

Who Is Stronger in Your Agile Deployment – The Id or the Superego?

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Abstract. Many studies and industrial reports have demonstrated the tendency towards the increasing number of organizations, interested in agile software development. With the transition from intentions to actions, the question that naturally arises is how the deployment process should be approached. In this paper we argue that shared organizational values, which we call organizational *Superego*, should be the main drivers for the deployment and post-deployment assessment of agile methods and techniques. Along with that we propose a new organizational classification technique, which assesses the power of the Superego to shape organizational behavior, together with an organizational value framework to be used for strengthening it. We further discuss how a strong Superego would approach the deployment of agile methods and techniques, and outline a future agile deployment framework, based on organizational values.

Keywords: Agile Adoption, Deployment and Post-Deployment Assessment of Agile Methods and Techniques, Organizational Values, Organizational Culture.

1 Introduction

Recent industrial reports have confirmed the tendency from previous years that the number of organizations, interested in or already deploying agile methods and techniques, is continuously increasing [1, 2]. In their transition to agile software development, these organizations are faced with many challenges, including the deployment process and how it should be approached [3]. In this paper we address this particular challenge, taking the perspective of organizational values.

By organizational values we mean the “...*latent constructs that refer to the way in which people evaluate activities or outcomes*”, and which drive and “*regulate both means and ends*” of the organization [4]. Many authors have emphasized the importance of organizational values in (1) regulating different spheres of organizational life – from organizational goals and objectives to concrete behavior and character of organizational members [4]; (2) guiding and securing commitment for organizational change [4, 5]; (3) ensuring depth, stability, and consistency to management practices [5]; and many more [4, 5]. Even a new management paradigm

has been proposed, known as *management by values*, which is argued to have a tremendous potential to overcome the shortcomings of its predecessors, including the management by instructions and management by objectives [5]. Taking into account the arguments of these organizational studies and the increasing evidence in respect to organizational values [4, 5], we were convinced that *organizational values would have the potential to successfully drive the deployment of agile methods and techniques*.

Organizational values, as a core cognitive element of the organizational culture [4], have been studied in the context of agile software development. A brief overview of these studies could be found in [6], where the importance of organizational culture to agile deployment is also argued. While most of these studies are focused on *cultural compatibility* and define the *ideal organizational context for agile deployment*, the organizational values have been overlooked. The same is valid in regards to the many agile deployment paradigms, frameworks and approaches, currently existing in the literature. QIP, the paradigm proposed by Pikkarainen et al. and other paradigms, briefly summarized in [7], have emphasized the importance of *setting goals and objectives for the deployment process*, but they are isolated from organizational objectives and values. The Strategically Balanced Process Adoption makes a step further by aligning the deployment process to *organizational strategic objectives* [8], but the linkage to organizational values is still missing. Some other deployment frameworks, including the Agile Adoption Framework (AAF), Agile Adoption and Improvement Model (AAIM), Objectives, Principles and Practices Framework (OPPF), briefly presented in [9], are focused on the strict adherence to agile methods and techniques for achieving *organizational agility* (and their expected organizational benefits), taking into account organizational values only to assess the appropriateness of the deployment (AAIM, OP PF) or the readiness of the organization (AAF, AAIM). Other approaches [10], suggest that agile methods and techniques should be *adapted and tailored to best fit organizational and project context*, but they also lack sufficient attention on organizational values.

This paper briefly presents the current state of our research work and is organized as follows: Section 2 discusses the organizational context suitable for the deployment of agile techniques based on organizational values; Section 3 outlines how organizational values could be determined and secured; Section 4 briefly describes how the deployment will be approached from organizational values perspective; and Section 5 summarizes contributions and presents plans for future work.

