Organizational Network Analysis

New technicalities and tools to affect the productivity of companies and improve the performance of Value creation



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Executive Summary

The collaboration and efficiency in the interaction between Resources, especially in complex organizations, are the central elements that determine their Productivity in carrying out their work.

Every organization, in fact, besides from its purely hierarchical structure holds an informal structure of employees. Visualizing and understanding this 'informal network' is essential, especially if you're trying to gauge the effectiveness of a reorganization effort, break down barriers to collaboration, identify key talent, improve performance or assess risks to retaining knowledge.

The Organizational Network Analysis (ONA), making visible the connections between People and providing a complete x-ray of the real functioning of the organization, is the most appropriate methodology to do so.

Multiple approaches try to perform this valuable analysis, but most of them are difficult to apply and results often do not justify the efforts.

Active Value Advisors, in partnership with TECI, has developed an effective methodology and a powerful tool (Active Value Network[®]) that allow Companies to perform Organizational Network Analysis through an approach that is simple but sophisticated.

How does it work?

A web-based survey that consists of just 4 questions gathers detailed information from the employees. These data are analysed using complex algorithms in order to produce graphical network maps, social capital reports and other interesting analysis that allow the organization to deepen 5 major critical business areas: Economic Profit Performance, People Development, Change Management, Innovation and Collaboration. Moreover, the Active Value Network® tool can help to read and understand the data collected from the ONA survey by appropriate indicators that show evidences in terms of Employees, Units and Organization as a whole.

The Organizational Network Analysis, as a technicality that can impact the Productivity of Resources by improving their relationships within the Organization, can also affect the Value creation performance of a Company.

How do you know?

The Active Value Advisors methodology allows you to calculate the Economic Profit (or EVA®) - the metric that measures the Value created in a Company - in a People-Based view, in order to highlight the difference between Cost of Personnel and its Productivity rather than the difference between the Employed Capital Cost and its Return. In other words, we can determine the Economic Profit using 'People' instead of 'Capital' as denominator.

What's ONA?

Introduction

Getting things done in most companies depends more on the informal structure of employees (or internal network) than on the formal organizational chart. Visualizing and understanding this informal network is essential, especially if you're trying to gauge the effectiveness of a reorganization effort, break down barriers to collaboration, identify key talent, improve performance or assess risks to retaining knowledge.

Every organization has hidden networks of relationships that employees use in order to get work done, make decisions, and solve problems. Although Organizational Networks are often ignored by leaders and managers, they hold the keys to improving performance. In fact, while hopefully promoting efficiency and flexibility, a by-product of these efforts is that coordination and work increasingly occur through informal networks of relationships rather than through formal reporting structures or prescribed work processes.

These seemingly invisible webs have become central to performance and strategy execution.

Research shows that appropriate connectivity in networks within organizations can have a substantial impact on performance, learning, innovation and benefits also accrue from well-connected networks between organizations. A network assessment aims to identify how people collaborate, share information, solve problems and get work done.

Organizational Network Analysis (ONA) provides an X-ray into the inner workings of an organization and it's a powerful way to expose and make visible the movements of the flow of information and collaboration among Resources. A network perspective can enhance performance in three principal areas that are vital to the survival and success in an increasingly competitive world:

- 1. COLLABORATION: a network perspective could help leaders identify points of misalignment and accelerate collaboration in the right places and at the right times.
- 2. PRACTICE: network analysis could help management determine whether targeted units or functions are achieving the kind of connectivity necessary to achieve the desired results and, if they are not, it shows how to identify and track surgical interventions.
- 3. DEVELOPMENT: network perspective can help organizations identify high performers, understand how they use their network to maximize effect and replicate the behaviour and relationships that make them successful.

