

COBIT-5 FRAMEWORK as a MODEL FOR THE REGIONAL DEVELOPMENT AGENCIES IN TURKEY

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—Abstract —

By the drive of global competition based on innovating of cutting edge technology, more and more people within business functions need to have IT skills and will be involved in IT processes, decisions and operations. Therefore business and IT need to be better integrated as they are becoming intertwined. Since poor integration of different IT systems incongruent with business needs is accepted as one of the major explanations for the failure of effective accomplishment of the business and IT goals and objectives of organizations, this paper tries to analyze the governance of IT governance infrastructures of Regional Development Agencies (RDAs) in Turkey that can be promoted with COBIT-5 model with which the governance of IT enterprise come to the fore at the end of 2012 by Information Systems Audit and Control Association (ISACA). This paper introduces holistic and integrated application of COBIT-5 framework in brief to improve and promote the level of e-governance from a theoretical point of view.

Key Words: *E-government, e-governance, IT-governance, COBIT-5, governance*

JEL Classification: M10, M14, M15, G30, O32

1. INTRODUCTION

E-government and e-governance, which is considered to make services more effective, efficient, economic, adequate, transparent, and responsive has been drawing concern from policy makers, bureaucracy, academia, and the businesses. Since to implement e-government and e-governance, there needed a total transformation of infrastructures, processes and procedures led by a continuous changes in managerial and political mindset, it is deemed that the regional development agencies (RDAs) may have some temporary inconveniencies or inadequate of infrastructure as a result of problems of governance of enterprise IT. In this paper, it is attempted to review the requirements of the concept of e-government and e-governance in the RDAs, the need for business processes re-engineering and made some recommendations for a methodology of implementing holistic and enterprise wide IT-governance and e-governance

solutions drawing inspiration from COBIT-5 approach of governance of enterprise IT (GEIT) which is deemed to have the ability to promote the level of e-government and e-governance of RDAs. The COBIT-5 as new comprehensive approach which was developed on the older versions by ISACA in 2012 demonstrates a big deal and assertion that no matter what public body, private organization or NGO is the enterprise, the method consisted of principles and enablers is viable and sustainable. This study is predominantly based on the books of ISACA on COBIT-5.

2. E-GOVERNMENT

The main reason behind mind-set of e-government implementations is its dependency on the economic and efficient delivery of public services to people and reducing transaction costs of government by wielding cutting edge IT. As part of e-government activities of RDAs, there is not a very wide spectrum of e-services that can be counted with fingers. The information to potential beneficiaries, the promulgation of tenders and the call for proposals, the application of external experts, the evaluation of external experts for selection, the application on projects and evaluation done by external experts on the project applications. The monitoring of projects modules is also being planned. Hence implementation of e-government services by RDAs seems to be developing day by day at the spectrum of “netizens” who are the citizens on the net. (Wikipedia, Netizen)

At the corporate level however, e-services are also available such as electronic document management system (EBYS) but not to an extent of management information systems or enterprise resource management. The fact that the administrative board and also the Development Council are not included in any electronic system can be seen as an impediment of governance and e-governance structure of RDAs. The most promising system of RDAs is programme management information system, the KAYS (a comprehensive MIS system) in which there are spectrums of different electronic functionalities that can serve for e-government tasks of RDAs.

3. E-GOVERNANCE

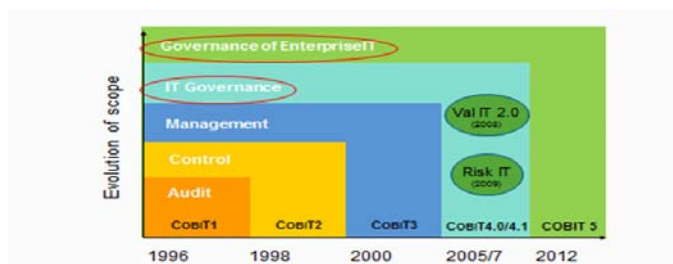
“Although e-government is one-way communication protocol whereas e-governance is two-way communication protocol.” (Wikipedia, E-Governance) E-governance is a infrastructure of technology intensive processes that are changing both the delivery of social, economic and financial services and the broader relations and interactions between citizens and government.

4. SHIFTING FROM IT-GOVERNANCE TO GEVERNANCE OF IT ENTERPRISE

At the conjunction of e-governance and e-government, there may be a solution for eliminating the languish of governance and traditional problems such as lack of coherence in public policies; inconveniency of IT bases; failure of big MIS and ERP projects; increasing need to attract concerns towards continuous development of participation and collaboration by using new, cutting edge ICT; and concerns for reducing digital divide. Presumably, COBIT-5 may have internal dynamics to tackle with mentioned problems and needs that require promotion of e-government and e-governance in RDAs.

