The level of information technology governance in KULACOM-Jordan Company

Huda Al Skafy, Zeyad Abdel Halim Al-Theebah

1University of Sunderland, School of Computing and Engineering Technology halsukafi@yahoo.com
2Zarka University, Jordan zyadhalabi65@yahoo.com

*Corresponding author email: halsukafi@yahoo.com

Accepted 25 December, 2012

This study presents a newly developed tool, which is COBIT 5 that is an abbreviation for "Control Objectives for Information and Related Technology". It has been launched with the beginning of 2012 to measure the level of Information Technology Governance (ITG). It has been used by the researchers in the study to measure the level of governance in the KULACOM-Jordan Company. COBIT 5 has 5 dimensions "Evaluate, Direct and Monitor" "Align, Plan and Organize" "Build, Acquire and Implement", "Deliver, Service and Support " and "Monitor, Evaluate and Assure". These dimensions have been used for designing a questionnaire distributed to "KULACOM-Jordan" Company. One basic hypothesis has been developed for this study and five sub-hypotheses that shows that there is good governance over IT in the KULACOM-Jordan Company, which in turn led to the conclusion that there is a high degree of "Evaluate, Direct and Monitor", and "Build, Acquire and Implement ", and a moderate degree in the "Align, Plan and Organize", "Deliver, Service and Support " and "Monitor, Evaluate and Assure".

Keywords: COBIT 5, ITG.

INTRODUCTION

The end of the twentieth century witnessed amazing developments that made radical changes in society, administration and economy, including the information revolution represented by the computer (Abbas, 2001). So this era has been called the era of technology.

The introduction of IT in various sectors has a clear impact on the work productivity, especially in the field of administration, the work of control and supervision of IT (Annoqary, 1999).

The correct use of IT in business activities can facilitates achieving a competitive advantage, but the most challenges that face managers are how to use IT and what is the best way to use it to support its activities. Businesses depend on information in the decision-making process, rather than guessing based on what has been done in the past (Althiebah, 2008), so the control of IT and to maintain security in the institutions has become of paramount importance and that the fears of lack of control became more, and the success of IT in organizations and risk control has protected the reputation of institutions from collapse.

In spite of successful progress of IT, it seems that the vast majority of companies are not controlling and monitoring the work adequately.

The fears of lack of control over IT leads to what we call: ITG, which focuses on making decisions regarding the creation and use of assets such as computer hardware, software, operations staff and the goals of the Information Technology Strategy of the organization. (Simonsson and Johnson, 2006)

One of the sectors that must implement a governance of IT within is the telecommunications companies. This research is looking for the level of ITG in KULACOM-Jordan Company.

Telecommunications regulatory commission

Telecommunications Regulatory Commission (TRC) has been established in 1995, as an independent government organization to organize both telecommunications and IT.

The responsibility of TRC, is organizing services, communications and IT in the Kingdom, in accordance with policy established to ensure the provision of telecommunications services and IT to the beneficiaries’ high equity and reasonable prices, and to achieve the

TRC oversees the regulation of the communications sector, which consists of three telecommunications companies and one telecoms group as follows:

Orange Group: This includes (the Orange Internet, Orange Mobile, and Jordan Telecom), The Jordanian Company for mobile services (Zain), Umnumia Company, and KULACOM Company. (Al anaty, 2009)

Fraud and collapses hit some major international companies in recent years, and that led to big losses for shareholders as well as the loss of thousands of jobs because of dozens of executives and users at the expense of others. This was mainly due to lack of regulations, that covers information systems and the technology associated with it, to assure security, surveillance and control. (Hardy, 2006)

We all believe that the control of IT, and providing protection and security to it, plays a great role in helping the company to reach its goals. This includes: enhancing the reputation of the institution and its brands, increase the confidence of shareholders in the company, motivate staff and maintain them, find a comprehensive view of management through the control, transparency and accountability, which helps in making the appropriate decision, which makes the company wins the competition and achieve it's profit target. (Lan and Powell, 2005)

Several tools and frameworks has been designing and creating to be indicators, processes and standards and benchmarks to measure the level of ITG. One of these tools COBIT framework, which is designed to achieve control and dominate over the IT, as well as assisting in the detection of the current level of IT in the company, and comparing it with ideal reference standards that must be adhered to, due to its impact on maintaining the institutional resources and optimal investment in order to avoid the waste and loss, and achieving required efficiency and effectiveness.

