BIRZEIT UNIVERSITY

Faculty of Business and Economic
Graduate Department

Implementing Balanced Scorecard as an evaluation tool in Higher Education Institutions.

تنفيذ سجل الأداء المتوازن كأداة تقييم في مؤسسات التعليم العالي.

Submitted by: Sajida M. Othman

Supervised by: Dr. Derar Eleyan.

2012

Abstract

Higher Education Institutions play an important role in society by spreading knowledge and graduating qualified skilled students. To achieve their mission, Higher Education Institutions must consider the quality of performance. Therefore Higher Education Institutions must adopt effective evaluation tools that are derived from their mission to ensure being excellent compared to other peer institutions'. Balanced Scorecard proved to be an effective strategic measurement tool for evaluating institutions' performance in business, governmental, and educational sectors. This research utilizes the strengths of the BSC as a strategic management tool to implement and evaluate Higher Education Institutions' performance by proposing BSC generic framework as a strategic management tool.

The proposed BSC generic framework provides HEIs with an effective strategic management tool for evaluating performance quality in HEIs. It is designed to cover the BSC four perspectives. For each perspective, the framework contains a strategic theme that the institution must start from, followed by proposed goals for achieving the strategic theme and finally a set of performance indicators to measure the achievement of each goal.

The construction of the proposed generic framework relied mainly on meta-analysis of existing BSC frameworks conducted in the literature. The components of the proposed generic framework were evaluated using research qualitative methods like interviews and participant observations. In addition a survey questionnaire was conducted to quantitatively evaluate a selective set of performance indicators used in internal processes proposed in the generic framework.

The implementation of the BSC as measurement tool requires large financial support, time, and effort when it is first implemented but once it starts working, the positive effects of the BSC into institution's performance will be reflected positively into institution's income.

Acknowledgements

When I was a little child, I used to look to the horizon and promise myself that one day I will be able to catch the skyline. Getting my master degree is a new step of my long way reaching the horizon. I believe I won't be able to do that without the support I got.

To the best parents in the world, "Thank you" is a small phrase that will never describe my love and appreciation for all what you have done. Without you, I would never be able the one whom I am.

To my beloved husband, I will never forget your care, love, encouragement, and support through the preparation of my thesis. I am blessed by God to have you in my life.

To my best friend, and my partner in the dream of getting the sky line Amal, I appreciate your care, love, and support and I wish we can get the skyline.

To my supervisor, Dr. Derar Eleyan. I believe I will never find enough words to express my deep appreciation for your support and generosity. Without your guidance and encouragement, I won't be able to make it. Thank you very much.

My special thanks to my brothers and sisters, my relatives friends, and my colleagues in the Computer Science Department at Birzeit University for their support and encouragement during the years of my study and during the preparation of my master thesis. Thank you very much for what you have done.

Acronyms

AQAC   The Accreditation and Quality Assurance Commission.

BSC   Balanced Scorecard.

HEI   Higher Education Institution.

Table of Contents

List of figures

List of Tables

Chapter One
Introduction.

1.1 Research Overview.

Higher Education Institutions play an important role in the growth and development of societies around the world. Quality of services provided by these institutions is the main driver of attracting new customers and a way of ranking these institutions in a competitive position among their peers (Mashhad, Mohajeri, & Nayeri, 2008). Quality concept refers to "fitness of purpose – meeting of conforming to generally accepted standards. The Quality assurance is a planned and systematic review of an institution or program to determine the enhancement of the acceptable standards of education, scholarship, and infrastructure (Pond, 2002, p. 190). Quality is not a new concept. It was originally used in the industrial organizations. Recently the quality concept becomes wider and expands to cover other fields like higher education. The use of modern technologies, the increase in the number of students who complete their higher education and the huge increase in the number of higher education institutions, makes these institutions realize that improving the quality of education is the best method to attract high quality students and achieve a competitive strategic position in the market (Mashhad et al., 2008). Anderson (2006, p. 161) found that "The quality revolution in higher education has underscored the expectation that: universities must demonstrate that they are providing quality education and producing quality research and constantly strive to improve both".

Traditionally, there were no clear well established methods to measure the institutions' performance. Financial indicators were the only perspective used.

Nowadays it is found that the financial indicators are not enough. The effect of the other non-financial perspectives should be taken into consideration when measuring the institution's performance quality (Ambras & Tamosiunas, 2010). Ambras and Tamsiunas (2010, p. 6) said that "The system of the BSC was one of the first conceptions geared towards the interest of organizations to find a simple and compact solution of how to understand and develop the system of non-financial measurements that is important in order to ensure the sustainable process of successful performance of an organization in the future".