Important points that quickly emerge from an ONA

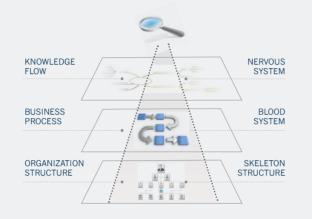
Once networks become visible, leaders can address these and other aspects in ways that have immediate impacts on performance as follows:

- *How* people complete activities related to strategy, decision making, routine work, innovation, problem solving and other aspects of the organization life,
- How the organization actually functions and faces risks and instabilities,



ORGANIZATIONAL NETWORKS INFLUENCE VIRTUALLY EVERYTHING ORGANIZATIONS DO

- Change: if networks are effective, they can adapt quickly to change
- Decision Making: the quality of people's networks influences the quality of their decisions
- Culture: an Organization's culture is embedded in its networks and it can effectively resist
 or enable culture change
- *Leadership*: effective leaders aim to cultivate their networks in specific ways
- Mergers & Acquisitions: if networks don't become integrated after a Merger or Acquisition, the organizations probably won't achieve desired synergies or cost savings
- *Innovation*: bringing the people with the right skill sets together from across networks improves innovation
- Projects: successful projects are run by leaders and managers with stronger networks



How can an organization make an Organizational Network Analysis? A number of technicalities can be used. but most of them are difficult to apply and do not always lead to the desired results. Active Value Advisors, in partnership with TECI, has developed a simple, fast but extremely effective methodol-

ogy.

- *Who* are the organization's high performers, rising stars and hidden subject matter experts,
- Who is under or over exploited,
- *How* to identify power roles and positions that have disproportionate influence over the network as a whole,
- How to communicate efficiently and quickly with a large number of people,
- How to accelerate implementation of critical projects,
- How to increase knowledge sharing and innovation in the organization,
- How to break down silos and collaborate across functional, geographic, and other barriers,
- *How* to promote the right people into the right jobs and develop effective succession plans.

Approaches to perform an ONA are innumerable, but not always effective

Of course Network Analysis is not a new subject. This approach has enjoyed a rich research tradition within anthropology, sociology, psychology and also management studies. Consequently, a vast body of knowledge on techniques for the analysis of social networks has been accumulated.

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In fact, the analytic side of the social network subject has become so rich that one of the most widely read primers on social network analysis is more than eight hundred pages long!

Yet although network analytics have advanced substantially over the past decades, the managerial applications of the ideas have not kept pace.

Then, several approaches have spread in practice to identify the hidden networks of relationships within the organizational structure of the company but not always they revealed feasibility and effectiveness. Some examples are long and complex questionnaires submitted to resources (but often difficult to interpret in an objective manner and with the right methodology of analysis) or methods of reading available e-data (such as email traffic data) with consequent problems of privacy, accuracy and completeness of information.

Active Value Advisors, in partnership with TECI, has developed a simple, fast but extremely effective methodology to deepen the Value of an organization through network perspective.

Active Value Network[®]: look at the Organization Value through a network lens

What is it

Active Value Advisors performs Organizational Network Analysis (ONA) through its online software application - Active Value Network[®] - that allows organizations to explore their employee networks by department, function and office geography.

From its geographical dashboard to its detailed views that could be drilled into critical areas and units through specific indicators, Active Value Network[®] provides organization with a powerful tool for setting organizational goals and managing them.

Where do we start?

A four-question web-based survey (yes, just 4!), gathers interaction information from employees. These information are analysed using complex algorithms to produce graphical network maps, social capital reports and other interesting analysis that allow the organization to deepen 5 major critical business areas:

- 1. Economic Profit Performance
- 2. People Development
- 3. Change Management
- 4. Innovation
- 5. Collaboration



Active Value Network® is a webbased tool that allows companies to perform Organizational Network Analysis by conducting an online survey. This consists of only 4 questions that are sufficient to analyse the organizational structure in a simple, but at the same time effective way. Through complex algorithms to interpret the collected data, the organizations can read them with the help of specific indicators.

5 MAJOR CRITICAL BUSINESS AREAS



What Clients get from an Organizational Network Analysis carried out with the Active Value Network® tool

For our analysis to be successful, we had to:

Five are the major critical business areas that a Company could explore and develop performing an Organizational Network Analysis with the Active Value Network® tool: Economic Profit Performance, People Development, Change Management, Innovation and Collaboration.