Hence the importance of the study lies on its quest to determine the level of the existing ITG using the framework of COBIT.

History of ITG

ITG has become a key element for the success of any company, therefore, interested companies has increased, because of the increasing IT pervasiveness, Legislative compliance demands, IT productivity paradox, IT sourcing complexity, and Mounting human and financial consequences from IT investment decisions. (Heier et al, 2009)

As mentioned earlier, any company seeking to reach the defined targets using IT, and to achieve the best performance for its business, it should use the best applications of technology in the market, and to obtain a best performance for their activities by choosing what standards, instructions and tools fit this technology, in order to adjust, monitor and control. Some of these tools are: ITIL, COBIT, ASL, SIX SIGMA, CMM/CMMI, IT SERVICE CMM, etc. (Larsen et al., 2006).

The researchers intended to use a tool not been used before which is COBIT 5, where COBIT 5 was launched with the beginning of 2012. The idea of this tool lies in merging three measurement tools they are: COBIT 4.1, Risk IT, and Val IT to measure the level of governance from a new and updated perspective.

Aims, Objectives and Research Methodology

The control of IT and maintaining its security in the institutions has become issues of great importance, with increased fears of lack of control. The success of IT in organizations and their risk control protects reputation of the institutions from collapse.

the study conducted by (Weill and Ross, 2004), on the profitability through the ITG finds out that the companies that apply ITG programs effectively, has got the highest profits by 20% than companies that follow the modest strategies and don’t apply governance effectively .

Aims and Objectives

Research aims to identify IT companies (in particular KULACOM-Jordan Company) the concept of ITG and its importance (objective 1) and what are the tools used to measure it in order to take advantage of existing technology (objective 2).

Also research provides a tool newly developed with new dimensions containing new processes that used to measure the level of ITG within these companies (objective 3). For more information about COBIT 5 refer chapter 4.

The objectives of the proposed research are:

1. To identify the concept of ITG, its importance and benefits.

This is done through a review of various modern and old studies that dealt with this concept and areas to use it so that those interested in this subject from different sectors take advantage of it, to achieve their desired profit from the technology they already have.

2. To identify the measurement tools of ITG, through a review of some of the tools used to measure the level of ITG within organizations with a focus on COBIT as a tool used in this research.

3. Contribute in implementing a new measure mechanism of the level of ITG, in one of the Jordanian telecom companies which is KULACOM-Jordan Company, within the
framework of COBIT four dimensions, and identify the goals of high-level control that is included within the dimensions.

4. To measure the level of ITG in KULACOM-Jordan Company, through the framework of COBIT and their four dimensions.

5. To help KULACOM-Jordan Company to determine the required level of IT, in order to contribute to achieve its strategic goals and public objectives efficiently and effectively.

RESEARCH METHODOLOGY

115 Questionnaires was distributed to all KLACOM-Jordan employees, but only 105 questionnaires were answered. Later, the researchers showed that 5 of them were not valid for the study purposes, forcing the researchers to be excluded so that the aggregate total of suitable questionnaires for analysis is 100 questionnaires only.

Research topics

Examining the level of ITG in KULACOM-Jordan Company

companies are seeking to acquire Information Technology Systems, and what appears in the technology field such as software and tools without knowing the level of governance available to technology it has (according to the researcher view), as well as lack of knowledge of measurement tools for these governance, which may lead to failure to achieve the desired corporate goals, and the loss of many available alternative investment opportunities.

The problem of the study can be summarized in the following question: What is the level of ITG available at the KULACOM-Jordan Company?

Five hypotheses were raised upon this question.

Evaluation of Proposed tool

COBIT addresses assessment processes, governance structure and control mechanisms, it also provides control environment to ensure that operations are managed according to the key objectives and performance indicators, so it is globally accepted control framework for ITG. (Hojaji and Shirazi, 2010) It helps organizations to ensure alignment between the use of IT and business objectives. (Ridley et al., 2004) COBIT guides the administration to take a decision on the level of acceptable risk and the most appropriate control practices, and the path that must be taken when it is necessary to improve the level of control (Hojaji and Shirazi, 2010) The aim of COBIT is to provide the owners of the management, and business process with the model of ITG. This will help to deliver IT value, understand, and manage the risk (ITGI, 2007; Afzali et al., 2010), information and technology associated with it. (Coppin, 2003; Hussain and Siddiqui, 2005)

COBIT also covers all risks that can occur with the use of IT. (Morimoto, 2009)

COBIT helps management improve the IT resources such as applications, information, infrastructure, and people. By using COBIT method, knowledgeable management and structures of the other companies can easily identify which business processes are important and what is their level (Radovanović et al., 2011)

COBIT framework helps organizations maximize the benefits derived from the use of IT, by providing measures indicators processes, and best practices (ITGI development team, 2008).

