Angel Performance Project

- The largest study of angel investor performance
  - Data from 86 groups, 539 investors
    - 3097 investments with 1137 exits

- Assessing Angel Investor Financial Returns
  - Overall attractive returns, highly skewed distribution of returns.

- Impact of various choices on those returns
  - VC’s, due diligence, expertise focus, participation, follow on investing

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Angel Performance Project

• **Sample:** publicly seeking angel groups in North America
  - Data from 86 different groups out of 276 groups
  - 90% of investments made after 1994, 65% made after 1999
  - Only 8% of the *exits* occurred prior to 2000
    30% of *exits* occurred 2000-2003, 60% occurred 2004 to present

• Group response rate: 31%
• Individual response rate: 13%

• No Significant Self Selection Biases
  - Outcomes are uncorrelated to the response rate of a group.
    • 2.6X for 7 high response rate groups (2/3 response) vs. 2.4 for low rate groups
    • Median multiple was 1.2 for Hi rate groups, 1.4 for low rate groups
Angel Investors

• Have been investing for 9 years, and are 57 years old.
  – 86% male, 99% college degree, 50% MBA degrees, 20% terminal degrees

• Make about 1 investment per year (1.1)

• Have significant entrepreneurial experience
  – Mean: 14.5 years as entrepreneur, founded 2.7 companies
  – Only 15% of the sample had less than 3 years entre experience
  – 22% had never worked in a large firm

• And invest 10% of their personal wealth in angel investing
Angel Investments

- Heavily Concentrated in EARLY investments
  - 34% seed stage, 41% startup, 18% early growth, 7% late stage
  - 45% had no revenues when the initial investment was made

<table>
<thead>
<tr>
<th>Invested</th>
<th>Returned</th>
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<tbody>
<tr>
<td>Dollars per deal:</td>
<td>median</td>
</tr>
<tr>
<td>$50K</td>
<td>$40K</td>
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<tr>
<td>$191K</td>
<td>$486K</td>
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</tbody>
</table>
Distribution of Returns by Venture Investment

Overall Multiple: 2.6X
Avg. Holding Period: 3.5 years

Blue bars: % of exits in that Category
Green Bars: $’s returned in that Category
Volatility of Returns Over Time

- Overall cash on cash multiple
- % of exits below a 1X
Relationship to Industry Expertise

50% of deals were not related. When related, they typically had 14 years of experience.
The Impact of Time in Due Diligence

Overall Multiple for High Diligence 5.9X (4.1 years)
Overall Multiple for Low Diligence 1.1X (3.4 years)

Median: 20 hours
26% involved over 40 hours

Exit Multiples

Percent of Exits

<table>
<thead>
<tr>
<th>Exit Multiples</th>
<th>Low Diligence</th>
<th>High Diligence</th>
</tr>
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<tbody>
<tr>
<td>&lt; 1X</td>
<td></td>
<td></td>
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<tr>
<td>1X to 5X</td>
<td></td>
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<tr>
<td>5X to 10X</td>
<td></td>
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<tr>
<td>10X to 30X</td>
<td></td>
<td></td>
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<tr>
<td>&gt; 30X</td>
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</table>
The Impact of Participation

High = 1 or 2 times per month
Low = 1 or 2 times per year

High 3.7X (4.0 years)
Low 1.3X (3.6 years)
Follow-On Investment from Same Angel Investor

30% of deals had follow on investments.

No 3.6X (3.3 years)
Yes 1.4X (3.9 years)

30% of deals had follow on investments.

Follow-On Investment from Same Angel Investor

Percent of Exits

Exit Multiples

< 1X
1X to 5X
5X to 10X
10X to 30X
> 30X

Follow On Yes Follow On No
Venture Capital Involvement

35% of deals took on VC investment at some point

- Venture Capital Involvement: 35% of deals took on VC investment at some point.
Angel Performance Project

- Good Returns, non normal distribution

- Clear value in Due Diligence, Industry Experience, and Participation.

- *Entrepreneurial Expertise in Angel investing*.....
Challenges in Angel Investing

– Deal Flow is critical, and can be very spotty
  *Especially true for individuals, still true for groups in smaller metro areas*

– Compensation and Capability issues in groups.
  *Active vs. inactive members performing due diligence and oversight.*

– Capital Waves
  *Strong early activity to max capacity often happens before successful exits*

– Negotiating leverage in growing deals
  *Angel groups are doing some later stage round, but struggle to control terms*

– Dispersion of returns: sidecar funds and group cohesion.
  *Spread out the “winnings”? Interfere in the action?”*
Bonus: Returns to Invested Capital

- Smaller deals do get to exits
- The returns to those deals are quite attractive