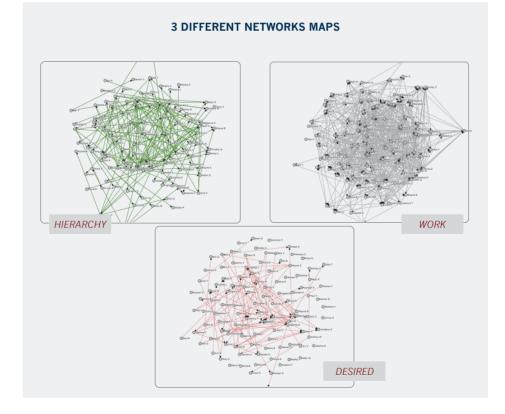
- 1. Convince Management to allow us to come in and perform a network analysis on a group of strategic importance,
- 2. Administer a survey and produce detailed analysis with actionable insights,
- 3. Convince the organization to invest time and sometimes money in making changes based on the network insight we provided,
- 4. Conduct a follow-up network analysis six to twelve months later to assess strategic, operational and financial impact.

Here is what Clients get from an Organizational Network Analysis carried out with the Active Value Network[®] tool.

1. Organizational Network Maps

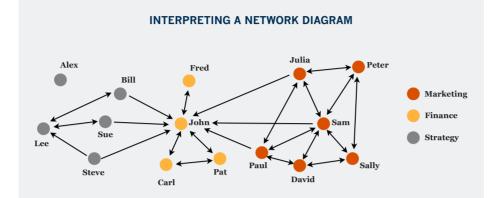
First and foremost, the information gained from the web-based survey will allow to graphically display through an online report the network of the organization according to 3 different views:

- **1. Hierarchical**: represents Boss/Employer relations according to the structural organization within a Company,
- **2. Work**: represents work relations between employees, in other words the links established by people working together,
- **3. Desired**: represents links that employees want to activate to work better and be more productive.





The first thing that Clients can get from the Organizational Network Analysis performed with the Active Value Network® Tool is 3 Network Diagrams featuring the Organization in three different views: Hierarchical, Work and Desired. The Network Maps need to be read and interpreted because they could reveal valuable information on behaviour of resources within the organization.



- **Relationships**: The map above shows the flow of information within a team. Each line indicates an information link between two people; arrows represent the direction of the relationship (incoming arrows show that the person is a source of information; outgoing arrows show that the team member seeks information from the linked parties).
- **Central People**: Network diagrams make clear who the most prominent people within a group are. On this team, nine people rely on John for information. His colleagues in Finance come to him, but so do people in Marketing and Strategy. John himself does not reach out to people outside of Finance. The diagram alone can't tell us if John's impact is positive or negative. If the group is overly dependent on him, he may be a bottleneck, slowing the flow of information and holding up decisions. On the other hand, people like John often play a very positive role, providing valuable information and holding a group together.
- Peripheral People: Some people are only loosely connected to a network; a few may be
 completely isolated. In this network, no one goes to Steve for information and Alex is out
 of the loop entirely. As is true with Central People, the diagram alone doesn't say anything
 about the value of peripheral people. Sometimes such outsiders turn out to be underutilized
 resources and integrating them can be critical to a network's effectiveness and efficiency.
- **Components:** Groups within a network often arise as a product of location, function, hierarchy, tenure, age, or gender. In this case, the team is split by function; very little information is being shared among the three groups. Moreover, connections in Strategy and Finance are sparse, while the Marketing subgroup is tightly knit.

2. Diagnostic Indices

Active Value Network[®] features with appropriate indicators that will allow complete study of the data collected through the survey. So it will be possible to carry out a comprehensive assessment of the organization from the 'Network Perspective' providing 3 organizational views:

- 1. Employees,
- 2. Units,
- 3. Company as a whole.

Interpreting a Network Diagram is not simple because all the three organizational views show a complexity that it is difficult to simplify without proper methodology. The advantages of doing this are that Clients will get important information about the relationships between resources and their characteristics within the Network.

Such indicators have the purpose of facilitating the reading and interpretation of the results of the analysis on different aspects and make it comparable over time.

ORGANIZATIONAL DASHBOARD



The dashboard gives an overview of the organization and the gauges describe the organization's state in relation to different indices. The possible insights below arose from the organization's behaviour.