According to ISACA, COBIT-5 is the only business framework for the governance and management of enterprise IT in which it incorporates the latest thinking in enterprise governance and management techniques, and provides globally accepted principles, practices, analytical tools, approaches and models to help increase the trust in, and value from IT. COBIT-5 builds, expands and surpasses on COBIT 4.1 by integrating other major frameworks, standards and resources, including ISACA's Val-IT and Risk-IT, Information Technology Infrastructure Library (ITIL) and related global standards from the International Organization for Standardization (ISO).

Figure 1: Governance of Enterprise IT

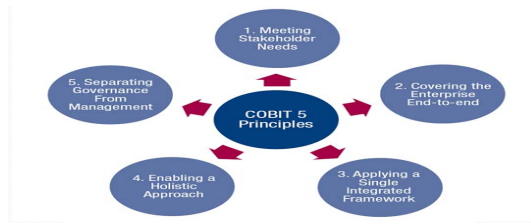


Source: ISACA:2013:13.

5. BASIC PRINCIPLES OF COBIT-5

COBIT-5 is founded on 5 key principles for governance and management of enterprise IT:

Figure 2: COBIT-5 Principles

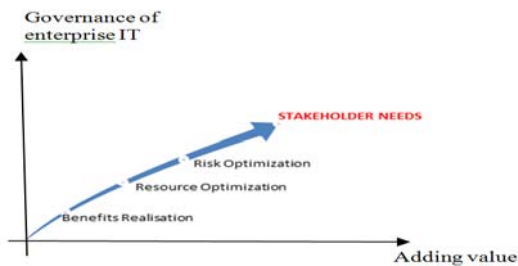


Source: ISACA: Implementation: 2012:16.

5.1. Meeting Stakeholder Needs

Every organization has stakeholders and has to be run according to their needs and priorities. RDAs exist to produce value for stakeholders at local level by making a sustainable balance between the realization of benefits and optimization of risk and of resource usages. COBIT-5 may provide required processes and enablers to reproduce continuous business adding value by the use of governance of enterprise IT.

Figure 3: Relationship of stakeholder needs with GEIT and adding value.



As is shown in the figure above, all stakeholders need adding value which can be provided by means of benefits realization, risk optimization and resource optimization clauses as the governance of enterprise IT level increases. This is quintessence of COBIT-5 in this point that the more GEIT the more adding value by the drive of stakeholders needs which also provides alignment of benefits realization, resource optimization and risk optimization of enterprise.

In the case of RDAs, stakeholders are manifold such as the potential beneficiary to funding programs, the project beneficiaries, potential entrepreneurs, investors, local government bodies, the Ministry of Development (MoD), municipalities, NGOs, local governors, staff members and also service providers or outsourcers. These different groups have different interests and needs. Since every organization has different strategic objectives, and RDAs may customize COBIT-5 to suit their unique case by the goals cascade, mirroring high-level organizational goals into reasonable, specific, manageable IT goals and depicting

these into specific main and sub-processes and practices such as the ones embedded into region plans and strategic plans. Stakeholder needs have to be translated into actionable stages. The COBIT-5 goals cascade in the mechanism to mirror stakeholder needs into specific, conceivable, actionable and customized organizational goals, IT goals and enabler goals. This conversion allows setting sequential specific goals at levels and in every domain of RDAs in support of the overall objectives and stakeholder requirements, and thus effectively supports alignment between RDAs' needs and IT services.

5.2. Covering the Enterprise End-to-End

IT cannot be separated from business functionalities and not be standalone unique asset. Since IT tools, techniques, gadgets and objectives are pervasive and imperative for all business functionalities, COBIT-5 tries to integrate governance of enterprise IT into concept of enterprise governance. It tries to cover all functionalities, departments and processes and sub-processes within organizations. COBIT-5 does not only revolve around on the IT-related functions, but take into consideration information, knowledge and IT as organizational assets and values that need to be taken into account just like any other asset by staff member of organization such as physical and human capital. To have an effective governance and management system, COBIT-5 perceives IT governance and management enablers to be organizational wide and end-to-end, that is pervasive of everyone and everything no matter how much they are external or internal, which is pertinent to governance and management both technical and administrative. In the governance and management system of RDAs there needs to be a change of strategic mind set to accept enablers as the main drivers of governance and management including all business and IT related implementations.

