

# The Metaphysics of Internal Controls

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**Abstract:** One issue that continues to plague researchers in the development of a comprehensive business ontology, concerns the specification of normative business event (sometimes referred to as tasks) models for business processes. These business events are aggregated into business processes and can be mapped to state changes within these business processes. There are two types of review for these business event models. First, are the models designed appropriately, and second are they operating as designed. These two types of reviews are the basis for evaluating an organization's system of internal controls. Thus, a quality internal control system will result not only in a perfect design of the business event models, but will also ensure availability of sufficient information about the actual functioning of these event models. Despite this relatively straightforward conceptual foundation for a system of internal controls, to date there are still only descriptions of sufficient results as opposed to necessary conditions for a quality internal control system. In addition these sufficient results are not of internal controls, but concern the quality financial statements created from the corporate information system. This results in a subjective evaluation of internal controls; are they good enough to provide quality financial statements? This subjective review may not be consistent from one reviewer to the next. The purpose of this paper is to examine some possible philosophical issues that may offer some insight into the nature of business events, their impact on internal controls, and the evaluation of internal control systems.

## 1 Introduction

From a state transition perspective, an organization's state at time  $t$  will transition to a new state at time  $t+1$  as a result of a task or business event. An organization with a perfect system of internal control will exhibit two features. First, all potentially legal (acceptable) business events will be defined<sup>1</sup>. Second, the organization's information system will capture those business events so as to allow a judgement concerning whether actual business events have unfolded according to their definition. Thus, for a quality internal control system these two features are necessary. However, there are some concerns about the possibility of any system exhibiting these features. Some concerns are practical, while others are philosophical.

For any organization to have all business events identified, much less defined is an organizational nightmare. Indeed most business processes, much less the events which are included in the process, and not well defined [1]. To address this practical impediment to defining business events, two exceptions have been made. First, auditing only requires those controls which pertain to financial reporting events need to be defined [2], and second only those with a material impact on these statements need to be reviewed [3]<sup>2</sup>. While these two issues seem to provide some limitation to the internal control review process they do not address fundamental questions about internal controls and their evaluation.

When an organization transitions from its state at time  $t$  to one at  $t+1$  two evaluations are possible. First, how closely did the actual event which occurred at time  $t$  correspond to the type definition for that event? Did the sale at 11:30 match what a sale is supposed look(?) like? Second, does the organization match what it should "look" like after the business event? If the business event was an economic event, then an auditor would need to make a conclusion as to whether there is a material difference between an organization which perfectly includes all aspects of the event and the existing organization. From a metaphysical perspective, the question can be phrased as to whether, the "shadows cast by the form of the perfect organization on the

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<sup>1</sup> Herein, defining a business E(vent) implies specification of R(esources) and A(gents) which encompass the accepted constellation or policy for that event. Because the specification is usually not of instances, it is more appropriate to discuss these as Resource, Event, and Agent Types. A salesperson makes a sale of finished goods inventory to a customer, as opposed to Jim makes sale #IV12112 at 11:30am to Jeff of 10 chocolate chip cookies.

<sup>2</sup> This does raise the question of whether these financial statements have any relationship to some intrinsic properties of the organization or are just names given to calculations [12]. While not part of this paper, McCarthy also seems to offer support for a concern raised elsewhere that the numbers of financial statements are but one of many ways to look at an organization; a point raised concerning theories in the natural sciences [21].

cave wall<sup>3</sup>” resemble the current organization. If such an abstract entity, a perfect organization, exists then auditing can be viewed as attempting to determine whether there are functions to map the physical organization to this abstract one [4]. This requires adopting a Universalist perspective on organizations. However, if we adopt a nominalist view, then the problem of controls and events takes on a different tone.

McCarthy’s original formulation of what has to become the REA ontology [5] makes the case that organizational events are not restricted to those that simply change financial position and are represented in financial statements. This conceptualization expands the universe of organizational events and therefore internal controls. Thus, it becomes necessary to have some notion of what are the events that might (can) affect an organization. If every possible state change is the result of an event, then it becomes necessary to understand what an organization is and therefore what could change its state<sup>4</sup>.

One might rephrase this state change question as a question of what an organization can experience<sup>5</sup>. This raises the concern of whether an organization’s experience is the equal to any (or all) of its constituents. Does an event which impacts any employee in the firm have some impact on the organization as a whole? Is the organization’s experience the sum total of all of the experiences of its constituents? Or, are there experiences outside those of its constituents? Control can focus on events which only impact the organization’s experience, over the events which impact microphysical entities which comprise the organization, or the combination of these events. It would seem that an organization cannot have experiences separate from its constituent components. As a corollary it is also difficult to imagine an organization changing its state without some action by a constituent component. A sale is accomplished by members of the organization, not by the organization itself. It seems apparent then that an organization’s state can be described at least by the state changes of its members.

Therefore, internal control of an organization implies it is necessary to at least have control over the state changes of its constituent components. At any point in time, internal

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<sup>3</sup> With deference to Plato’s allegory of the cave [20]

<sup>4</sup> Is an organization separate and distinct from its components (employees, buildings, suppliers, customers, etc.) or is it the sum of these components?

<sup>5</sup> I purposely did not raise the question of consciousness which on the surface seems to be a different question. However, a panpsychic orientation looks at the experiences of macrophysical entities and wonders if they come from the combination of experiences from microphysical entities [15].

control is then control over the future events which will be performed by the organization's member. Past events can no longer be controlled. One type of future events are those that will fulfill commitments [6]. Future occurrences can change the impact of current events, but there is also a potential for the anticipation of these events to change a state<sup>6</sup>. For instance, a cashier anticipates receiving a cash payment for a past sale, but may change the belief that this payment will be received when they discover the firm is filing for bankruptcy. Does this change in belief, change the state of the firm or is it irrelevant?<sup>7</sup> If there are two managers at the firm in charge of granting credit and one knows about this bankruptcy, and the other does not could this change their events which grant credit? However, there are other future events which do not fit in with commitments, but are clearly related to policy.

An organization may have a policy concerning harassment. Can this policy ever be achieved if people within the organization do not believe in the policy? Does the organization have better controls if people within the organization believe in the policy? While, this may not affect financial position, an organization whose employees do not believe in this policy is in a different state from one with employees that do.

## **2 Conclusion**

Researchers, auditors, managers, standard setters, etc. have attempted to develop frameworks of internal controls which could be used to evaluate their quality. Internal controls have at their core the restriction of future states of the organization. There future states are achieved through events. Therefore, it is necessary to agree upon the universe of future events which can impact the organization. Even if these future events are reduced to those that impact financial position some questions still arise. A Universalist position would argue that there is a Platonic form which can be used to compare the organization to what it should be. This paper takes the nominalists' viewpoint that an organization is not a universal and therefore this comparison is entirely idiosyncratic. If we try to develop some universal model of controls we are not only barking up the wrong tree, we are barking up a tree that does not exist.

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<sup>6</sup> Guarino [7] discusses this potential and provides two examples which seem to be fundamentally different. One is the change of the score in an ongoing match the other is anticipating a delay in a trip.

<sup>7</sup> Russell [13] argues that this private data does exist, and for an organization this can clearly impact future events.

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