# SUGGESTED FRAMEWORK FOR DESIGNING, IMPLEMENTING, AND CONDUCTING AN EFFECTIVE INTERNAL CONTROL SYSTEM "APPLIED ON TURKISH COMPANY"

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Approval of the Institute of Social Sciences

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Dean of Institute

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

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Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

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I hereby declare that all information in this thesis has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work; otherwise I accept all legal responsibility.

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## ABSTRACT

Due to the rapid changes of business and operating environments, risks and opportunities have become volatile variables that need to be successfully navigated through adopting an effective internal control system to overcome risks and exploit opportunities. Many regulatory organizations, e.g. the Committee of Sponsoring Organization of the Tradeway Commissions (COSO), have issued an internal control framework to guide companies in designing, implementing and conducting their internal control systems according to their internal and external environments. However, the COSO's framework is a roadmap of recommendations, conditions, and characteristics. It is a standardized framework which requires some applicable tools to direct the implementation of its roadmap's instructions. In Turkey, companies operate in a special business environment of volatile and accelerated economic and political variables producing an over-expanding risks and opportunities, weak internal control culture, and the deficiency of sufficient experienced and competent personnel and other infrastructure in the field of internal control. Therefore, the current study suggests a framework for integrating traditional techniques, e.g. Benchmarking, Balanced Scorecard and Control-self assessment with the COSO's Internal Control – Integrated Framework. It presents a building-block model to assist Turkish companies design, implement, and conduct an effective internal control system in accordance with the COSO's Internal Control – Integrated Framework. Hence, it is expected to assist Turkish companies in building and developing an effective internal control systems that achieves total quality.



Keywords: Internal Control System, COSO, BSC, Benchmarking, CSA.

To my father, whose love, support, and encouragement pushed me forward to finish this work.

To my late mother, whose love and blessings are still present in my life.

And to my friend, Mahmoud Shtayyeh, who always supports me and stands by me.

I dedicate this work.

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## 1. Introduction

In today's worldwide of hostile business environment, companies strive to assure survival and growth. Therefore, they set goals and objectives and implement policies and practices to achieve total quality. Consequently, customer's satisfaction and the interests and goals of stackholders are met. However, due to the rapid changes in business and operating environment, risks and opportunities have become volatile variables that need to be successfully navigated. In addition, they should always be assessed and dealt with based on defining and achieving goals and objectives to enhance overcoming risks and exploiting opportunities.

According to **Quirin (2015)**, to achieve their goals and objectives and ensure total quality, companies must adopt a proactive approach rather than a passive one related to risks and opportunities. This can be done by designing and implementing an internal control system. **Gupta (2006)**, **Aykel (2010)**, **Janvirin et al (2012)**, **Öksüz (2013)**, and **Mcnally (2015)** report that to insure meetings their goals and objectives and gaining total quality, companies must design, implement, and conduct an effective internal control system.

Many regulatory organizations, such as: the Committee of Sponsoring Organization of the Tradeway Commission **(COSO**) and the Canadian Institute of Charted Accountants (**CICA**)**,** issued internal control frameworks. The Internal Control-Integrated Framework of the **COSO,** consisting of five components (namely: control environment, risks assessment, control activates, information & communication, and monitoring) with 17 relevant principles and 77 points of focus, presents a guidance for companies in designing, implementing, and conducting internal control systems. This framework gives companies the discretion to build internal control systems to captures risks stemming from their internal and external business environments. Although the 17 principles and their 77 points of focus integrated at the framework represent a roadmap to build an effective internal control system, the framework failed to provide suggested applicable approaches/tools to efficiently use that roadmap.

In Turkey, as a way of enhancing the economic development after 2001, the Capital Market Board translated the International Financial Reporting Standards **(IFRS)** into Turkish in 2002, with the foundation of the Turkish Accounting Standard Board **(TASB)**. According to **Balsari & Varan (2014)**, the crucial step in the **(IFRS)** implementation is launching the New Commercial Code in 2012, which calls for applying fair competition,

transparency, corporate governance principles, and most importantly accounting and auditing standards. However, unlike the **Sarbanes-Oxley Act**, which controls U.S. capital markets, there are no recommendations of using a specific internal control framework in the Turkish Commercial Code. However, according to the findings of **Öksüz (2013)**, few Turkish companies use an internal control system. Moreover, Turkish companies that have an internal control system are characterized by inefficiency and low effectiveness, or control deficiencies in one or more of their internal control components. Also, a few examples in literature tackle the adoption and implementation of an effective internal control system in Turkey.

The current study proposes a building-block framework that integrates some applicable tools; i.e. Balanced Scorecard, Benchmarking, and Control-Self Assessment, with the COSO's Internal Control-Integrated Framework. This model is supposed to facilitate and assist Turkish companies in designing, implementing, and conducting an effective internal control system in compliance with the COSO framework updated in 2013.

## 1.1 Background of the study

Internal control is a tool/system within the organizational structure and business operations that gives a reasonable assurance that a company will achieve its operations, reporting, and compliance objectives. It has proven that it is vital for company success, especially after the scandals of many big companies, such as: Inoron and Worldcom. Over the last decades, many regulatory organizations started to highlight the significance of internal control and financial and non-financial benefits that a company could earn, if it succeeded in designing, implementing, and conducting an effective internal control system. Therefore, those regulatory organizations began to issue internal control frameworks to facilitate and assist companies designing an effective internal control system. The Internal Control-Integrated Framework that was issued by the Committee of Sponsoring Organization of the Tradeway Commission (**COSO**) in 1992 and updated in 2013, and the COCO (Criteria of Control) Framework that was issued by the Canadian Institute of Charted Accountants in 1995 are examples of such frameworks.

However, **Marinos (2004, P.12)**, and **Katherine & Peter (2013, p.36)** report that such frameworks are structured roadmaps to internal control system. These frameworks present recommendations and represent conditions and characteristics of how to design, implement, and conduct an effective internal control system. The COSO framework, the most widely accepted and used framework all over the world, is adopted by the researcher for purpose of this study. The COSO framework gives companies the discretion in terms of how to apply their internal control systems. However, companies with weak competent personnel and other infrastructure regarding internal control might fail to comply with its instructions.

The researcher believes that the failure of the COSO framework in incorporating applicable approaches/tools to assist companies applying the framework's instructions, may cause companies incorrectly or ineffectively design, implement, and conduct their internal control system.

## 1.2 Statement of the problem

In Turkey, there is no specific internal control framework incorporated in the legislations and acts of Turkish regulatory organizations that organizes Turkish business practices. Moreover, Turkish companies that imported internal control frameworks have a weak internal control culture, lacking competent personnel and other infrastructure of internal control. In addition, their internal control systems, if any, suffer from deficiencies. Therefore, they may use the COSO framework, the most widely used framework, in building and developing their internal control systems. However, they still need applicable approaches/tools to facilitate designing a system of internal control compatible with the COSO framework's instructions.

Hence, the problem of the study is drafted in asking two questions:

- Do the Turkish companies have a specific reliable internal control framework to be used as a guidance in building and developing an effective and efficient internal control system?
- What are the techniques/tools that can be used to facilitate and assist in implementing the guidance, conditions, and requirements of that internal control

framework in designing, implementing, and conducting internal control system according to Turkish business environment to achieve total quality?

### 1.3 Purpose and aims of the study

The current study aims to present the most reliable and suitable internal control framework that can be imported and used as a guidance by Turkish companies; i.e. the COSO's Internal Control-Integrated Framework. In addition, it mainly aims to provide a suggested framework for integrating some traditional internal controls techniques (namely : balanced scorecard, benchmarking, and control-self assessment) with COSO framework updated in 2013. Such a framework presents a building-block model to be used by the Turkish companies in building and developing their internal control systems in accordance with the requirements of the COSO framework, taking into account the characteristics of Turkish business environment to achieve total quality .

It is hoped that the current study enriches Turkish literature with an analysis of the Internal Control-Integrated Framework issued by the Committee of Sponsoring Organization of the Tradeway Commission (COSO) and the development of a building-block model of new and traditional internal control techniques to apply the COSO's Internal Control-Integrated Framework.

## 2. Literature review and basic concepts

In this section, the researcher presents the literature review of internal control and other related concepts i.e. Internal auditing, enterprise risk management and total quality. In addition, the interrelatedness between internal control and other related concepts is discussed.

### 2.1 Internal control

The global financial crisis and financial scandals of companies have indeed shown the importance of the internal control system for companies. Such events emanating from different types of surrounding risks led to a full recognition of the strategic role of controls

in facing an over-expanding scope of risks **Bromely (1992), kinkela & Harris (2013), D'Aquila & Houmes (2014)**, and **Rubino & Vitolla (2014))**. Internal control system facilitate understanding, evaluating, and detecting any positive or negative aspects that can influence the company's operations. Therefore, by creating and developing an effective control system, the chance of company's success increases **Rubino & Vitolla (2014)**. Internal control is a built-in process designed and developed to provide a reasonable assurance regarding achieving the company's objectives and goals **Rubino & Vitolla (2014)**. To better build and develop an effective internal control system, many regulatory organizations, e.g. the Committee of Sponsoring Organization of the Tradeway Commission (COSO) and the Canadian Institute of Chartered Accountants (CICA), issued a structured internal control frameworks

The COSO's Internal Control-Integrated Framework was a quantum leap in the field of internal control, providing a structured roadmap for companies to build and develop their internal control system **Ionescu (2011), Katherine & Peter (2013), KPMG (2013),** and **Bala & Wodka (2014)**. It presents the required characteristics, conditions, and requirements of an effective internal control system. It also gives companies the discretion of using tools and approaches required to design their internal control systems. In Turkey, the concept of internal control system merely exists in the Public Financial Management and Control Low No.**5018 Aykel (2010)**. However, some Turkish regulatory organization such as the Capital Market Board recommended the COSO framework to be used by Turkish companies **Özbilgin (2010)**. Internal control culture is weak in Turkish companies, except for the banking sector. Those companies with internal control system suffer from internal control deficiencies, creating an ineffective internal control system and weak performance of controls **Aykel (2010), Özbilgin (2010), Acar & Akçanat (2012), Özten & Karğin (2012), Ertuğrul (2013), Öksüz (2013),** and **Balsari & Varan (2014)).** The Capital Market Board of Turkey, as one of the regulatory Turkish organizations in capital markets, holds a trial to enhance the performance of brokerage houses via issuing a Communique on "the principles regarding the internal auditing systems of brokerage houses". However, unlike the COSO framework and other well-known internal control frameworks, the Communique defines the internal auditing system as the integrated processes of both the internal control system and inspection system **Özbilgin (2010)**. **Özbilgin (2010)** recommends that the articles and

definitions incorporated in the Communique must be revised to comply with the COSO framework.

It is clear that some companies, regulatory organizations, and sometimes researchers confuse internal control concept with other concepts, such as: Enterprise Risk Management (ERM), internal auditing, and their relationship with total quality.

## 2.2 Enterprise risk management (ERM)

In 2004, the COSO's ERM framework was issued and published to provide a guidance to assist companies and other organizations develop and apply their enterprise risk management activities. It identifies and describes eight interrelated components required for developing and applying an effective risk management, of which five resemble those of the COSO framework i.e. internal environment, control activities, information and communication, and monitoring. In addition the ERM framework includes "objective setting" and extends the "risk assessment" components into three other components, i.e. event identification, risk assessment, and risk response. That is why this framework illustrates that objectives should be established before management can identify potential events "risks and opportunities" which impede their achievement. Moreover, it is similar to the COCO internal control framework in supporting companies achieving their operations, reporting, and compliance objectives. However, to enhance long term objectives, the ERM framework promotes "strategic" as a fourth category of objectives for companies. According to **McNally (2015, P.28)**, the COSO internal control framework complements the ERM framework as an integral part, and the ERM framework is a part of the overall governance process.

Although ERM framework is broader than the internal control framework, the researcher believes that most companies tend to apply an internal control framework for two main reasons. First, a compliance-mentality motive, e.g. the **Sarbanes-Oxley Act** stipulates using an internal control system and recommends the COSO internal control framework to comply with. Second, the cost-benefit motive because the COSO internal control framework helps companies develop and conduct cost-effective systems of internal control that consolidate achieving companies' business objectives and goals, such as: sustaining and

improving performance, enhancing adaptation of the company to the increasingly complexity and continuous changing business environment, managing risks to the acceptable levels, and improving the reliability of information for decision making.

## 2.3 Internal auditing

The Institute of Internal Auditors **IIA (2004)** defined internal auditing as:

> Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance.

It could be concluded that the main aim of internal auditing is to assist the members of a specific company determine responsibilities and efficiently and effectively perform their tasks. Therefore, internal auditing provides analysis, evaluations, recommendation, and relevant information related to the business activities. Consequently, internal auditors are best situated to understand and evaluate the business processes of a company, acting as management consultants on the effectiveness of business activities (**Fadzil et al (2005), and Rovcanin et al (2005)).**

To control the activities of internal auditing, the IIA developed, in 1978, Standards for the Professional Practice Internal Auditors (**SPPIA**) that comprise five general standards of:

- Independence
- Professional proficiency
- Scope of work
- Performance of audit work
- Management of the internal audit department

In January 2002, the IIA updated **SPPIA** by issuing the Professional Practice Framework (**PPF**) that consists of three sets of standards **Fadzil et al (2005, P.846)**:

- Attribution standards that address the characteristics of companies and personnel executing internal audit services.

- Performance standards that explain the nature of internal audit services and submit quality criteria used to measure and evaluate the performance of these services.

- Implementation standards that provide guidance in applying different internal audits.

Internal auditors take substantial role in internal control system. This is observed in the new definition of internal auditing which covers assurance and consulting services, turning internal auditing into a proactive activity that addresses important issues of control, risk management, and governance **Hass et al (2006, p.837)**. Examples of assurance and consulting audit services related to control and risk management are conducting internal control training, providing advice to management about control issues, participating in quality teams, assessment services, remediation services…etc. In fact, these standards require that internal auditors assist the company in maintaining effective controls **Colbert (2016, p.36)**. Reviewing and evaluating the adequacy and effectiveness of a company's internal control system is a primary core activity of internal auditing **Coetzee & Bruyn (2001), Fadzil et al (2005),** and **Hass et al (2006)**. The role of internal auditing in reviewing, evaluating, and assessing the effectiveness of internal control system is to ascertain if the system is functioning. Moreover, internal auditing review the accuracy and reliability of financial and operating information which is vital for controls development.

In Turkey, a survey conducted by **Gül & Kaban (2005)** in banking sector to investigate the relationship between internal control and internal auditing. Findings illustrated that there was a synergy between these two systems and the internal audit could help management in assessing the effectiveness of internal control activities.

The researcher believes that internal auditors play a vital role in providing the necessary information for designing controls, and evaluating and reviewing their effectiveness. In other words, internal auditors are one of the means that assist in designing, implementing, and conducting an effective internal control system.

## 2.4 Total quality

Total quality is the continuous improvement of people, processes, products/services, and environments. To apply total quality, a company identifies all factors that affect quality in order to be subject for continuous improvement **Goetsch & Davis (2014)**. When a company effectively applies the concept of total quality, the end result will be achieving a competitive advantage due to organizational excellence, superior value, and global competitiveness. Therefore, applying total quality system can attribute to the achievement of different business goals. **Alic & Rusjan (2010)** classified the different benefits of applying total quality system into four groups in accordance with the four perspectives of the balanced scorecard introduced by Kaplan and Norton in 1992:

1. Gains related to the customer perspective:
    - Basic benefits: Applying total quality improves the quality of products/services. It decreases cost resulting from recycling defected items, in addition to decreasing costs related to maintenance services. Furthermore, communications with suppliers and customers are effectively improved.
    - Consequential gains: Increasing customer satisfaction and enhancing the company's image; retaining long term relations with current customers and easy access to potential ones. The end result will be greater market share.
2. Gains related to the internal processes perspective:
    - Basic gains: Clearly identifying policies and procedures which decrease waste and rework time. This will improve business processes and increase productivity. In addition, costs related to internal and external auditing will be decreased.
    - Consequential benefits: internal processes will effectively achieve its built-in objectives.
3. Gains related to learning and growth perspective:

- Basic gains: Highly qualified personnel executing the assigned responsibilities, deploying knowledge among employees, improving work environment, and increasing the quality of products/services.
- Consequential gains: Increasing employee satisfaction, enhancing innovation, and obtaining competitive advantage.