<table>
<thead>
<tr>
<th>Paid In Capital Range</th>
<th>Deal Count</th>
<th>Median Price</th>
<th>Median Paid in Capital</th>
<th>Median Multiple</th>
<th>Sum of Price</th>
<th>Sum Paid In Capital</th>
<th>Aggregate Multiple</th>
<th>Aggregate Profit</th>
<th>Profit $'s per deal</th>
<th>Hypothetical ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5M-$100M</td>
<td>322</td>
<td>60.2</td>
<td>14.0</td>
<td>3.5</td>
<td>34,914</td>
<td>8,260</td>
<td>4.2</td>
<td>26,654</td>
<td>82.8</td>
<td>20%</td>
</tr>
<tr>
<td>under $5M</td>
<td>1,359</td>
<td>10.3</td>
<td>0.2</td>
<td>53.6</td>
<td>35,741</td>
<td>931</td>
<td>38.4</td>
<td>34,810</td>
<td>25.6</td>
<td>48%</td>
</tr>
<tr>
<td>Whole Sample</td>
<td>1,530</td>
<td>14.8</td>
<td>0.5</td>
<td>24.5</td>
<td>70,655</td>
<td>9,192</td>
<td>7.7</td>
<td>61,463</td>
<td>40.2</td>
<td>29%</td>
</tr>
</tbody>
</table>

Includes ONLY deals with a MULTIPLE OF AT LEAST 1
Includes ONLY deals with complete data (70% of transactions)

- ROI equates if 3 and 7 year holding periods
- ROI equates if smaller deals fail 91% of the time
At the Individual Level

• Prediction vs. Control in Selection and Development

**Prediction:** To the extent that I can predict the future, I can control my outcomes.

- efforts to insightfully position for success based on expectations/forecasts for the development of important market elements. This often includes modeling event spaces, estimating probabilities and consequences, and forming sophisticated portfolio strategies with multiple options. Assumes that market elements are predominantly independent of the organization.

**Control:** To the extent that I can control the future, I do not need to predict it.

- efforts to deliberately construct/create market elements, such as defined products, articulated demand preferences, and market structures (i.e. channels, technical standards, common practices). Assumes either the non-existence of some key elements, or the organization’s ability to significantly affect the evolution of those elements.

**Prediction is uniquely difficult with new ventures,**

while efforts to directly construct markets may be particularly effective.

Affordable Loss, Pre-Commitments, and Leveraging Uncertainty
Strategy Making Under Uncertainty

- **Planning**
  - Try harder to predict and position more accurately

- **Visionary**
  - Persistently build your vision of a valuable future

- **Adaptive**
  - Move faster to adapt to a rapidly changing environment

- **Transformative**
  - Transform current means into goals created with others that commit to build a possible future
At the Individual Level

- **Non Predictive Control in Angel Investing:**
  - Select ventures that appear most capable of influencing critical market elements. *Create and Influence localized markets, rather than compete in large “ideal” ones.*
  - Emphasize the current means and capabilities of the venture rather than on plans for acquiring the “best” means to reach their original goals. *Adjusting goals is less expensive than acquiring different means.* *Commitment is more important than Best.*
  - Encourage the venture to make smaller investments that get to cash flow positive rather than investing in the resources suggested by market research to “hit plan.” *Overhead trails growth*
  - Avoid prediction as the basis for investment decisions. *Emphasize affordable loss rather than maximizing expected values.*

  Control is related to a reduction in failures, homeruns appear random.
## Non-Predictive Control: Effectuation

| 1. Where to Start | Assess Your Means. Take action based on what you have available:  
* Who I am  
* What I know  
* Whom I know  
Example: I have person A, I can achieve X, Y, or Z | Set a Goal. Goals determine actions. For example, the goal of achieving X, will dictate I need person A with skills matched to X. |
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<tr>
<td>2. Risk, Return and Resources</td>
<td>Set Affordable Loss. Pursue interesting opportunities without investing more resources than you can afford to lose. Set a limit on downside potential.</td>
<td>Calculate Expected Return. Pursue the (risk adjusted) largest opportunity and accumulate required resources. Maximize upside potential.</td>
</tr>
<tr>
<td>4. Contingency</td>
<td>Leverage Contingencies. Surprises are good. New developments encourage imaginative re-thinking of possibilities and continual transformations of targets.</td>
<td>Avoid Contingencies. Surprises are bad. Contingencies are managed by careful planning and focus on targets.</td>
</tr>
<tr>
<td>5. Approach</td>
<td>Transformative. The future as shaped (at least partially) by actions of all players. Prediction is neither easy nor useful.</td>
<td>Predictive. The future is a reliable continuation of the past. Accurate prediction is possible and useful.</td>
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