Financial Services Case Study: Applying Network Analysis to Rapidly Build Effective Communities of Practice (CoP)

January 2006

The NETWORK ROUNDTABLE at the UNIVERSITY OF VIRGINIA
Agenda

• Approach to Applying Organizational Network Analysis (ONA)
• Key Findings and Recommendations
• Critical Success Factors and Lessons Learned
• Appendix
  – How to Interpret a Network Diagram
The Network Analysis Project Ran for Seven Weeks and Resulted in Specific Recommendations

Plan
• create network survey
• define community members
• obtain senior sponsor

Run
• test diagnostic with small sub-group
• administer Web-based diagnostic
• send system-generated e-mails to obtain responses

Assess
• create recommendation report
• provide personalized Web sites

Apply
• develop and implement project plan
• take action on personal network results

In less than two months, network analysis provided important insights into the current state of selected communities and identified what actions would have the biggest impact.
Network Analysis Clearly Identified Gaps and the Targeted Actions Necessary to Close Them

- **Network Analysis Helped to Build a Community**
  - Understand the current state
  - Establish a baseline of measurement
  - Produce and act on a handful of meaningful action items
  - Identify resources for launching a new community

- **Network Analysis Will Help to Track Progress and Target Future Efforts**
  - Plan to survey community members after nine months
  - Analyze impact of productivity interventions
  - Validate investment and expand scope as warranted

By taking a before and after snapshot of collaboration in the community, a leader can both improve effectiveness of their interventions as well as track progress over time.
This Company Began by Applying Network Analysis to Two Pilot Communities

### Community Pilot #1

**Situation Overview:**
- 100 potential members
- Single subject matter expert (SME)
- SME transitioning
- Desire to become less dependent on a single resource

<table>
<thead>
<tr>
<th>Network Measures</th>
<th>Current State</th>
<th>Target</th>
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<tbody>
<tr>
<td>Density</td>
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### Community Pilot #2

**Situation Overview:**
- 600 potential members
- No defined leadership
- Critical competence with centralized methodologies
- Desire to connect employees, develop core competencies and replicate best practices

<table>
<thead>
<tr>
<th>Network Measures</th>
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<th>Target</th>
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</thead>
<tbody>
<tr>
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<tr>
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<tr>
<td>Centrality</td>
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This case will focus on the second pilot.

### Network Measures Definitions

**Density:** Robustness of network. The number of connections that exist out of 100% possible in that network. More points connected often can mean quicker and more accurate information flow.

**Cohesion (Distance):** Ease with which a network can connect. Shows average distance for people to get to all other people. Shorter distances mean faster and more accurate transmission/sharing.

**Centrality (Degree):** Identifies influential people (individual measure). Number of direct connections (ties) that individuals have with others in the group.
The Top Findings and Recommendations
Pinpointed Specific Improvements

Findings

Connecting the right people within and across groups to create a tight-knit network is a critical success factor and can result in significant savings.

Improving awareness and advocacy of best practices will accelerate adoption of proven methods and spark innovation.

Employees reported a desire to learn new, deficient competencies that were strategic needs for the company.

Recommendations

• Connect brokers with peripheral members
• Identify individuals with ground-level credibility and peer respect to fill vacant community leadership positions
• Develop a core team made up of key community members (brokers)

• Interview top performers and document best practices in a common, accessible repository
• Review personal networks at an individual level and create an action plan to improve connectivity, which in turn should improve performance
• Interview members in other departments where there is significant collaboration and replicate best practices across departments

• Give experienced members in deficient areas opportunities to teach others
• Ensure CoP strategy includes educational activities (i.e., webinars, external speakers) focused on deficient competencies
• Leverage CoP website to post common issues and hold discussions regarding deficiencies
Using bi-weekly calls to connect key brokers and having them draw in one peripheral member each has a significant impact on information sharing effectiveness within the Community.

**Current State**

- Existing network with top 15 brokers* (10% of population) highlighted
- Density: 4.4% 9.4%
- Cohesion: 3.2 2
- Centrality: 6 15

**Target End State**

- Enhanced network with the top 15 brokers and top 15 peripheral members connected
- Density: 8% 9.4%
- Cohesion: 2.7 2
- Centrality: 12 15

**Network Measures**

<table>
<thead>
<tr>
<th></th>
<th>Target</th>
<th>End State</th>
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<tr>
<td>Density</td>
<td>4.4%</td>
<td>9.4%</td>
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**Definitions**

**Brokers:** People who sit on the shortest path between several other individuals.

**Peripheral Players:** New employees, untapped expertise, people who are not connected.
By Improving Collaboration Within and Across Departments, Silos Will Disappear

Target collaboration within groups (on diagonal) is 15-40%.
• improve mentoring programs by connecting peripheral members (often less experienced) with brokers (experienced and well-connected members)
• provide a forum and expectation that all members can contribute (with a less formal, more democratic structure)