The Balanced Scorecard approach was introduced in the year 1992 by Robert Kaplan and David Norton .It is a strategic management tool that connect financial and non- financial perspectives in measuring quality by transforming the organization's mission and strategies into a number of measurable processes (Pineno & Boxx, 2011). Ruben (1999, p.1) found that "there is a growing sense that the financial performance indicators, used alone, failed to capture many of the success factors so the Balanced Scorecard should translate a business unit's mission and strategy into tangible objectives and measures". The use of this approach was originally connected with business organizations then it was reused to evaluate the quality of services of the academic institutions (Pond, 2002). The Balanced Scorecard approach suggested four perspectives to be considered when measuring quality .These perspectives are (Ambras & Tamosiunas, 2010; Kaplan & Norton, 1992; Stewart & Carpenter- Hubin, 2000):

1. Client perspective. How do the organizations' customers see it?

2. Internal process perspective. What are the business's processes that the organization must excel at in order to satisfy the shareholders and customers?

3. Learning perspective .How should the organization strengthen its abilities and competences in order to meet the external environment requirements?

4. Financial perspective. How does the organization look at shareholders?

According to Pineno (2007), only few researches were made to study the application of the BSC in the non-profit organizations like schools and universities. In the year 2004, Armitage and Scholey successfully applied the BSC to a specific master's degree program in business, entrepreneurship, and technology. O'Neil and Bensimon in the year 1999 adopted the BSC as an evaluation tool in the Rossier School of Education. They argued that implementing the BSC in the academic institutions is favorable because it is an easy approach that helps universities to achieve their strategic goals (Pineno & Boxx, 2011).

This research reviews the importance of higher education level, the role of higher education institutions in community, and the BSC as an effective strategic management tool. The research utilizes the strengths of the BSC by proposing generic framework with a detailed explanation for each component in the framework. The proposed framework will provide decision makers with comprehensive measurement tool to evaluate the quality of HEIs' performance.

1.2 Aims and Objectives of the study.

This study aims to construct the BSC as evaluation methods in the institutions of higher education .To achieve this aim, the following objectives are highlighted:

- Introduce the academic quality assurance concept.

- Explain the importance of the Balanced Scorecard as an evaluation method.

- Explore the current situation of the academic quality assurance in the Higher Education Institutions.

- Investigate the weaknesses and shortcomings in the current situation of the Higher Education Institutions.

1.3 Problem statement and Research Questions.

Problem statement:

The research problem is the evaluation of academic quality in the higher education institutions. Different higher education institutions are using different tools and techniques to evaluate their performance according to quality standards. This research proposes a generic framework using the strengths of the Balanced Scorecard as a strategic management tool.

Research Questions:

By exploring and investigating the current situation of the academic quality assurance in the Higher Education Institutions (HEIs), this study should answer the following question:

1. What is the current situation of the academic quality assurance in the Higher Education Institution?

2. What are the weaknesses and shortcomings in measuring the performance of Higher Education Institutions?

3. What are the recommended solutions to bridge the weaknesses and shortcomings?

4. Is the Balanced Scorecard an appropriate approach for measuring academic quality assurance?

1.4   Needs and Importance of the study.

Measuring academic quality assurance becomes a priority to the higher education institutions around the world. The need for this study is resulted from the fact that the competition between the numerous institutions of higher education is becoming more vital. To distinguish themselves, the higher education institutions focus on improving quality of performance as the best method to attract more customers (students) (Mashhad et al., 2008). This research is also important because traditionally the quality assurance concept was limited to the instructors' knowledge and experience in the field and in the students' ability to demonstrate what they had learned through selective types of examinations. While nowadays, the quality assurance concept becomes wider and more complicated. The technological revolution had changed the traditional indicators used to measure quality. New paradigms for measuring the quality of education were created. These paradigms had shifted the concept of quality assurance from traditional concerns to new concerns that focus on learners and instructors rather than the institution itself. The new paradigms are also becoming more business oriented because the current market forces are enforcing the institutions of higher education to deliver their products (students) in a way that fits the market requirements (Pond, 2002). Another importance of this study is that measuring quality is a critical factor that determines the success of the institutions. Managers were clearly dissatisfied with the traditional performance measurements because they focused on the financial perspective and

ignored the effect of the non-financial perspectives causing the loss of important data and defects in the decisions made by the institutions. Even the institutions that applied performance measurements systems faced the problem that these systems were only used by the top management level in all the hierarchy of the institution. The Balanced Scorecard method provides clear quantitative measurements for the higher education institutions. The Balance Scorecard method takes into consideration the effect of the financial and non-financial perspective like client perspective, internal process perspective, and learning perspective. The Balanced Scorecard method can be applied by the all levels of the employees in the institution's hierarchy and not only by top level which will ensure the quality of performance in all the institution's processes (Ambras & Tamosiunas, 2010; Ruben, 1999).