2 Who Is Stronger – The Id or the Superego?

Being interested in the deployment of agile techniques in respect to organizational values, we were concerned with the kind of *organizational context*, where such deployment would be applicable at all. It was obvious that (1) there should be organizational values, explicitly defined by the organization; (2) these organizational values should have the power to influence organizational decisions (incl. the selection of agile techniques) and shape organizational behavior (incl. the deployment of these techniques); and (3) they should be applicable in terms of organizational justification and assessment (incl. the post-deployment monitoring and assessment of agile

techniques). In order to formally specify this organizational context, we studied many of the existing organizational assessment and classification techniques, thoroughly reviewed in the excellent work of Jung et al. [11]. Although some of these techniques as Organizational Culture Assessment Tool (based on Competing Values Framework), Denison Organizational Culture Scale, van der Post Questionnaire, Interactive Projective Test and Organizational and Team Culture Indicator [11], take into consideration the clarity, variety and impact of organizational values, there was no technique in the literature (to the extent of our knowledge), which assesses and classifies organizations in terms of organizational values and their power to drive and justify organizational behavior. To fill this gap and provide a formal specification for the organizational context, suitable for the deployment of agile techniques, based on organizational values, we have proposed a new organizational assessment and classification technique. This technique was initially inspired by the concept of strong culture [14] and further refined through reviewing of existing industrial surveys (as the Aspen Institute’s survey [13]), exploring how deeply organizational values are embedded in organizations, what best practices for managing organizational values do exist, etc. It adapts the concepts of *Id*, *Ego* and *Superego*, as defined in the Sigmund Freud’s structural model of psyche [12] and provides a new organizational metaphor [15], which we called the “*organization as psyche*”. The proposed mapping between these concepts in a personal and an organizational context is briefly described in Table 1.

Table 1. The concepts of Id, Ego and Superego in personal and organizational context

Personal Id	Organizational Id
The Personal Id comprises the unorganized part of the personality structure and is responsible for the uncoordinated <i>instinctual</i> trends [12].	The Organizational Id pursues the <i>individual or group interests</i> of stakeholders (named <i>organizational instincts</i>), resulting in inconsistent, conflicting and irrational organizational behavior.
Personal Superego	Organizational Superego
The Personal Superego is the organized part of the personality structure, which strives for perfection, <i>defines and pursues personal values</i> and is responsible for the consciousness [12].	The Organizational Superego defines <i>shared organizational values</i> and continuously monitors controls and evaluates the behavior of the organization in regards to these values.
Personal Ego	Organizational Ego
The Personal Ego is the realistic part, which tries to balance between the Id and the Superego and shapes the actual behavior [12].	The Organizational Ego is responsible for the actual behavior of the organization, where individual interests and organizational values are constantly confronting.

The proposed technique is a one dimensional assessment and classification technique [11], which aims at answering the question of “*Who is stronger in your organization – the Id or the Superego?*” It does so by using a self-reporting questionnaire, currently consisting of 30 items with 7-point Likert response. These items, partially influenced by Kotter and Heskett’s questionnaire [14] and further developed based on an extensive literature review, assess organizational values in

terms of their *determination* (the degree to which they are explicitly and clearly defined), *enactment* (the degree to which they are taken into consideration and woven within the organizational life) and *commitment* (the degree to which they are accepted and supported by organizational stakeholders). The self-reporting questionnaire, together with the questionnaire design, its reliability and validity will be thoroughly presented in a future paper.

Using the proposed technique, the organization is further classified into one of the following categories: *Dominant Id*, *Conflicting Ego* and *Dominant Superego*. This categorization reflects the level of determination, enactment and commitment of organizational values in a given organization, and is briefly presented in Table 2.

Table 2. The Dominant Id, Conflicting Ego and Dominant Superego types of organizations

Assessed aspect	Dominant Id	Conflicting Ego	Dominant Superego
<i>Determination of organizational values</i>			
Organizational values are explicitly defined and consistent, are understandable and familiar to organizational members, are frequently communicated and revised, are associated with concrete measures and indicators, etc.	Low	Medium to High	High
<i>Enactment to organizational values</i>			
Organizational values have influence on and are incorporated in organizational decisions and behavior, organizational members are continuously monitored, controlled and evaluated in respect to these values, etc.	Low	Low to Medium	High
<i>Commitment to organizational values</i>			
Organizational values are supported by top management, organizational values are representing and consistent with the personal values of organizational members, etc.	Low	Low to Medium	High

The range [Low, Medium and High], used in the table, is simplified for the purpose of clarity.

This organizational assessment and classification technique was initially designed to formally specify the “perfect” organization (or organizational prerequisites) for the deployment of agile methods and techniques, based on organizational values, namely the *Dominant Superego*. Despite of this it, we expect it to be applicable in a broader context, including situations where the deployment of changes in organizational processes, products, etc., should be justified in terms of organizational values, when the strength of organizational values has to be measured, etc.