<table>
<thead>
<tr>
<th>Information Seekers</th>
<th>Group 1 (n=6)</th>
<th>Group 2 (n=7)</th>
<th>Group 3 (n=8)</th>
<th>Group 4 (n=4)</th>
<th>Group 5 (n=18)</th>
<th>Group 6 (n=3)</th>
<th>Group 7 (n=31)</th>
<th>Group 8 (n=76)</th>
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<tbody>
<tr>
<td>Group Seekers</td>
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<tr>
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<tr>
<td>Group 2 (n=7)</td>
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<td>Group 3 (n=8)</td>
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<td>17%</td>
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<td></td>
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<td>0%</td>
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<td>1%</td>
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<tr>
<td>Group 5 (n=18)</td>
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<td>0%</td>
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<td></td>
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<td>Group 7 (n=31)</td>
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<td>Group 8 (n=76)</td>
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<td></td>
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<td>4%</td>
<td>9%</td>
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Chart Interpretation
Each cell reflects the percent of information seeking ties out of 100% that could exist if everyone were connected to everyone else at that juncture. Smaller groups typically have higher percentages. We see that in Group 1, 17% of the possible collaborative relationships existed whereas in Group 6, 33% of possible ties were there. The table is read from row to column when assessing who seeks info from whom.

Target collaboration across groups (off diagonal) is dependent on strategy; the goal is typically 10-30% in critical areas.
• share best practices across boundaries via a persistent online Community space
• bring external insights to the Community in order to generate new innovation
The Company Expects to Save Another $1 Million By Better Connecting Community Members

Social Network Analysis estimates time savings per month – “Please provide an estimate below for the typical time saved per month as a result of information, advice or other resources received from each person.”

Converts time savings into $ value

<table>
<thead>
<tr>
<th>PM Community</th>
<th>Current Savings/Year</th>
<th>Potential Savings/Year</th>
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<tbody>
<tr>
<td>Within departments</td>
<td>$1,780,020</td>
<td>$1,920,124</td>
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<tr>
<td>Between departments</td>
<td>$810,005</td>
<td>$1,676,664</td>
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<tr>
<td>Total</td>
<td>$2,590,250</td>
<td>$3,596,788</td>
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</table>

Note: The hourly rate is the weighted average of respondents’ personnel cost.

Improving collaboration between departments holds the greatest potential for cost savings.
Moving Individuals Into the Upper Right Quadrant Will Increase Innovation and Distributed Expertise

Engaging peripheral people (in the lower left quadrant) by building out their network appropriately, will optimize the skills and talents of the work force. Network analysis helps a community leader know who these people are.

This group of peripheral people will “fall off the edge” of the community unless drawn in through actions such as profiling their work in meetings or the online Community space and/or pairing them with central members.

Integrators represent those people with “best practice” networks. However, those too high up may be overloaded.
Each participant in the Network Analysis received a detailed 15-page profile, which allowed them to assess their own connectivity and ways to improve it, based on the dimensions that research has shown matter for high performance.

- Personal action plans are an important vehicle to improve leader and “go to” person effectiveness at the individual and team level.
- Broader actions taken community-wide can leverage these profiles to drive grass roots change that accumulates into substantial improvement in network effectiveness.
Participants reported opportunities in HR, Procurement and Cost Management; key areas of strategic focus for this community.

Network analysis identified the centrality of individuals who possessed specific expertise. Where expertise is limited, it becomes more important to tap into peripheral members.

In those cases where many peripheral people possess critical expertise, a major barrier to change and innovation is created, often resulting in an innovator’s dilemma trap—where central voices, often with expertise good for past purposes, overshadow different perspectives.
Factors Critical for Successful Network Analysis Projects at This Financial Services Company

• Early socialization with Executive Sponsor

• Collaboration with Community Core Team to understand unique insights desired and hypotheses to prove via survey questions

• Survey a broad cross-section of members from across the enterprise

• Heads up email to target respondents a few days before survey message with rationale, benefits and expected time commitment (15 min max); sending an actual calendar event for the target audience may help to squeeze this “discretionary” activity into full schedules

• Thank the respondents and share a handful of most powerful and actionable next steps with entire Community shortly after survey is analyzed

Key Stakeholder Comments

• “This is great. I know exactly how we can integrate these recommendations into our current plans.”

• “Now that we know what has the biggest impact, we can solicit resources.”

• “This assessment by our Community members of what they want to learn is exciting and powerful. We will tailor our training attention on these discipline areas.”
Why We Should Focus Our Attention on Organizational Networks

Key Reasons Why Organizational Networks Are Important

**Where Work Happens**
- Lack of boundaries
- Informal networks increasingly important

**Where People Engage**
- Join and commit to people
- Trust accrues in networks of relations

**Where Knowledge Lives**
- Rely on people for information
- People can provide more than databases

**BUT...**
- Invisible
- Complements formal structure
How to Interpret a Network Diagram

- **Central People**
  - Are an important source of expertise
  - May become bottlenecks

- **Peripheral People**
  - Are underutilized resources
  - Feel isolated from the network
  - Have a higher likelihood of leaving

- **External Connectivity**
  - Provides balanced and appropriate sources of learning
  - Holds relevant influence with key stakeholders

- **Brokers**
  - Are critical connectors between diverse information sources and specific kinds of expertise. High leverage points.

- **Fragmentation Points**
  - Affect information flow across boundaries (e.g., cross functional, hierarchical, geographical, or expertise)
  - Provide targeted opportunities

- **Personal Connectivity**
  - Improves community leader effectiveness
  - Enables grass roots network development efforts