The Level of Information Technology Governance in KULACOM-Jordan Company

Previous studies

Nourizadeh et al (2011, p4644) try in their study to explain the concept of ITG and the necessity of using Val IT framework to optimize the realization of value delivery from IT investment with implementing ITG within Isfahan municipality, But it differed from the Afzali et al (2010, p 46) study that aims to declare the relationships between COBIT4.1 and Val IT2.0 to help enterprises to enable both business and IT people in supporting of business/IT alignment and realizing of business value from IT-enabled business investments, while Nijaz et al. (2011) consider in their research BCM from the ITG view by implementing an industry best practices standards and processes such as ITIL and COBIT combined with other IT related continuous computing technologies in banking sector within Croatia and Bosnia and Herzegovina community.

These studies have created a relationship between or COBIT and VAL IT or COBIT with ITIL, and these ideas are leadership ideas with proactive ideas. Researchers did not know at that time that will be issued in the future a new version of COBIT integrates these three tools together, but as shown there is none of the researchers integrate these three tools together, as COBIT tool did.

Morimoto (2009) in his research examined the contents of COBIT and defined a framework which specializes in security engineering from the guideline using COBIT, ISO/IEC 12207 and ISO/IEC 27002, but when comparing with Ayat et al. (2011) research they present in their paper the main issues in implementing ITG in SMEs using ISO IEC 38500.

As noted, the previous studies focused on particularly on various versions of ISO which dealing with security.
aspects, but did not address the concept of COBIT in detail. But Simonsson and Johnson (2008) took a different direction from others when they present on their paper the IT Organization Modelling and Assessment Tool (ITOMAT) which has been created to overcome operationalisation and subjectivity weaknesses in the COBIT framework.

On the other hand Radovanović et al. (2011) research explains the concept of IT audit, shows relationship between audit and IT Management, while Hussain and Siddiqui (2005) They proposed a model to quantify the COBIT by developing matrices for all four domains of COBIT; hence it provides a quantitative approach for better implementation of corporate ITG through effective audit and control. The study of Krey et al. (2011) aims to give an overview of the common ITG models already used in the healthcare sector and attempts to answer the question if they really meet the requirements of the healthcare sector as a complex and heterogeneous economic sector. To accomplish these aims, a maturity model has been developed to measure the extent to which the different GRC focus areas based on COBIT Maturity Model have been selected and how they have been perceived.

Previous studies dealt with the COBIT concept but as observed each study dealt with the concept of a different way than the other but none of them measure the level of governance within corporate as there is non study of the previous were applied on telecom companies.

Althiebah (2008) on his dissertation aims at applying a new measurement mechanism of the level of ITG in the industrial companies listed at Amman Bourse through presenting the COBIT 4.1 framework in its four domains and measuring the level of the ITG via this framework, and then identifying the effect of the ITG in the achieved performance in the Jordanian industrial companies listed at Amman Bourse.

Our study will be somewhat similar to Althiebah 2008 study, where it will measure the level of ITG, but it will be differ by applied within KULACOM-Jordan Company, Add to this that our study will be used COBIT 5, which combines COBIT 4.1, Val IT, and ITIL that was launched in early 2012. It will be the first study in The Hashemite Kingdom of Jordan in particular, that used COBIT 5 to measure the level of ITG.

**ITG Definition**

The concept of ITG, originated through ITGI in the United States of America, for control and censorship of information and technology associated with (Althiebah, 2008). This term has been used to describe a set of mechanisms used to obtain the capacity of IT. (De Haes and Gremerben; Brown and Grant, 2005)

There is no specific definition given for ITG hence the researchers will address the most famous of these definitions:

Bahara and Inaganti (2007), Defined Governance as a framework within which management operates to achieve stated objectives. ITG is a continuous process that helps in setting the overall direction to IT management, Organization chart, RACI charts, Governance Decision Framework(s), defining or streamlining the processes and enforces control over the entire IT ecosystem in accordance with business goals.