4. Gains related to the financial perspective:

- Basic gains: Decreasing direct costs due to improvements in processes, effectiveness of operations, and enhancing quality of products/services.
- Consequential benefits: Increasing return on investment, and increasing shareholders' satisfaction.

**Stace (1994, p.28)** reports that the ideology of total quality identifies the need for ongoing self-evaluations and ensures the role of internal control in executing this processes. Also, **Antonaros (2010, p.18)** determines the following requirements that a company should have before applying total quality:

- Control mechanisms
- Assurance of control
- Learning mechanisms

To better understand the relationship between total quality and internal control, the researcher presents one of the tools/approaches used to implement total quality, i.e. **Juran Trilogy**. The Juran Trilogy provides three primary managerial functions to implement total quality **Goetsch & Davis (2014, p.12)**:

- Quality planning which addresses developing products, systems and processes required to meet or overcome expectations of customers and other stakeholders.
- Quality control which involves steps, such as: assessing actual quality performance, comparing performance with predetermined goals, and taking initiatives in the case of performance deviations.

- Quality improvement which includes ongoing and continuous development of personnel, processes, products/services and other items related to achieving total quality.

Therefore, the researcher believes that total quality is applied in the different sections of the company, and it is inherent in all business processes, including executive personnel. Internal control system ensures that all the company's objectives of operating, reporting, and compliance, including total quality objective are achieved. Specifically, the ongoing evaluations by internal control system for all company's processes and aspects ensures providing total quality system, with necessary information about current performance, deviations, and remediation of its aspects in business processes. Having an effective internal control system ensures achieving total quality.

## 3. Internal control frameworks

As the researcher previously reported, many regulatory organizations issued internal controls frameworks to assist companies develop and maintain an effective internal control system. In this section, the most accepted frameworks will be briefly presented.

### 3.1 Internal control frameworks issued by regulatory organizations

Currently, organizations face accelerated challenges as they compete in an increasingly changing business environment, leading them to strive to merely insure survival. All companies have goals and objectives of meeting their customers' needs, ensuring effective and efficient internal business process, managing their complex supply chain, to ensure survival and growth in a surrounding hostile business environment and enhance the achievement of total quality. However, internal and external risks which can be defined as the likelihood that some factor/s or event/s are likely to prevent an organization from achieving its objectives **Nagumo & Donlon (2006)**, causing failure to the company.

Hence, the increasingly complex nature of surrounding internal and external risks force companies to develop a formal process; namely an internal control system for managing their portfolio of risks properly **Ballou & Heitger (2005)**. In general, the internal control is built-in processes and actions, designed to provide a reasonable assurance that the

company's goals, e.g. efficiency of operations, reliability of financial reports and compliance with laws, and regulations are fulfilled. Having an effective internal control system gives competitive advantages to the company that encourages many regulatory organizations to issue internal control frameworks, such as COSO's Internal Control-Integrated framework, Criteria of Control framework, and UK Corporate Governance Code.

In 1995, the Canadian Institute of Charted Accountants (CICA) issued criteria of control framework (COCO) that companies could use to develop, assess and change their controls **Wood (2000); Cooper & Gendron (2001)**. COCO describes internal control as actions that promote the best result for an organization. These actions assist companies in achieving their objectives of effectiveness and efficiency of operations, reliability of internal and external reporting, and compliance with applicable laws, regulations and internal policies. COCO classifies the criteria of control under four categories **Cooper & Gendron (2001)**:

- Purpose which suggests that management and other personnel should act according to the organization's objectives. Objectives should be determined, then risks inherent with the achievement of these objectives should be valued and determined.

- Commitment which suggests that personnel should have the required sense of commitment to appropriately execute their assigned responsibilities and tasks, anytime. Here, responsibilities should be determined and rewards should be created to enhance commitment and ensure the existence of necessary resources.

- Capability which suggests that the company should support its personnel with the necessary resources, including information system in order to appropriately execute their duties.

- Monitoring and learning which suggest that the company should design and operate its business processes according to its objectives. Measurements should be set for each objective. The company should monitor and evaluate its performance in order capture deviations from targets and learn what initiatives should be made.

The UK Corporate Governance Code, formerly the Combined Code, was developed by UK authorities in the early 1990s and updated in 2010 **Pass (2006), and Hawser (2010)**. The Code is principle-based and identifies and describes guidelines for the best practices which companies can design related to controls. The code requires all companies with a premium listing in London Stock Exchange to report on how they comply with the code, and the explanation where they do not comply.

The Committee of Sponsoring Organization **(COSO)** issued the Internal Control-Integrated Framework in **1992**, and updated in **2013**. The COSO's Internal Control-Integrated Framework is a components-build framework that provides a roadmap to help companies consider alternative approaches in designing, implementing, and conducting internal control systems. For research purpose, the researcher presents a brief discussion for the updated internal control framework in the next section.

### 3.2 COSO's Internal Control – Integrated Framework

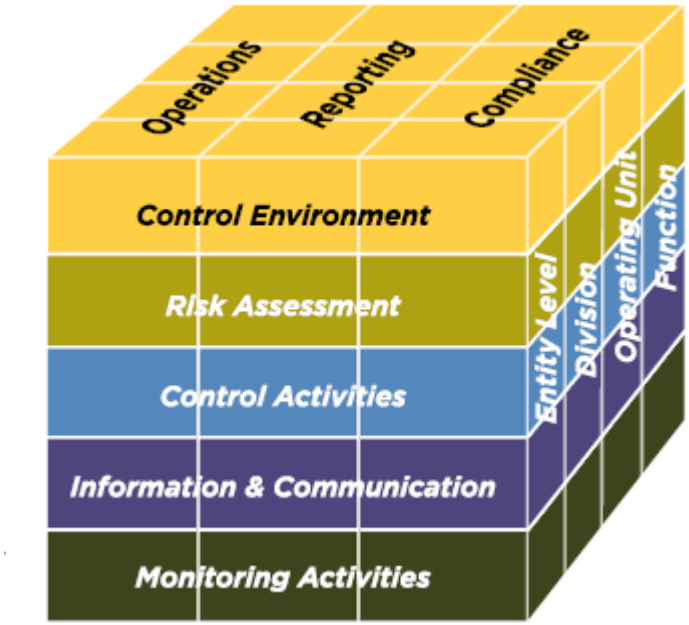
According to the findings of **KPMG (2013)**, a Canadian limited liability partnership company, and **D'Aquila (2013)**, the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organization in 1992 was revolutionary, and its updated version in 2013 was evolutionary. The 1992 framework represented the first major formal attempt to define and describe internal control and its requirements. In 2004, after the financial scandals of Enron and Worldcom, the **Sarbanes – Oxley Act** was enacted. This law highlighted the importance of internal control in **section 404**, by requiring companies to develop and maintain internal control over financial reporting. In addition, management and external auditors should evaluate and report on the effectiveness of internal control. The U.S. Securities and Exchange Commission **(SEC)** stated that the **COSO** framework can be used when auditors perform audits of internal control over financial reporting and when management evaluates the effectiveness of internal control over financial reporting. The same was also reported by the Public Company Accounting Oversight Board **(PCAOB)** in its auditing standards **AS7 D'Aquila (2013)**.

The updated framework of **COSO** of **2013** still retains the **1992** framework's definition of internal control and its five components with their three objectives categories (**COSO –**

**Executives Summary**). The **COSO'**s Internal Control – Integrated Framework defines internal control as "a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance". A direct relationship exists between the objectives the company strives to accomplish, components that address requirements to achieve these objectives, and the organizational structure of a company (i.e. operating units, legal entities, and other) (as shown in **exhibit 1**), which depicts this relationship, where:

- The three categories of objectives; operating, reporting, and compliance, are represented by the columns,
- The five components are represented by the rows, and
- The organizational structures of a company represented by the third dimension.

**Exhibit 1: Relationship of objectives and components**




**Source: (Extracted from COSO Executive Summary)**

Over 20 years of issuing the original framework in 1992, business and operating environments changed dramatically, becoming more complex, technologically driven and global in scale. Stackholders are now more engaged and demand more transparency and accountability, which cause a shift in the level of attention paid to fraud prevention and detection. According to the National Association of Corporate Directors **Bala & Wodka (2014)**, the updated framework of **2013** reflects consideration of many of these changes by:

- Codifications of 17 principles that underlie the original five components of internal control, as shown in **Exhibit 2**.
- Addition of 77 points of focus which may assist managing in designing, implementing, and conducting internal control system, and assessing if relevant principles are present and functioning.
- Enhanced consideration of anti-fraud expectations, and governance concepts.
- Considering demands and complexities in laws, regulations, and standards.
- Considering changes in business model, organizational structures, and technology.

The updated framework's main sections consist of:

- **Executive Summary**, which provides a high-level overview of internal control.
- **Framework and Appendices**; the framework describes 5 components and 17 principles of the internal control system. It also illustrates many approaches and examples that provide direction for all levels of management to be used in designing, implementing, and conducting internal control system, with appendices providing additional references material.
- **Illustrative Tools for Assessing a System of Internal Control**, which provides templates to help users document their assessment of overall system, components, principles, and deficiencies.
- **Internal Control Over External Financial Reporting**, a compendium of approach and examples which provides examples of internal control over financial reporting and assist users in how to apply the 17 principles to external financial objectives.

### 3.2.1 Definition of internal control objectives

The **COSO** framework is designed to be used by companies in designing, implementing and conducting an effective internal control system to give a reasonable assurance that company will achieve its objectives classified into three categories:

- **Operations objectives** – related to the efficiency and effectiveness of the company's operations.
- **Reporting objectives** – related to internal and external financial and non-financial reporting, which involve reliability, timeline, transparency, or other terms set forth by the regulators, recognized standard setters, or the entity's policies.
- **Compliance objectives** – related to compliance with law and regulations to which the entity is subject.

These categories reflect choices and decisions made by management and board of directors about how the company seeks to create, preserve, and realize the value for its stakeholders. Setting objectives is a prerequisite to internal control indicating what can be expected from internal control. However, internal control system can only provide reasonable assurance on how the company is approaching these objectives.

### 3.2.2 Internal control components

The COSO's internal control framework consists of five components:

- **Control environment:**

It is "the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization". Control environment is the top tone of internal control systems, since it creates the discipline that supports the assessment of risks of achieving the entity's objectives, effective performance of control activities, rational use of information and communication systems, and executing of monitoring activities.

The five principles along with their points of focus that clarify the control environment component are:

1- "**The organization demonstrates a commitment to integrity and ethical values**". The actions and behavior of the board of directors and management should underpin that commitment. The company's standard of conduct should define expectations about integrity and ethical values, and these expectations should be understood by all levels of the company and its stakeholder. There should be processes in place to evaluate the performance against the company's expected standards of conduct, while any deviations should be identified and remedied in a timely manner.

2." **The board of directors demonstrates independence from management and exercise oversight of the development and performance of internal control**". The board of directors should identify and accept its oversight responsibilities by taking three actions. First, it defines, maintains, and periodically evaluates skills and expertise needed to ask probing questions of senior management and take commensurate actions. Second, it keeps independence from management, and objectivity in evaluating and decision-making. Third, it retains oversight responsibility for management's design, implementation, and conduct of internal control.

3. **" Management establishes, with board oversight, structures, reporting lines, and appropriate authorities in the pursuit of objectives**". To support the achievement of objectives, management and the board of directors should consider the multiple structures used e.g. operating units, legal entities, outsourced service providers…etc. To manage the activities of the company, management should design and evaluate lines of reporting for each company structure. Management and the board of directors should delegate, assign, and segregate responsibilities and duties using appropriate process and technology.

4." **The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives**". The management should establish policies and practices that reflect expectations of competence. The board of directors and management should evaluate competence in relation to the established policies and practices to address shortcomings. It is necessary to perform mentoring and training to attract, develop, and retain sufficient and competent personnel and outsourced service providers.

There should be contingency plans for assignments of responsibility, important for internal control.

5."**The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives**". Management and the board of directors should establish accountability mechanisms. Measures, incentives, and rewards should be established and aligned with internal control responsibilities. Management and the board of directors should evaluate responsibilities performance and provide rewards or exercise disciplinary actions as appropriate, taking performance pressures into consideration.

Unlike the original framework, the updated one represents a significant change. According to **D'Aquila (2013),** the first and second principles were not included explicitly in the original framework. The updated framework clearly identifies and explains the relations between control environment and other components. Moreover, it clearly provides and explain a number of concepts related to control environment, e.g. lack of adherence to standards of conduct, board of directors' oversight responsibilities with specific examples, and specific capacities expected from board members. Also, giving more details on integrity and ethics, different business model, roles and responsibilities are in alignment with the updated framework concepts.

- **Risk assessment:**

Risk assessment involves "a dynamic and iterative process of identifying and assessing risks to achieve objectives". Risks are internal or external events that possibly prevent or affect the achievement of the company's objectives. The steps of establishing objectives related to the categories: operations, reporting, and compliance, and then identifying risks related to these objectives are prerequisite to managing such risks. The 4 principles and their points of focus of risk assessment are:

6. " **The organizations specifies objectives with sufficient clarity to enable the identification and assessment of risks related to objectives**". Operations' objectives reflect the desired operational and financial goals and indicates management's choices about structures, industry considerations while taking into consideration a desired level of variation

related to the achievement of such objectives. They should be a basis for allocating resources within the company. Reporting objectives may take one of three types: external financial reporting, external non-financial reporting, and internal reporting. External reporting should reflect the underlying transactions and events according to the applicable accounting standards, and be prepared to shows qualitative characteristics. External non–financial reporting should reflect the required underlying transactions and events and be prepared according to established standards and frameworks. Internal reporting should reflect the underlying transactions and events and be prepared with suitable accuracy, precision, and completeness to help management in decision-making. Compliance with objectives should reflect external laws and regulations, with an acceptable level of variation.

7- "**The organization identifies risks to the achievement of its objectives across the entity and analyses risks as a basis for determining how the risks should be managed**". The company should take into consideration the internal and external factors or events at the level of entity, division, operating unit, and functional levels when identifying the risks that may affect the achievement of objectives. Before managing risks, and whether to accept, avoid, reduce, or share the risk, the company should use effective risk assessment mechanisms and take the potential significance of risk into account.

8- "**The organization considers the potential for fraud in assessing risks to the achievement of objectives**". The company should consider all types of fraud, such as: fraudulent reporting, possible loss of assets, and corruption. As a way for managing fraud, incentives and pressures should be used. Also, management and the board of directors should analyze the attitudes and rationalizations of management and personnel that may be engaged in, or justify inappropriate actions. Management should assess fraud that comes from opportunities for unauthorized acquisition, use or disposal of assets, changing reporting records, or other inappropriate acts.

9- " **The organization identifies and assess changes that could significantly affect the system of in internal control**". The changes can be in the external environment, business model, and leadership. Changes in the external environment may include changes to the regulatory, economic, and physical environment, in which the company operates. Changes in the business model may include new business lines, acquired or divested business operations, rapid growth, new technologies,…etc. Changes of leadership means changes of the attitudes and philosophies of management.

Unlike the 1992 framework, the updated framework, introduces many critical changes to the risk assessment component. According to **KPMG (2013)**, the updated framework clearly defines risk, and introduce risks related to different types of fraud in principle 8. Also, internal control is a risk – based approach, with risk assessment, includes processes for risk identification, risk analysis, and risk response. It starts with the board of directors creating risk tolerances for the company. It also discusses risk severity, and risk management which is an acceptable level of variation in the performance of risk assessment. Moreover, principle 6 introduces "reporting to external parting", which classifies external reporting into financial and non–financial and discusses internal financial and non - financial reporting.

- **Control activities:**

According to the **COSO** framework, control activates are "actions established by the policies and procedures to help ensure that management directives mitigate risks to the achievement of objectives are carried out ". Control activities are the policies, procedures, and actions (authorizations and approval, verifications, reconciliations … etc.) used as mechanisms for managing the achievement of a company's objectives. Even they are apart of the processes by which the company strives to achieve those objectives, they may support one or more of the company's three objectives categories. They may be preventive or detective in nature, and manual or automated in terms of degree of technology used.