Main Aspects Investigated:

- Structural Clarity
- Management
- Culture

ORGANIZATION UNITS INDICES



Graphs and tables contain the data from different indices for the units of the organization. The units which concentrate most of the power and influence are those whose indices' rates surpass the rates of the other units.

Main Aspects Investigated:

- Unit Power & Influence
- Organization Units Connectivity
- Internal/External Cooperation

EMPLOYEES INDICES



The dominant employees are those who concentrate most of the power and influence in the organization and the departure of these leading figures can cause real damage to the organization in the short term.

Main Aspects Investigated:

- Employee Power & Influence
- Importance of the employees to the organization
- Employees Cooperation

3. People Assessment

One of the most important aspect of the ONA is the possibility to assess resources from a network perspective.



work® helps to read and understand data collected from the ONA survey by appropriate indicators calculated using specific algorithms. These indices show evidences in terms of Employees, Units and Organization as a whole.

Active Value Net-

This means revealing a handful of people contributing a great deal of time-saving value to the organization in terms of relationships and a spirit of collaboration. There are many possible taxonomies to classify resources according to a network perspective.

Through the lens of ONA, Management can for example understand the knowledge held by central connectors, peripheral players and brokers. It turns out that people in each of these roles tend to be sought out for unique kinds of information and retaining this knowledge requires more than simply documenting employees' skills and expertise areas. Organizations can replace an individual's knowledge but more difficult to recover are the network connections that enable work to get done in a given context. Three network roles are summarized below and the specific knowledge associated with each role can help organizations identify critical network-related knowledge to retain and the potential means to do so.

| | RETENTION STRATEGIES BY NETWORK ROLE |
|---------|--|
| | CENTRAL PEOPLE (Have many direct information - seeking connection) |
| RISKS | Loss of technical expertise and organizational memory as well as a set of relationsh that help many colleagues get information or other resources to do their work. |
| | Loss of experiential knowledge and reputation that enable rapid on boarding. |
| ACTIONS | Use personal network profiles in career development and on boarding practices create network redundancies where departure might fragment a network. |
| | Reallocate information access and decision rights to ensure that key points in t network do not become too vulnerable. |
| | |
| | BROKERS (Have many bridging connection) |
| RISKS | Loss of broad knowledge of how the organization operates and the ability to recogn opportunities requiring integration of disparate expertise. |
| | Loss of the ability to mobilize and coordinate efforts of disparate groups in the purs of opportunities. |
| ACTIONS | Identify and develop brokers through staffing and rotation across division, geograp and expertise groups. |
| | Assign brokers strategically where information gaps exist or where ideas can me from concept to action. |
| | |
| | PERIPHERAL PEOPLE (Have few direct information - seeking connection) |
| RISKS | Loss of people who could work more productively and effectively. |
| | Pair peripheral people with brokers or central connectors or both to bootstrap the into the network. |
| ACTIONS | Ensure that peripheral people are visible and engaged, encourage project mobil lunch & learns, Webcasts. |
| | Reward employees for connections into the organizations. |

The ONA is useful also to assess people from a network perspective, Managers quickly use the network analysis results to identify **Central Connectors** (who have many direct information), Brokers (that have ties across subgroups and disproportionate ability to help organization capitalize on opportunities requiring the integration of different expertise) and Peripheral People (that have the fewest ties).



Thanks to a specific methodology is possible to determine the Economic Profit (EVA®) in a People-Based view (i.e. as the difference between Resource **Productivity and** their Cost rather than the difference between Profitability and Cost of Capital Employed). The Organizational network Analysis is one of the central element at the basis of Resources Productivity.

The Organizational Network Analysis can affect the Value creation performance of the Company

Value creation performance in a People-Based view

The Economic Profit (EVA®) is a metric that measure the Value created exceeding the required Return of the Company's investors (being shareholders and debt holders) and a method of firm valuation similar to the Discounted Cash Flow (DCF): in equal conditions, in fact, we can calculate the value by adding the Capital Employed to the expected Economic Profit, this corresponds to the actual Value of expected Cash Flows.