We agree from the previous definitions, that the concept of ITG can be defined as a set of procedures, policies, objectives, strategies and responsibilities entrusted to decision makers in the institutions to assist them in determining the overall direction of IT, and control it, in order to achieve optimum benefit from IT.

**COBIT as a tool for ITG**

Control Objectives for Information and related Technology (COBIT), it has been proposed by Information Systems Audit and Control Association (ISACA) and the ITGI (Morimoto, 2009) in 1998 (Gherman and Poggi, 2006).

COBIT is "an ITG Framework, and supporting tool set, that allows managers to bridge the gap between control requirements, technical issues, and business risks", as the ITGI defines it. (ITGI, 2012)

This framework provides standard of generally applicable, and acceptable for the Information Systems security, and control practices in order to strengthen the management needs to identify and follow-up the appropriate level of IT secure. (Fasanghari et al., 2008)

COBIT is also used to assess and manage risks associated with IT. (Bhattachariya and Chang, 2007), hence auditors will be able to make their decisions on value, risk, and control quickly. COBIT helps them to identify relevant key performance indicators. Also the COBIT framework focuses on the strategic alignment, risk management, resources management, deliver value, and performance measurement. (Chew and Niebecker, 2010)

**COBIT 5 Bases**

COBIT 5 is the latest edition of COBIT, it scheduled to be released in 2012. It is a combination of COBIT, VAL IT and RISK IT.

To maximize the technology investment benefits, COBIT ensures that IT is working effectively, concerning where to invest, and ensuring the alignment between investment and business strategy. VAL IT helps enterprises in decision making, as for risks associated with IT, RISK IT helps enterprises to identify, manage, and govern them by providing a framework for this
Monitor, Evaluate and assure

This domain deals with processes. The processes include analyzing, articulating the requirements for the governance of enterprise IT, optimizing the value of contribution to the business, ensuring that the enterprise's risk appetite and tolerance are being understood, articulated and communicated. It also makes sure that risks to enterprise value that are related to the use of IT are being identified, and managed. It confirms that adequate, and sufficient IT-related capabilities (people, process and technology) are available to support enterprise objectives effectively at the optimal cost, and ensure that enterprise IT performance, conformance measurement, and reporting are transparent, with stakeholders approving the goals and metrics and the necessary remedial actions. (ISACA development team, 2011)

Research Analysis

Presenting the Model

Figure 1 below represents the research model that the researchers depend on to design the questionnaire, which clarify the dependent and independent variables. The previous model shows the main hypothesis and its Sub-hypotheses as follows:
The main hypothesis is:
There is no IT Governance in KULACOM-Jordan Company.
Sub-hypotheses are:
H01 there is No Evaluate, Direct and Monitor over the IT Governance in KULACOM-Jordan Company.
H02 there is no Align, Plan and Organise over the IT Governance in KULACOM-Jordan Company.
H03 there is no Build, Acquire and Implement over the IT Governance in KULACOM-Jordan Company.
H04 there is no Deliver, Service and Support over the IT Governance in KULACOM-Jordan Company.
H05 there is no Monitor, Evaluate and Assure over the IT Governance in KULACOM-Jordan Company.

DISCUSSION THE FINDINGS

Study Tools

In order to achieve the objectives of the study a literature review of current study field was reviewed, and accordingly a tool for study in the form of a questionnaire was designed, directed to the staff of telecommunications companies and consists of two parts, the first contains the general characteristics (education, scientific specialization, career centre and the experience), and the second designed as a Likert scale and consists of (72), paragraph take the answers (strongly agree, agree, undecided, disagree and strongly disagree) and given weights (1,2,3,4,5), respectively, and these paragraphs are distributed on five domains.

Internal consistency between measure paragraphs:
Cronbach Alpha Coefficient of internal consistency between the measure paragraphs was extracted, as the value of coefficient Cronbach alpha between all the measure paragraphs (95.9%), and according to the domains, its highest value between the paragraphs of build, acquisition and implementation domain reached.
**Figure 1.** Research model

Table 1. the weight of agreement degree

<table>
<thead>
<tr>
<th>The average of responses</th>
<th>approval degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2.33</td>
<td>Weak</td>
</tr>
<tr>
<td>2.34 - 3.67</td>
<td>Medium</td>
</tr>
<tr>
<td>3.68 - 5.00</td>
<td>Higher</td>
</tr>
</tbody>
</table>

(93.4%), and the lowest value between the paragraphs is the domain of evaluate, direct and monitor (82.8%).