1.5   The Research Methodology.

The research starts with a literature review about higher education and quality assurance, the BSC as a strategic management tool, an overview of the available studies conducted to implement the BSC in HEIs and a critical analysis for the frameworks proposed by these studies. In the second part of the research a BSC generic framework is proposed as the outcome of the research. It is designed to cover the BSC four perspectives proposed by Kaplan and Norton with a detailed explanation for each proposed component. The generic framework is mainly constructed based on comprehensive analysis and synthesis of the secondary data available in the literature. The framework components were evaluated by conducting set of interviews with specialists in the fields of higher education and quality

assurance in Palestine. In addition a selective set of performance indicators were quantitatively evaluated using a survey questionnaire distributed to Birzeit University students.

1.6   Thesis structure.

This research is organized into five chapters. The following is an overview of the five chapters:

Chapter one: Introduction.

This chapter contains general overview for the whole content of the master thesis. It starts with a brief description for the main concepts presented in the research followed by the research aims and objective, the problem statement and research questions, the needs and importance of the research and the research methodology. The chapter ends with an overview of the thesis structure and finally a summary and conclusion for the contents of the chapter.

Chapter two: Literature Review.

This chapter reviews the existing BSC literature about the role of higher education, the importance of quality assurance in higher education, the contemporary challenges that face quality assurance in Higher Education Institutions (HEI), the BSC as a strategic measurement tool, the BSC four perspectives, an overview of the use of BSC in education pervious researches and finally, the barriers that may face the implementation of BSC as a strategic measurement tool.

Chapter three: Methodology.

This chapter reviewed the methodology of the research. It explained the research type and design. It reviewed in details both quantitative research methods used in the

data collection process and the research sampling. The chapter also explained the validity, and reliability of the used research methods and finally the research methodological and practical limitations.

Chapter four: Findings, Discussion, and Proposed generic framework.

This chapter contains detailed explanation for the research findings. It starts with an overview of the interviews findings followed by an overview of the survey questionnaire findings. Then the research main contribution which is the BSC generic framework is presented followed by a detailed explanation for each component of the framework based on the BSC four perspectives.

Chapter five: Conclusion and Future work.

This chapter contains an overview for the main contribution of this research, conclusions about research questions, and finally the research recommendation for future work.

1.7   Summary and Conclusion.

This research views theoretical concepts about higher education, quality assurance, quality assurance in higher education, and the BSC as a strategic measurement tool. . The outcome of this research is a BSC generic framework which is conducted based on meta- analysis for available BSC frameworks in the literature and evaluated using quantitative and qualitative research methods. The proposed framework will provide decision makers with an effective strategic measurement tool that can be considered as a road map to create and implement their own customized BSC.

Chapter Two

Literature review and BSC theoretical frameworks

2.1 Introduction.

This Chapter reviews the available literature about quality assurance in higher education and the BSC as strategic evaluation tool. The chapter starts with the role of higher education, the importance of quality assurance in higher education, the contemporary challenges for quality assurance in higher education, the main requirements needed when building quality assurance system. Then it explains the BSC as a strategic measurement tool, the four perspectives of the BSC, implementing BSC, and the BSC frameworks in higher education. The chapter finally views the barriers that may face the implementation of BSC as a strategic management tool.

2.2 Higher Education and Quality Assurance.

2.2.1 The role of higher education.

Higher education is the educational level that follows the school years and achieved by joining college or university. According to Mishra (2007), the cultural differences around the world make it difficult to find one standard definition for higher education concept. It is agreed that higher education level is more than an ordinary level in the education structure of any country. Its role is not limited in

increasing students' knowledge and competency in one specific filed. It expands to be the stage where students can improve their skills in asking questions, interpreting old knowledge, criticizing what happens around them, seeking for the truth, expanding their knowledge in different aspects of life and communicating with the real world .It is the level where students build their characters and strive to promote social justice.

Our world is affected by continuous changes resulted from the technological advancements, economic growth, cultural differences and globalization. Higher education level is a very critical level not only in students' life but also the whole society. It affects students, families, market place, government agencies, and many other stakeholders. Higher education plays critical role in improving peoples' adaptability into continuous life changes by increasing students' knowledge and skills in the different aspects of life. HEIs are the main source of human resources in all fields. They are considered as the main developer of human capabilities in agriculture, food security and the different industrial areas. The institutions of higher education are the places where talented gifted inelegant students are discovered and improved (Mishra, 2007).

The popular report titled "Learning: The Treasure Within"; which was published by the UNISCO in the year 1996 highlighted four specific functions for higher education:

- Preparing students for research and teaching.

- Providing highly specialized training courses adapted to the needs of economic and social life.

- Being opened to all, so as to cater to the many aspects of lifelong education in the widest sense.

