

# WHITEPAPER

April 2020

## Measuring Indicators of Organizational Health and Their Impacts on Productivity and Employee Attrition



### Written By:

Dr. Ben Waber, PhD

President & Co-Founder at Humanyze

## Measuring Indicators of Organizational Health and Their Impacts on Productivity and Employee Attrition

**By: Dr. Ben Waber, PhD**

How do you define organizational health? Some companies emphasize the cultural “energy” of the organization, while others focus on how effectively employees are able to do their jobs. Everything from [resilience](#)<sup>1</sup> to [conscientiousness](#)<sup>2</sup> have been identified as macro traits and behaviors that can lead to a qualitatively “healthier” organization.

Although these different facets of organizational health are all correct, their inherently qualitative nature detracts from the power of this metaphor: the idea that there are a set of metrics that give anyone a picture of an organization’s health.

When it comes to our own physical health, we have a number of imperfect, biological indicators that can be inherently understood on a scale from good to bad. Blood pressure, for example, is an indicator of cardiovascular wellness. [VO<sub>2</sub> max](#)<sup>3</sup> measures fitness and endurance by quantifying oxygen consumption during exercise. However, these metrics in and of themselves are meaningless unless contextualized. On the other hand, they are still important because a large body of research has shown that they relate to serious health outcomes like heart attacks and strokes.

Understanding a company’s organizational health works in a similar way. Organizational indicators don’t matter simply because they’re measurable; they matter because they are related to critical outcomes that companies care about, like performance and retention.

In the last decade, Humanyze has measured over 6 billion workplace interactions that inform us of how work happens and how different behavioral metrics relate to outcomes across different industries and company sizes. Whether it’s uncovering how [cohesion is tied to performance](#)<sup>4</sup> or how [response time is affected by workloads](#)<sup>5</sup>, we have analyzed a large body of behaviors that profoundly impact the success of organizations as a whole. Taken together, these indicators or metrics become an excellent proxy for overall organizational health.

The challenge, much like with physical health, is grouping these granular, lower-level metrics in a way that’s meaningful for practitioners and enables valid comparisons within and between organizations. Although we won’t get into the specific math here, it’s [incredibly important](#)<sup>6</sup> to make sure that metrics are normally distributed; as a result, we have done significant work to ensure that a 10% difference in one metric is equivalent to a 10% difference in another metric. Beyond this, most practitioners aren’t familiar with the ins and outs of methodologies like Organizational Network Analysis (“[ONA](#)”)<sup>7</sup> (*they should be!*), so making complex analytical concepts both understandable and actionable is of the utmost importance.

For this reason, our research has identified the following behavioral categories as **key components** of organizational health:



*Engagement*



*Productivity*



*Adaptability*

$$\text{O.H.} = f(\text{Engagement, Productivity, Adaptability})$$

These are terms that anyone in business can qualitatively understand, but also ones that we can now speak to with volumes of hard data. Let's get into the specifics:

## Engagement

“Engagement” captures how **socially connected employees** are within the organization and how likely they are to be **burned out**. Specifically, we've modeled **three** primary engagement indicators:



*Overwork*



*Exploration*



*Embeddedness*

“Overwork”, as the name suggests, quantifies unhealthy work patterns. Are employees consistently working more than 50 hours a week? Are they working significant amounts of time on weekends? Not only does this correlate strongly with the wellbeing of employees, but also the quality of their work and their likelihood to remain at the company.

“Exploration” models the reach of employees’ informal networks across the organization. Do people tend to have small, insular networks? Or are they connected to a wide array of people but with few close contacts? The degree to which people have a broader view of the organization beyond their formal contacts is helpful in a variety of circumstances, from creating new innovative projects to gaining a better perspective on individual work.

“Embeddedness” is a counterweight to exploration, instead focusing on how many close colleagues people have as well as access to management. In a broad sense, systematically low scores here are an important early indicator of turnover and dissatisfaction.

## Productivity

“Productivity” captures how aligned communication patterns are with processes, and how easy it is for teams to get work done. Both of these metrics are strongly correlated with output at the organizational level. The indicators feeding into productivity are:



*Communication Alignment*



*Efficiency*

“Communication alignment” is perhaps one of the most underappreciated aspects of organizational performance: if people aren’t talking to the right people in a timely fashion, it’s hard to get work done. Everything from the amount of cross-team communication happening to email response times must be examined in order to provide a more complete view of communication pattern effectiveness.

