Captive Insurance, Start-Ups and Innovation

Robert J. Walling III, FCAS, MAAA, CERA
Gregory W. Fears, Jr., ACAS, MAAA, ARM
James Wencil, ACAS, MAAA
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About the Presenters – Rob Walling

Rob Walling
FCAS, MAAA, CERA
Principal and Consulting Actuary

- Over 20 years consulting experience
- Co-author of Pinnacle’s yearly Risk Retention Group Benchmarking Study
- 2017-20 Captive Power 50
- ICCIE Instructor
- Former CAS Board Member
- U.S. Tax Court Expert Witness
- As a consultant Rob has served:
  - Over 25 state regulators
  - More than 40 captive managers and hundreds of their captive customers
About the Presenters – Greg Fears

- 19 years of actuarial experience
- Co-author of Pinnacle’s yearly Risk Retention Group Benchmarking Study
- Works closely with Illinois State University on compilation of academic research data
- Has served hundreds of captives for numerous captive managers

Greg Fears
ACAS, MAAA, ARM
Consulting Actuary
About the Presenters – James Wencil

- Four years of actuarial experience
- Works in Pinnacle’s San Francisco office

James Wencil
ACAS, MAAA
Associate Actuary
Agenda

1. Start-Up Principles by Stage
2. Crossing the Chasm
3. Insurtech: Insurance Meets Innovation
4. Impact and Effects of Innovation
5. The Start-Up Archetype
6. Captives and Start-Ups: A Natural Fit
7. Examples
8. COVID-19 and Enterprise Risk Captives
Early Stage Start-Up Principles

- Validated learning
  - Prototyping
  - Customer interviews
Traditional Approach

• Takes an extremely long time to launch
  – Less incoming money
  – More outgoing money
• High risk of failure
• No flexibility
Build-Measure-Learn Feedback Loop

Idea → Build → Data → Measure → Learn → Ideas
Product Release Timing – Traditional Approach

[Diagram showing stages of product release]

- Product Release
- Product Release
- Product Release
Product Release Timing – New Approach
Minimum Viable Product (MVP)

- The Google model
- Iterative approach
- Launch useful product with limited features
- Build enhancements after launch
Validated Learning

• Prove/disprove your hypothesis about what the customer wants within two weeks of the original idea
• Start selling a product right away
  – Are customers willing to buy your core value proposition?
Validated Learning

• Pivot
  – You have learned there is a greater customer need you could be solving.

• Double Down
  – The original hypothesis is right. Build more of it and keep addressing customer needs.

• Fail Fast
  – There isn’t a need for your solution.
Early/Mid Stage Startup Principles

- Product/market fit
- Eliminate uncertainty
  - Product refinement/enhancement
  - Develop a successful sales pipeline
- Crossing the Chasm
Crossing the Chasm

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards

Time
Crossing the Chasm

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards

Time
Early Majority

• Driven by a strong sense of practicality
• Want to see well established references [ideally in their industry] before investing
Bridge the Chasm

The Chasm

Innovators | Early Adopters | Early Majority | Late Majority | Laggards

Time
Bridge the Chasm and Cash Flow

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards

Cash Flow

Time
Insurtech: Insurance Meets Innovation

- Examples: UBI, telematics, artificial intelligence
- Industry is obsessed with insurtech
- Like start-ups, insurtech often based on innovation(s)
- Insurtech meets industry’s room/need for innovation
- Insurers realize benefits with insurtech
  - Claims reductions
  - Improved operating results
Innovation’s Impact

- Healthcare: errors in diagnosis are involved in almost **30%** of all medical professional liability cases
  - Robots that draw blood and suture wounds
  - Auto: drivers are the critical factor in **94%** of all crashes
  - Autonomous vehicles

- Medical malpractice claims against physicians dropped from **15,000** in 2003 to **8,600** in 2015
- WC: Non-fatal occupational injuries and illnesses in the U.S. dropped from **5** claims per 100 full-time workers in 2003 to **2.9** claims in 2016

Areas technology can reduce risk

Evidence
Innovation’s Unintended Consequences

• With new innovation comes new risks
  – E.g., power grid risk

• Misplaced workforce
  – 47% of total U.S. employment is at “high-risk” of becoming automatable within two decades

• Ethical issues

• Opportunities for technological abuse
The Start-Up Archetype

• Built on innovation(s)
• Dynamic and fast-paced
  – Speed is central
    • Speed-to-market
    • Failing fast
• Face special and unique risks
  – Capital-constraints
  – Lack of credible insurance data, increased costs
  – Lack of insurance management experience
Start-Ups and Captives: A Natural Fit

- Faster to market
- Different regulatory approaches = capital efficiency
- Customized coverage forms to meet needs of insureds
- Captive professionals have relevant experience and ties with fronting carriers
- Different types of captive companies
Start-Ups and Captives: A Natural Fit

- Increased profitability
- Retain underwriting profits
- Potential to reduce claims and improve operating results
- Dynamic pricing
- Ultra-customization
- Increase customer confidence
- Credit enhancement

- Bridge to “Cross the Chasm”
Example 1 – Retain U/W Profits

• Online custom framing

• Insures items in transit against damage

• Most shipping insurance utilizes insurance company (captive) of the shipping company
  – A material percentage of company cash flow
  – Goes straight through
  – Quite profitable to shipping company
Example 1 – Retain U/W Profits