- Promoting international cooperation through internationalization of research, technology, networking, and free movement of persons and specific ideas (UNISCO, 1996).

In its report in 2006; the National Assessment and Accreditation Council (NNAC) in India focused on five core values that represent the critical role of higher education. These values can be summarized as follows:

- *Contributing to national development* by helping people adapting to new changes, emphasizing social justice, ensuring equity, and increasing access to higher education.

- *Fostering global competencies among students* by focusing on improving students' skills to be equivalent to other national and international students.

- *Inculcating a value system in students* by building students' character, ethics, and values since knowledge in not enough if it is no controlled by ethics and values.

- *Promoting the use of technology* by adopting new technologies, encouraging the use of new technologies, increasing awareness about the efficiency of technologies, and training faculty to overcome their fear and reluctance of replacing traditional methods with new technologies

- *Questing for excellence* by always thinking about being excellent and innovative in all processes (Mishra, 2007).

2.2.2   Quality assurance in higher education.

The word quality came originally from the Latin word *quails* which means 'what kind of' (Pfeffer & Coote, 1991). According to Mishra (2007), the definition of quality differs according to who defines it. There are mainly two points of view about the definition of quality .The first point of view; the **relativists**; argued that quality is a relative concept like beauty, each person can define it in different way. While the second point of view; the **objectivists;** argued that quality can be specific and have definable attributes.

The idea of assuring quality started at the business organizations then it was expanded to cover the field of education. The basic definition of academic quality assurance is the same as the definition of quality in business organization but it is customized to fit with the features that differentiate the educational field from the business field (Pineno & Boxx, 2011). Al Bandary (2005, p.181) defined quality assurance in higher education as "A process meant to assure the quality of a program". Al Bandary also said "when applied to higher education, quality can be related to characteristics of the system that refer to a range of elements including the level of student achievement, the ability and qualification of staff, the standard of facilities and equipment, the effectiveness of teaching, planning and administrative processes, and the relevance of programs to the needs of students and the nation in an emerging global knowledge economy" (AL Bandary, 2005, p.185). The International Quality Review published by the Council of Higher Education Accreditation defined quality as the fitness of purpose that meets or confirms generally accepted standards (CHEA, 2001). Pond (2002, p. 190) defined quality of education as " the one in which the learner's expectations for his or her learning are

met or exceeded; that he or she has knowledge and/or skills that he or she did not possess before the learning experience took place".

Mishra in his book "Quality Assurance in Higher Education" (2007) suggested eight points that help HEIs learn about the improvement of quality:

1. Top management plays an important role in improving the institution's quality; so they must have deep commitment and leadership skills.

2. The institutions must be very concerned about improving the skills and knowledge of the working staff.

3. The institutions must be open and try new philosophies and technologies in order to improve quality assurance systems.

4. Persuade the spirit of teamwork and the cooperation between top management and the other levels of employees.

5. There must be continuous process of monitoring quality by creating communication strategy among the institution and by producing continuous progress reports.

6. Admire the staff and motivate them to be more creative without creating a hostile competitive atmosphere.

7. Be aware of the needs of the shareholders and use the appropriate systems and processes to do that.

8. Create a corporate culture that encourages assuring quality in all the institution's processes.

2.2.3 The importance of quality assurance in higher education.

The higher education system is one of the most complicated systems in any country (Jeliazkova & Westerheijden, 2002).When the HEIs started to appear, their services were only limited to elites .Only few people were able to join colleges and universities. Nowadays the situation is completely different, HEIs are now opened to all people from different places, cultures, races, and backgrounds. Massive numbers of students around the world are completing their higher education study. To be able to deal with the continuous increase in the number of students, HEIs have to seek for providing the best degree of quality (Pond, 2002). The increasing participation by the private sector, the sever competition among HEIs and the impact of globalization are other important reasons why HEIs must improve their performance quality Also the massive progress in technology and communication media such as the use of internet, video conferencing, and satellite communication is another important concern when talking about the quality (Mishra, 2007). Merican, Zailani and Fernando found that assuring quality in higher education became an important ingredient for the success of an institution. They believed that students must be served as customers .They must be satisfied with what is provided by the institution. As a result, HEIs must become business oriented and work hard to keep their customers (students) satisfied (Merican, Zailani, & Fernando, 2009).

 Bernnan and Shah (2000) summarized the needs of quality assurance in higher education in the following ten points:

- Ensure an accountable use of public funds;

- Ensure a continuous development of higher education delivery;

- Inform funding decisions;

- Inform students and employers;

- Encourage competition within and between institutions;

- Take into consideration the process of quality checking into new(public/private)institutions;

- Allocate institutional status;

- Encourage the authority between the state and the institutions;

- Establishing international comparisons; and

- Assuring students mobility.