5.3. Applying a Single, Integrated Framework

There are many frameworks, standards and best practices providing guidance on a subset of business or of IT activities. COBIT-5 aligns with and integrates other relevant standards and frameworks at their conjecture points such as of COSO, COSO ERM, COCO, ISO/IEC 9000, ISO/IEC 31000, ISO/IEC 38500, ITIL, ISO/IEC 27000 series, TOGAF, PMBOK/ PRINCE2, CMMI, and thus can serve as the overarching framework for governance and enterprise IT. (ISACA, 2013:23) In addition to using single standard, this principle can be applied to the IT frameworks and systems such as the systems that can work consistently and coherently intertwined and interconnected with single sign on entry and so on. Therefore instead of trying to decide which frameworks or standards to be

followed COBIT-5 provides all of benefits that can be delivered by other frameworks and standards which can be conflicting, waste of resources or redundant in case of choosing wrong ones not in compliance with stakeholder needs, and organizational capability and objectives.

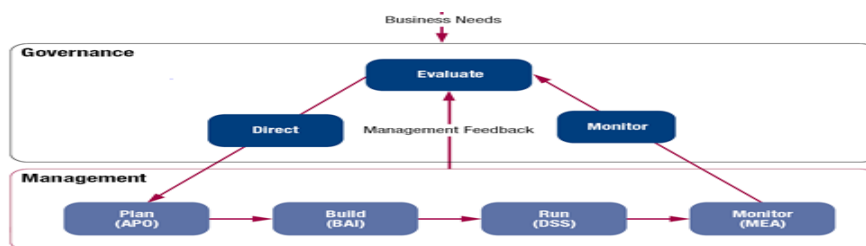
5.4. Enabling a Holistic Approach

Since a system can maintain its integrity and life by collaboration of all parts being connected altogether, an excellent governance and management of organizations require a holistic circumventing approach, paying attention to all interacting functionalities, components and standards without missing any process or department. Therefore COBIT-5 tries to set principles and enablers in supporting the implementation of a pervasive governance and management system for an organization. Seven categories of enablers are very broadly defined as anything that may help achieve the objectives of RDAs.

5.5. Separating Governance From Management

One of the most importance characteristic of COBIT-5 is the separation of the concepts of management from governance. As governance should ensure that stakeholder needs, conditions, priorities and options are taken into account, evaluated to define organizational objectives are achieved; giving direction by prioritization in decision making; and monitoring activities and testing compliance against given directions and objectives (EDM), management plans, builds, runs and monitors activities in alignment with the direction set by the governance body to achieve the organizational objectives (PBRM). The administrative board and Development Council of RDAs are mainly concerned with governance while the secretary general and internal departments are fundamentally engaged in management processes. However in the case of RDAs the management also manages, report and monitor the processes of governance.

Figure 4: Governance and Management Key Areas

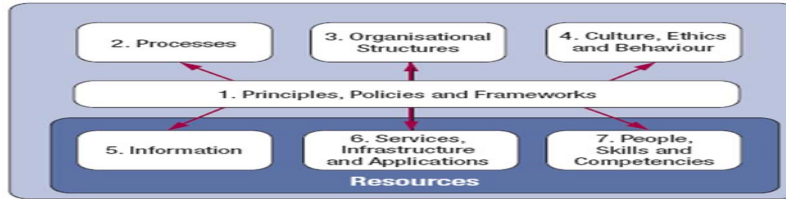


Source: ISACA:A Business Framework:2012:32.

6. MAIN ENABLERS OF COBIT-5

The COBIT-5 framework defines seven categories of the enablers:

Figure 5: CobIT-5 Enablers



Source: ISACA:A Business Framework:2012:27.

6.1. Principles, policies and frameworks: Principles, policies and frameworks are the vehicle to mirror and transport the desired best behaviors into actionable practical guidance for daily management of operations. Although for RDAs these principles, policies and frameworks are mainly defined by regulations, guides and related legislation, they do not seem to have capability to provide desired actions in implementations of RDAs since they are rigid, detailed, and bureaucratic and tailored according to centralistic point of view not so flexible that can be altered and fixed easily by local stakeholders.

6.2. Processes: Processes and work flows describe a set of practices and activities to achieve certain desired objectives and produce a set of outputs in support of achieving overall IT-related goals. Existence of the processes and work flows are one of the requirements of financial credibility of RDAs at the foundational stage however these should be current and not outdated. Manuals of Procedures, which are in Turkish language, are insufficiently developed, missing comprehensive audit trails for each relevant process and sub-process. However setting of processes flows, work diagrams and descriptions can be seen as a burden because of difficulties seen as to update of as-is processes for to-be ones.

6.3. Organizational structures: Organizational structures are the key decision-making entities in an enterprise. Segregation of duties, separation of authorities and departments are key issues for a viable and accountable organizational structure which is basically predefined by regulations and related legislations to some extent for RDAs. The organizational structure of RDAs should undergo a redefinition of roles and responsibilities in order provide a basis for effective segregation of management and governance functions and processes.