The three principles and their point of focus attached to control activities in the updated framework are:

10- " **The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels** ". In the process of selection and development of control activities, management should take the environment, complexity, nature, and scope of its operations and the specific characteristics of its organization into consideration. Here, management should determine which processes require control activities. Management may use a balance of approaches to mitigate risks and a variety of controls, either manual or automated and preventive or detective. Management should segregate incompatible duties, and if it is not practical, they use

alternative control activities. They should integrate with risk assessment, by ensuring that controls selected and applied address and mitigate risks identified.

11- " **The organization selects and develops general control activities over technology to support the achievement of objectives** ". Management should understand and determine the dependency and relations between business processes, automated control activates, and technology general controls. Management should select and develop control activities over the technology infrastructure to help both ensure completeness, accuracy, and availability of technology processing, and to avoid unauthorized internal and external users from access. Management should also select and develop control activites that ensure acquisition, development, and maintenance of the required technology to achieve management's objectives.

12- " **The organization deploys control activities through policies that establish what is expected and procedures that put policies into action**". Management should put control activities into the employee's day-to-day activities through policies which establish what is expected, and procedures that put policies into actions. Management should establish responsibility and accountability with management and personnel in the positions and functions with relevant risks. Competent personnel with sufficient authority should perform control activities as defined by policies and procedures. Finally, management should periodically review controls activities to determine their continued relevance, and refresh them when necessary.

According to **D'Aquila (2013)**, **Balla & Wodka (2014), KPMG (2013)**, and **Katherine & Peter (2013)**, the key changes of controls activities in the updated framework related to changes in technology over the past 20 years after issuing the original framework fully discuses general information technology controls, and their relations to automated controls, and how they are linked to business processes. They also discuss relationship between risk assessment and control activities on the different levels of the company. They provide detailed description of control techniques' types, e.g. detective versus preventive controls.

- **Information and communication:**

The information and communication component of the updated framework support the functioning of other four components in achieving the company's operating, compliance, and reporting objectives. Information is "the data combined and summarized based on relevance to information requirements". Management generates and collects data from internal and external sources processed to be used in the company's decision-making process. Communication is "the continual and iterative process of providing, sharing, and obtaining necessary information". Management communicates information both internally, to enable personnel to understand the company's objectives and their control responsibilities, and externally, to enable management to obtain and share information between the company and external parties about risks, regulatory matters, changes in circumstance, and other information related to the functioning of internal control.

The three principles concerning information and communication component, along with their points of focus, are:

13- "**The organization obtains or generates and uses relevant quality information to support the functioning of internal control**". Management should identify the information required to support the functioning of other internal control components and the company's operating, reporting, and compliance objectives. Information systems should capture internal and external sources of relevant data, process, and transform data into information that should be timely, current, accurate, complete, accessible, protected, and verifiable and retained. It should also consider costs and benefits of collecting and processing relevant data.

14- " **The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control** ". The company should have a communication process to communicate the required information that enable all personnel to understand and execute their internal control responsibilities. A communication between management and the board of directors should exist in order to have the required information to execute their roles. Separate communication channels should be in place such as whistle-blower hotlines to serve as fail-safe mechanisms to enable anonymous or confidential communication in case of normal channels are inoperative or ineffective. Finally, management should select relevant method of communication that considers the timing, audience, and nature of information.

15- " **The organization communicates with external parties regarding matters affecting the functioning of internal control** ". The company should have processes in place to communicate relevant and timely information to external parties, such as: shareholders, partners, owners, customers and other external parties. Management should open communication channels with external parties in order to obtain relevant information communicated to management and board of directors. Separate communication channels, such as whistle-blower hotlines, should be in place to serve as a fail-safe mechanisms. Finally, it should select relevant method of communication that considers the timing, audience, and nature of the communication and legal, regulatory, and fiduciary requirements and expectations.

According to **D'Aquila (2013)**, **KPMG (2013)**, and **Katherine** & **Peter (2013)**, the main contributions of the updated framework in the information and communication component are:

- Discussing the quality of information and the verification of the source of information and the retention when information is used.

- Expanding the discussion of regulatory requirements on the reliability and protection of information.

- Discussing the cost and benefits of obtaining information, with additional consideration of the impact of technology and other communications mechanisms.

- Discussing how the company interacts with third parties outside its legal and operational boundaries.

- **Monitoring activities:**

Monitoring is a key part of the company's assessment of the effectiveness of internal control. It consists of "ongoing evaluations, separate evaluations, or some combination of the two, which used to ascertain whether each of the five components of internal control, including controls to affect the principles within each component, is present and functioning". Ongoing evaluation is integrated into business operations at different level of the company, while separate evaluations used periodically and shall vary in scope and

frequency, depending on assessment of risks, effectiveness of ongoing evaluations, and or their management consideration. By the time, the company's internal control system, components, and objectives may change. Also, controls may become less effective or obsolete, or may be considered insufficient to support the achievement of the company's new or updated objectives. Monitoring activities are selected, developed, and performed in a manner in which they ensure that each component and its principles continue to be present and function, or if a change is needed. They identify and examine expectation's gaps related to anomalies and abnormalities, which may indicate one or more deficiencies in internal control system, and management in turn often identifies root causes of such gaps as a way of helping in making decisions about the effectiveness of internal control system. In general, monitoring activities provide valuable support for asserting the effectiveness of internal control systems.

The two principles of monitoring activities component and their points of focus are:

16- "**The organization selects, develops, and performs ongoing and or separate evaluations to ascertain whether the components of internal control are present and functioning** ". Management should consider the rate of change in business and business processes when selecting and developing a balance of ongoing and separate evaluations. In addition to using the internal control system as a baseline for ongoing and separate evaluations, it should use knowledgeable personnel to perform such evaluations. Ongoing evaluations are built into business processes and adjusted to changing conditions, while separate evaluation are performed periodically. Its scope and frequency depends on risk.

17- "**The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective actions, including senior management and the board of directors, as appropriate** ". Management and the board of directors should assess the results of ongoing and separate evaluations. Additionally, deficiencies, if any, should be communicated to parties responsible for taking corrective actions and to senior management and the board of directors. Finally, management should trace whether deficiencies are remediated on a timely basis.

**Ionescu (2011)** reports that the monitoring components of the 1992 framework address how the other four components of internal control are applied and whether the internal

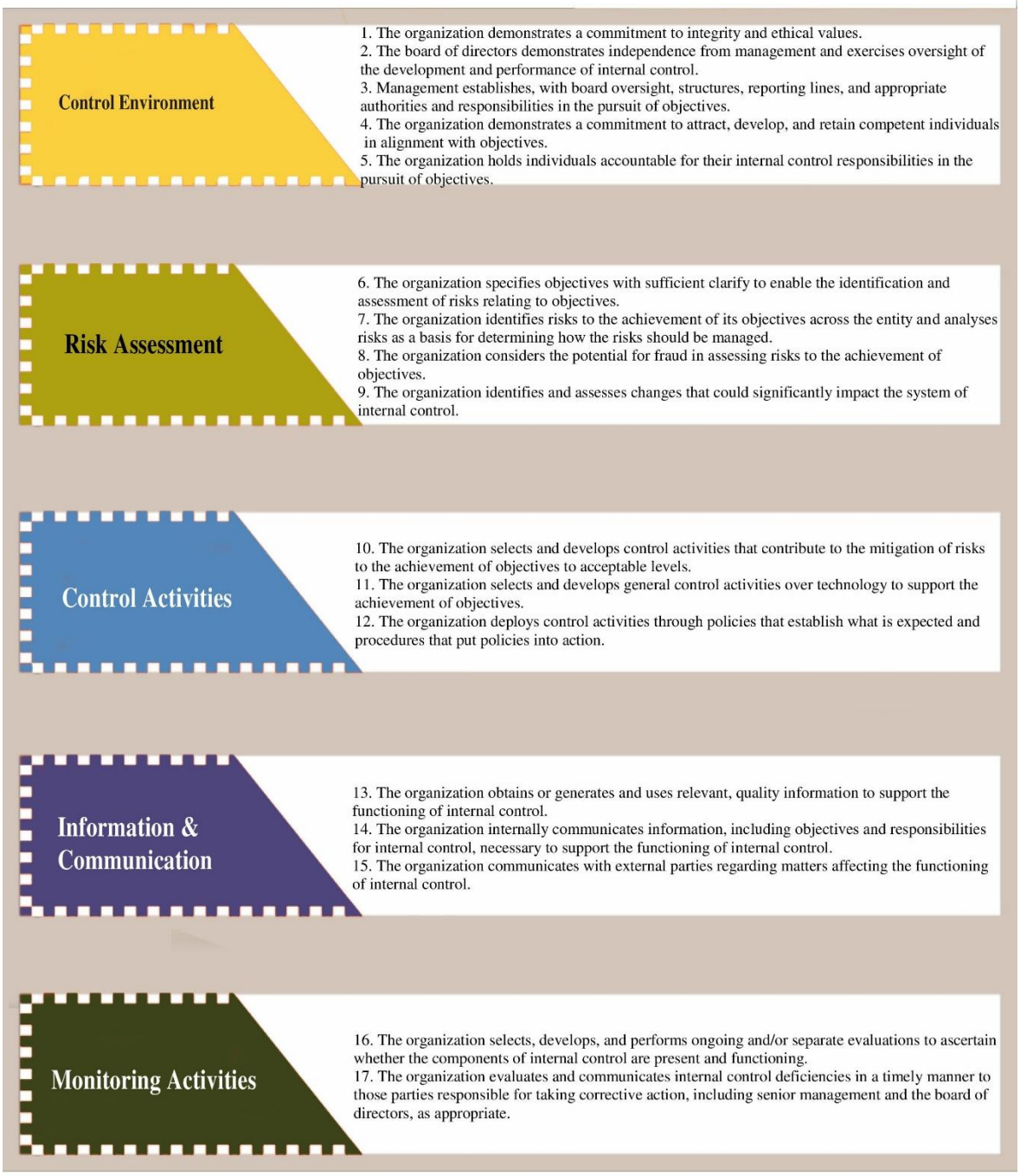
control system operates effectively. The updated framework just provides more discussion for the need of a baseline to understand both types of evaluations, and how to incorporate these evaluations into different levels of the company as well as at third-party service providers **D'Aquila (2013)**.

The updated framework of **COSO** provides a reasonable assurance of achieving the company's operating, reporting, and compliance objectives, if they are only characterized as effective. This framework explains the conditions and characteristics of effective internal control system as:

- Each of the five components of internal control and relevant principles is present and functioning.
- The five components are operating together.

According to the COSO framework, "present" refers to the components and relevant principles that exist in the design and implementation of internal control system, while "functioning" means that the components and relevant principles continue to exist in the conduct of the system of internal control. Also, management can argue that components operate together when they are present and functioning and control deficiencies aggregated across them do not result in one or more major deficiencies. An "internal control deficiency" refers to a shortcoming in the component/s and relevant principle/s that reduces the likelihood that a company achieve its objectives. The components are interrelated and should support the functioning of each other. Otherwise, the internal control system reports deficiencies. The findings of **Klamm & Watson (2009)** of a study on 490 firms with material weaknesses reported under **Sarbanes-Oxely** section 404, provide an evidence that a weak control environment has a positive relationship with other weak **COSO** components and that the remaining weak components are positively related to the preceding weak component. This supports the idea of the interrelatedness of the **COSO** components and relevant principles in supporting the company's objectives.

**Exhibit 2: The COSO framework components & principles**




**Source: Extracted from the 2013 COSO Framework**

By conducting a deep inspection of COSO's updated framework, it could be concluded that the framework is a quantum leap in the Internal Control field. However, the researcher argues that this framework is a roadmap of instructions, conditions, and characteristics of how to design, implement, and conduct internal control systems. The researcher believes that it is more suitable for companies that have a moderate internal control system, highly competent and expert management and personnel, and sufficient technology infrastructure, with just a need for a standardized internal control framework such as the COSO framework to achieve their planned and desired internal control system. The following points justify the preceding argument:

- By surveying the accounting and auditing literature, many researchers support the study's argument. **McNally (2015, p28)** argues that many companies leverage internal control for only compliance purposes e.g. to meet **Sarbanes-Oxley,** other regulatory requirement, or using it for external financial reporting only. Consequently, they changed from a support tools that assist a company achieve its objectives to being objectives in their own right. While others, e.g. **Marinos (2004, p.12),** argue that the **COSO** framework is a structured roadmap to internal control system, **Katherine & Peter (2013, P.36)** also reports that the COSO gives companies the discretion for designing, implementing, and conducting their internal control system according to their surrounding circumstances by providing both a principles-based approach which provides that flexibility, and indicating the requirements for an effective system of internal control. Moreover, **Hume(2012,p.137-144)** illustrates how the World Bank undertakes a review of its internal control using the **COSO** framework, governing the operational compliance of its Concessionary Funding Agency, which known as the International Development Association Funding **(IDA)**. **Savage et al. (2008,p.64)** report that in a survey of members of the Institute of Management Accountants and the Institute of Internal Auditors that 90% of respondents rely on the **COSO** framework to evaluate controls. **klamm & Watson (2009)** covers a sample of 490 companies with material weaknesses reported under **Sarbanes-Oxely** Section 404 in a study that examines internal control, from an information technology (IT) and non-IT perspectives, in relation to the five components of the **1992 COSO** framework. In conclusion, a lot of companies every year report material weaknesses in their internal control, even those using the **COSO** framework. The **COSO** framework is closer to a standardized framework for many reasons discussed in the following points.

- According to the **COSO** framework, the process of designing, implementing, and conducting a system of internal control begins with establishing the company's three categories of objectives. It reports that " it is not practical to design and implement a system of internal control unless the entity's objectives are established, set, and specified for the organization" It completely leaves objectives-setting process for the management and board of directors to reflect their choices about how the company seeks to create, preserve, and realize value for its stackholders. The framework just provides them with some instructions of whether the applicable tools completely ensures the established objectives clearly reflects management and board of directors' choices and desires, or not.

- Personnel who plan and design internal control should differentiate between processes related to controls and normal business processes. According to the **COSO** framework, control activities are those mechanisms that assist management to achieve the company's objectives and they are completely different from the operational processes designed to achieve those objectives. Control activities are those actions that help ensure management's responses to the assessed risks, as well as other management directives such as establishing standards of conduct are properly carried out in a timely manner. The framework provides few examples to help understand those aspects, such as: supposing a company sets an operations' objectives "to meet or exceed sales targets for the ensuing reporting period". Management identifies a risk that the company's personnel have insufficient knowledge about current and potential customers' needs. Hence, if management's response to address this identified risk includes developing buying histories for existing customers and undertaking market research initiatives to increase the company's personnel understanding of how to attract potential customer, the control activities could be " tracking the progress of the development of the customer buying histories against established timetables, and taking steps to help ensure the quality of the reported marketing data". So, there are normal business processes, relevant identified risks, relevant established management responses, and finally control activities that ensure responses carried out properly and in a timely manner. This hierarchy would need competent personnel to deal and work with. Moreover, there is a difference between policies and procedures, which deploy control activities. In the discussion related to points of focus of the 12 principle, policies explained as "management's statements of what should be done to effects controls which may be documented, explicitly stated in communications, or implied through management's actions and decisions". While

procedures consist of "actions that implement a policy". The framework clearly explains with few examples control activities. However, the framework fails to integrate applicable tools to help direct and design such controls.

- Enterprise-Risk Management **(ERM)** framework presents the concept of potential events generated from internal and external sources that affect the implementation of strategy or the achievement of objectives. Potential events with positive effect represent opportunities, while those with negative effect represent risks. In the **Appendices'** section of **COSO** framework, in comparison with COSO's Enterprise Risk Management, the framework clarifies that "The **COSO** internal control framework focuses on identifying risks and does not include the concept of identifying opportunities as the decision to peruse opportunities as part of the broader strategy-setting process". However, it is known that opportunities which could not be exploited, could be a risk for the company. Moreover, control activities are designed to integrate with the risk assessment component to identify risks. The same tools designed by the company to capture and identify risks may also be used to capture and identify opportunities, communicated to management and board of directors, and can be used in strategy-setting process as a way of supporting **ERM**.

