

PRELIMINARY DRAFT

Organizational Activities as Experiments

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Abstract

An organization's activities are vital to its performance, yet we lack a unified framework to study such activities. The diverse nature of both organizations and the activities undertaken by various organizations has made generating a framework challenging. This paper proposes the use of experiments to model activities and derives several general principles for optimizing an organization's activities, thereby improving organizational performance. In addition, this paper shows how its framework for studying activities can advance our understanding of organizational change and learning.

Introduction

The activities undertaken by an organization have been recognized as vital to the organization's performance (Porter, 1996; Siggelkow 2001). Current recommendations for changing organizational activities to improve firm performance treats such activities as a black box: they materialize fully formed from explorative activity or combinatorial acts (Hannan and Freeman 1984; March 1991) and become more efficient over time due to covert changes in worker behavior (Argote and Epple 1990). Although this black box approach has been fruitful in producing predictions about how organizations will for example react to changes in their environments or evolve over time, this approach restricts the ability of researchers to provide guidance on how an organization can proactively improve an activity.

The challenge in studying activities and deriving general findings on activities is the sheer diversity of activities undertaken by organizations. A manufacturing organization might have a production activity, where raw inputs are ingested at a factory and a finished product such as a car outputted at the end of the activity. A research organization's activities related to the discovery of new innovations might follow a staged development process, where some ideas for new innovations get culled as more is learned about each idea's potential over time. A human resources organization could include activities that allocate compensation packages to existing employees as well as drive the recruitment of new employees. A venture capital organization has activities that revolve around deal flow: tracking startups from initial pitch through rounds of financing and finally exit via acquisition or IPO. Strategy formulation is another activity undertaken by many organizations, where decision makers use environmental cues to formulate the future direction of the organization. Any findings about organizational activities need to apply to across these examples, otherwise the finding would be really be about a specific industry or job function rather than a general statement about organizational activity.

This paper fills the gap in our understanding of organizational activities by providing a model for many of the activities undertaken by organizations: illuminating the black box. Experiments are used as a basis for this model. The term experiment often elicits the idea of a rigorous study, with well-defined control and treatment groups using statistical analysis to tease out the causal effect

of a change to the treatment group. However, there is a less onerous version of experiment that strips out the frequentist focus on sample size and leaves a leaner Bayesian concept, where a prior belief exists about a casual effect and an experiment simply solicits information that updates this belief. This paper argues that the Bayesian form of experiment encapsulates organization activities in a very general way; activities as diverse as manufacturing and strategy formulation can be studied within a shared framework.

The experimental model of organizational activities yields several contributions to our understanding about organizational learning, change and performance. It provides guidance on optimizing an activity to balance the learning that occurs over the course of an activity versus the cost of learning, which could involve increasing or decreasing the number of stages into which an activity is divided. It opens a new avenue for researchers to think about organizational change as not just something that is forced on an organization by its environment, but also an ongoing process of refinement that can be studied and improved upon. Organizational performance can also now be studied not only as a function of the set of activities an organization chooses to undertake and the effects of their interactions but also how those activities are executed.

The rest of the is paper is organized as follows. First, a set of definitions for terms such as activity, organization and experiment are provided and contrasted with previous research to create a basis for this paper's contributions. Second, several examples of activities are documented to highlight the applicability of this paper to a diverse set of organizations. Third, an experimental model of activities is developed with a focus on relating that model to the set of example activities. Fourth, the model is used to make a set of recommendations on how an organization can improve the efficacy of its activities. Finally, this paper concludes with a discussion of how this paper's model can be used to advance other areas of organizational theory, ranging from managerial compensation to organizational form.

References

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