3 How to Build a Dominant Superego?

The Dominant Superego does not come for granted and additional efforts are needed in order to define, prioritize, select and propagate organizational values. As a result we had concerns about the possible utilization from the industry of agile deployment

approaches, based on organizational values. To overcome these concerns, we looked for existing organizational value frameworks, which could be used by the organizations in their efforts to become Dominant Superegos. The high level requirements for these frameworks were to secure high utilization, providing a straightforward, ready to use and expandable instrumentation, applicable in a wide range of organizations. More specifically, we required the following elements to be part of the desired framework: (1) an expandable repository of formally defined and widely applicable organizational values, together with (2) an expandable repository of their associated organizational metrics; and (3) formally defined techniques for the prioritization, elicitation and propagation of organizational values. Starting from these requirements we reviewed many of the existing organizational value frameworks, including the Balanced Scorecards, Strategy Maps, Competing Values Framework, Corporate Transformation Tools, Actions-to-Value Framework and others [4, 11], together with some organizational value models and dimensions, as described in [4, 6, 11]. Although most of the required elements were fully or partially covered, there was no organizational value framework, currently existing in the research literature (to the extent of our knowledge), which provides all of these elements within a single and coherent instrumentation. To overcome this shortcoming, we have proposed a new organizational value framework.

The core elements of the proposed framework are the organizational values and metrics repositories. The *Organizational values repository* consists of concrete and formally defined organizational values and their interdependencies. Each *organization value* (e.g. Customer Satisfaction) is defined by specifying its name, type, associated concern and target, and the set of organizational metrics that could be used to assess organizational behavior in regards to this value. On the other hand, each *target* (e.g. Customer), belongs to a specific *target group* (e.g. Organizational Stakeholders), has a set of desired *target characteristics* (e.g. Satisfaction) with their relevant measurable *target properties* (e.g. Purchase Rate). The set of measurable target properties (currently more than 80) compose the *organizational metrics repository*. A brief overview of the proposed organizational values, targets and target groups is shown in Table 3. These organizational values and targets (together with their associated characteristics and properties) were derived from the literature. The selection was based on well established criteria, requiring values to be (1) terminal (should describe desired end state [4]); (2) quantifiable (should be measurable); (3) scientific (should be subject of organizational studies); and (4) abstract (should be applicable in a wide organizational context), while the targets had to cover different aspects of organization life. The proposed values and metrics repositories are not comprehensive, but they could be easily extended as long as the selection criteria are followed. The other elements, included in the proposed framework, are a number of techniques used for the prioritization, elicitation and propagation of organizational values. For the prioritization of organizational values, *value game* was proposed. It constitutes of two sub processes (or game levels) – (1) the *target prioritization*, where the targets are prioritized at each hierarchical level of the organization using *target and point cards* and (2) the *values prioritization*, where the values associated with each target are

prioritized at each hierarchical level using *value and point cards*. *Target and value cards* are used by the *Dealer* to describe targets and values, and to organize their allocated point cards, while *point cards* are used by the *Player* to actually estimate these targets and values. At the end of the value game, there should be a list of prioritized targets and organizational values, relevant for a particular hierarchical level. The final elicitation and propagation of organizational targets and values is done through the *value tournament* technique, where organizational values are further aligned at all levels of the organization and high acceptance rate from all stakeholders is ensured. This is achieved by gathering at least one player from each hierarchical level to participate in the tournament. Then the tournament itself is organized in way similar to the value game. At the end, the winning organizational values are officially announced and signed off. The monitoring and controlling of organizational values is organized through the use of so called *value signboard*, whose purpose is to visualize the organizational values including the current organizational values, their associated metrics, the decisions currently assessed in terms of organizational values and etc. As we are limited in size, we are leaving the thorough presentation of all these repositories and techniques for a separate paper.