### 3.3 Internal control in Turkey

In Turkey, as a way of enhancing the economic development after 2001, the Capital Market Board translated International Financial Reporting Standards **(IFRS)** into Turkish in **2002**. The Turkish Accounting Standard Board **(TASB)** established in 2002, accepted a harmonization uniformity with **(IFRS)** in order to achieve international acceptance **Balsari & Varan (2014, p.378)**. Companies listed at Istanbul Stock Exchange are required to comply with the IFRS from the Beginning of 2005. According to **Balsari & Varan (2014, p.379)**, the most impotent step in the **IFRS** implementation come with the issuance of new Turkish Commercial Code. In **2012**, the new Turkish commercial code was released. The code was a major change that promotes fair competition, transparency, corporate governance principles, and most importantly accounting and auditing standards besides requiring companies meeting criteria to report under Turkish accounting standards **(Translated IFRS)**. However, unlike the **Sarbanes -Oxley act**, which controls the U.S. capital markets, there was no recommendation of using a specific internal control framework in the Turkish

commercial code. **Öksüz ( 2013, p.8)** reports that few Turkish companies use an internal control framework as a guidance to design, implement, and conduct its internal control system, especially those operating in real estate sector. Moreover, Turkish companies that have an internal control system are characterized by inefficiency or less effectiveness, or control deficiencies in one or more of the internal control components. **Özbilgin (2010, p.221)** reports that the Capital Market Board of Turkey, as a way of enhancing the performance of brokerage houses which play important role in securing and functioning of the capital market, issued the communiqué on "the principles regarding the internal auditing system of brokerage houses", published in **2003** and updated in **2007** and **2008**. The communiqué determines and defines the fundamental principles and procedures adopted by brokerage houses in the establishment of their internal control which should help them monitor and control risks they are exposed to. **Özbilgin (2010)** declares that the communiqué, which defines the internal audit system as the integrated process of both the internal control system and the inspection system, fails to give even the necessary guidance and instruction to design, implement, and conduct an effective internal control system to these companies. Additionally, **Özbilgin (2012, p.221)** recommends that the articles and definitions incorporated in the communiqué must be re-reviewed, and to be comply with the **COSO** framework.

Other researchers, e.g. **Özten & Karğin (2012) and Gül & Kaban (2015)**, report that some businesses in Turkey like commercial banks have kindly sound internal control system by their institutional nature. This is enhanced by the new arrangements took place by issuing many legislations by the Turkish Central Bank after 2001 crisis. However, there are some shortcomings in controls related to many functional areas inside the Turkish banks.

In fact, the concept of internal control system in Turkey merely exists in the Public Financial Management and Control Law No.**5018**, which governs the Turkish public administration **Aykel (2010, p.200).** However, **Akdeniz (2010), Aykel(2010), Acar & Akçakanat (2012),** and **Ertuğrul (2013)** believe that the public institutions still suffer from shortcomings related to the performance of their internal control system. Consequently, it could be concluded that the internal control culture in Turkish companies is weak. In addition, the previous trials to import and apply an internal control framework, e.g. the Turkish Capital Market Board's trial, were incomplete and ineffective. This constitutes the main motive of the study to suggest integrating some traditional applicable approaches/tools

(namely: Balanced Scorecard, Benchmarking, and Control-Self Assessment) with the newly updated **COSO**'s Internal Control-Integrated Framework, to reach at an integrated framework, consisting of a model of steps and sub-steps. This building-block model facilitates and assists Turkish companies build and develop an effective internal control system in accordance with the instructions of the COSO's internal control framework

## 4- Suggested framework for integrating new and traditional internal control techniques

The suggested framework for designing, implementing and conducting an effective internal control system are consisting of three techniques/tools i.e. Balanced Scorecard, Benchmarking, and Control-Self Assessment, which assist Turkish companies complying with the recommendations, characteristics, and conditions of the updated COSO framework. The components, phases, and steps of the suggested framework are discussed in the following sections.

### 4.1 Suggested framework components

As COSO's Internal Control-Integrated Framework is briefly discussed in the previous section, other approaches/ tools of the suggested framework are briefly discussed to clarify each one and the reasoning behind using them.

#### 4.1.1 Balanced scorecard

The Balanced Scorecard **(BSC)** has gained widespread acceptance as a useful performance management system for business, not-for-profit, and public sector organizations **Zimmerman (2004), Valiris et al (2005), Voelpel et al (2006), Mc Devitt et al (2008), Greiling (2010), Kaplan ( 2010 ), Dechow (2012), Northcott** & **Taulapapa (2012),** and **Seal & Ye (2014).** The spread of the BSC throughout different types of organizations can be explained by the demand for the technical qualities that it offers **Seal & Ye (2014)**, the deployment of multiple financial and non-financial measures of performance **Seal & Ye (2014)**, or its multi-dimensional view of performance across

matrices employed **Northcott** & **Taulapapa (2012)**. By the time, the BSC changed from a performance management tool to a performance management system that covers and direct companies' strategies, business plans, and initiatives.

**Kaplan (2010)** reports that between 1970s and 1980s, while western companies focused on short-term financial performance, the Japanese companies adopted innovations related to quality and just-in-time production which contribute to their complacency and slow response to the Japanese threats. In addition, Johnson and Kaplan (1987) reviews the history of management accounting, reporting that U.S. companies failed to promote operational improvements in their management accounting and control system in order to enhance the successful implementation of total quality and short-cycle time management. This motivates **Kaplan & Norton (1992)** to create the **BSC**, which unlike other performance measurement approaches that focus in controlling behavior, it offers opportunities to motivate organizational members to achieve long term goals **McDevitt et al (2008)**. The BSC introduced by **Kaplan & Norton (1992, 1993)** to address the shortcoming of traditional performance systems, which they link to a reliance on financial measures only. In order to overcome this singular focus, they introduce three additional measurement perspectives which highlight non-financial aspects, namely: customer satisfaction, internal processes, and learning and growth **Kaplan & Norton (1992, 1993), (**as shown in **Exhibit 3).** Kaplan & Norton think of the three additional perspectives as the drivers of future performance, whereas the category of financial perspective address past performance **Dinesh & Plamer (1998, p.364)**. By using all four perspectives, the BSC lets executives examine whether they have been improved in one area at the expense of another **Kaplan & Norton (2005)**, and draw together a wide variety of disparate, yet important, competitive strategic priorities **Dinesh & Plamer (1998, p.365)**. A central tenet of the BSC is its focus on goal congruence, and hence the objectives and measures for each of the four BSC perspective are directly driven by the organization's vision and strategy. That enables companies achieve goals that support long-term version. **Kaplan & Norton (1996a)** shows that the BSC has evolved into strategic management system, with organizations using it to manage their strategy over the long run, through using the measurement focus of the scorecard for the following management processes **Kaplan & Norton (1996p):**

- Identify and describe vision and strategy,

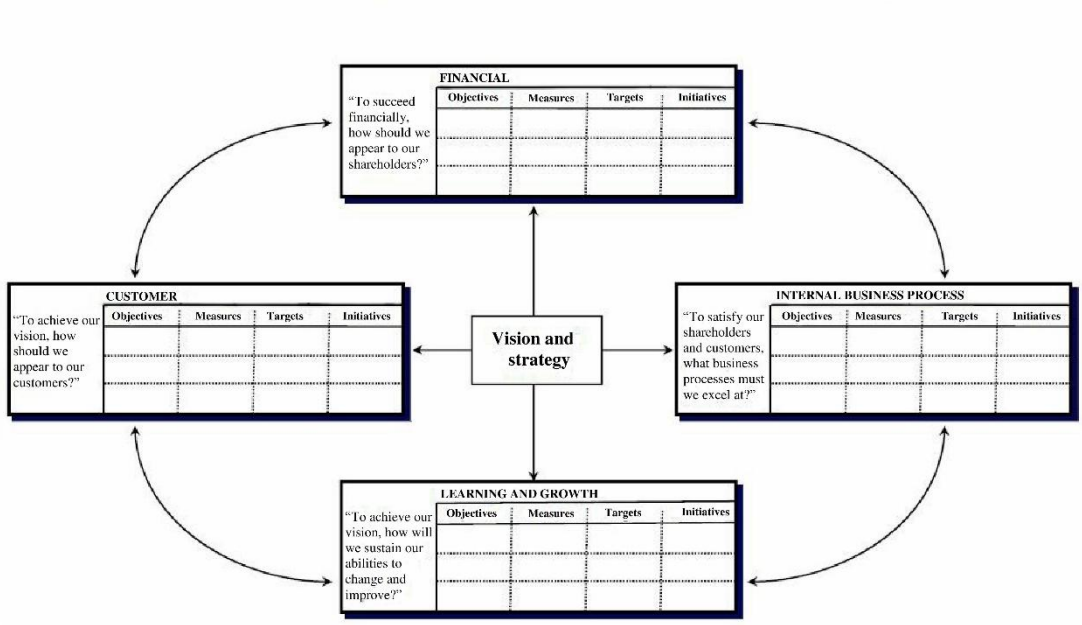
- Set, communicate, and link strategic objectives and measures,
- Plan, set targets, and align strategic initiatives,
- Exploit strategic feedback and learning, and
- Attach rewards with responsibilities and tasks.

Since the **BSC** was created by **Kaplan & Norton in 1992**, tremendous other researchers have contributed to the idea leading to a remarkable evolution for this concept, changing it to performance management system rather than a performance management tool **Perkins et al (2014)**. Moreover, it was originally created for business companies, and now it is applied to different types of organizations, enforcing researchers and organizations to develop the usage of BSC, with preserving its main concepts. **Perkins et al (2014, p.142)** reports that the BSC has been widely accepted and used in different organizations, which led to the third-generation scorecard. **BSC** used by universities and integrated with other techniques like Data Envelopment Analysis **(DEA)**, evolved to include non-profit or governmental organizations **(NPGO)** scorecards, and public sector scorecards which take into account the culture and values of the public and voluntary sectors and take into account the wider range of stakeholders' interests. It has been applied in a number of other sectors like healthcare, and many fields of the same sector such as electrical retail industry, petrochemical industry, various manufacturing companies, and more **Perkins et al (2014, p.149-150).**

The reason for evolving the classic formula of **BSC**, introduced by **Kaplan & Norton 1992**, is the different needs of different types of organizations. For example, non-profit organizations cannot use the four perspectives of **Kaplan & Norton**. However, according to **Zimmerman (2014)**, an organization is free to modify the classic formula to become a sound tool for its working style, if it understands the ideas behind the **BSC**. He recommends that companies should build their scorecard perspectives to match their strategies, if they want to execute them effectively and efficiently. Other researchers like **Neely (2002)**, report the same, claiming that **BSC** failure to consider more perspectives, such as: competition, HR employee satisfaction, supplier performance, product/service quality, and environment/ community, limits its comprehensiveness. **McDevitt et al (2008)**, realizes modifying the classic formula of BSC in order to be relevant for a specific organization's mission, goals,

and strategies. In their development of a BSC to a faculty of university division, **McDevitt et al. (2008)** found that the classic formula of BSC introduced by Kaplan & Norton was irrelevant for an academic unit. Instead, they developed five new perspectives, namely: growth and development, scholarship and research, teaching and learning, services and outreach, and financial resources.

**Exhibit 3: Basic Formula of Balanced Scorecard**




**Source: Extracted from Kaplan (2010)**

The **BSC** directs the company to design and build relevant and sound strategies to achieve goals drawn from its mission. Perspectives must be carefully and sufficiently selected to cover these strategies. Each perspective has its own objectives and measurements, which directs the company to take the necessary initiatives to remedy its business plan in order to achieve goals and related objectives. Now, it is clear that the BSC as a system helps companies achieves their goals. However, internal and external risks could prevent achieving that. Normally, balanced scorecard key performance indicators **(KPIs)** may function as a risk indicators. For example, product failure rate is established as a KPI, one can quickly suspect that some sort of risk exists if the product failure rate exceeds a certain level **Nagumo**

**& Donlon (2006, p.32)**. KPIs suggests the existence of risks, but is this enough to manage risks? It should be clear that organization cannot effectively manage risks with the classic formula of BSC alone **Nagumo & Donlon (2006, p.23)**. Therefore, some companies established one strategic theme dedicated to risk management within the BSC, as in the case of the Bank of Tokyo-Mitsubishi's headquarters for the Americas **Nagumo & Donlon (2006)**, and Trafalgar Bank, a U.K-based multinational bank **Seal & Ye (2014)**. **Nagumo & Donlon (2006)** and **Seal & Ye (2014)** report that designing risk management as a strategic theme represented by a separate perspective will make it possible to:

- Take a top-down approach and cascade the risk theme down through all levels of a specific company.
- Effectively forcing all entities explicitly identify and manage organization-wide risks and entity-level risks, giving the ability to permeate risk management into the entire company.

**Nagumo & Donlon (2006, p.21)** report that one of the function of BSC is that it can take a variety of business management methods, e.g. Six Sigma, EVA and tools, e.g. BI, CPM, ISO, COSO, as if they are "components" of the overall management strategy and integrate them in their appropriate position without any damage to its independent purpose. Hence, the COSO's Internal Control-Integrated framework can be integrated into the BSC, as a perspective, that supports executing the risk management strategy for a specific company.

### 4.1.2 Benchmarking

According to **Kelessidis (2000)**, **Brokett et al (2001), Hug et al (2008)**, and **Evans et al (2012)**, benchmarking is the continuous process of purposefully measuring products, services and practices against the toughest competitors or those recognized as industry leaders. The American productivity and Quality Center (APQC) defines benchmarking as "the processes of identifying, understanding, and adapting outstanding practices and processes from organization anywhere in the world to help an organization improve its performance". Benchmarking focuses on the improvement of any specific business process by exploiting "best practices" inside and outside the company, rather than merely measuring

the best performance **Kelessidis (2002, p.2).** It is a form of comparative analysis that starts with identifying one or more functional areas for analysis and gathering information from one or more relevant companies and selects one or more matrices as a quantitative basis for comparison to reach at the best practices to improve the processes at the recipient organization **Brockett et al (2001, p.275).**

Between the 1980s and the 1990s, benchmarking was one of the most popular and widely adopted management techniques by organizations to improve their competitive advantage. Now, many companies still accept this technique as an effective tool in improving their performance due to its unique advantages. Applying this technique provides benefits. For example, it **Zairi & Al-Mashari (2005), Hug et al (2008), Magd (2008) and Broderick et al (2010)**:

- Prevents reinventing the wheel, since a company starts from where others ended
- Accelerates change and restructuring, since it allows companies to know where they stand in relation to other companies and allow learning new and innovation approaches.
- Promotes emergency and evolution of a learning culture involving searching inside the company for growth.
- Enhances process improvement, by forcing companies to examine current processes, and employees' best practices if malfunctions exist.
- Allows companies to focus on external business environment, which may offer opportunities to be capture or risks to be manage.

Also, Benchmarking has tremendous financial benefits. Benchmarking saves resources, time, effort, and may provide great ideas for research and development department**. Zairi & Al-Mashari (2005, p.15)** report in a study made by the American Productivity and Quality Center (APQC), find that more than 30 organizations report an average of $76 million for the first year payback from their most successful benchmarking project, with the average payback hike to $189 million in some experienced benchmarks. Also, it is seen as an important management tool of Total Quality Management (TQM) **Magd (2008, p.743)**, many benefits arising due to the linkages between this technique and TQM.

Literature on benchmarking reports different approaches to benchmarking**. Adebanjo et al (2010, p.1143)** reports that some researchers suggest that there are three types of benchmarking (namely: internal, external, and best practice), while others classify benchmarking on the basis of what is being benchmarked (functional, performance, generic, process, and strategic) or who is benchmarking (internal, competitive, or non-competitive). **Adebanjo: Fong et al (1998)** classifies benchmarking on the basis of who is benchmarking (internal, competitor, industry, generic, and global), content of benchmarking (process, functional, performance, and strategic), and purpose of the relationship (competitive and collaborative). **Kelessidis (2000, p.3-4)** classifies benchmarking into four types:

- Competitive benchmarking-where benchmarking is performed against competitors to identify and analyze factors behind the superior performance of the competitor.
- Internal benchmarking-where benchmarking process is executed to and against organizations having multiple units e.g. multinationals and companies with local branches.
- Process benchmarking- where benchmarking is applied to processes, which may be similar, but in different organization, producing different products, for example in banking industry, the process of attracting and recruiting their customers is observed.
- Generic benchmarking-where benchmarking is related to the technological aspects, the implementation and deployment of technology.

