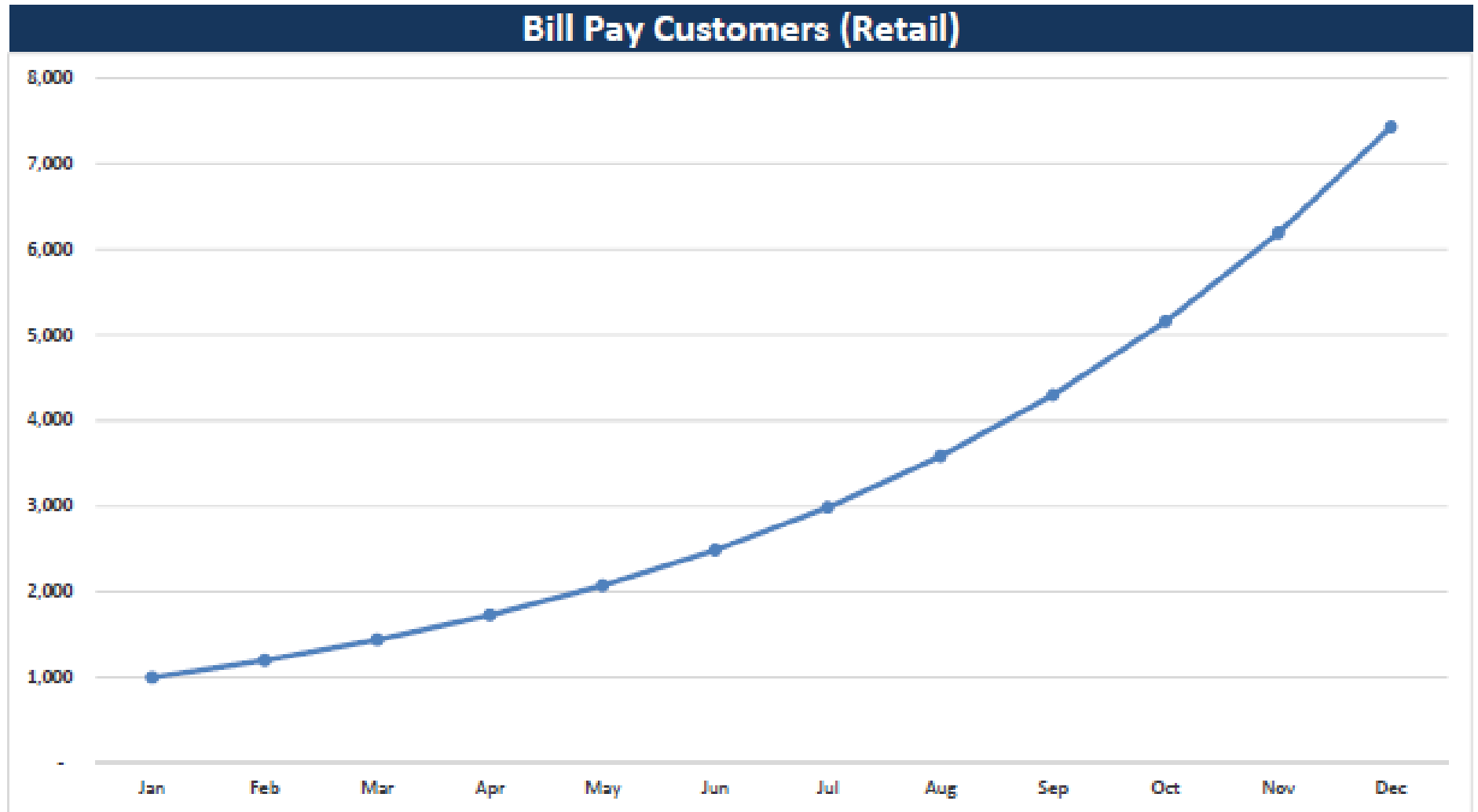
Sawyers' Life Changing Gizmos and Gadgets

LED Power Failure/Night Light

Roomba Robot Vacuum

Nest Learning Thermostat

Nest Cam

Amazon Echo

Will it rain tomorrow?

Set an alarm for eight a.m.

Play music by Bruno Mars

How many teaspoons are in a tablespoon?

Add gelato to my shopping list

Wikipedia: Abraham Lincoln

When is Thanksgiving?

