THE IT - INFORMATION TECHNOLOGY GOVERNANCE AND POINTS TO BE CONSIDERED IN ITS PRACTICAL IMPLEMENTATION IN CORPORATIONS

Altino José Mentzingen de MORAES, Ph.D.
altino.moraes@gmail.com / +55 (61) 9844-1844
Brasília, DF 73252-200 (C-X-31), Brazil

ABSTRACT

This paper presents a Case Study (Issues and Answers), applied in a major industry located in Brazil´s Central Region, related to rise up checkpoints linked to IT Governance.

As one of its result, is presented a graph of how the IT Governance was approached in researched Industry, in which, it is possible to see which areas this method of working was active and in which this was not applied.

Also a Timeline describes the steps that were undertaken for the implementation of this Case Study, which, can be reused for the resubmission – in a future moment – in the same industry, to evaluate if there was a change of scenery, or in other Organization with the same characteristics of this studied one.

Keywords: Case Study; Survey Results; IT Governance; IT Management; Strategic Planning; Frameworks (Models) of IT Governance; Assessment Maturity Level; M2A3-ITGov Model.

1. INTRODUCTION

It is essential, for the success of the core business of the Corporate, to control how are being done the use of IT Resources and also how are being developed the IT Management actions. Under this context, the IT Governance is inserted and is responsible by its effectiveness.

The question is how is possible, for IT Governance, keep track of the implementation of IT Procedures to guarantee that these are always focused on meeting the Strategic Guidelines that were pre-planned for the activities for this Area.

One of the possible ways, to audit the level of the integration between the IT Governance and the processes of Strategic Planning, is to establish Goals and Targets those can assess the degree of effectiveness of IT actions to meet the expectations of the Strategic Plan of the Organization.

Many ways can be found and can be use as a support to this purpose (to get Goals and Targets in its actual position). As an example, the IT Governance could perform daily meetings with all IT Teams to retrieve the updated status of its tasks and trying to check how these are being conducted but, maybe in the end, this procedure could not show the real status and, in practice, could be impossible be done (since it would involve many Persons and Technicians in several points).

Another way, and that seems more effective, could be the implementation of a Model of Action of IT Governance with the application of this Model to retrieve – in regular manner – this kind of status which could load the Decision Process in order to evaluate whether the Organization can continue with the same initiatives or it needs to move to new ones.

Exercising this another way, this work presents the results achieved and the perceived issues with the implementation of the Guidelines and Techniques related to IT Governance – in the form of a Case Study – in a major industry located in Brazil´s Central Region.

Guidelines and Techniques, mentioned in the previous paragraph and applied in this Case Study, were compiled by researches, studies and surveys conducted by the author of this work since 2007. This work continues those researches, studies and surveys conducted by MORAES ([1], [2], [3], [4], [5], [6], [7] e [8]) during these last years.

During his academic career, he has further enhanced its Implementation Models proposed, with the deepening of concepts built by the various experiences related to implementation of IT Governance in different Organizations and Business Niches. These were divulged in several papers published by the author in previous congresses sponsored by IIIS, as well as, in events held in Brazil.

In this Case Study development were applied ways of addressing the management of IT Governance and also were implemented Frameworks (Models) of Governance – which includes – charts and functional descriptions of the functions of the Manager in charge of each Department (besides the inclusion of a definition of their profiles, roles and responsibilities) and of its Technicians as well.

This same implementation of this IT Governance Model, subject of this paper, has covered 12 (twelve) Fields of Action of IT, where were tested, whether or not they were getting success in keeping alignment and the commitment with Strategic Planning.

In the final of this Case Study, some new approaches were created and other tasks – those already existed – were reviewed. Both, the new approaches created and the existent tasks reviewed, were aggregated to the initial IT Governance Model.

Among other conclusions on how industry has been driving IT Governance management processes, this Case Study results also show suggestions on organizational and functional structure patterns towards this field. Those patterns were created based on the reality noticed during this Case Study application in the field of practice.

It is possible also to understand, as a extra conclusion, that data and information presented in this paper can be useful and can help to implement an effective IT Governance Model in any kind of Corporation – despite of the User-Corporation size – by the academic manner as this work was built (assembly and simulation) and by the methodological structure exposed for the treatment regarding the integration of the IT Governance with the processes of Strategic Planning.

1. PROBLEM STATEMENT

The main question that this paper intends to answer is how initiatives of IT - Information Technology can align with the initiatives and expectations of Corporate Vision with the goal of adding operational value for core-business of the Organization.

2. CLASSIFICATION OF SAMPLE

According SEBRAE [9] the classification of Brazilian Industry, in terms of their size (Micro Enterprise, Small Enterprise, Medium Enterprise and Large Enterprise) within its Annual Gross

Operating Revenues and Numbers of Employees, is presented in Table 1.