In his book, Mishra (2007) suggested the following reasons as the main reasons why the institutions of higher education should worry about the quality of their teaching and programs:

1. **Competition,** for both students and funds. The massive increase in the number of higher education institutions provides customers (students) with wide variety of choices. To get more customers, the institutions must differentiate themselves by improving the quality provided. The institutions must also compete for the fund provided by both the government and the external donor's .The educational institutions must work hard to prove that they deserve the fund more than others.

2. **Customer satisfaction:** The customers of the educational institutions represented by students, parents, and sponsoring agencies are now highly conscious of their rights. They care about the return they get from spending their time and money in an institution.

3. **Maintaining standards:** Each educational institution set its own standards and attempts to maintain it year after year. This can be achieved by improving the quality of educational transactions, educational provisions, and facilities.

4. **Accountability:** The educational institutions must be accountable for their stakeholders in term of funds. Assuring quality helps stakeholders take the most appropriate financial decisions.

5. **Improve employee morale and motivation:** Concerning about quality improves the staff's moral and motivation in doing their work.

6. **Credibility, prestige, and status:**

If the institution works hard continuously to improve its quality this will increase individuals and institution credibility and loyalty because of consistency leading to practice, status and brand value.

7. **Image and visibility:** By having high quality, higher education institutions create their image and reputation so they can attract national and international students. They can increase donations from funding agencies. Employers in the market will compete to employ their graduated students.

2.2.4 The contemporary challenges for quality assurance in higher education.

In theory, implementing quality assurance system in HEIs seems an easy task but in reality it is not that simple. Implementing any quality assurance system faces many challenges that make the implementation hard and complicated (Newton, 2000). Traditionally, many indicators were used to measure quality in HEIs like physical attendance and formal academic credentials for instructors. Recently, many new

factors appeared and made the implementation of quality system easier and more fixable but at the same time more challenging. New technologies and globalization were the main factors. They caused continuous and huge increase in students' numbers and diversity, eliminated the effect of geographical distance between countries, and created an open interconnected political, economic, and cultural relation between countries. With these new realities; implementing traditional accreditation models became inadequate (Pond, 2002).

Another challenge is that HEIs in some countries (especially in the developing countries) had taken the quality measurement model used by other countries (developed countries) and had applied it without taking into consideration the cultural, social, economic, and legal differences between countries. This usually caused the failure in the implementation of the model even if it was implemented successfully in the source country (AL Bandary, 2005). Jeliazkova and Westerheijden (2002) used the term 'jump start 'to describe the act of adapting best practices in one place and assuming that these practices will be successful everywhere.

Another important challenge is the high and turnover rate in some of the institutions, so a team start implementing the suggested model but after a while some of them go away leaving the implementation incomplete (AL Bandary, 2005).

Jeliazkova and Westerheijden found that the increase of society's awareness toward higher education quality became major challenge for these institutions. There is a continuous debate among societies about the transparency and accountability of the national HEIs and about the degree of the quality they provided. There are many questions about the ability of these institutions to compete on both national and

international levels and about the match between the expected result and the actual result of their work. How do societies make sure that its national higher education system provides its stakeholders with what they really need (Jeliazkova & Westerheijden, 2002).

Resistance toward changes is a natural phenomenon in human being but it makes the implementation of quality assurance systems more challenging .Higher education institutions must convince its stakeholders with the efficiency of the selected quality assurance system and the advantages that they will gain if this system is implemented and improved (Jeliazkova & Westerheijden, 2002). This is connected with what Newton said about the danger of enforcing quality assurance systems on academic staff. He believed that these systems will be more efficient if staff believe in them. Without these beliefs, the implementation will not reflect the truth .Instead it will be a waste of time, efforts, and money. It may destroy the institution's reputation and name. Staff members always have the fear of losing their jobs if the quality assurance system reflects problems in their performance. They also have the problem of being pressured by the institution to submit the quality reports at the required time. They expect to be motivated, rewarded, recognized and encouraged for being achievable and creative .Unfortunately the staff members expectations are not satisfied in many cases causing them to be disappointed, frustrated and cause in less moral and commitment in doing their work (Newton, 2000).

Another important challenge that may affect the role of higher education institution is the feel of jealously among staff members. Staff members rarely talk to each other's about what they have done and discover and about the problems they face

with students. They miss the chance of exchanging experience and may cause severe damage by not being honest about their problems (Colling & Harvey, 1995).

2.2.5 The main requirements needed when building quality assurance system.

A work shop that was held in Barcelona (2008) to discuss the European standard on accountability procedures for internal quality assurance resulted in identifying four important perspectives to be taken into consideration when establishing academic quality assurance system for an institution:

1. **Published policy:** by writing institution's policies and publishing them into its website so the policies would be clear and available to all stakeholders.

