



Organisational network analysis

Overview



Organisations are facing ever increasing challenges, digital transformations, big data, regulatory pressures, dynamic workforces and economic uncertainty. In continuing to provide robust assurance, internal audit must look through multiple lenses across the organisation.

If you haven't heard of organisational network analysis, we urge you to take the time to read this. Wherever you are in your audit career, it is vital learning.

Organisational network analysis (ONA) is a way to make sense of the informal and insightful communication networks that exist alongside formal hierarchies. It is about people and relationships - key elements of successful internal auditing.

In this paper, we work through the technique and look at how it can benefit internal auditors.

Why is ONA so important?

Organisation charts describe the way information flows through a hierarchy. They are easily produced for traditional structures yet are less suited to flat or matrix structures, agile ways of working and the drive for less formality from millennials.

ONA is not a new concept yet it offers a much needed lens to help get under the surface of organisational culture, communication and efficiency. Internal auditors understand the significance of culture. It's why we **invest resource to audit it!**

The key component in all of this is communication: the relationships that occur within, across and outside of the organisation. Experienced auditors recognise that it is often what is said in corridors, over a coffee or in the lift that holds more influence and power than the words recorded in the minutes of a formal committee meeting.

ONA is a tool for capturing knowledge communities and informal communication networks.

It has the potential to expose the intangible 'glue' of an organisation so we can engage with it.

The diagram below shows the difference between the formal hierarchy of an organisation and the reality of how important information flows through key individuals and functions.

Questions spring to mind such as:

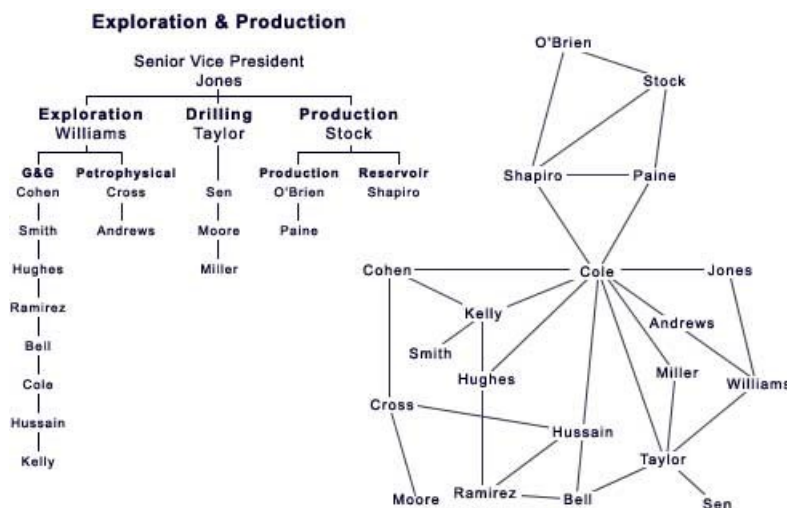
Who are the influencers and gatekeepers?

Why these people?

What are the risks?

This diagram demonstrates the exploration of a group that was in the midst of implementing a technology to help transfer knowledge across drilling initiatives; assessing their ability as a group to create and share knowledge. As you can see, the ONA reveals a striking contrast between the group's formal and informal structure. It shows that Cole is a critical individual, something that could never be revealed simply by looking at the organisation chart.

The source link provides useful background reading.



Source: <https://www.robccross.org/research/what-is-ona/>

Getting started with ONA

Feeling daunted? Understandable!

If you have the budget, there will be consultants in your trusty search engine ready to engage with organisations to teach and support you through the process.

However, if your organisation is unlikely to make that kind of investment then try it yourself, lead the way, demonstrate value and see what unfolds.

Step 1 – Objective

Is there a particular problem to resolve: under-performance, complaints, delays or high-turnover?

The aim is to identify where collaborations are adding value, co-operation and communication have broken down and opportunities to enhance networks are viable. Such findings may lead to proposals to change structures, operational processes or reporting.

Step 2 – Realistic Scope

Rather than trying to analyse the entire organisation, choose a process or particular function to begin with. Identifying as many of the participants as possible is essential recognising that the very nature of informal channels may mean incomplete information at the outset.

Include all individuals, functions, external parties that interact with the process or function.

It is worth remembering that the best source of information is often a secretarial or administrative role.

Step 3 – Data Gathering

You could carry out a series of structured interviews but that is time consuming for everyone. Not a popular move! A simple survey is probably more efficient and effective.

Think about the aspects of knowledge and communication you want to explore. We've included some examples in the table below.

Aspects	Question ideas
Decisions	<ul style="list-style-type: none">• Before you make a decision who do you sound it out with?• Who do you get input and ideas from before deciding what to do?
Expertise	<ul style="list-style-type: none">• Who do you go to for expert advice about your work?
Purpose	<ul style="list-style-type: none">• Thinking about the organisation who do you talk to about its purpose, mission or strategy?• Who do you talk to about what's important and of value to our organisation?
Rumour mill	<ul style="list-style-type: none">• Who do you talk to when you want to know what's really going on?• Who do you chat to about work and who's doing what?
Productive	<ul style="list-style-type: none">• Who do you have to discuss things with to get your job done?• When you have ideas or better ways of doing things who do you discuss them with?

