

# Presenting VALIT Frameworks and Comparing between Them and Other Enterprise Architecture Framework

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## ABSTRACT

It is necessary for each organization to move towards process-focused that it is supported and presided by information technology (IT). IT is considered as a part of processes field. In the information technology era, especially with the advent of network-based economy, organizations plans must be performed based on an architectural design deserving Information Society. Enterprise Architecture provides a framework to design organization based on Information Technology. Val IT framework is not related to enterprise architecture frameworks, but rather to IT governance. IT governance is indeed a paradigm in which it is attempted to make all activities and enterprise mechanisms for the planning, organizing, implementation and control of IT aligned and consistent. This study first discusses the introduction of this framework; then, a comparison between this framework and COBIT as well as between enterprise architecture and Val IT will be done.

Keywords: **Enterprise Architecture Frameworks; COBIT; IT Government; Val IT Framework;**

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Date of Submission: Jan 25, 2016

Date of Acceptance: Feb 02, 2016

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## I. INTRODUCTION

In 21<sup>st</sup> century, organizations are moving to be process-focused and managers are concentrated on company's processes; as a result, IT is a factor enabled for this information [1]. Organizations need IT to increase the integration and standardization of processes speed up the process of globalization, restructure and changes frequent to business. Information Technology helps organization be process-focused. In this way, four processes and an IT-related principle (i.e. architecture) support organization. In fact, architecture indicates that how IT infrastructure will be created and maintained. IT architecture is a plan or a high-level scheme of an organization's information properties including the physical plan of a structure which in hardware is located. In fact, IT architecture is a tip and plan for current activities to direct the future ones [2]. Providing IT architecture is a periodical process taken from architecture. Top managers have found out that information technology can significantly influence on organization success. Managers hope that they increase competitive power of organization by understanding and recognizing applied IT-based methods or it is likely to obtain their successful application. So managers are going to ensure that IT organizations are looking for IT

governance strategies and they require increasing management and supervision on IT.

## II. IT GOVERNANCE

### A. What is IT governance?

IT governance is considered as an integral part of organization management. Governance is not a new concept but it has existed since human civilization. In fact, governance is meant to decision-making and implementation of decisions [3].

Governance can be based on participatory, international, national and local governance. IT governance is a kind like this, as well. IT governance is a phrase used to describe how people consider IT for supervising, monitoring, controlling and leading attention in order to manage an organization. IT governance is the responsibility of the executive board and it focuses on the effective management of communication and information technology. An integral part of the organization includes organizing and leadership of structures and processes to ensure whether organization information technology supports and develops objectives and strategies of the organization or not. Managers has some negative experiences of this technology adaption such as loss of

credibility, delay in services, lack of performance of main processes of IT organization and its early failure leading organization to perform IT governance leadership and due to these IT governance become significant and was employed in organizations [1].

To ensure achieving IT performance for following objectives, IT governance is used:

- Aligning IT with the organization and realizing promised profits.
- Using information technology to enable organizations in order to take advantage of opportunities and maximize the profits;
- Using resources related to IT as appropriate
- Appropriate risk management related to IT

IT leadership usually determines deviations from targets in different layers by reporting supervisors to managers, managers to executives and then to the board and in order to solve them, necessary work is done with the approval of management [4].

### B. The significance of IT governance

IT governance is important and often, expectations do not comply with what happens in reality; thus, management should be done on:

- Using IT facilities with appropriate quality and funding;
- Controlling and using information technology to return commercial value;
- Using information technology to increase productivity and efficiency while controlling IT risks.

For complete implementation of IT governance, there are different standards such as COBIT, Related Cadbury and Turnbull that among them, VAL IT and COBIT (provided by the Institute of IT Governance) are accepted as a good model for control of information, IT and related risks and they have been selected for IT auditing leadership and implementation.

## III. VAL IT FRAMEWORK

Primary Val IT helps organizations to realize value through optimizing the investment. Primary Val IT encompasses a comprehensive set of research activities, publications and aid services and it supports Val IT framework core [5] (Fig. 1 shows Primary Val IT).

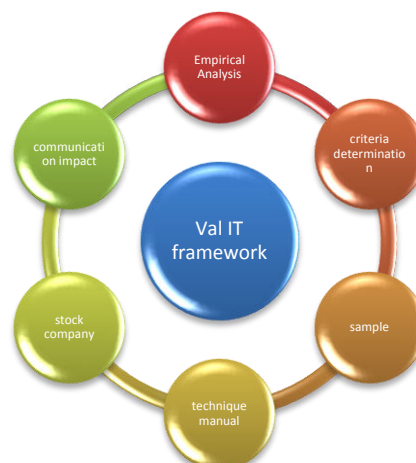


Figure1. Val IT framework

Val IT framework is almost consistent with COBIT. COBIT provides a complete framework to deliver IT services at a high level. COBIT set adjusts good practices for processes of providing value, while Val IT provides methods for the purposes that present some mechanisms to measure, monitor and optimize the realization of investments' business value in IT [5].