An Active Value Advisors methodology allows assessment and comprehension of Economic Profit (or EVA®) in order to identify the difference between Cost of Personnel and its Productivity instead of the difference between the Employed Capital Cost and its Return. In other words, we can determine the Economic Profit using 'People' instead of 'Capital' as denominator¹.

This measure may be useful to rigorously identify and quantify the Value of People in terms of Productivity of their work Vs their Cost for the company.

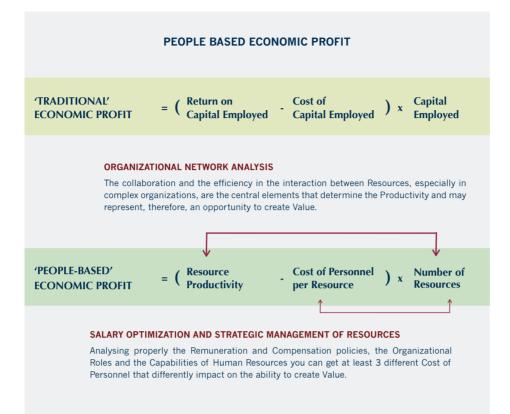
In a People-Driven view, therefore, different levers are available in order to increase the Company Value:

- **Productivity**: one of the central element at the basis of the Productivity of Resources is how they collaborate and interact. This helps to be faster, more effective at work and, therefore, more productive. Precisely the Organizational Network Analysis is a methodology that can be applied within the Company to increase the Productivity of Resources. This analysis, in addition, can also give useful indications in terms of optimal organizational sizing of people.
- **Cost of Personnel**: Analysing properly the Remuneration and Compensation policies, the Organizational Roles and the Capabilities of Human Resources it's possible to get at least 3 different Cost of Personnel that differently impact on the ability to create Value.
 - 1. EFFECTIVE COST OF PERSONNEL: it's obtained from Salary that Resources received annually,
 - 2. IDEAL COST OF PERSONNEL: it's obtained by evaluating the organizational Roles according to the existing strategic Project/Design,
 - 3. INTRINSIC COST OF PERSONNEL: it's obtained by analysing people skills, expertise and competencies.



¹ The People-Based Economic Profit can be calculated rearranging algebraically its Traditional formula. By determining the Revenue per employee net of Costs (including amortization, Taxes and Capital Charge to cover the Cost of Debit and Equity) what results is the measure of Productivity per employee. Subtracting the average Cost of Personnel and multiplying the Number of Internal Resources what we get is the People-Based Economic Profit.

This requires the specific methodology that Active Value Advisors has developed, see our Paper: *"Fundamentals of People-Driven Business: Thinking of Human Resource as a Capital²".*



² (http://www.activevalue.eu/publications.php?anno=2012)

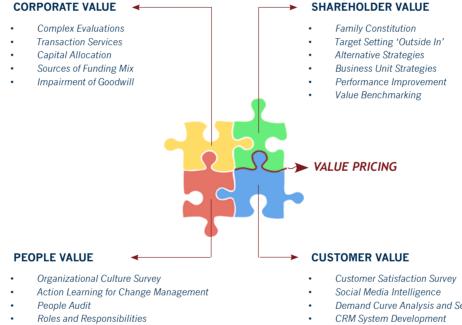
Active Value Advisors is an independent management consulting firm that acts as a partner for Companies who need to strengthen their Governance System and for those Companies who want to pursue a path of growth through solutions consistent with the objective of creating sustainable Value.

The professionals of Active Value Advisors have long experience in assisting major Italian listed groups in the development of Business Plans, in the selection of actions to improve Value performance and in the assistance to the change process that the competitive dynamics and market opportunities require.

In carrying out the mandates we use a common language declined in many professional services pertaining to various management issues: the Shareholder Value, Customer Value, the People Value and the Corporate Value.

Each centre of competences responds to a fundamental dimension of the management system: the Shareholder, the Customer, the Internal Resources, the value of the Assets.

Thanks to the collaboration with accredited professionals in the area of Strategic Pricing, Active Value Advisors has enriched their skills and professional methods with innovative models and tools of Value Pricing.



- Rewarding Systems
- Incentive Mechanisms

- Demand Curve Analysis and Segmentation
- **Commercial Policies Enhancement**
- Value Pricing Models and Strategies



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