Here, when executing the suggested model, the classification of Kelessidis is recommended to be applied due to its comprehensiveness for all aspects of a company, and its simplicity. From the previous discussion of benchmarking, it could be concluded that it is a useful tool for the Turkish companies in designing their controls. Why Turkish companies need to start from the beginning in their building of systems of internal control? The final answer is that benchmarking ensures starting from where others ended. Using benchmarking in reaching the best control activities ensures saving resources, time, and effort.

However, Turkish companies before using the benchmark technique in designing and implementing its internal control system as a part of comprehensive management system (as shown in **Exhibit 5)**, should take into consideration many aspects **Hug et al (2008, p.385-388), and Adebanjo et al (2008, p.1144):**

- Understanding what is required – before taking the decision to begin a benchmarking, the company should be prepared for the long time, effort and recourses needed to take such project.. Many companies start benchmarking with a misconception that the process will be easy, and the result is that many companies become overwhelmed, ending up with an abundance of useless information.

- Looking beyond a numerical comparison – companies are different in the way they do their works, even in the same industry. So it is important not to look at just the numerical comparisons, but rather to understand how and why certain processes work for the benchmarked companies, or how these processes and actions achieve the companies' goals.

- Preparing in advance – to successfully complete benchmarking, companies should determine their problems in the processes they want to benchmark by analyzing them before trying to compare them with the benchmarked companies.

- Supporting upper top management is vital – without management support, benchmarking is destined for failure. Management should realize the benchmarking process to motivate the workforce doing the same.

- Considering informal benchmark – informal benchmark comes from talking to workmates and learn from their experience, consulting with experts who have experience in implementing a particular process or activity outside, networking with other people from other organizations at conferences, seminars or internet networks, online databases, websites and publications.

- Turning the study's results and recommendations into actions – eighty percent of benchmarking projects generates a lot of concerned results. But no real change in organization practice. To prevent this situation, companies should construct a timetable for the implementation of benchmarking recommendations and initiatives, and should begin immediate implementation.

According to **Brockett et al (2001),** the most important step in benchmarking is identifying which firms to benchmark against. He clarifies that companies can use Data Envelopment Analysis (DEA) to identify the best practices. DEA determines "best practices performance" via identifying firms that utilize a minimum number of inputs to produce a given level of outputs, using mathematical method. This is one step of implementing the benchmark project, which exist in all models used for implementing benchmarking. There are many models that Turkish companies can use while executing the suggested framework such as, Robert camp, business excellence model ( MBNQA), Xerox 10 step model, Kaplan's scorecard, or even developed own model. For research purpose, the researcher presents xerox 10 step model. They are:

1. Identifying what is to be benchmarked,
2. Identifying benchmark companies,
3. Determining data collection method,
4. Determining current performance gaps,
5. Projecting future performance levels,
6. Communicating benchmark findings and gaining acceptance,
7. Establishing functional goals,
8. Developing action plans,
9. Implementing specific actions and monitoring progress, and
10. Recalibrating benchmarks.

### 4.1.3 Control - Self Assessment

Control - Self Assessment (CSA) is an effective tool that many companies can use to continually improve their internal control systems and business processes. According to the Institute of Internal Auditor (**IIA**), Control Self – Assessment is "a methodology used to

review key business objectives, risks involved in achieving the objectives, and internal control designed to manage those risks" **IIA (1998).** IIA believes that CSA is a process that generates information on internal control that is useful to management and internal auditors in assessing and judging the quality of internal control system. CSA process allows management and work teams to be directly responsible for a business function to **IIA (1998)**:

- Engage to the processes of assessing the internal control,
- Identify and evaluate risks inherent in business processes, and
- Develop action plans to address identified weakness.

Applying CSA in companies, can provide the following advantages **Engle & Joseph (2001, p.46)**:

- Besides assessing risks and related controls, it can be used as an effective methodology in identifying opportunities improvements.
- CSA can enhance the control environment, because it makes personnel who participate in evaluating controls and those who execute related business processes realize that internal control is everyone's responsibilities.
- It is advantageable than traditional evaluation techniques in the evaluation of soft control, e.g. ethics and integrity of management and employees, controls over the effectiveness of communication.

CSA is commonly structured around the internal control system as an evaluation tool. **Engle & Joseph (2001, p.47)** mentions some examples of the processes and actions that CSA can use to evaluate in relation to the five components of the COSO framework:

a. Control environment :
    - Existence and validity of management's integrity and ethical values
    - Management's commitment to enhance employee excellence, such as: requisite skills and knowledge

- Action plans used for assigning authority and duties across the company
- Participation and involvement of broad of directors, management, and operational managers

b. Risk assessment

- Operating environment changes
- New personnel who may not understand internal control system
- New technology that impacts business operations
- Risks related to new product lines, new procurements, new legislation or laws

c. Control activates :

- Performance reviews that compare results to expectations, such as budgets
- Physical controls that restrict the unauthorized use of assets, records, data files, or computer programs
- Separation of responsibilities and duties

d. Information and communication

- Information systems that properly record, process, analyze, summarize, and report information
- Whether effective communication method applied

e. Monitoring

- constant management and other personnel's supervisory activities
- Separate evaluations performed by internal auditors

If companies provide the management and/or the working team participating in CSA with training in areas, such as: facilitation, communication, and CSA methodology, the benefits of using CSA in risk assessing and evaluating business operations are overstated beyond normal expectations.

The three primary approaches to implement CSA are, **IIA (1998)**: facilitated team meeting (also known as workshops), questionnaires, and management produced analysis. Companies can use a combination of more than one approach to accomplish their Control Self-Assessment. **Engle & Joseph (2001, p.46)** reports that the facilitated meetings is the most popular CSA approach. Each CSA workshop commonly has 6 to 15 participants, consisting of line employees, operational managers, and outside-expert. A trained facilitator should lead the workshop and another one takes notes to write reports. Usually, some employees do not clearly announce their opinions or comments. Consequently, companies can use the questionnaires to keep participants' names anonymous, and then gather responses for discussion.

### 4.2 Suggested-Integrated Framework

The Turkish business environment is unique and produces over-expanding risks and opportunities. After 2001, Turkey has marked a remarkable and kindly stable rate of growth, having the 17$^{th}$ largest economy in the world (in PPP terms) according to the World Bank statistics in 2015 **(World Bank Website, 2016**). The Turkish government provides valuable incentives whether for domestic or international investors, which can be noticed in the current incentive of **April 2015 (KPMG website, 2016**). Entering customs union with the European union in 1996, accessible skilled and cost-effective workforce, various tax and non-tax incentives, flexible exchange rate policies and liberal import regulations, commercial banks financing projects deals, laws and legal frameworks providing transparency and strengthen corporate governance, governmental support, and other market reforms are examples of the attractive characteristics of Turkish business environment (**PWC website, 2011**).

However, the Turkish market also is a complex and challenging market requiring adaptability and persistence. Companies faces challenges result from the lack of economic and political juridical stability in some degree such as contradictory policies, regulations and documentation requirements, lack of transparency in tenders and other procurement decision, terrorism threats, and external threats due to wars in Arab spring countries, and

Armenia and Azerbaijan ( **U.S. commercial service website, 2013**). Also, for Turkish companies' internal environment, although they succeed in many aspects to achieve international competitive advantage, high profitability and growth, the researcher reported before its lack of sufficient competent personnel and internal control infrastructure. All these aspects and events represents examples of the risks the Turkish companies face.

Hence, Turkish companies to exploit such opportunities and overcome such risks resulted from its surrounding internal and external environments, they need to:

- Clearly and sufficiently determines their goals and objectives to reflect management and board of directors' desires and stakeholders' interests,

- Design, implement, and conduct an effective internal system to ensure satisfying those goals and objectives, and interest.

In the previous discussion, the researcher reported and justified that the COSO framework is just a roadmap of conditions, characteristics, and recommendations to design, implement, and conduct an effective internal control system. Also, the researcher clarified the weaknesses of internal control culture, and the deficiency of sufficient experience and utilization of internal control system inside Turkish companies. This constitute the main purpose to present a building-block model to guide Turkish companies in developing and building an effective control system to overcome risks and exploit opportunities emanating from their surrounding environments.

The suggested-integrated framework for designing, implementing, and conducting an internal control system as a part of a comprehensive management system consists of four phases:

Phase 1: Internal control foundation

Phase 2: Balanced scorecard development

Phase 3: Implementation

Phase 4: Model continual assessment

**Phase 1: Internal control foundation**

This phase is about the preparation and readiness for the project. It contains the steps that Turkish company should go through to ensure both readiness of company's personnel, including management and board of directors to commitment to the project, and the existence of sufficient management's support.

**1. The company’s need for change**

The management should identify and prepare the need for change. Why our company need to employ an effective internal control system? The answer of this question should be clear, and well-identified. Designing, implementing, and conducting an effective internal control system out of this project will consume financial resources, and non-financial resources such as effort and time. An expected cost-benefit analysis of the financial and nonfinancial aspects should be made. This shall justify the motivation for undertaking such project, ensure commitment of the project team participants, and ensure sufficient management support, and will boost the internal control culture between company’s management members, personnel, and most important project team participants.

**2. Identify, appoint, and organize key players**

A well-sufficient and experienced team must be identified, appointed and organized to implement the project. To ensure management's support and effectiveness of the project, members from board of directors, management, operational divisions including internal auditing, internal control department, inspection department, if any should be appointed and attached to the project. To ensure sufficient experience, outside participants such as external auditor, a professor or consultant in the fields of benchmarking, balanced scorecard, COSO’s internal control framework implementation, and control self-assessment should be identified and appointed. A project team manager and a facilitator member should be selected in order to direct, organize project activities, and ensure effective communication between project participants from one side, and between team participants and company's management and other personnel from the other side.

**3. Ensure sufficient knowledge and experience**

Education and training are essential here. The project team manager should organize sessions and workshops, in which sources such as education materials, books, websites, articles about COSO's internal control framework, balanced scorecard, benchmarking, control self - assessment, and total quality are identified, inspected, and discussed. This will ensure that team participants have enough knowledge and experts about the mechanisms of each technique, benefits and shortcomings related to this techniques, benefits of effective internal control system, and experiments of other companies whether a Turkish or international companies in this respect.

**Phase 2: developing balanced scorecard**

Norton and Kaplan's vision for the BSC was using multiple financial and nonfinancial measures, that were considered crucial for the company's success in order to assist companies define and track performance and take initiatives in case of deviations. BSC helps managers describe their strategies and implement a comprehensive strategy management system based on scorecard measurement. The development of BSC should go through the following steps:

**1. Developing strategies themes**

As the researcher reported before a central tenet of the BSC is its focus on goal congruence. Hence, Turkish companies should first ensure that their mission, values, and vision express the interests of their board of directors, management, and other stackholders. This essential because strategic goals and related strategies stems out from them. Then, project participants should identify specific business strategies that will cover and satisfy the interests of stakeholders and meet their strategic goals. Turkish companies could develop familiar strategies such as productivity strategy, marketing strategy, profitability strategy or adapt new strategies in relation to this respect. However, as the researcher justified before, risk management strategy should be one of them. The project participants should identify

the strategic goals and tactical objectives for each strategy using the four BSC classic perspectives, in addition to "COSO's Internal Control-Integrated Framework" as a new perspective to address risk management strategy. Now, the developed BSC have five perspectives, namely: financial perspective, internal process perspective, customer perspective, learning and growth perspective, and COSO's Internal Control-Integrated Framework.

For each tactical objective, the project participants should identify and develop appropriate measurements. For example, for a growth strategy, quarterly sales growth rate, operating income by division, percentage of market share could be employed as a measurement in the financial perspective. While for the same strategy, measurements such as number of defected item per order, cost per unit could be employed in the internal process perspective. While for risk management strategy which covered by COSO's Internal Control-Integrated Framework as a perspective, the 17 principle of the COSO framework should be employed as a measurement. The COSO framework reported that for an internal control system to be effective, it must satisfy the 17 principles as a measurement, and these 17 principles should be present and functioning while implementing and conducting internal control system. Also, the framework provides some illustrative tools that can be used by companies in measuring the 17 principles.

**2. Develop business plans and processes**

Building on what the company already have is justifiable. Hence, these step will be divided into two sub-steps:

**a. Developing a starting point**

Current business plans, business processes, and relevant control activities should be evaluated. First, business plans and processes should be identified, analyzed, and mapped according to business goals and objectives stated in BSC. This can be executed using workshops and questionnaire as a control self-assessment tools. Second, control activities related to these business processes should be identified and evaluated in terms of transaction-level and entity-level controls. Evaluating controls at the transaction-level consists of three steps:

- Identify controls in each business process using workshop as a control self-assessment tool,
- Test their validity,
- Mapping controls to the 17 principles.

While evaluating controls at the entity-level, consists of the following three steps:

- Identify those high-level controls that govern the overall company using workshop as a tool,
- Test their validity using a questionnaire tool to examine their overarching framework,
- Mapping those controls to the 17 principles.

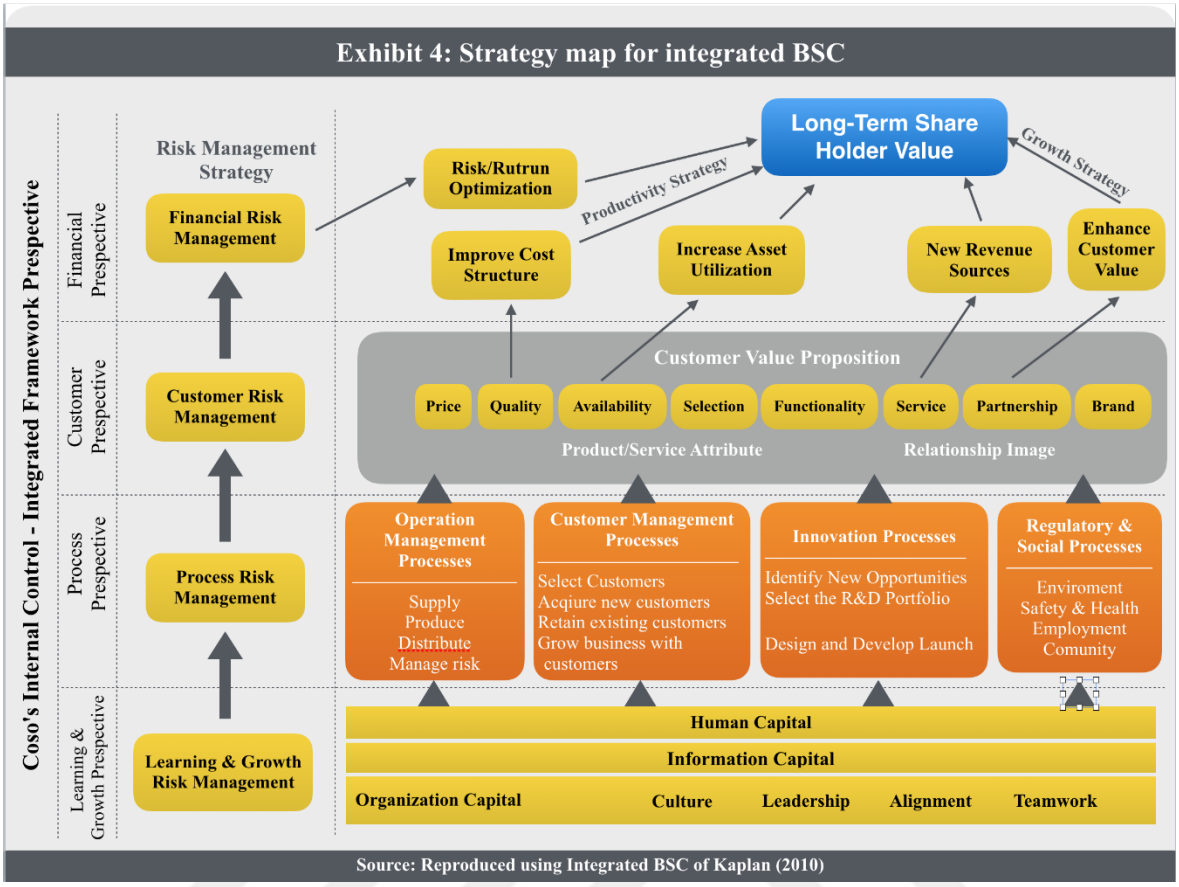
Mapping controls to the 17 principles will be useful in identifying inadequate controls and controls that may no longer needed. After identifying the areas of weaknesses in business processes, including controls, the project participants should analyze company's information system to determine shortage of information and sources of data, if necessary.