2. **Declaring the institution's mission and goals of quality assurance:** to compare between the expected result and the actual result and to simplify the work of external quality assurance agencies.

3. **No-conflict-of-interest mechanism in relation to quality of activities:** by making the guidelines enforced by the institution flexible and close to the normal frequent interaction between the institution and the other stakeholders.

4. **Internal and external feedback:** The internal and external feedback is very critical to improve the institution's work.

Additional tips that should be taken into consideration when building quality assurance system in HEIs were suggested by Jeliazkova and Westerheijden (2002):

- There must be a timely participation in the quality assurance system by all HEIs' key stakeholders.

- The success of any quality assurance system is connected with how the system is compatible with the interests of all stakeholders. As a result, the quality assurance system must focus on the common interests of the stakeholders in both the short run and long run.

2.3 <u>Balanced Scorecard as a strategic management tool.</u>

2.3.1 BSC four perspectives.

In complicated changeable environment like ours, performance measurement systems are an important aspect in the decision making process in any organization. No single measurement indicator can offer comprehensive and clear evidence about the organization's performance. Traditionally, managers depended on the financial measures like return on investment and earnings per share as main indicators to measure performance (Krishnan & Ravindran, 2009). After a while, managers found that these measures may work effectively in the industrial organizations but it is not that effective and maybe misleading in the case of measuring skills and competences of organizations like governmental and educational institutions. Traditional performance measurement systems were dominant by lag financial indicators. They were internally orientated and not link to the organizational strategies (Atkinson, 2006). Managers and academic researchers started searching for alternative methods to measure performance .Some of them focused on improving the financial measurements by making them more comprehensive to cover all sectors (industrial and non) efficiently . Others suggested forget using the financial measures and start focusing on other indicators like operational measures (cycle time and defect

rates).In their point of view operational measures will be usually followed by financial results (Kaplan & Norton, 1992).

 In the year 1992 Robert Kaplan and David Norton realized the importance of finding a quality measurement method that combine between both financial and non-financial (operational) measurements. They suggested the BSC as a new strategic management tool for quality measurement. They believed that the performance in any institution can be affected by many factors at the same time; each factor had different effect than others. The BSC translates the organization's mission into specific measurable objectives then it defines number of specific measures that reflect the critical factors that affect the organization's performance (Kaplan & Norton, 1992). It was proposed as a more sophisticated approach to solve the problem that there is no single measure can draw the attention on all critical area of the business (Pienaar & Penzhorn, 2000). The BSC is widely recognized and used. It provides decision makers with a balanced assessment by recognizing a variety of key stakeholders (Atkinson, 2006). The BSC provides managers with actionable feedback about the progress made in achieving the assigned strategies and internal processes (Pineno & Boxx, 2011). It helps managers having clear and comprehensive knowledge about the organization's situation by taking into consideration the effect of both financial and operational measures. The BSC is a customer oriented method that helps managers define specific, well classified, objective, and measurable set of measures that cover both financial and operational perspectives. It helps improving quality, emphasizing teamwork, reducing time required to launch new products or services, and helps managing both short and long term decisions (Kaplan & Norton, 1992). It defines an opportunity of integrity and

synergy among institution's units and departments (Hadawy, Poursadegh, Zeinab, & Khavandi, 2011).

In the year 1993, Kaplan and Norton in their second article "**Putting the Balanced Scorecard to Work"** emphasized the definition of the BSC as comprehensive management system that can motivate important improvements in critical areas like product, process, customer, and market development. Measures used in the BSC are classified in two main sets, financial measures, and operational measures. The financial measures are connected to the institution's financial performance that is connected with actions that are already happened. While the operational measures are represented in three perspectives: customer perspective, internal process perspective and innovation and learning perspective (Kaplan & Norton, 1993).

 According to Kaplan and Norton (1992), the Balanced Scorecard must answer the following four questions:

1. "How do customers see us? (Customer perspective)".
2. "What must we excel at? (Internal perspective)."
3. "Can we continue to improve and create value? (Innovation and learning perspective).
4. "How do we look to shareholders? " (Financial perspective).