To determine the degree of agreement, the following weights in Table 1 were adopted:

**RESULTS**

The study results will be displayed through the extraction of average, standard deviations and the degree of approval for the study sample answers to the measure paragraphs and then test the study hypotheses using T-test for each sample.

**Evaluate, Direct and Monitor**

A high degree of approval of Evaluate, Direct and Monitor domain, where the overall Arithmetic means responses in this domain (3.87) and standard deviation (0.47), and on the level of paragraphs we noticed that all of the degree of approval are high except for paragraph 6. The degree of approval is medium, and reached the highest average answers to paragraph (3), which states that "Optimum value has been derived from IT investment through effective value management practices in the enterprise " with Answers means of (4.25) and a standard deviation (0.69), while the lowest answers means to paragraph (6), which states that "The enterprise manages critical IT related risks, effectively and efficiently " with Answers average of (3.65) and a standard deviation (0.77).

**Align, Plan and Organise**

A medium degree of approval on the area of Align, Plan and Organize, with overall median responses to this domain (3.52) and standard deviation (0.61), and on the level of paragraphs we noticed that (12) paragraphs has high degree of approval, and (12) paragraphs has a medium degree. The highest answers means to paragraph (15), which states that "There is a portfolio of the enterprise structure services that supports agile enterprise change. " with answers means of (4.27) and a standard deviation (0.69), while the lowest answers means to paragraph (30), which states that "Supplier risks have been assessed and properly addressed." with answers means of (2.36) and a standard deviation (1.37)
Table 2. T-Test results for each sample (N=100)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Means</th>
<th>Standard deviation</th>
<th>The average of default</th>
<th>The value of calculated T</th>
<th>Degrees of freedom</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The overall Domain (ITG)</td>
<td>3.63</td>
<td>0.44</td>
<td>3.00</td>
<td>14.448</td>
<td>99</td>
<td>*0.000</td>
</tr>
</tbody>
</table>

* Differences with Statistical significance at the significance level (α ≤ 0.05).
** The value of scheduled (T) at the level of moral (0.05) and degrees of freedom 299 (T = 1.96)

Build, acquire and implement

A high approval degree of the Build, Acquire and Implement domain, with an overall answers means record on this domain (3.76) and standard deviation (0.56), and at the level of paragraphs is noticed that (16) paragraphs has a high approval degree, (3) paragraphs has moderately degree. The highest answers means to paragraph (38), which states that "The proposed solution satisfies business functional, technical and compliance requirements." with answers means of (4.05) and a standard deviation (0.70), while the lowest answers means to paragraph (35), which states that "Relevant stakeholders have been engaged in the programs and projects." with answers means of (3.46) and a standard deviation (1.10).

Deliver, Service and Support

A medium approval degree of the Deliver, Service and Support Domain, with an overall answers means record on this domain (3.56) and standard deviation (0.50), and on the level of paragraphs is noticed that (3) paragraphs has a high degree of approval and (13) paragraphs has a medium degree. The highest answers means to paragraph (53), which states that "Licenses are compliant and aligned with business need." with answers means of (3.97) and a standard deviation (0.70), while the lowest answers means to paragraph (59), which states that "IT-related problems have been resolved." with answers means of (3.32) and a standard deviation (0.69).

Monitor, Evaluate and Assure

A medium degree of approval on the domain of Monitor, Evaluate and Assure, with overall answers means to this domain (3.46) and standard deviation (0.63) and at the level of the paragraphs noted that all the paragraphs of the approval degree are medium. The highest answers means to paragraph (72), which states that "External compliance requirements have been adequately addressed." with answers means of (3.49) and a standard deviation (0.82), while the lowest answers means to paragraph (70), which states that "Internal control has been established and deficiencies have been identified and reported on." with Answers means of (3.40) and a standard deviation (0.88).

Test Study Hypotheses

The basic hypothesis: there is no ITG in KULACOM-Jordan Company. Table 2 above shows the T-Test results for each sample.

The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.63) and the average default scale (3.00), calculated (T) amounted to (14.448), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the basic hypothesis of the study was rejected.