**b. Developing business processes, including internal control system**

After evaluating the company's current business processes and related controls through workshops and questionnaire as a control self-assessment tools, the areas of weaknesses in business processes and controls should be in hand. First, the project team participants should start to address the weaknesses in business processes. Using the benchmarking technique, the participants could reach at the best business practices that could achieve goals and objectives of adopted strategies in BSC, except for risk management strategy during that process. After having, a complete-written business plans and processes, the second step here should be identify risks that may occur in the course of implementing those mapped business plans and processes, taking into consideration the characteristics of internal and external Turkish business environments specified before.

To identify risks stem from internal and external events, workshops and questionnaire as a tool of CSA could be used. Expected risk events and their effects are mapped using a flow chart diagram, and using Bayesian network or other tool the probability rate of occurrence is attached. Then, the project participants should plot risks on a risk chart, which consists of two axes: one for risk impact and the other for risk probability, in order to enable analyzing and reaching the priority assigned to risks identified. Next, the project participants should determine responses to identified risks, which could be share, avoid, or accept risks. The response to identified risks should be selected regarding a cost-benefit analysis. Once, the risk response is selected, the participants should start designing the necessary controls to address those risks while satisfying the 17 principles measurement of the COSO's Internal Control-Integrated Framework perspective, in order to design an effective internal control system. Again, Benchmarking could be used to reach at the best practices related to risk controls, covering the five components of internal control system

A final step, the project participants should integrate the outcomes of phase 2 into the BSC. In order to show the effect of COSO's Internal Control-Integrated Framework perspective on the other four perspectives that covers performance inside companies, the outcomes of risks management strategy should be integrated to the other four classic perspectives in the form of: Financial risk management, customer risk management, internal process risk management, and learning & growth risk management as shown **exhibit 4**. However, it is known that all perspectives should have ultimate impact in the financial perspective. The project participants should establish a "risk/return" tactical objective in the financial perspective to clarify the ultimate financial impact of risk management strategy covered by the COSO's Internal Control-Integrated Framework perspective. The measurements of the "risk/return" tactical objective could be expected percentage of cost saving and expected percentage of revenue increase due to applying an effective control system.




**Phase 3: Implementation**

Now, the company have a building-block model ready for implementation. This model consists of mapped business processes, including an internal control system, which can be implemented through four steps:

**1. Align the company to the model.**

The project participants should integrate and coordinates business processes activities, including internal control system, to align the model across functions and business units.

**2. Motivate personnel to make strategies embedded in the model their day-to-day job.**

The project participants should considers incentives and rewords to motivate personnel to comply with their assigned responsibilities.

**3. Monitoring performance of the model through BSC measurements.**

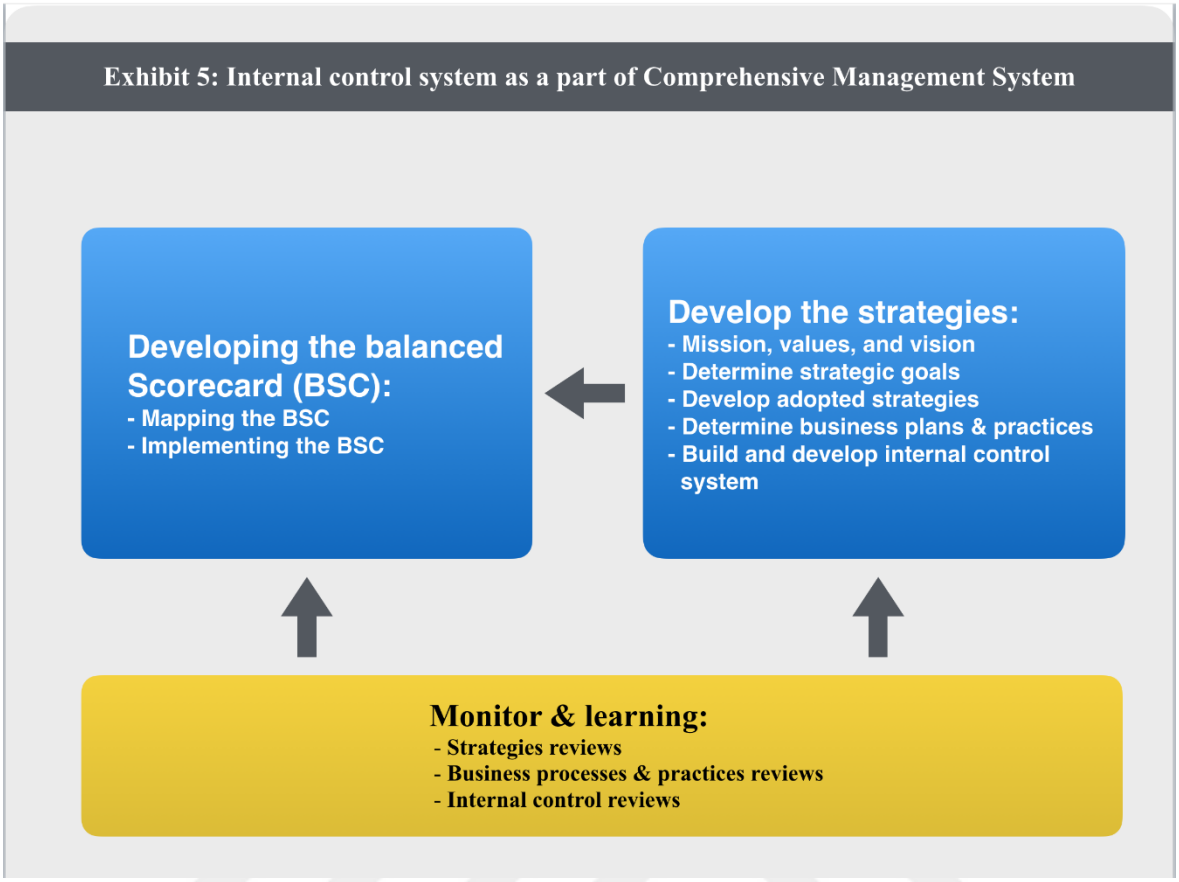
Members of the project participants should be kept hired to monitor the effectiveness of business processes and internal control system via using the BSC measurements. An internal control system to be effective, the 17 principles should be present (exist in the design of internal control system), and functioning (continue to exist during implementation and conducting the internal control system). Hence, the members hired should monitor the effectiveness of the company's internal control system in overcoming risks related to business processes using the 17 principles measurement in BSC.

**4. Take initiatives.**

Currently, the company started implementation of its comprehensive business plan and put its internal control system into work. The team members should identify, collect, and analyze reports about performance evaluations of both business processes and attached controls. In case of BSC measurements whether of business processes activities or internal control system revealed shortcomings, initiative should be taken to boost the business processes and control activities.

**Phase 4: Model continual assessment**

Monitoring business processes and internal control system should keep continue. Issuance of new laws and legislation, occurrence of new political or economic event, or others may come in place. With these new circumstances, the participants members kept hired, should recommend new initiatives regarding business processes or internal control system to address the impact of these events, BSC measurements should kept be used in monitoring performance.




### 4.3 Importance of the suggested framework

There are several benefits associated with using a building-block model to implementing the COSO's Internal Control-Integrated Framework as a part of comprehensive management system as shown in **Exhibit 5**:

**1. Simplification of implementation of the COSO's Internal Control-Integrated Framework.**

COSO's framework, as reported before, is a roadmap that needs tools and techniques to help in its implementation. These building-block model can benefit Turkish companies to a sound degree, no matter what size they are or degree of completeness and effectiveness of their internal control system, in having a continual effective internal control system through implementing the COSO framework. It facilitate and assist Turkish companies with

insufficient competent personnel and other infrastructure in the field of internal control to well know the shortage and weaknesses in these resources, and outsource this missing resources and expertise, if necessary. The techniques used such as BSC ensure designing, implementing, and conducting an internal control system consistent with the companies' goals and objectives, ensure consistent the controls with strategic risks, and internal control system covering all aspect of company's performance. Using the BSC help ensure ongoing assessment and evaluation of controls through measurements, and soundness of remediation of controls. CSA benefit in understanding the actual current performance of the company, and ensure preserving the company's resources by building on what it already have benchmarking ensure exploiting the best practices in business processes and related controls, which also saves time, effort, and financial resources of the company. In fact, benchmarking compensate the insufficient expertise a company could suffer while building and developing its internal control system.

**2. Allocation of resources.**

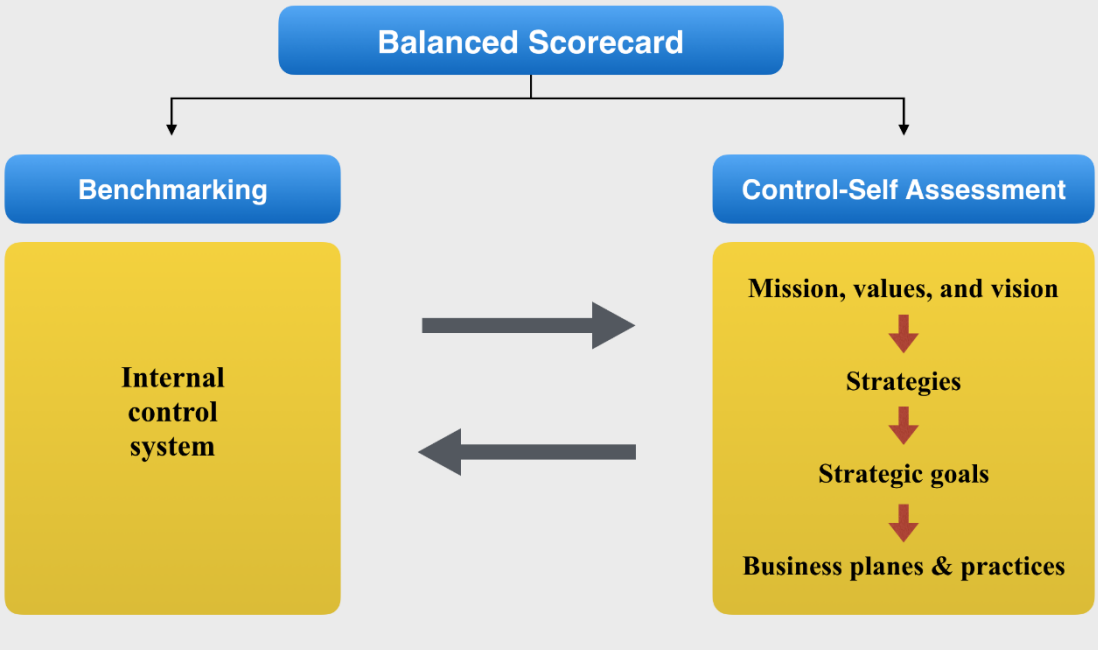
All companies have limits on their resources, whether financial or non-financial. Using BSC ensures starting with setting objectives and goals that meet the desires of the board of directors and management, with business plans and processes rationally designed, and hence company's resources can be best allocated. Also, benchmarking is applied through all processes of the model. Knowing how other market leaders and other companies design and implement their business processes facilitates better allocation of the company's resources. Implementing this building-block model ensures effective allocation of the resources between business processes, including internal control system. The best allocation of resources ensures saving them. Turkish companies now are increasingly seeking to compete abroad, and gaining savings by best allocating resources to provide them with a competitive advantage.

**3. Ensuring the effectiveness of internal control system**

Using this building-block model helps in designing and implementing controls that are: objective-oriented, driven from top-down, tailored to the company, performance and principle-based, implemented organically, dynamic and involving, dynamic and built-in. In fact, the internal control system developed by the suggested model is designed and developed as a part of a comprehensive management system shown in **Exhibit 5**. The

ultimate result of that building-block model is an effective internal control system, because it is effectively applying the recommendations, characteristics, and conditions of COSO's Internal Control-Integrated Framework, the 17 principles and their points of focus, on one hand. On the other hand, it is built and developed through and in conjunction with the entire organizational process (shown in **Exhibit 6)**.

**Exhibit 6: Internal control system & the entire organizational processes interrelatedness through implementing the suggested framework**




**4. Achieving dual benefits: Overcoming risks, and exploiting opportunities**

As has been reported, Turkish business environments is unique, producing an over-expanding risk, and offering outlined attractive opportunities. An effective internal control system resulting from this Building-block model reasonably ensures overcoming such risks and exploiting such opportunities. Unlike COSO's Enterprise Risk Management, COSO's Internal Control-Integrated Framework focuses on identifying risks, and does not peruse

exploiting opportunities because it is part of the broader strategy-setting process. However, using the BSC in this suggested framework, which concentrates on setting goals and tactical objectives based on adopted strategies, allows the internal control system to include controls that reasonably secure exploiting opportunities. Here, the internal control system is working as an ERM. In other words, using this building-block model allows Turkish companies to have an effective internal control system that achieves benefits compared to ERM.

**5. Achieving total quality**

An effective internal control system is a cornerstone for a total quality system. Achieving total quality requires ongoing-evaluations to ensure providing this system with the necessary information about current performance deviation and preserving its functioning. Effective internal control system helps in building the total quality system to correctly reflect the company's capabilities and objectives.

Gaining and preserving an effective internal control may help Turkish companies achieve total quality in the processes, people, products/services, and environments, and consequently:

- Gain a competitive advantage
- Enhance profitability and growth
- Ensure survival in surrounding hostile environments
- Compete in local and international markets and gain leadership

**5. Applied study: applying the suggested framework for MEKA (A.Ş) company**

The amount of resources required for initiating a project to implement the suggested framework for building and developing an effective internal control system differs from one Turkish company to another. Moreover, the steps and levels comprising the suggested framework can be extended, or downsized, depending on:

- The size of the company;
- The severity of current internal control weaknesses; and

– Completeness and relevance of the company's organizational hierarchy, tolerated mission and goals, strategies, business plans, and operations.

The researcher selected a Turkish company to examine how a company can follow and execute the steps, tools, and techniques incorporated in the suggested framework to apply the COSO's Internal Control-Integrated Framework. MEKA A. Ş. is a closed corporation, which was established in Ankara, Turkey in 1987. It has four branches in three countries: Turkey, Algeria, and Russia with a working capital of 200 million Euro in 2015. It produces concrete batch plants, concrete mixer, and other related products such as recycling system and fiber dosing systems. MEKA exports 80% of its annual production to 60 countries in four continents.

The researcher conducted an interview with an exporter manager who works for the mother company in Ankara, in order to collect some basic information about MEKA's organizational hierarchy, mission and goals, operational departments, and branches' main activities. Moreover, the main organizational and operational problems were collected. Such information are supposed to facilitate the researcher showing how MEKA can follow the suggested framework to build and develop its internal control system. The basic information and main problems about MEKA are presented in the following outlines.