Table 3. Organizational values, targets and target groups

Target	Organizational Values
<i>Organizational Stakeholders Target Group</i>	
Customer	Customer Satisfaction, Customer Delightment, Customer Enrichment, Customer Performance, Customer Trust, Customer Loyalty and Customer Engagement
Partner	Partner Satisfaction, Partner Trust, Partner Enrichment, Partner Performance, Partner Engagement and Partner Commitment
Employee	Cooperation, Respect, Discipline, Accountability, Competence, Creativity, Adaptability, Engagement, Commitment and Satisfaction
Shareholder	Shareholder Wealth, Shareholder Satisfaction and Shareholder Engagement
Society	Ecological Sustainability, Social Sustainability and Society Engagement
<i>Organizational Glue Target Group</i>	
Process	Focus, Resources Utilization, Communication, Shared Understanding, Performance, Continuous Improvement and Flexibility
Product	Product Functionality, Product Quality and Product Innovation

4 How Does the Dominant Superego Approach Agile Deployment?

In this section we will briefly describe how the Dominant Superego type of organization will approach the deployment of agile techniques. The process tasks and artifacts are graphically represented in Fig. 1, using BPMN 2.0. We call this approach to agile deployment *agile deployment by values*.

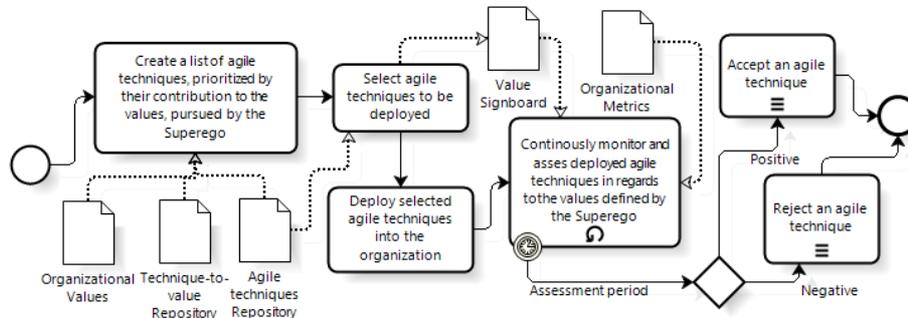


Fig. 1. Agile deployment by values, represented using BPMN 2.0

The first process task aims at creating a prioritized list of agile techniques in terms of their applicability to the organizational values, defined by the Superego. To do so, two process artifacts are additionally required – the agile techniques repository and the techniques-to-values repository. The *agile techniques repository* consists of formally defined agile techniques in a way that facilitates their deployment within the organization (including terms of use, constraints and limitations, interdependencies and other situational factors). The *techniques-to-values repository*, on the other hand, specifies the relation between each particular agile technique and different organizational values (their “fitness”). This relation could be a positive, neutral or negative contribution or a more complex conditional contribution and could be determined based on empirical evidence, expertise, etc. Such repositories already exist in the research literature as the evidence-based Agile Method Fragments (AMF) repository, proposed by Esfahani and Yu [8]. If the organizational value framework, introduced in the previous section is about to be used, these repositories need to be further adapted to suit the proposed organizational values. At the end of this process task, there should be a list of agile techniques, prioritized by their aggregated contribution in terms of organizational values as defined by the Superego. Only then the organization can further proceed with the selection of concrete agile techniques. During this selection process, the organization could take into account additional situational factors, as described in the agile techniques repository. Once the agile techniques are selected, they should be reflected on the value signboard, where the post-deployment monitoring will take place. After the actual deployment, assessment is continuously performed (on fixed time intervals) using the value signboard and the organizational metrics, associated with the pursued organizational values. After a predefined period of time, the assessment is finalized and depending on the results, the agile techniques are either accepted or rejected.

5 What Is Next?

In this paper we have briefly presented the deployment of agile techniques approached from organizational values perspective. This approach to agile deployment is quite unique, as none of the reviewed agile deployment frameworks

introduces anything in this regard. We have briefly presented some of our initial results. This includes (1) a new organizational assessment and classification technique; and (2) a new organizational value framework. We have also discussed how a Dominant Superego type of organizations will approach the agile deployment. As a future work we are going to propose a complete framework for agile software deployment based on organizational values (or *agile deployment by values framework*). This will include not only the newly proposed techniques, but also concrete agile techniques and evidence-based techniques-to-values repositories, all welded together in a single structured process. The other major future work is the validation of the introduced techniques in a real industrial setting and the consequent experimentation of the deployment framework in real industrial cases.

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