• Other Examples
  – Liability for rental of motor homes, boats, etc.
  – General liability for gig workers (e.g. Task Rabbit)
  – App for massage therapist credentialing
Example 1 – Retain U/W Profits

• Hypothetically...
  – Shipping insurance is 0.2% of top line revenue
  – FedEx, USPS and UPS insurance programs are quite profitable (Assume 25% loss ratio)
  – Assume Sales to Equity Ratio of 8:1
  – Captive that only covers shipping insurance can lead to an increase in ROE of >1%
  – By insuring the unrelated shipping insurance risk of their customers the Captive likely passes risk distribution

• Does secondary revenue and profit stream improve next wave of capital terms?
Example 2 – Credit Enhancement

- Renewable energy programs
  - Community co-op
  - Commercial Installations
    - Hospitals, offices, malls, schools, etc.
    - Large renewable plants
- Formation heavily dependent on investor terms
- Issues
  - What happens when a key tenant vacates?
  - Can we sell our excess electricity? At what price?
  - What happens when wholesale electric rates drop materially?
  - What happens when solar panel technology improves significantly, making the current hardware obsolete?
Example 2 – Credit Enhancement

- Potential solutions
  - Provide financial insurance of a “floor” wholesale electric rate, funded with a percentage of revenues
  - Actively develop tools to maximize alternative buyers of generated electricity (loss control/salvage)
  - Construction defect on residential installs
  - Warranties on degradation of panels

- Other programs
  - Real estate investment trusts (REITs) – tenant liability issues
Example 3 – Warranty/Confidence/Brand

• Medical artificial intelligence system
  – Early warning system for cancer, sepsis, heart attacks, etc.
  – Need to convince doctors and hospitals
• Solution: Errors and omissions for misdiagnosis
• Supported by research data included in patent
• Allows collaboration with providers and medical professional liability insurers
• Secondary cash flow
Example 3 – Warranty/Confidence/Brand

• Other Programs
  – Nanotechnology
  – CRISPR genetically modified fruit trees
  – Microbusiness credit card dongles (e.g. Square)
  – Lots of new/redesigned products cannot purchase
    • Home security (motion, climate, entry sensors and sirens)
  – 2 and 3 factor authentication (cybersecurity)

• New products have adoption delays/market hesitation

• Manufacturer’s warranty can alleviate skepticism

• When companies bet on themselves, consumers are more likely to trust their product
Example 4 – Auto Insurance

- Personal recreational vehicle (RV) rental
  - Personal auto policy excludes rental
- Solution: Auto insurance for both owner and renter
Example 5 – Crop

• Hemp farmers
  – Need insurance to obtain bank loans

• Solution: Multi-peril crop insurance for hemp
  – Pre-harvest
Example 6 – Property Damage/Trip Cancellation

• Home swap
  – Homeowners policy excludes rentals
  – Homeowners policy does not cover travel

• Solution: Bundle options - property damage and/or trip cancellation insurance
Example 7 – Enterprise Risk Captives and COVID-19

• Enterprise risk captives (ERCs) were designed for the types of risks that emerge in moments such as these
  – Based on enterprise risk management (ERM)
  – Built on the comprehensive risk assessment foundation
  – Risk financing tool

• Focus on risks that are outside the insured’s control that threaten top line (gross) revenue and/or net income
Example 7 – Business Interruption

- All businesses dealing with COVID-19
- Solution: Business interruption coverage(s)
- Definition:
  - Business interruption (BI) covers actual decrease in business income sustained and/or extra expense incurred due to the suspension of your business operations
- Originally seen in property insurance (wind and fire events)
Example 7 – Business Interruption

• Business interruption or business income insurance (collectively BI) are common in enterprise risk captives (ERCs)
  – Similar Loss Valuation
  – Different Claim Triggers

• ERCs variations on BI coverage (various causes of loss)
  – Supply Chain
  – Loss of Key Customer
  – Loss of Key Employee
  – Inventory Spoilage
  – Loss of Franchise
  – Trade Credit/Accounts Receivable
  – Contingent Business Income

• It could be a defining moment for ERCs.
• Whether or not ERCs will meet the challenge remains to be seen.
Conclusion – Start-Ups and Captives

• Start-ups and Captives Have a Lot in Common

• Captives
  – Serve a number of needs
  – Offer customized solutions

• Captives are a tool that has helped start-ups cross the chasm to attract the early majority
Questions
Join Us for the Next APEX Webinar

Thursday, April 16
2:00 p.m. ET
Registration is Open

Cyber Insurance: What’s in Store for Captives

Aaron Hillebrandt
Nicholas Gurgone
Final Notes

- We’d like your feedback and suggestions
  - Please complete our survey

- For copies of this APEX presentation
  - Visit the Resource Knowledge Center at Pinnacleactuaries.com
Thank You for Your Attention

Robert J. Walling III
309.807.2320
rwalling@pinnacleactuaries.com

Gregory W. Fears Jr.
309.807.2316
gfears@pinnacleactuaries.com

James Wencil
678.367.2680
jwencil@pinnacleactuaries.com