According to MEKA's official website:

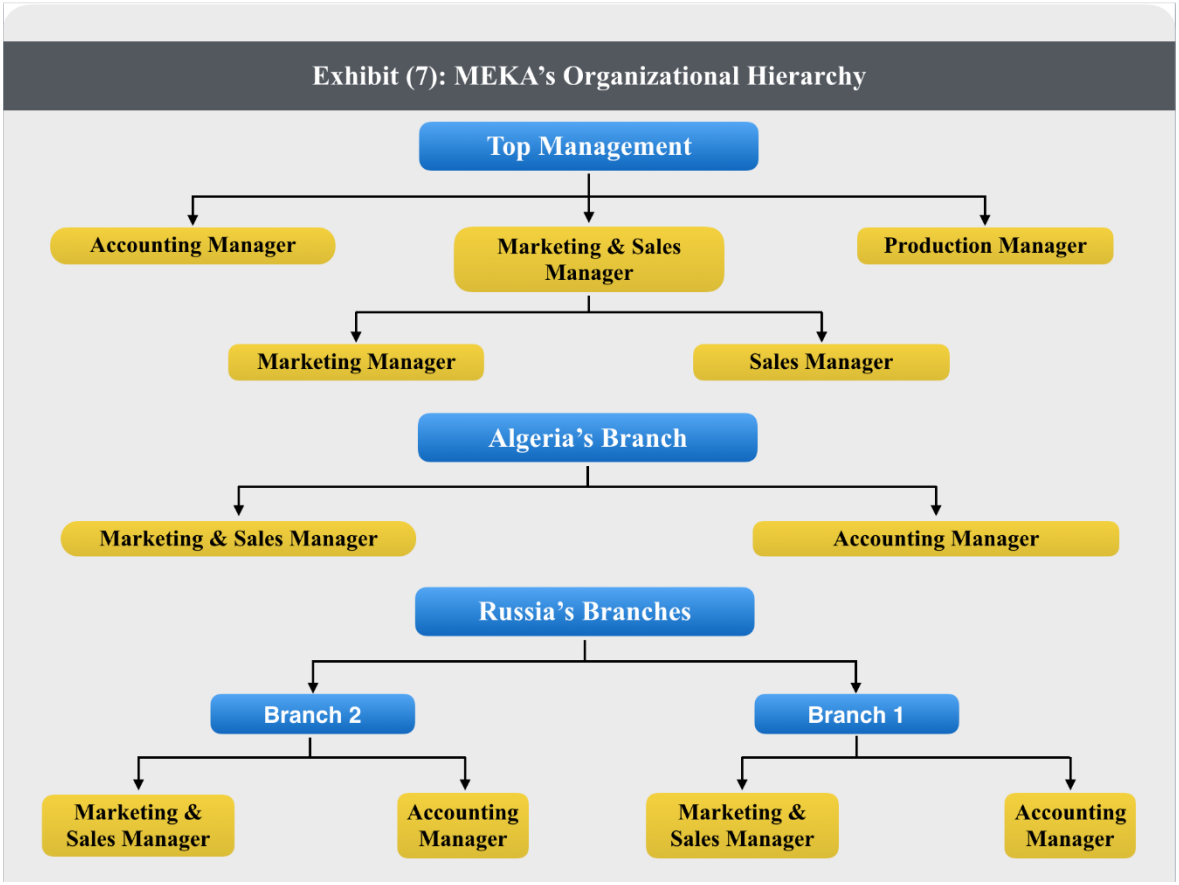
- MEKA's mission gives significant importance to research activities to meet its customers' needs as it aims to achieve total customer satisfaction. Also, through adopting two strategies (customer-oriented development strategy and customer-oriented growth strategy), MEKA carries out its activities in order to be a global market via increasing its annual production capacity.

- MEKA aims to:

- Provide quality products with more functional and advantageous products to customers.

- Develop long-term relationships with customers and suppliers.

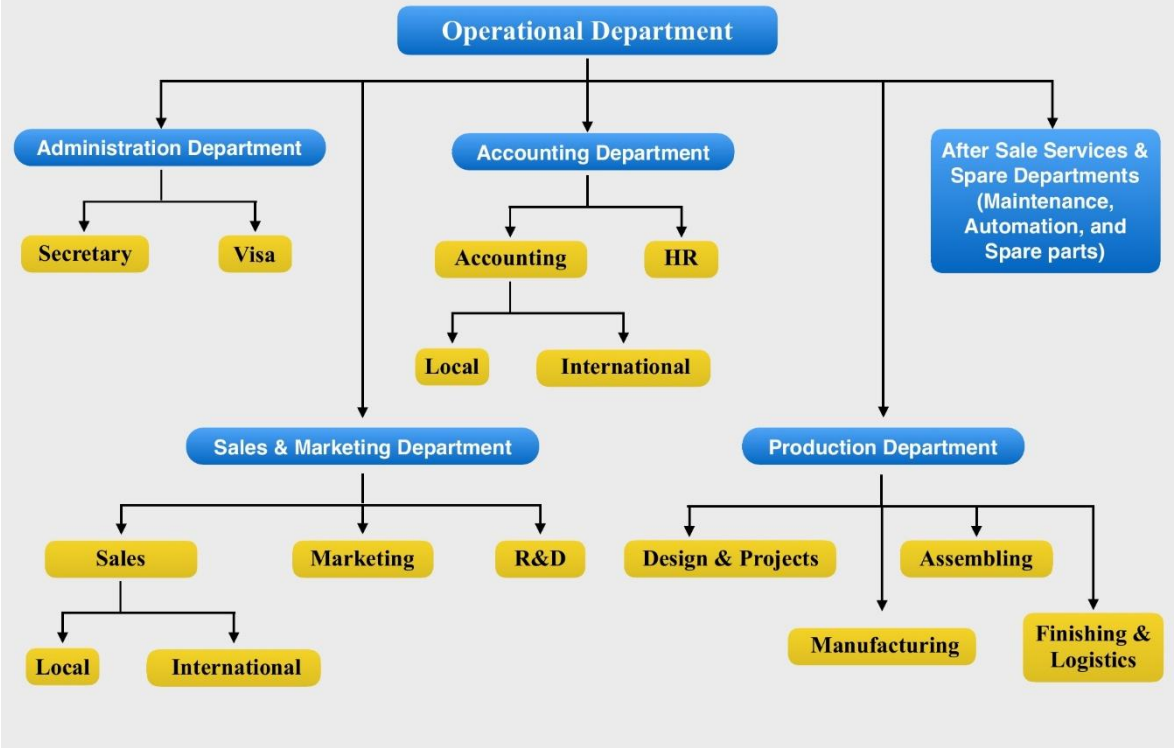
- Maintain after-sale services providing special solutions to customers
- Protect its leadership in the domestic market, besides being recognized and preferred company in the global market.




MEKA faces shortcomings with having effective communications. In each branch, accounting, and marketing and sales managers are supposed to report directly to their relevant accounting, and marketing and sales managers in the main branch in Ankara. However, in both branches in Russia, accounting managers report to the marketing and sales manager in the main branch due to language difficulties. Moreover, ineffective communication exists among the operational departments in the main branch. Weak communication channels exist between production and logistics department due to employees' movements inside each department. They face a problem of knowing who to have contact with inside the other departments. The same problem takes place between

marketing and sales department, and logistic department. Miscommunication in place between customers, and marketing and sales personnel, on one hand, and marketing and sales personnel, and after-sale services personnel, on the other. For instance, in the Arab countries, customers always communicate with marketing and sales representatives for after-sales services in either Arabic or English. Personnel in this department have language difficulties related to technical idioms, which cannot communicate clearly in Turkish language to the after-sale services employees. This problem rarely appears in Algeria and Russia's branches due to the existence of technical employees in the branches themselves who speak Turkish and Arabic or Russian and Turkish.

**Exhibit (8): MEKA's Operational Departments (The Main Branch)**




In Turkey, as a local market, the biggest producer is PIMAKINA it is followed by MEKA. In addition, other companies, such as: VURMAK, MRM, SEMIX and PROMAX come next in this industry. Companies which compete with MEKA in the same international markets are the Turkish companies previously mentioned, Liebherr company (Germany),

Elba company (Germany) and Spain companies. MEKA faces a problem in its pricing policy. It also faces severe competition in local and international markets. It insists on pricing their products higher than other Turkish companies, competing locally and internationally. Certainly, MEKA's products are of high quality compared to other Turkish companies. However, the difference in quality is not comparable to its prices levels which make its products' prices are close to the German products but lower in quality. This puts sales personnel with challenges in marketing MEKA's products locally and internationally. Political and economic events in the Arab countries, especially in the Kingdom of Saudi Arabia, negatively affected sales levels over the last few years. Sales and marketing departments responsible for collecting information and making marketing researches about customers' need, competitors, and markets try to open new markets for MEKA's products. In this context, MEKA participates in many promotional fares in Latin, European, and African countries.

MEKA imports motors and advanced electronic systems for its products from Germany and Italy. Their biggest supplier is SIEMENS in Germany. The other components of its concrete plants are produced 100% by MEKA factory. MEKA puts a plan to produce 50% of these components by its factory, with the other proportion to be outsourced. It faces a problem of delaying their shipments from their suppliers in Germany and Italy. It also faces the same problem when customers ask for spare parts originally produced by MEKA's suppliers.

To overcome liquidity shortage, MEKA depends on short-term loans from Turkish banks. In addition, in order to decrease its operational expenses, the company closed Istanbul branch in 2015, and started employees' layoff program.

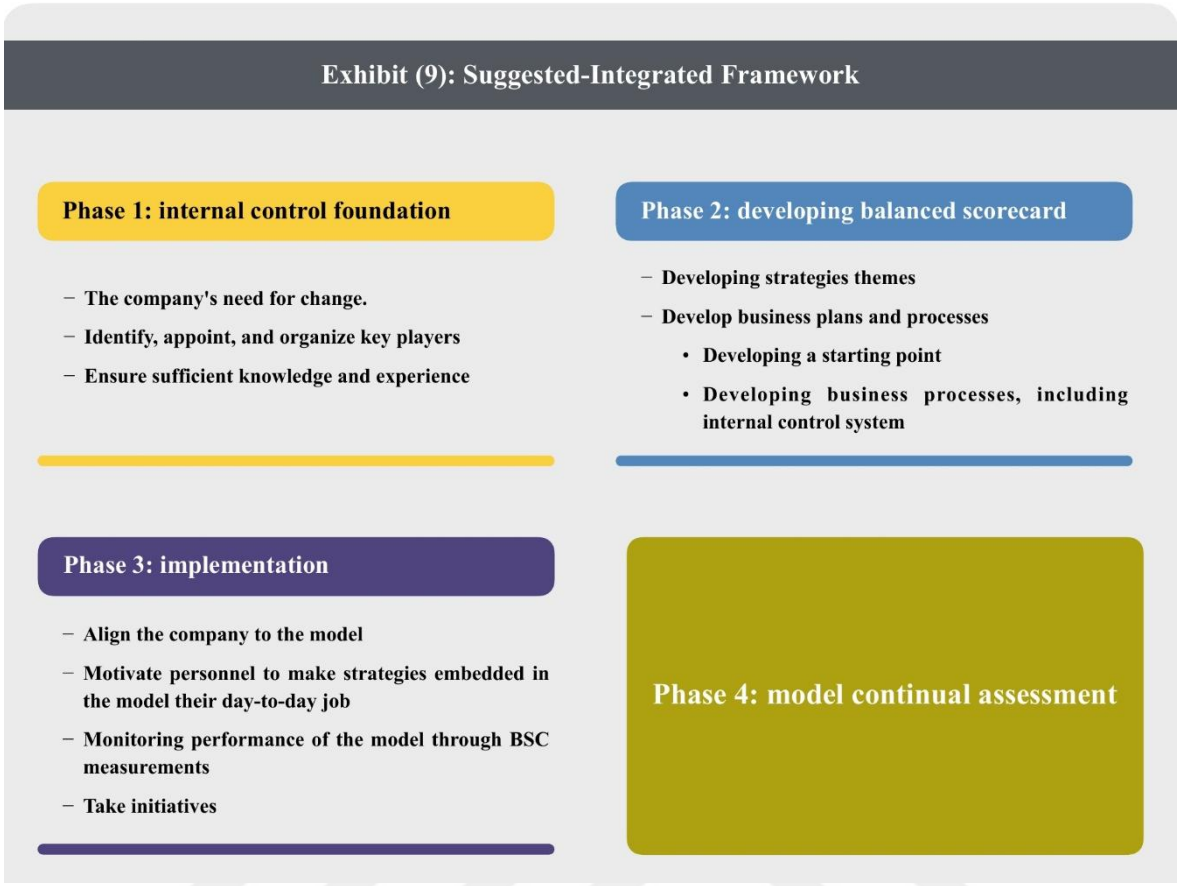
If a company such as MEKA starts a project to develop and build their internal control system, it does not have to follow exactly the recommendations inherent in the steps and techniques presented in the suggested framework **Exhibit 3**.

**Phase 1: Internal control foundation**

**1. The company's need for change**

Certainly, MEKA, as all other companies, has controls related to its cash resources to prevent theft and fraud. Controls, such as Bank reconciliation, Voucher system, and electronic funds transfer certainly used by all companies. However, risks and fraud related to non-cash items, such as: inventory, purchases and sales, production, and other operational departments can have the same negative effects for companies. The existence of effective internal control system provides outstanding advantages for any company. Even, it can offer a competitive advantage. To determine the earnings from initiating a project to develop and build an effective internal control system, MEKA has to consider:

- Organizing an initial team work that includes members from all operational departments in the branch of Ankara,
- Calling well-educated members from its other branches,
- Recruiting a university professor and/or a consultant in the field of internal control, and
- Organizing a workshop with multiple sessions, starting with lecturers about internal control: concepts, tools and mechanisms, and theoretical advantages and shortcomings.




During the sessions, members from organizational and operational department from all branches can easily execute an expected cost-benefit analysis for the financial and non-financial earnings that MEKA could obtain via employing an effective internal control system. In the last session, the initial team participants should come up with a written statement about:

- Answer to "why does MEKA need to employee an effective internal control system"?,
- Vision and goals of the project to be initiated,
- Determining missing expertise, and
- Required financial resources for the project

This statement is supposed to ensure commitment of the management and team participants to the project, providing enough financial and nonfinancial resources to initiate the project, and determining the missing members who will join the final teamwork.

**2. Identify, appoint, and organize key players**

To have a well-sufficient and experienced team, MEKA should identify and appoint one member from management, four members from its four-basic operational department (at least), 3 members from its three branches, one consultant and/or university professor. Before moving to the next step, the team is supposed to be organized, as follows:

- Select a team manager with managerial skill,
- Determine a facilitator to direct and organize project activities (preferably the consultant),
- A member for documenting the outcomes of each scission,
- A day-to-day plan determining roles and responsibilities of each member till the end of the project.

**3. Ensure sufficient knowledge and experience**

During the sessions of the first workshop, where discussion about internal control and relevant techniques has been made, the professor/consultant should determine which fields the team members have shortage in knowledge. The professor/consultant along with the team manager should prepare a written plan for this workshop to include:

- The workshop's mission and goals,
- Concepts and techniques to be discussed and dealt with,
- Means of instructions, such as: books, websites, articles, and
- Number of sessions, including hours devoted for each session

At the end of this workshop, team-participants should have the skills and required knowledge about internal control, balanced scorecard, benchmarking, control-self assessment, total quality, and other necessary techniques, if needed.

**Phase 2: developing MEKA's balanced scorecard**

Developing a BSC for MEKA helps the company to define and track its performance. It assists team-participants in:

- Evaluating if MEKA's mission and goals reflect the interests and desires of its stockholders and management,
- Evaluating the current strategies of MEKA in order to adopt new strategies, if needed, and
- Designing and developing a roadmap for business plans, including internal control system, and track its validity via BSC measurements

**1. Developing strategies themes**

It is known that a business strategy is a long-term plan designed and tolerated to achieve a pre-determined goal(s). Currently, MEKA has two strategies:

- Customer-focused growth strategy: designed with the goal of increasing MEKA's market share via finding new customers for the same products. MEKA tries to achieve that by entering new markets and participating in promotional fares in African and Latin countries in addition to their ordinary promotional tools.
- Customer-oriented development strategy: designed to change production alternatives via outsourcing 50% of the produced parts of concrete batching planets in MEKA's factory, and completely produce 100% of concrete mixer.

Team-participants should start with questions such as; are those strategies relevant to MEKA's mission and goals? However, the correct question, which team-participants should start with, is; do MEKA's current mission and goals reflect the stockholders and management's interests and desires?

### 1.1 Evaluating MEKA's mission and goals

Previously, the researcher reported the mission and goals of MEKA. In addition, as reported before, MEKA was established as a closed corporation owned by three family members and two of them hold two out of five managerial positions inside the managerial hierarchy, namely: chief executive officer (CEO) and sales manager. With marketing, production, and accounting management goes for other three qualified managers. Therefore, in case of MEKA, management members could fully represent the stockholders in testing the relevance and completeness of MEKA's mission and goals. Team-participants could use questionnaires and interviews as a control-self assessment tools in order to collect, analyze, and determine the interests and desires of management members. Questions asked to management members should cover their plans and intentions, in the short and long term, about expanding/downsizing operations, entering new industries, production and marketing, customer satisfaction, suppliers, personnel and current and future performance.