The first sub-hypothesis

There is no Evaluate, Direct and Monitor over the IT Governance in KULACOM-Jordan Company. The Table 3 below shows the T-Test results for each sample in Evaluate, Direct and Monitor Domain.

The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.87) and the average default scale (3.00), calculated (T) amounted to (18.784), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the first sub-hypothesis was rejected.

The second sub-hypothesis

There is no Align, Plan and Organise over the IT Governance in KULACOM-Jordan Company. The Table 4 above shows the T-Test results for each sample in Align, Plan and Organise Domain.

The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.52) and the average default scale (3.00), calculated (T) amounted to (8.450), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the
second sub-hypothesis was rejected.

The third sub-hypothesis

There is no Build, Acquire and Implement over the IT Governance in KULACOM-Jordan Company. The Table 5 above shows the T-Test results for each sample in Build, Acquire and Implement Domain. The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.76) and the average default scale (3.00), calculated (T) amounted to (13.677), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the third sub-hypothesis was rejected.

The forth sub-hypothesis

There is no Deliver, Service and Support over the IT Governance in KULACOM-Jordan Company. The Table 6 below shows the T-Test results for each sample in Deliver, Service and Support Domain. The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.56) and the average default scale (3.00), calculated (T) amounted to (11.340), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the forth sub-hypothesis was rejected.

The fifth sub-hypothesis

There is no Monitor, Evaluate and Assure over the IT Governance in KULACOM-Jordan Company. The Table 7 below shows the T-Test results for each sample in Monitor, Evaluate and Assure Domain. The T-Test results of the sample per the existence of statistically significant differences at the level of (0.05 ≥ α) between the answers means (3.46) and the average default scale (3.00), calculated (T) amounted to (7.304), which is higher than the value of critical (T), as its statistical significance reached (0.000). Accordingly the fifth sub-hypothesis was rejected.
### Table 6. T-Test results for each sample in Deliver, Service and Support Domain (N=100)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Means</th>
<th>Standard deviation</th>
<th>The average of default scale</th>
<th>The value of calculated T</th>
<th>Degrees of freedom</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver, Service and Support</td>
<td>3.56</td>
<td>0.50</td>
<td>3.00</td>
<td>11.340</td>
<td>99</td>
<td>*0.000</td>
</tr>
</tbody>
</table>

* Differences with Statistical significance at the significance level (α ≤ 0.05).
** The value of scheduled (T) at the level of moral (0.05) and degrees of freedom 299 (T = 1.96)

### Table 7. T-Test results for each sample in Monitor, Evaluate and Assure Domain (N=100)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Means</th>
<th>Standard deviation</th>
<th>The average of default scale</th>
<th>The value of calculated T</th>
<th>Degrees of freedom</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor, Evaluate and Assure</td>
<td>3.64</td>
<td>0.63</td>
<td>3.00</td>
<td>7.304</td>
<td>99</td>
<td>*0.000</td>
</tr>
</tbody>
</table>

* Differences with Statistical significance at the significance level (α ≤ 0.05).
** The value of scheduled (T) at the level of moral (0.05) and degrees of freedom 299 (T = 1.96)

### Conclusion, Recommendations and future research

#### CONCLUSIONS

Depending on the statistical analysis the following results have been shown:
1. There is ITG in a moderate average in the KULACOM-Jordan Company.
2. There are "Evaluate, Direct and Monitor" and "Build, Acquire and Implement" in highly degree in KULACOM Jordan Company.
3. There are "Align, Plan and Organize", "Deliver, Service and Support", and "Monitor, Evaluate and Assure" in moderate degree in KULACOM Jordan company.

#### RECOMMENDATIONS

1. Researchers recommend KULACOM-Jordan Company to give more attention to ITG because of the existence of some weaknesses in the "Align, Plan and Organize", "Deliver, Service and Support", and "Monitor, Evaluate and Assure" domains which has an impact on the reputation and profitability of the company.
2. There is a possibility for many other companies in various sectors to implement the ITG. Many of the studies proved that there is a relationship between ITG, and profitability, which enhances the market reputation of the company and its ability to compete with other companies.

#### Future research

Researchers always seek to progress and development, and recommended interests through this research, to use other tools than COBIT, such tools are PRINCE 2, ITIL, COSO etc. Also the researchers hope to apply such study on other samples or sectors, such as hospitals, municipalities, courts and banks.

#### REFERENCES


Al Skafy and Zayed. 93


