

# THE ART AND SCIENCE OF ORGANIZATIONAL DIAGNOSTICS

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## **Introduction**

The term "organizational development" is one of the most widely used terms in all of business, the nonprofit world, and education. An entire sector of the consulting industry is devoted to analyzing how a company, nonprofit or educational institution is doing and improving it. Consultants are long on recommendations, and many are quite good at analyzing what is wrong or could be improved in an organization.

However, in spite of the great efforts in the "balanced scorecard" arena, in the development of data driven dashboards generated by a unique combination of IT professional and strategic planning professionals within an organization, and in the efforts of business consultants to understand and predict the future success and challenges of an organization, the science of "organizational diagnostics" is still in its infancy.

This article lays the groundwork for a new field of organizational analysis. This article builds on the work done in the field of "human capital analytics" and draws from the disciplines of economics, organizational development, mathematics, psychology, and predictive modeling.

## **The Current Paradigm**

CEO's are expected to "predict" earnings one quarter or one year in advance. School officials are expected to know the drivers of improved test scores and make a reasonable prediction of how test scores will turn out in advance. They also are expected to know which levers to push and change to help drive up test scores of their schools.

Yet, CEO's of businesses and nonprofits, and leaders in our school systems have few tools to diagnose, in a comprehensive way, the health and future health (translated "results") of their organizations.

It is unthinkable that one would go to a doctor or even a car repair shop if the doctor, health care facility or repair shop did not have a diagnostic capability that could explain the current situation and make a reasonably accurate prognosis (prediction) of what the future will bring. Only by being able to predict the future under a range of scenarios can an executive make intelligent decisions as to what steps to take and in what order to promote the best possible success of the organization.

Finally, our major companies, nonprofits and educational institutions have begun to develop "outcome metrics" or goals. In the medical world, the desired outcomes, longevity, pain free living, mobility, and reduction of disease, have been agreed to for many years. In business it may be profits or revenues, lower employee turnover, higher customer satisfaction, and in educational systems it may be lower teacher turnover, higher test scores, and the like. Now

that most organizations of any size keep reliable data on all of the outcomes they seek, a new science must be developed that will help us diagnose the organization empirically and objectively and have that diagnosis serve as the basis for predicting the future of the organization and for the implementation of suggested improvements to improve the outcomes.

### ***The Science of Diagnosis in Organizational Settings***

Every doctor will tell you that good medicine starts with good diagnosis. No treatment plan can succeed reliably and predictably without an accurate diagnosis and a well developed "treatment regimen" for that diagnosis. Over time, new treatments are discovered, tested and proven, as well as over time information gathered in the investigation stage will yield new insights that lead to new types of diagnoses. While change is constant in health care, the diagnosis/treatment paradigm does not change. It forms the basis of the art and science of practicing medicine.

The value of a diagnosis is not just to tell us where we are at any given time. The body is a moving target at all times and a key purpose of an accurate diagnosis is that the diagnosis gives us the proper insight to predict the future for that individual. It predicts the future of the individual if no treatment is given, and based on the insights of how various treatments change the expected course of one's health and one's body, we can now predict how the body will react, and, hopefully, improve, when a treatment is given to the body.

In business and organizational life, what scientific type of diagnostic tools do we have that allow us to collect systematically data from the organization, itself, and accurately predict the future of the organization as well as provide concrete suggestions for the best possible treatments for the organization to help it achieve better outcomes than one would predict without such treatment.

### ***Toward a Science of Organizational Diagnostics***

A new science must build on the knowledge we have to date and include new insights and procedures of of inquiry, data analysis, and, most importantly, be subject to scientific rigor and verification. All science starts with a question that can be answered objectively. The question upon which the new science or organizational diagnostics is based is as follows:

What are the best predictors of an organization's expected future?

Before we get to the full development of "treatments" the new science of organizational diagnostics will give us strong, reliable data and information that will predict accurately an organizational future ability or lack of ability to achieve the goals and outcomes it seeks.

The five key elements of a science include:

Theoretical underpinnings

Research methodology

Analytical framework

Verification or Proof of Concept

Application Usefulness

Recent work done by McBassi & Company in the area of "human capital analytics" had a key theoretical underpinning. [www.mcbassi.com](http://www.mcbassi.com). Gathering information in a rigorous manner from the employees and management of a company, nonprofit or educational institution, could yield statistical information or data that could be reliably used to predict whether an organization could attain or would fail to attain its goals. The research methodology is straightforward. Collect data from employee surveys and collect data on all key outcomes or goals of the organization. The analytic framework includes methodology which combines the predictive capabilities of multiple regression analysis and econometric modeling. The verification of this methodology is the strong predictive capability that properly collected and analyzed data has in giving insights into the future course of the organization if treatments or changes are not instituted and the organization's positive response when suggested treatments to cure the deficiencies diagnosed are properly implemented.