### A. How Val IT is structured?

Val IT framework is structured in three fields that each one includes a several processes and is performed through the method of key management and also they have maturity model individually including 5 steps [6]:

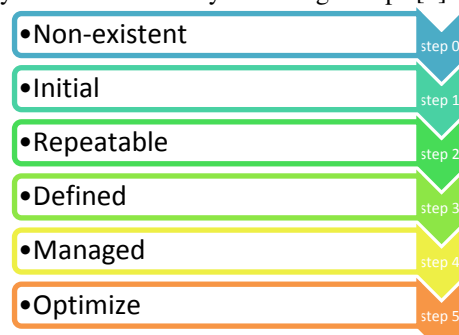


Figure2. Maturity steps

### Value governance

- determining and implementing the processes
- providing effective governance supervision
- determining portfolio details
- Continuous improvement of value management practices

### portfolio management

- Evaluation program for financial expenses
- Determining the availability and financial resources
- Human resources availability management
- Improving the performance of investment portfolio
- Monitoring and reporting on the performance of investment portfolio

*Investment management*

- Update business samples
- Understand the candidate program and implement options
- Monitor and report on program
- Implementation and management of programs
- Update operational IT portfolio

**IV. VAL IT VERSION 2.0**

Val IT version 2.0 was released in July 2008 in which more terms were nearly adopted with COBIT. It also added more depth through added management guidelines. However, these outlines create more detail in Val IT processes, key management practices as well as maturity models for each VAL IT area.

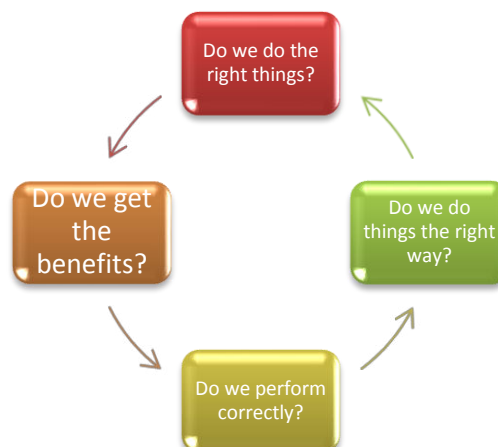
The latest version, Version 2.0 Val IT framework, including IT services, assets and other resources developed through new investments. This complete and comprehensive framework leading to help create investment through IT presents a practical set of governance principles, processes and methods. This framework also supports the guidelines that help the executive management team and the other organizations leaders. This framework provides direct support for implementation at all levels of management both in business and information technology. The existing framework provides benchmarking capabilities and helps organizations exchange experiences on best practices for value management [7].

Mentioned framework providing a guide through the operational tools and publications is supported by them. This includes:

- Finding the relationship between businesses and IT done by the responsible authority in organizations;
- Portfolio management of IT-based business Investment;
- Maximizing quality of business samples for investment that specifically emphasizes on the definition of financial indicators, earnings and comprehensive assessment of risks.

*A. VAL IT framework components*

Val IT framework takes into account enterprise governance views and helps managers about 4 questions of IT governance. These four questions are as follows: (Figure 3)



**Figure3. IT governance questions**

1. Do we do the right things? (strategic question)
2. Do we get the profits? (value question)
3. Do we perform correctly? (Architecture question), On the other hand COBIT encompasses IT perspective and managers support to answer these questions.
4. Do we obtain them properly? (Delivery question)

Val IT framework helps increase the probability of optional investment and create value by the highest potential. This framework cuts down the costs and help to decision-makers whether they should do the right things in the investment or not".

It also reduces the risk of failure and issues related to delivery and information technology costs. In contrast, it increases business value and information technology confidence level in the board, executive management, and the other organizations' leaders [2].

*B. similarities between COBIT, VAL IT*

Val IT and COBIT provide a synergistic relationship. It is essential to understand the relationship between these two frameworks. In fact, Val IT framework complements COBIT from a business and financial perspective and help any business or professional IT with tendency to value creation [6]. A connection between COBIT, VAL IT portfolio management and investment mechanism is possible. They offer an area in IT processes:

- PO1: strategic IT planning,
- PO5: Investment Management in Information Technology,
- PO10: Projects Management
- DS1: Definition and management of service levels
- ME1: monitoring and evaluation of IT performance

**1. Difference between COBIT and VALIT**

VAL IT provides a framework for investment and current value management and presents some aspects of this framework for performing plans and earning delivery and onset. While COBIT offers a framework for the implementation of related IT and provides programs' aspects [8]. These programs include the delivery of information technology strategies, operational implementation of information technology and service

delivery. However, Val IT framework can be implemented without COBIT. Table 1 compares these two frameworks.