Figure 1. BSC four perspectives.
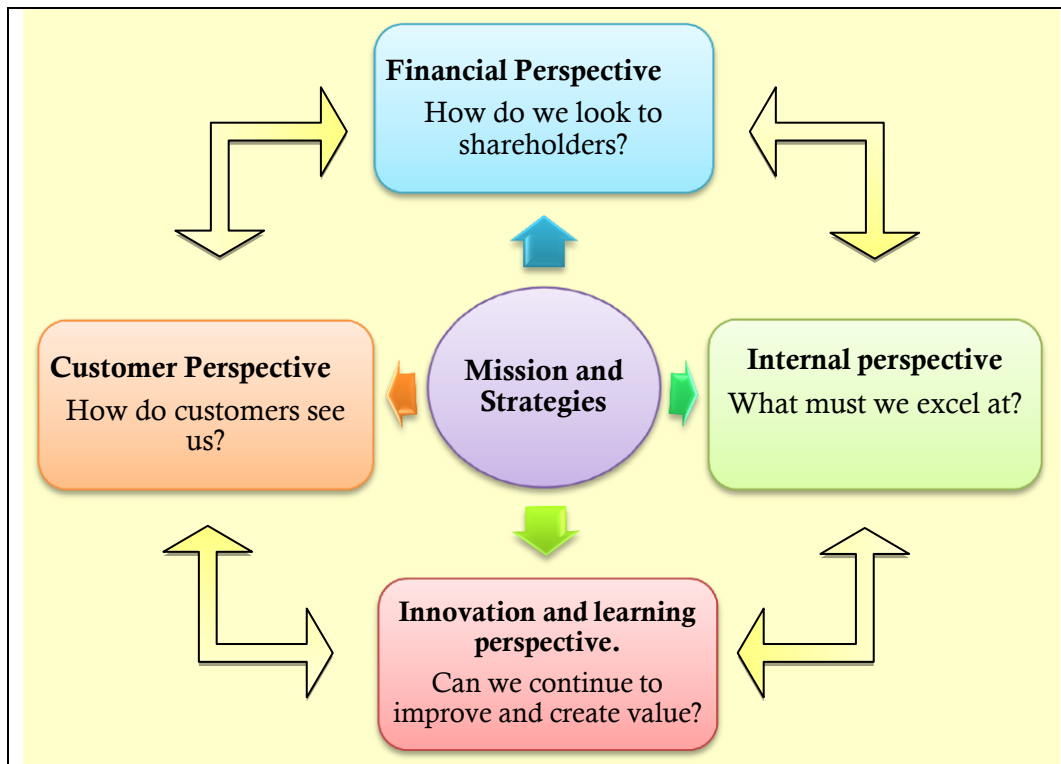
Source: (Kaplan and Norton, 1992, p.72)

The BSC four perspectives are related to each other's in different ways. They affect each other's and definitely affect the quality of the organization's performance. The activities assigned in each of the four perspectives must be designed to donate to the successes of the organization's overall strategy (Kaplan & Norton, 1992).

To know more about how the BSC works; we need to know more about its four perspectives. The following is deep explanation for each of the four perspectives.

Customer Perspective: How do customers see us?

Customer perspective tracks how well the organization is meeting stakeholders' expectations (Pineno & Boxx, 2011). Customer satisfaction is a critical success factor for organizations (Punniyamoorth & Murali, 2008).When customers choose the product or service, they mainly focus on the time, quality, and cost required to

get what they want. With the daily increase in the number, diversity, and the sever competition among organizations; customers have many alternatives. Managers realized the new reality and tried to find new methods that make customers not only satisfied but also delighted. The use of the BSC will help managers in measuring the degree of customers' satisfaction. It will help them understand the organization's strengths and weaknesses and translate the organizations' mission into set of measurable factors (Kaplan & Norton, 1992). Kaplan and Norton (1993) found that customer satisfaction measures provide feedback on how well the company is doing. If the organization's customers (stakeholders) are satisfied with what they get then the organization's performance will positively affected. For example, if customers get the product or service they want in required time, quality and cost, then they will be delighted .They will become more loyal to the organization and their loyalty will be translated into financial outcome by increasing revenues and reducing account receivables. Customers' satisfaction is not the only example of the organizations' stakeholders, but the result is the same for all other stakeholders. To well implement the BSC, the organization must well define customers, rank them according to its priorities, reflect this in its mission statement, translate it into set of clear strategies, and finally choose the best indicators to measure the degree of customers' satisfaction (Kaplan & Norton, 1993). Customers' dissatisfaction about the current performance of an organization is a leading indicator of future decline even though the current financial performance of the organization looks currently good (Punniyamoorth & Murali, 2008).

Internal Processes Perspective: What must we excel at?

The work of any organization is performed through a set of defined internal processes. Each process has its effects into the organization's overall performance. The second perspective in the BSC focuses on the internal processes that the organization must achieve well to meet stakeholders' expectations (Pineno & Boxx, 2011). The BSC suggests that managers must understand the organization's internal processes, identify the organization's core competences that differentiate it from other competitors, and define the internal processes that the organization must excel at to make stakeholders' satisfied. All levels in the organization should take part in identifying the organization's main processes. Starting from operational level, to the middle level and ending with the top level. Employees in the functional level are the best people to define the organization's operations and activities. Managers must always ask themselves if the organization's internal processes can really connect the input with the intended output they are looking for. If not, they must start looking for the problem in those internal processes (Yorke, 1999). The BSC emphasize an integrative analysis and trade-offs that helps administrators put more focus on internal processes to improve institutional effectiveness (Dorweiler & Yakhou, 2005).