The application usefulness of the new science becomes obvious. Clear, objective diagnosis of an organization leads to clear, well tested treatments, interventions, changes, and new strategies that can propel an organization toward improving its ability to reach its desired outcomes.

### **Applying The Science of Organizational Diagnostics**

You can collect data to describe. The Balanced Scorecard does that very well. You can collect data to analyze. For example, you can determine by analyzing your data from your business that on Tuesdays you do 20% more business in your retail store than other days. This analysis can be useful, as you might decide to add more sales staff on Tuesdays, advertise more on Mondays, or undertake other measures to increase sales on Tuesday. Or you can take this same analysis and decide to advertise on Thursdays, because you want more business on Friday and are happy to take business away from Tuesday to accomplish this goal.

What is missing from data that describes, and data analysis that give you some insight it, that it does not predict anything. You can't imagine a doctor who diagnoses and treats you not being able to tell you:

If you do not do anything, or just keep doing what you are doing, this will be your likely result.

If you undertake treatment A, this will be your likely result.

If you undertake treatment B, or B plus A, this will be your likely result.

The art and science of medicine is its ability to predict the impact of all treatment options and what will happen if there is no treatment or change at all. So, when you think about collecting data, you need to think about using this data and mathematical analysis techniques that will help you predict the results of your past behavior and any changes you and your business are contemplating.

For example, to promote sales in your organization, you must start with describing your sales process. Then you must analyze what factors are driving success and failure regarding sales. Then, you must take that analysis, and identify what changes in your sales process, or compensation, or changing sales personnel, etc. will create an improvement in actual sales, and what will be the cost of those changes.

Developing predictive data might take years or it might take weeks. But, if you don't begin to employ the new science of organizational diagnostics, you will never build the mathematical models that will allow you to predict the impact of any change in your business or even predict the future of the business as it now exists. More importantly, you will continue to spend money collecting data that is simply worthless in helping you know what changes you need to make to reach the goals you want to reach.

### **Conclusion**

Organizational diagnostics is the key to proper analysis of a company, nonprofit or educational institution's health or fitness. The medical model of diagnosis first, then treatment now should be applied to the organizational world. In fact, organizational diagnostics is the next killer app. The days of collecting data through employee satisfaction or employee engagement surveys that do not predict anything are over. Just as doctors do not measure the size of the second toe compared to the first toe during an examination, (because such information does not reliably predict anything in most circumstances), companies and organizations cannot afford to collect information that does not rise to the scientific level of "diagnosis."

The development of a new science is always challenging. Does the new science explain anything? Does it help us fix anything? Does it help us direct our future research? Does it suggest the right treatments? The underpinnings of the Baldrige Award were simply that the various attributes measured in the Baldrige competition were considered as reasonably accurate predictors of long range success. The Baldrige system represents the state of the art in knowing what factors lead to organizational success.

However, for the capitalist system, the nonprofit world, and the educational sectors to succeed as fully as possible, we need to transform the art of diagnosing organizations into a science. The framework now exists for organizations of every size for a reasonable investment to begin to participate in the early stages of organizational diagnostics.

The power of organizational diagnostics is the power of medical diagnostics. It forms the new basis of improving the performance of organizations of all types in all sectors of a free market economy.

While more work needs to be done in this new field or science we call, "organizational diagnostics," the basis of a new science has now been formed. It builds on many methodologies, information technology only just available over the past decade, and can yield powerful, long lasting results, which is what we should demand of any new ideas and methodologies that when combined make the brash claim of being a new science.

### **About the Author**

Herb Rubenstein is the President of Sustainable Business Group a consulting firm to businesses. The headquarters of the Sustainable Business Group is Denver, Colorado. He is co-author of Breakthrough, Inc. - High Growth Strategies for Entrepreneurial Organizations (Prentice Hall/Financial Times, 1999). He also served as an Adjunct Professor of Strategic Planning George Washington University, and has been an Adjunct Professor of Entrepreneurism at George Mason University and Colorado State University. He has his law degree from Georgetown University, his Master of Public Affairs from the LBJ School of Public Affairs, a graduate degree in sociology from the University of Bristol in Bristol, England and was a Phi Beta Kappa/Omicron Delta Kappa graduate from Washington and Lee University in 1974. His email address is herb@sbizgroup.com and he can be reached at 303 910-7961. For more information on the Sustainable Business Group, see [www.sbizgroup.com](http://www.sbizgroup.com).