Table 1 - Enterprise Classification

Range	Annual Gross Operating Revenue	Number of Employees
Micro Enterprise	Less than or equal to R$ 2,4 millions of Brazilian reais	Until 19 Employees
Small Enterprise	Greater than R$ 2,4 millions of Brazilian reais and less than or equal to R$ 16 millions of Brazilian reais	From 20 to 99 Employees
Medium Enterprise	Greater than R$ 16 millions of Brazilian reais and less than or equal to R$ 300 millions of Brazilian reais	From 100 to 499 Employees
Large Enterprise	Greater than R$ 300 millions of Brazilian reais	More than 499 Employees

According to this classification, the researched Industry qualifies as a Large Enterprise, because in 2012, achieved an Annual Gross Operating Revenue of over R$ 870.000.000,00 (eight hundred and seventy millions of Brazilian reais) and had as Number of Employees a value around of 3,000 distributed throughout Brazil.

3. CASE STUDY DEVELOPMENT

The research had, as steps to be implemented, the below presented:

1. Survey of IT Systems;

   Rmk.: In this step, were also considered new projects in Implantation Phase.

2. Ranking of IT Systems;

3. Knowledge Capture about IT Systems Operation;

4. Attribution of Significance Value for IT Systems;

5. IT Systems Value Add for Business;

6. Research of Technologic Solutions applied to IT Systems.

The Annex A provides a Timeline, of 8 (eight) weeks equal to 2 (two) months without gaps, which was used as basis for the development of the above activities, under the operational aspect, which generated specific results – that when were analyzed – subsidized the conclusions presented in this work.

According to the processes listed, this research began with the identification of the Systems of IT - Information Technology found in the Organization. The total raised was 117 (one hundred and seventeen) and some EXCEL spreadsheets also were recorded (because, for the researched Industry by their complexity, these were also considered as "Systems").

After this step, these Systems were evaluated how these would fit in accordance with the 12 (twelve) Fields of Action of IT defined by MORAES [6] the author of this paper. The Table 2 shows the quantification (some Systems may be counted in more than one area or none) found for the Systems of IT - Information

Technology and the distribution of these among the 12 (twelve) Fields of Action of IT defined by MORAES [6].

Table 2 - General Total of System distributed by the 12 (twelve) Fields of Action of IT

Fields of Action		Total of IT Systems
Code	Name	
AD	AUDITING	9
CN	COMPLIANCE	3
DV	DEVELOPMENT	34
KL	KNOWLEDGE	2
MG	MANAGEMENT	27
PL	PLANNING	44
PR	PRODUCTION	68
PJ	PROJECT	17
QL	QUALITY	28
RQ	REQUIREMENT	78
SC	SECURITY	44
TS	TESTING	39

The Maturity Levels presented by MORAES [6] Are: A = Match (which means that the procedures of this Field of Action of IT correspond to meet all the expectations of the Corporation), B = Match with Restrictions (which means that the procedures of this Field of Action of IT correspond to meet some all the expectations but not all) and C = No Match (which means that the procedures of this Field of Action of IT correspond to meet none of the expectations of the Corporation).

In the sequence of processes applied for the implementation of this research, the identification of the Maturity Level – achieved for each Systems of IT - Information Technology – was performed. This is shown in Table 3 and, for purposes of presentation as an Executive Summary, it is organized as an extract results compiled in the end of the final application of MORAES [6] with the balancing of the Significance Value (which can change the score originally assigned).

Table 3 - General Total of System distributed by the 12 (twelve) Fields of Action of IT and with its Maturity Level assigned

Fields of Action		Total of IT Systems	Maturity Level (A/B/C)
Code	Name		
AD	AUDITING	9	C
CN	COMPLIANCE	3	A
DV	DEVELOPMENT	34	B
KL	KNOWLEDGE	2	C
MG	MANAGEMENT	27	B
PL	PLANNING	44	A
PR	PRODUCTION	68	A
PJ	PROJECT	17	A
QL	QUALITY	28	A
RQ	REQUIREMENT	78	C
SC	SECURITY	44	B
TS	TESTING	39	C

In Annex B is presented a Graphic Vision that associates, for each Systems of IT - Information Technology, in which Business Niche each one is positioned and also shows other information that can facilitate the comprehension of the details of the survey done and its results.

4. CONCLUSION

The below conclusions, listed as Points of Attention, directs consideration in evaluating solutions to problems that can also be

observed in Organizations with the same size and field of business.

- Due to globalization and need for high agility to remain competitive, the researched Organization has invested heavily in Business and Administrative Management and less on Systems of IT - Information Technology in Production Area;

- As differential in the market, and to enable competition on equal terms in the concurrent environment, the researched Organization also invested heavily in Technological Innovation , both in Industrial Machinery as in the Products (Software) and Equipment (Hardware) to meet more effectively their applications of Systems of IT - Information Technology;

- The training of employees, in the researched Organization, has focused on the improvement of procedures aimed at improving Quality Management (Customer Service) and Production Control (Parameter Indicators), just for that purpose (under a Program of Continuous Quality Improvement) increase market share by attracting and retaining new Customers, by the perception of them about this differential in its Services and Products.