6.4. Culture, ethics and behavior: Culture, ethics, moral values, religion, attitude and behavior of individuals and of the organization and of stakeholders are very often underestimated as a success factor in governance and management

activities. Without involvement of people and adherence of organizational values and commitment to professional attitudes governance and management activities sooner or later will not be fruitful. Codes of conduct or ethics are key issues for development of corporate culture. Organizational culture and ethics should be in line with the area and local partners in order to provide synergy, organizational learning and collaboration.

6.5. Information: Information is required for keeping the organization running and well governed, but at the operational level, information, knowledge and strategic business wisdom are the key product of the enterprise itself. Effective way and utilization of information and communication activities are vital both for management success and for control awareness including risk averseness. Therefore flow of required information smoothly with integrity across departments and with stakeholders and also organizational knowledge reproduction and its management is the key for implementation of COBIT-5.

6.6. Services, infrastructure and applications: Services, IT infrastructure and applications include IT and applications that provide the organization with IT processing and services and should be tailored to business needs and aligned with organizational strategies. RDAs have required resources to provide services, infrastructure and other applications by insourcing or outsourcing.

6.7. People, skills and competencies: These are required for successful accomplishment of all activities, and for making reasonable decisions and taking corrective, detective and preventive actions. Without appropriate human capital planning and HR management designed for competent employees, it is difficult for enterprises to survive in competing markets and changing global environment. Human resource is the preconditions that prevail for all functionalities and goals.

7. IMPLEMENTATION OF COBIT-5

To implement governance of enterprise IT (GEIT) principles and enablers into RDAs there must be a categorical, sequential and consecutive methodology based on three cyclic layers which are the phases establishing an appropriate environment level, the actions of programme management level, components at the change enablement level, and operations at the continual improvement life cycle level. Here with the reference of ISACA publications, we tried to set out a sketch of GEIT initiation in the RDAs phase by phase. These cascades and modes of implementation based on key criteria are given in detail in the ICACA publications. (ISACA: 2012: Enabling processes)

Figure 6: Seven phases of implementation life cycle



Source: ISACA:Implementation:2012:36.

7.1. Phase 1: What are the drivers?

This phase starts with defining, analyzing, recognizing and agreeing to the need for an implementation. It identifies the current pain points and triggers a desire and stirring need to change at executive management levels. In the case of RDAs, the drives can be problems with e-government services, governance structure, inefficiency, ineffectiveness of operations, and compliance with laws and regulations or ambitious organizational visions for triggering potentialities of local dynamics that make necessary to implement a comprehensive and dynamic framework such as COBIT-5.

7.2. Phase 2: What are we now?

In this phase it is required to be focused on defining the scope of the implementation using COBIT’s mapping of organizational goals which are very detailed in the COBIT bundle to IT-related goals to the associated IT processes, and considering how risk scenarios could also highlight key processes on which to focus.

7.3. Phase 3: What do we want to be?

In this phase, an improvement target is set, followed by a more detailed analysis using COBIT-5’s guidance to identify gaps and potential solutions. Some solutions may offer quick wins and others might be more challenging.

7.4. Phase 4: What needs to be done?

This plans practical solutions by defining projects supported by justifiable business cases. A change plan for implementation is also developed.

7.5. Phase 5: How do we get there?

The proposed solutions are implemented into daily practices of RDAs in this phase. Measures can be defined and established using COBIT-5’s goals and

metrics to ensure that business alignment is achieved and maintained and performance can be measured.

7.6. Phase 6: Did we get there?

This phase focuses on the sustainable operation of the new or improved enablers and the monitoring of the achievement of expected benefits.

7.7. Phase 7: How do we keep the momentum going?

In this phase, the overall success of the initiative is reviewed, further requirements for the governance or management of enterprise are identified and the need for continual improvement is reinforced.

8. CONCLUSION

To sum up, COBIT-5 which dismisses any requirement for other frameworks and standards requires a comprehensive and dynamic business process reengineering of all business or IT related processes in line with business and IT functions and strategies, capability, resources and governance requirements. As being a comprehensive and resilient framework integrating and merging all of the functional faculties of different systems and frameworks the COBIT-5 seems to be able to promote the level of the service required for e-government and e-governance since it covers all viable principles required and powerful enablers.

Implementing COBIT-5 is not a piece of cake but requires a comprehensive organizational, procedural, structural business and IT alignments. For the case of RDAs, although full compliance may not be possible but conceptually it can provide a reliable basis for e-government and e-governance requirement of RDAs. As this study is an introductory one that introduces basics of COBIT-5 as per RDAs, more and more theoretical, empirical and action researches are necessary to have a full understanding of common body of knowledge that produced GEIT.

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