	Process focus	Portfolio focus	Governance focus
<b>Val IT</b>	<ul style="list-style-type: none"> <li>aspects of Investment and current value management</li> </ul>	<ul style="list-style-type: none"> <li>Investment portfolio management</li> <li>Providing general view of portfolio performance</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise governance</li> <li>Information technology</li> </ul>
<b>COBIT</b>	<ul style="list-style-type: none"> <li>Offering IT strategy</li> <li>Operational implementation of IT</li> <li>IT service delivery</li> </ul>	<ul style="list-style-type: none"> <li>IT project portfolio management</li> <li>IT service management, assets and other resources portfolio</li> </ul>	<ul style="list-style-type: none"> <li>IT governance</li> </ul>

**Table 1: Comparison of Val IT and COBIT framework**

Now, it is proposed the general comparison between IT governance and architecture organization with regard to the introduction of this framework and its other family (COBIT). First, we define the alignment:

- "Management and use of IT in organization in order to respond to business needs, enable new objectives and obtain competitive advantage"

Aligning business and IT can be considered as "relationship-, "architecture-, and governance-based". In this paper, these two dimensions (architecture and governance) are taken account. It can be pointed that there is a profound difference between IT governance and enterprise architecture:

IT governance: It ensures that while IT supports business objectives, optimizes business investment in IT and manages IT-related risks and opportunities. Enterprise architecture governance (EA governance) is more complex than IT governance and is associated with architecture governance. Governance focus in a SOA environment is that we confide to service-oriented strategy in the capabilities, assets and investments providing and delivering the necessary levels of business capability and technique.

*C. Comparison between IT governance and enterprise architecture*

According to the distinction between IT governance and enterprise architecture and how it is used in organization, a general comparison between them was conducted in Table2.

	Enterprise architecture-based	Governance-based
<b>Model / Method</b>	Zachman, Federal, FEAF, TOGAF / EAP	COBIT, Val IT strategy map
<b>Viewpoint</b>	Integration of applications, modeling processes	Provide value, resource control, performance evaluation
<b>Stimulus</b>	Visas / scenarios	Reform / Policy
<b>Enterprise Architecture Maturity</b>	Jaap Schekkerman model (IFEAD model- Institute For Enterprise Architecture Developments)	It has 5 steps
<b>Metrics</b>	quality of enterprise architecture	Determine the processes and activities (top-down)
<b>SOA</b>	Exist in the framework of the architecture	-
<b>Deliver value and realized profit and minimize risk</b>	not mention directly	Exist in Val IT, COBIT

**Table 2: Comparison of IT governance and enterprise architecture**

**V. CONCLUSION**

IT is an integral part of the business and its governance is an integral part of organization management. In IT governance, it should be clearly specified the roles and responsibilities. In fact, it is paradigmatic in which it is tried to align all activities and enterprise mechanism for the planning, organization, implementation and control of IT. Val IT framework is related to IT governance and includes accepted guidelines and supported processes. They are associated to the evaluation and selection of investment business, profit realization and value delivery. This framework is based on the COBIT and management processes are used to provide Val IT principles and return on investment. Mentioned management processes include value governance, portfolio management, and investment management. In fact, this framework is related to expenses, risks and outcomes. These balance business investment portfolio. Existing frameworks of enterprise architecture are more complex than Val IT.

## REFERENCES

- [1] S. R. Khayami, "Organization Analysis and Architecture," Shiraz University, 2009.
- [2] Z. Nourizadeh, A. Nourizadeh, and M. Mahdavi, "Implementing information technology governance using val IT; Case study: Isfahan municipality," in *Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC), 2011 2nd International Conference on*, 2011, pp. 4644-4647.
- [3] M. Alaedini, "Information Governance and COBIT Framework Role in Its Implementation," Amirkabir University 2009.
- [4] A. Amid and A. Edalatpour, "Model for Evaluation of Management Maturity of Information Technology Projects: Case Study on TRE Company," in *Proceeding of 25th International Conference on Electricity*, Tehran, 2010.
- [5] P. Afzali, E. Azmayandeh, R. Nassiri, and G. L. Shabgahi, "Effective Governance through simultaneous use of COBIT and Val IT," in *Education and Management Technology (ICEMT), 2010 International Conference on*, 2010, pp. 46-50.
- [6] I. G. Institute. (2008). *Val IT Framework 2.0* Available: [www.isaca.org/valit](http://www.isaca.org/valit)
- [7] L. Kumaralalita, A. N. Hidayanto, and D. Chahyati, "Compliance analysis of IT investment governance practices to Val IT 2.0 framework in Indonesian commercial bank: The XYZ Bank case study," in *Advanced Computer Science and Information System (ICACSIS 2011)*, (International Conference on, 2011, pp. 297-304.
- [8] I. G. Institute. (2012). *COBIT 5*. Available: [www.isaca.org/CobiT](http://www.isaca.org/CobiT)