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Annex A

Research Timeline

2012/08/28 - V:05.a

DESCRIPTION of ACTIVITIES	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.
	M T W T F	M T W T F	M T W T F	M T W T F	M T W T F	M T W T F	M T W T F	M T W T F
1. Survey of IT Systems	████							
1.1. Study of Existent Documentation	█							
1.2. Interview with Final-Users	█							
1.3. Compilation of Results	█							
2. Ranking of IT Systems		████						
2.1. Prospection of Types of Software Application		█						
2.2. Prospection of # of Final-Users of Applications		█						
2.3. Prospection of # of BU Users of Applications		█						
2.4. Compilation of Results		█						
3. Knowledge Capture about IT Systems Operation			█████					
3.1. Overview of Features			█					
3.2. Real Operation Participation with Evaluated Company Final-Users			█					
3.3. Compliance Grade with Requirements			█					
3.4. Quality Evaluation			█					
3.5. Compilation of Results			█					
4. Attribution of Significance Value for IT Systems				████	████			
4.1. Definition of Significance Value by Evaluated Company Managers				█				
4.2. Reranking of IT System using Significance Value					█			
4.3. Reranking Validation with Evaluated Company Managers					█			
4.4. Compilation of Results					█			
5. IT Systems Value Add for Business						███		
5.1. Submission of General Questionaire						█		
5.2. Submission of Financial Questionaire in Financial Area						█		
5.3. Submission of Production Questionaire in Production Area						█		
5.4. Submission of Administrative Questionaire in Administrative Area						█		
5.5. Compilation of Results						█		
6. Research of Technologic Solutions applied to IT Systems							████	
6.1. INTERNET Generation Resources							█	
6.2. Data Base Facilities							█	
6.3. Computer Interconnection							█	
6.4. Web Service							█	
6.5. Languages and Components							█	
6.6. Technician Expertise							█	
6.7. Compilation of Results							█	
FINAL COMPILATION OF RESULTS								██

Annex B

Significance Value

1 Low Significance
2 Medium Significance
3 High Significance

GENERAL TOTAL of SYSTEMS= 117

Production Support Systems — 45
Management Support Systems — 72

Categories: Sales | Manufacturing | Logistic | Administrative | Strategy | Legal Compliance

Sales

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	7	A
CN	COMPLIANCE	6	A
DV	DEVELOPMENT	4	B
KL	KNOWLEDGE	5	B
MG	MANAGEMENT	9	A
PL	PLANNING	10	A
PR	PRODUCTION	1	A
PJ	PROJECT	10	A
QL	QUALITY	8	C
RQ	REQUIREMENT	10	A
SC	SECURITY		A
TS	TESTING	1	B

Manufacturing

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	6	B
CN	COMPLIANCE	3	B
DV	DEVELOPMENT	14	C
KL	KNOWLEDGE	2	A
MG	MANAGEMENT	17	B
PL	PLANNING	5	A
PR	PRODUCTION	8	B
PJ	PROJECT	11	A
QL	QUALITY	8	A
RQ	REQUIREMENT	4	A
SC	SECURITY	9	B
TS	TESTING		

Logistic

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	5	C
CN	COMPLIANCE	15	B
DV	DEVELOPMENT	4	C
KL	KNOWLEDGE	6	A
MG	MANAGEMENT	7	A
PL	PLANNING	14	B
PR	PRODUCTION	16	C
PJ	PROJECT	13	A
QL	QUALITY	12	C
RQ	REQUIREMENT	12	C
SC	SECURITY	3	B
TS	TESTING		

Administrative

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	20	A
CN	COMPLIANCE	13	A
DV	DEVELOPMENT	4	B
KL	KNOWLEDGE	8	B
MG	MANAGEMENT	19	B
PL	PLANNING	4	A
PR	PRODUCTION	6	B
PJ	PROJECT	7	B
QL	QUALITY	8	A
RQ	REQUIREMENT	17	B
SC	SECURITY	4	C
TS	TESTING	5	B

Strategy

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	30	A
CN	COMPLIANCE	28	A
DV	DEVELOPMENT	10	A
KL	KNOWLEDGE	17	A
MG	MANAGEMENT	36	A
PL	PLANNING	38	A
PR	PRODUCTION	4	B
PJ	PROJECT	29	C
QL	QUALITY	12	B
RQ	REQUIREMENT	16	B
SC	SECURITY	8	B
TS	TESTING	6	B

Legal Compliance

Code	Name	Total of IT Systems	Maturity Level (A/B/C)
AD	AUDITING	8	A
CN	COMPLIANCE	12	C
DV	DEVELOPMENT	10	B
KL	KNOWLEDGE	9	B
MG	MANAGEMENT	2	C
PL	PLANNING	1	C
PR	PRODUCTION	3	A
PJ	PROJECT	1	C
QL	QUALITY	8	C
RQ	REQUIREMENT	6	A
SC	SECURITY	2	C
TS	TESTING	0	C