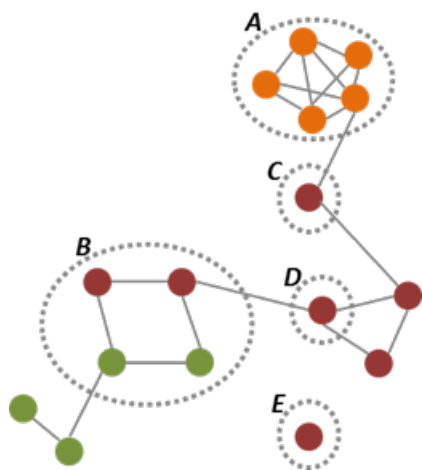
It is important to think about the way that data will be analysed when designing the survey, so defined parameters are essential. A digital survey will offer greater scope than paper surveys where respondent's accessibility allows for this.

A short survey to identify communication flows will allow respondents to engage without feeling

overwhelmed. A high response rate of >80% is essential or it will need to be followed up with interviews which are more intensive. Encourage people to think widely about their networks. Do they lunch with colleagues to share ideas or just be social?

Step 4 - Analysis and Visualisation

Basic analysis of survey data, location, age, gender, role/grade/rank, function/department etc, will enable mapping of individual networks, this may reveal findings such as those in the diagram below.



A Group Interaction	Good internal connections, limited external connections, disconnected from greens
B Cluster	Natural grouping formed from tasks, structure or informally
C Bridge	A bridge bringing together or dividing two parties; mediator or bottleneck
D Influencer	Key conduit between parties, close to multiple individuals
E Isolated	Disconnected. Essential to explore.

Auditors have excellent skills to do this type of analysis as it is imperative not to make impulsive decisions based on initial results. A bridge/gatekeeper type role might suggest a single point of failure, a need to relinquish control or share out duties. The reality might be related to highly confidential data and a robust control framework. Cultural differences may be the reason for some groupings to appear isolated or a project under pressure might have negatively influenced survey responses.

Whilst the Institute does not endorse specific products, there are many software options in addition to features in existing data mining tools to support this type of analysis including a free Microsoft Excel [bolt-on](#).

ONA is a tool that generates questions for auditors to find the answers.

More complex analysis is also possible with additional data such as:

- **Access:** how readily available resources are to the individual to be successful

- **Activity:** how active the individual is in the network
- **Control:** the amount of control the individual has over the flow of information
- **Power:** the ability of the individual to make things happen
- **Scope:** the potential range of influence the individual has

Obviously, organisations are rich with communications data from sources such as email, phone records, social media and internal chat forums. However, caution must be taken in the use of such data due to data protection regulations. Validate rationale, legality and practicality before engaging with the IT department!

Benefits for internal audit

Auditors know that people are the heart of any organisation, particularly when we think about governance, risk management and internal control. The interactions between people are fundamental to making change work, solving problems and being successful.

ONA at a leadership level has the potential to enhance corporate governance: an area that audit leaders should be continuing to shine the spotlight on as board behaviours continue to disappoint.

Consider culture questions such as:

- **Who is influential (positive or negative) in delivering change?**
- **Where is the power base within the executive team?**
- **How do we improve decision-making?**
- **What opportunities exist to harness collaboration?**

The knowledge of informal connections is a vital component of individual engagement planning. Targeting the conduits, recognising how things actually get done all drive internal audit efficiency and potentially leads to greater engagement with meaningful actions at audit closure.

Typical auditor questions worth asking include:

- **Who is likely to be an advocate for our audit findings?**
- **Are there hidden barriers to overcome?**
- **Where will be a good place to start?**
- **Why do I feel like I'm missing something but I don't know what?**

There is an opportunity to use analysis of networks at an operational level to protect the organisation through improved risk management by leveraging innovation and efficiencies.

Generating operational insights to address:

- **Where are dependencies on key individuals?**
- **Who really are the subject matter experts?**
- **Do we have pockets of innovation being suppressed?**
- **Which sub-cultures are healthy or destructive?**

There are many benefits for human resources from ONA. Perhaps this an area of partnership for internal audit to embed through organisational learning and future growth.

Examples of HR-related issues include:

- Who are the leaders of the future?
 - How can we leverage networks to drive energy and build trust?
 - Do we use the right advocates to bring new recruits up to speed?
 - What do our informal networks tell us about inclusion and diversity?
 - How at risk are individuals to collaboration overload?
 - Does the informal network characterise the desired organisational culture?
 - Where will attrition expose us to loss of knowledge and connections?
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Closing Thoughts

ONA has the potential to provide powerful insights on people, the constant through all the change and, despite unheralded advances in technology, the one thing organisations continue to rely on. Perhaps in our digital age it is the connections between people that really count.

Leaders understand the ultimate power of relationships

Tom Peters, management guru

Further reading

Video overview of organisational network analysis – Cranfield University

Practical overview and links to research – Rob Cross