“Efficiency” is another critical factor we consider. If people are constantly interrupted and unable to focus on work with a core group of collaborators, their work quality will suffer. If people cannot easily access information from their core collaborators, their progress can be blocked. This is especially true with information work due to the inherent complexity and vagaries that can only be overcome with a shared organizational language, understanding, and trust.

## Adaptability

Agile transformations are driving change at many large companies today, and “adaptability” is one of the key metrics indicating the success (or failure) of those initiatives. After all, if the communication network itself isn’t flexible and changing rapidly (if it’s still brittle with only a few key people connecting different critical groups), it’s unlikely that the organization will actually be able to effect positive changes. In this instance, companies need to consider the following indicators:



*Flexibility*



*Hierarchical Structure*

“Flexibility” is concerned with the variability in work styles from team to team, as well as over time. Can different teams choose to work in a way that best supports their goals? Do individuals work with a variety of people, and does that network change over time? It’s easier to get information from other sources if you have a large network, but it’s even better if you can rapidly cycle through different social groups on a weekly basis.

It’s also important to consider the formal complexity of an organization and the connectivity between leaders and front line employees. A hierarchy with many layers between leadership and individual contributors reduces the speed of the organization if this structure is mirrored in the communication patterns of the workforce. These more rigid networks are similarly resistant to changing conditions and organizational needs.

Adaptability should be understood as distinct from agility, as it’s fundamentally capturing the resilience of the organizational network and communication patterns rather than speed. It’s relevance is important beyond just agile transformations, of course; dealing with external market shifts or unexpected situations is a major component of long term success, and adaptability helps quantify that aspect.

These metrics are of course not the be all and end all of organizational health. Measurements from surveys capturing how people feel about the organization and their subjective experiences in the workplace are also incredibly important for leaders to gain a complete picture.

Rather, these behavioral metrics represent a continuous, objective, and quantitative complement to those traditional tools. We’ve developed to a point where there is enough data to confidently state (based on billions of workplace interactions analyzed and dozens of peer-reviewed studies) which behaviors are “better” or “worse”, and combine them into a Humanyze Organizational Health Score that executives can trust and understand.

There’s no denying that organizational health is a necessary precondition for organizational success. Thanks to these scientific innovations, we are able to move from function or department-specific metrics to a holistic model that leaders can utilize in order to drive better digital transformation, HR, and workplace decisions within their organizations. While many of us have heard the refrain “If you can’t measure it, you can’t manage it”, we can now definitively say that’s no longer true for organizational health.

## References

- Rao, Srikumar, et al. "To Build Your Resilience, Ask Yourself Two Simple Questions." *Harvard Business Review*, 9 Nov. 2017, [hbr.org/2017/06/to-build-your-resilience-ask-yourself-two-simple-questions](https://hbr.org/2017/06/to-build-your-resilience-ask-yourself-two-simple-questions).
- Miller, Griffin, Hart. "Personality and organizational health: The role of conscientiousness." *Work & Stress: An International Journal of Work, Health & Organisations*, Volume 13, 1999 - Issue 1, <https://www.tandfonline.com/doi/abs/10.1080/026783799296156>
- "VO2 Max." *Wikipedia*, Wikimedia Foundation, 18 Feb. 2020, [en.wikipedia.org/wiki/VO2\\_max](https://en.wikipedia.org/wiki/VO2_max).
- Waber, Benjamin, et al. "Productivity Through Coffee Breaks: Changing Social Networks by Changing Break Structure." *SSRN*, 11 Apr. 2010, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1586375](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1586375).
- Waber, Benjamin. "Understanding the Link between Changes in Social Support and Changes in Outcomes with the Sociometric Badge." *Understanding the Link between Changes in Social Support and Changes in Outcomes with the Sociometric Badge*, Massachusetts Institute of Technology, June 2011, [dspace.mit.edu/handle/1721.1/67762](https://dspace.mit.edu/handle/1721.1/67762).
- Merrill, Douglas. "Beware Big Data's Easy Answers." *Harvard Business Review*, 5 Nov. 2014, [hbr.org/2014/08/beware-big-datas-easy-answers](https://hbr.org/2014/08/beware-big-datas-easy-answers).
- Oz, Talha. "Improving Company Performance with Organizational Network Analysis." *Humanyze*, <http://www.humanyze.com/improving-company-performance-with-organizational-network-analysis/>.