Play my "dinner party" playlist

What's the weather in Los Angeles this weekend?
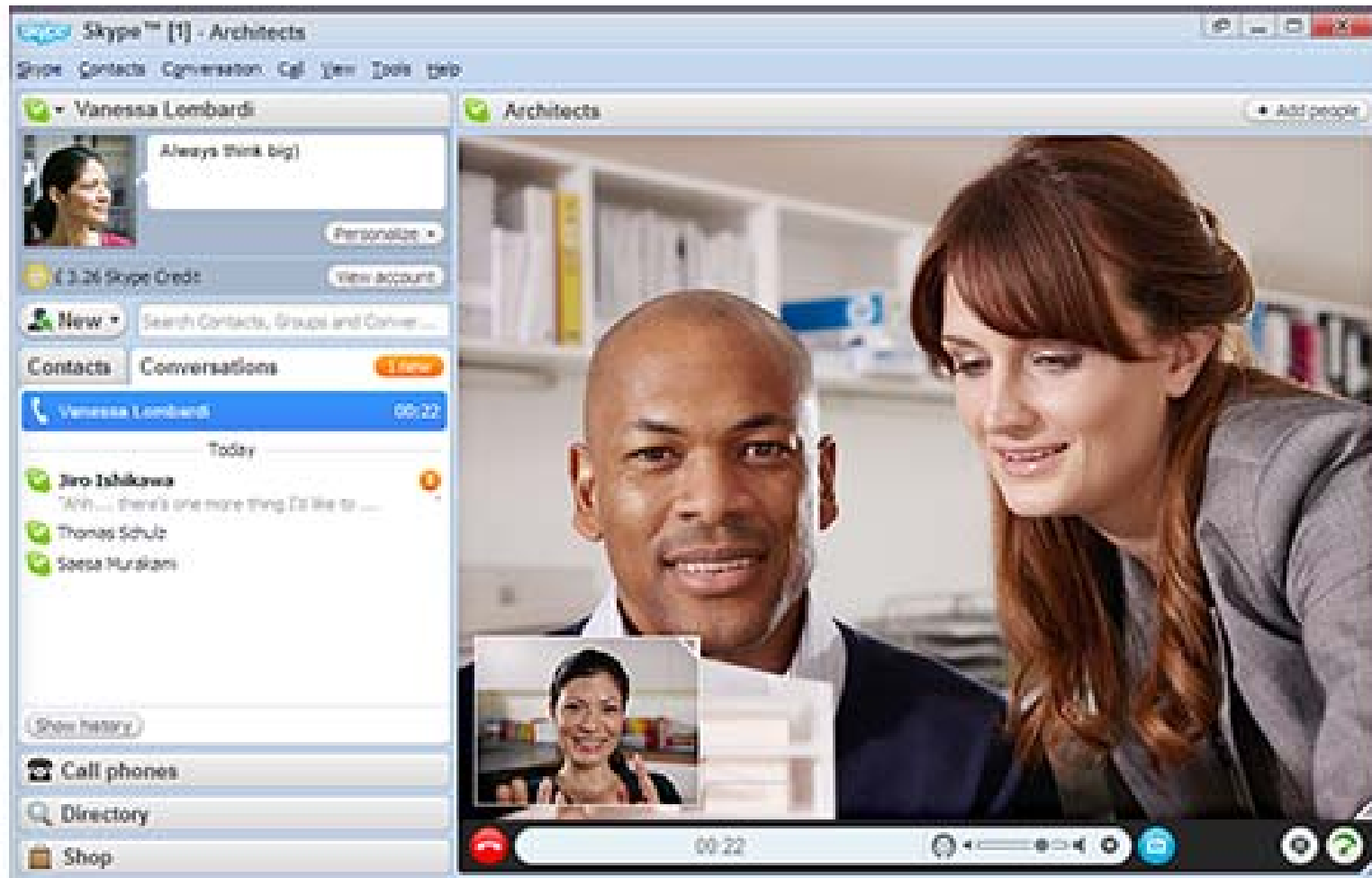
Add "make hotel reservations" to my to-do list

Skype for Business (formerly Microsoft Lync)
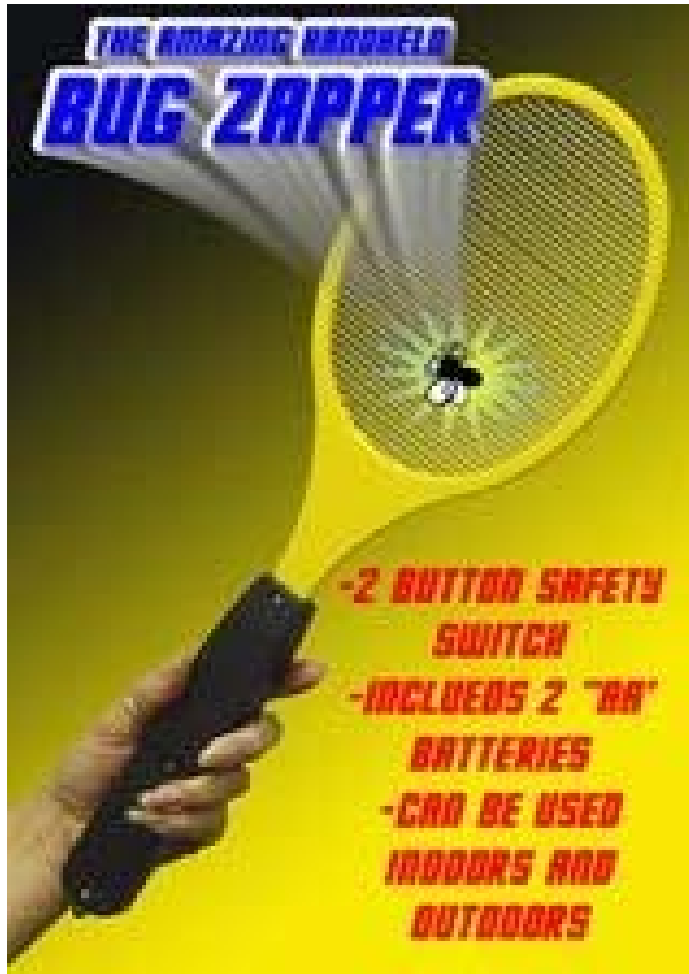
CandyMan

LED Faucet Lights

Wi-Fi Detector Shirt

Racquet Bug Zappers

Summary

Summary

- The FinTech "Revolution" will be more of an "Evolution"

- Be aware of disruptors in the banking industry and plan accordingly

- Make the customer experience frictionless and Golden Rule-worthy

- Practice proper due diligence and develop mutually beneficial relationships with TSPs

- Devote adequate resources to cybersecurity assessments, audits, tests, and awareness

- Strategic technology planning helps bankers pick their battles

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"Nothing happens until the pain of remaining the same outweighs the pain of change."

- Arthur Burt