At the end of this workshop, team-participants should achieve the following goals:

- Collect, analyze, and determine, in a clear statement, the management's desires and interests
- Examining the current mission and goals for whether they express these interests and desires, if any
- Reshape the current mission and goals to comply with these desires and interests. The new mission and goals should be tolerated in a clear-written statement.

### 1.2 Testing and determining relevant strategies themes

In order to design the best business plans, MEKA should first test whether its current strategies satisfy meeting its predetermined mission and goals. To test those strategies, the researcher recommends using a list of criteria that takes into considerations:

- Challenges that MEKA is facing in internal environment (production, marketing, financing...)
- Decisions made by managements to face such challenges and their outcomes

It is noted that, the management made the following decisions during last two years: closing MEKA's selling branch in Istanbul, entering new markets to increase its customer base, applying a layout program for its employees, and planning for outsourcing part of its production capacity. Moreover, global economy downturn and political instability due to civil wars in the surrounding region are affecting sales revenues for all companies. Taking into consideration these circumstances, the researcher recommends that MEKA should apply at least four strategies: a profitability strategy to support the company's survival, a risk management strategy as suggested by the building-block model, and its two current strategies (if relevant). However, in addition to the risk management strategy, team-participants shall have the ability to determine the best strategies for MEKA.

The team manager and/or consultant determines the necessary numbers of workshops with their sessions, needed to come up with a comprehensive-written statement for those strategies. For this statement, team-participants:

- Document MEKA's mission and strategic goals,
- Provide a detailed description for each strategy,
- Determine interrelatedness between strategies themselves, and strategies and their goals,
- Accomplish a SWOT analysis to capture the key strengths and weaknesses of MEKA, and describe the opportunities and threats facing the company,
- Determine and describe the competitive advantage(s) that the company have or planning to have, and

- Provide a detailed description of MEKA's products, locations and operations, organizational hierarchy, marketing, sales finance, supplying, and after-sale services.

This statement is used in designing business plans and processes with short-term goals. while for the risk management strategy, it will be translated into a business plan for designing and building an internal control system with three objective categories: operations, reporting, and compliance.

In their description for the risk management strategy, team-participants should consider:

- Identifying the general risks that could impact the performance of MEKA, divided into:
    - Strategic risks, such as: the employees will not act in the best interest for MEKA, the strategy execution will fail, the decline in MEKA's Competitive advantage(s), and failure in projects.
    - Operation risks, such as: inadequate training, loss of key personnel, unauthorized activities, systems failure, and inadequate short-term funding
    - Reporting risks, such as: lack or inadequate internal report, and unreliable information
    - Compliance risks, such as: exposure to legal penalties

- Benefits from applying a risk management strategy in the short and long run

Team-participants can use benchmarking in this step to examine other relevant companies' experiences in this field to examine the risks they face and the benefits they acquire via applying a risk management strategy.

## 2. Developing business plans and processes

Team-participants shall know the differences between strategic plan and business plan. The team has already finished MEKA's strategic plan, which covers: mission and goals, strategies, SWOT analysis, and business description. It includes a detailed plan for the next few years, and answer the question "how will MEKA act to achieve its strategic goals?". On the other hand, the business plan consists of processes and actions that cover a period of one to two years. It is designed to achieve short-term goals, it reviews and explains every area of the business, and it contains actions plans with specific activates, due dates and assigned responsibilities. To design a business plan for MEKA, team-participants should go through the following steps:

### 2.1 Developing a starting point

Using the strategic goals, team-participants should determine the short-term goals for MEKA. This list of short-term goals shall be used to test the validity of MEKA's current business plans and processes, the team could arrange that via:

- Identifying current business plans and processes in each area,
- Analyzing this business processes, in order to reach a detailed description of each one: goals, actions, procedures and policies, strengths and weaknesses, and controls attached to each process,
- Testing their validity, and
- Mapping valid processes to the pre-determined short-term goals.

Team-participants could accomplish that via open-discussion workshops and questionnaires. Personnel from management, operational departments, including other branches, should participate in this workshop

For identifying, analyzing, and testing controls attached to each process, team-participants shall follow these steps:

- For transaction-level controls, which attached to different business processes and actions, team-participants could use:

- Open-discussion workshop and questionnaires to identify these controls,
- Designed tests to examine them in the field, and
- **Exhibit 4** and **5** to document and map this controls to their components and their relevant 17 principles.

– For the entity-level controls which govern the overall company, team-participants could use:

- Open-discussion and questionnaires to identify those controls,
- A questionnaire to examine and test their overarching framework, and
- Exhibit 4 and 5 to document and mapping these controls to their components and their relevant 17 principles.

**Exhibit (10): Controls Overall Assessment**

| (Entity, Division, Operating unit, Function) subject to assessment | | | | |
|---|---|---|---|---|
| **Objectives being considered for the scope of internal control being assessed:** | | **Control Identified:** | **Present ? (Y/N)** | **Functioning ? (Y/N)** |
| **Operations** | | **No. 1:** | | |
| **Reporting** | | **No. 2:** | | |
| **Compliance** | | | | |
| **Controls identified related to:** | | **Controls Description** | | |
| **Control Environment Principle No:** | | **No.1** | | |
| **Risk Assessment Principle No:** | | **No.2** | | |
| **Principle No:** | | | | |
| **Information & Communication Principle No:** | | | | |
| **Monitoring Principle No:** | | | | |

Source: Reproduced using the Illustrative Tools attached to the COSO's Internal Control – Integrated Framework

**Exhibit (11): Evaluating Controls Deficiencies**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Control No.:** | | | | | | | | |
| **Control Description:** | | | | | | | | |
| **Source of the internal control deficiency** | | **Control related to (Entity, Division, Operating unit,..)** | **Internal control deficiency Description** | **Severity considerations** | | **Impact on present and functioning** | **Remediation plan and date** | **List of any internal control deficiencies that may have contributed to this internal control deficiency** |
| **Component** | **Principle** | | | **Is internal control deficiency is a major deficiency? (Y/N)** | **Management acceptance level of risk** | | | |
| | | | | | | | | |

**Source: Reproduced using the Illustrative Tools attached to the COSO's Internal Control – Integrated Framework**

## 2.2 **Developing business processes, including internal control system**

Now, team-participants identified current business processes, tested their validity in relevance to targeted short-term goals, dropped unnecessary/ irrelevant processes and had a detailed-description of each process. Also for internal controls, the team identified, analyzed, and tested the controls that MEKA have in place. This controls mapped to the five internal control components and their relevant 17 principles. Certainly, mapping current processes and controls to the short-term goals that MEKA planning to accomplish, will facilitate designing the required/missing processes and controls. The team could accomplish that via designing MEKA's BSC. Designing the BSC will go through two stages **Exhibit 6**. However, based on the basic information collected about MEKA, the researcher recommending that team-participants should consider designing the following processes:

- Processes to find new customers, other than participating in promotional fairs; team-participants could design a process to provide a strategic partnership with biggest construction companies inside and outside Turkey, programs to educate potential

customer from smaller construction companies about technical advantages of MEKA's products.

- Processes for retail outsourcing; MEKA could suffer from losing customer due to language difficulties. Outsource effective retail displays will solve this challenge, increase sales revenues, decrease indirect costs related to marketing, and improve customer services.

- Processes to decrease direct costs; MEKA face many challenges due to weak performance of its current suppliers. Team-participants can design processes to obtain mutual earnings with current suppliers, or with new suppliers. They can also design processes for training programs to decrease waste in MEKA's production.

- Processes to exploit benchmarking; market researches about competitors should include researches for importing their best practices.

**Exhibit (12): MEKA's Balanced Scorecard**

**Stage 1**

**Aligning Strategies and Business Processes to BSC Perspectives**

| BSC Perspectives | Short-Term Goals | Relevant Strategies | Business Processes & Actions |
|---|---|---|---|
| Financial | | | |
| Internal Processes | | | |
| Customer | | | |
| Innovation & Learning | | | |
| COSO's Internal Control-Integrated Framework | | | |

**Stage 2**

**Developing the BSC**

| BSC Perspectives | Short-Term Goals | Objectives | Measurements | Initiatives |
|---|---|---|---|---|
| Financial | | | | |
| Internal Processes | | | | |
| Customer | | | | |
| Innovation & Learning | | | | |
| COSO's Internal Control-Integrated Framework | | | | |

**First stage: Align strategies and business processes to BSC perspectives**

- Short-term goals and their relevant strategies should be aligned to the first four BSC perspectives: financial, internal processes, customer, and innovation and learning. This should give enough assurance that MEKA has short-term goals covering its entire performance.

- The processes which currently in place should be aligned to their relevant short-term goals

- The team designs the required/relevant processes for these goals that do not have processes to support. The team shall execute this in the manner that MEKA has complete business processes and actions supporting all short-term goals. New processes shall be mapped to their relevant short-term goals.

- From the perspective of COSO's internal control framework, team-participants shall go through the following sub-steps:

    - Using open-discussion and benchmarking, the team should identify the short-term goals for MEKA's internal control system. The goals should be grouped into three categories: operation, reporting, and compliance

    - Aligning and mapping these goals and their risk management strategy to the BSC (Stage 1) as a starting step to design and develop an effective internal control system.

- Currently, the team has a complete business processes for MEKA. The risks that may occur while implementing those business processes should be identified, their impact shall be analyzed, with the probability rate of occurrence is attached. Open-discussion and questionnaire are effective tools to accomplish this process.

    - Using a risk chart, risk impact and risk probability should be plotted in order to reach priorities assigned to risks identified.

    - Team-participants should determine responses to identified risks. Responses could share, avoid, or accept risk. Responses should be selected regarding a cost-benefit analysis. Benchmarking can be used to

examine other companies' experiments. Questionnaires answered by personnel, working in operational departments, should be designed in order to capture the impact of risks on different operations.

- Depending on responses decided, team-participants should design and develop the relevant controls. Controls should cover the internal control system's five components and their relevant 17 principles.
- Mapping controls to their relevant business processes, in addition to mapping to the five internal control components and their 17 relevant principles.
- The financial savings due to designing and developing an effective internal control system should be measured for the four perspectives: financial, internal processes, customer, and innovation and learning. Questionnaires and benchmarking are effective tools for this process.

**Stage 2: Developing the BSC**

Now, team-participants have a comprehensive business plan that covers MEKA's entire performance, designed to achieve its short-term goals. In addition, an internal control system is designed to overcome risks, which have sound impact on MEKA's performance. Then, the Team shall start developing MEKA's BSC (Stage 2).

– For the first four perspectives:

- Short-term goals should be aligned to their perspectives: financial, internal processes, customer, and innovation and learning.
- Short-term goals should be converted into measurable objectives with due dates.
- For each objective, the team should prepare suitable measurements such as market ratio, percentage of turnover, percentage of increase in sales revenues and customer satisfaction rate.

– For the COSO's internal control framework perspective:

- Team-participants should align the internal control system's three objectives categories: operation, reporting, and compliance to their perspective.
- These goals should be converted into measurable objectives.
- The team should use two types of measurements:

First: measurements for examining validity of controls in overcoming risks

Second: the 17 principles and their 77 points of focus as a measurement for the validity of internal control system **Exhibit 7**.

**Exhibit (13): Internal Control Components & Their Relevant Principles Assessment**

<table>
<tr><th colspan="8">Component: Control Environment</th></tr>
<tr><td colspan="4">1. Demonstrate Commitment to integrity and Ethical values</td><td colspan="2">Present? (Y/N)</td><td>Functioning? (Y/N)</td><td>Explanation</td></tr>
<tr><td>Relevant Controls</td><td>Relevant Objectives</td><td>Internal Control Deficiency</td><td>Deficiency Description</td><td colspan="2" rowspan="2">Evaluate internal control deficiency: consider whether controls to effect other principles within and across components compensate for internal control deficiency</td><td colspan="2" rowspan="2">List of internal control deficiencies related to another principles that may impact theses internal control deficiencies</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td colspan="2">Is internal control deficiency is a major deficiency? (Y/N)</td><td colspan="2">Explanation</td></tr>
<tr><td></td><td></td><td></td><td></td><td>Present? (Y/N)</td><td>Functioning? (Y/N)</td><td colspan="2" rowspan="2">Explanation / Conclusion</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="8">Source: Reproduced using the Illustrative Tools attached to the COSO's Internal Control – Integrated Framework</td></tr>
</table>

**Phase 3: Implementation**

**1. Align the company to the model**

The outcomes of the project that MEKA has initiated are a comprehensive business plan that provides effective processes and actions, procedures, and policies to achieve the desires and interests of its management. The management should take the decision of aligning the entire company to the outcomes of the project. It should provide the necessary/planned funds for applying these outcomes. It also may need to recruit extra personnel to execute new jobs and fill new positions.

**2. Motivate personnel to make strategies embedded in the model their day-to-day jobs.**

The management should start applying the incentives and rewards, which team-participants designed, in order to motivate personnel to execute their assigned responsibilities.

**3. Monitor performance of the model via BSC measurements**

- For the business processes related to the first four perspectives:

Certainly, team-participants designed new operational department such as internal auditing department, or new positions inside each operational department to be responsible for evaluating the performance of their departments, and report to the management. The measurable objectives and relevant measurements attached to the BSC shall be used in examining, evaluating and reporting of any performance deviations to the concerned authority.

- For the internal control system:

Team's participants should design new operational department, located in the main branch in Ankara, calling it "internal control department". This department is responsible for placing controls in relevant operations, test controls to examine and evaluate their performance, and report to the management. Internal auditing can be useful in increasing the reliability of evaluations. Evaluations should use the two types of control measurements attached to the BSC.

**4. Take initiatives**

The members kept hired should identify, collect, and analyze reports of performance evaluations of business processes and attached controls. Using the BSC measurements, the team members could identify and analyze any performance deviations. For any deviations in the performance of business processes or the internal control system, the management should take initiatives to eliminate them.

**Phase 4: Model continual assessment**

Business environments, especially the external one, are continually changing. By the time, goals and objectives, business processes and controls may be ineffective. Therefore, team-participants should schedule periodical workshops to:

- Collect and examine evaluations reports about MEKA's performance
- Examine the effectiveness of the new model
- Design initiatives, if necessary

## 6. Conclusion

COSO's Internal Control-Integrated Framework issued in 1992 and updated in 2013 is a standardized framework that presents characteristics, conditions, and requirements of designing, implementing, and conducting an effective internal control system. This framework is useful for companies, with moderate-effective internal control system and well-experience personnel in the field of internal control, in building and developing an effective internal control system. However, Turkish companies that have weak internal control culture, and recent knowledge and expertise in the field of internal control may fail to comply with its instructions. This study suggests an applicable framework for integrating new and traditional internal control techniques to help Turkish companies overcome such circumstances. The suggested framework is about integrating COSO's Internal Control-Integrated Framework with other techniques, namely: balanced scorecard, benchmarking, and control self-assessment. It presents a building-block model to assist Turkish companies in applying, designing, implementing, and conducting an effective internal control system in compliance with the COSO framework. This model consists of four phases starting with preparation of required resources, till designing internal control system, and building a BSC for a continual monitoring of the performance of these internal control system, as a part of comprehensive performance management system. The BSC is used in this model to ensure starting with setting company's goals and objectives, planning and developing business strategies including risk management strategy, selecting and planning business plans and processes of internal control system to achieve these strategies. The benchmarking is used to help companies start from where others ended to save company's resources and overcome weaknesses and shortage in expertise required to build and develop and effective control system. Control-Self Assessment is used to help companies better understand their weaknesses in current performance and, most importantly build on what already have. The techniques used in the model ensure designing, implementing, and conducting an effective internal control system that addresses all risks that stem out from the unique internal and external Turkish business environment. Consequently, the suggested framework offers a building-block model that will simplify implementing the instructions of COSO's Internal Control-Integrated Framework, ensuring a continuous effectiveness of internal control system and a better allocation of company's resources.

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