Innovation and learning perspective: Can we continue to improve and create value?

The first two perspectives in the BSC specify the parameters that are considered the most important factors for the success of the organization. These parameters are not fixed and may change according to the quick changes in our environment. As a result, organizations must have the flexibility and the ability to adapt to regular

changes in the environment. The organization must always think about new improvements in its products, services, and internal processes. The value of the organization is connected directly to its ability to innovate, improve, and learn (Kaplan & Norton, 1992). Learning and innovation perspective emphasizes on creativity, competencies, and capability. It refers to the most important intangible assets in strategy formulation and focuses on people and their attitude, knowledge, development and ability to learn and improve. Organizations will best serve customers by investing in employee capabilities through activities such as investments in employees through selective training, and investments in information systems to support decision-making (Ong, Teh, Lau, & Wong, 2010). Learning and innovation perspective focuses on the organization's infrastructure that must be built and sustained in order to ensure the organization's ability to satisfy stakeholders and meet their expectations (Pineno & Boxx, 2011). The learning perspective includes the drivers for the future performance described in the customers' satisfaction and internal processes perspectives (Kettunen, 2006). In their article "The balanced Scorecard- Measures that Derive Performance" (1992), Kaplan and Norton suggested that the organization can be innovative by being able to: lunch new products, increase revenues and margins, increase the value for both customers and shareholders, and support market penetration strategies.

Financial perspective: How do we look to shareholders?

For decades, managers used financial measures as the only indicators used in measuring organizations' performance. Although accurate and timely financial data are necessary in the decision making process in any organization (Punniyamoorth & Murali, 2008), real life proved that these measures are not enough and might be

misleading. The increase in one of the financial indicators like revenues might be at the expense of another. Financial measures told managers about the past performance of the organization. Data provided by financial measures always represent the organization's performance in the past but not the current performance. In this case, the organization can't make any action to correct problems because they had already happened and no action was taken immediately to correct problems. Nowadays, managers believe that the financial successes are considered to be the logical consequence of doing the fundamentals well. Organizations have to work hard in improving their processes and activities. It must take into consideration the effect of the non- financial measures because the failure in converting operational successes into financial results means that the organization's strategies need to be revised (Kaplan and Norton, 1992).The BSC financial perspective is important because it tracks the organization's effectiveness in translating operational results into financial output (Pineno & Boxx, 2011).

2.3.2 Implementing BSC.

The BSC was first introduced in the year 1992. Since then, many organizations were adopting the BSC as a strategic management tool to measure performance quality. The BSC is used as a planning device since it is derived from the organization's mission and strategies and it helps linking long term strategies with short term actions (Kaplan & Norton, 1992; Krishnan & Ravindran, 2009). At the beginning the BSC was implemented in the business sector then, its implementation was expanded to other sectors like education and government. The BSC is not a fixed

template that can be created and applied for all organizations. Organizations differ in their products, services, competitors, and targets. Each organization has its own mission and strategies. So there will never be a fixed framework that can be applied for all organizations. At the same time, there are basic fundamentals that must be taken into consideration when designing the BSC for any organization. Organizations can adopt a BSC generic framework and then make the required adjustments by adding more measures, deleting some of the measures, editing the strategic themes so it would create its own customized BSC (Kaplan & Norton, 1993). According to Campbell (1997), a good BSC must reflect the organizations' strategic plan. It must provide decision makers with a framework that helps in shaping work behavior and with data that helps in making immediate changes to improve performance quality (Campbell, 1997). Paranjape, Rossiter, and Pantano (2006) found that the BSC is the most popular, widely implemented, and least criticized measurement system among large number of common frameworks such as: Skandia's Navigator model proposed by Edvinsson and Marlone, the Performance Prism model proposed by Neely, Adams and Kennerley, and the IC-Navigator model developed by Goran Roos, Dragonetti, and Edvinsson (Paranjape, Rossiter , & Pantano, 2006). In their article" Putting the Balanced Scorecard to Work" in the year 1993, Kaplan and Norton highlighted the main points that organizations should take into consideration when implementing their own BSC. They believed that employees from all the administrative levels must participate in the process of building the organization's BSC. All employees must understand the organization's mission statement, long term strategies, and short term activities (Kaplan & Norton, 1993). Kaplan and Norton suggested that the implementation of

the BSC can be divided into four phases: translating the vision, communicating and linking, business planning, and feedback and learning.

Phase one: Translating the vision and mission statements for the organization.

Senior managers in an organization start the process of building the BSC by building the organization's vision and mission then thinking of how the vision and the mission are going to be implemented (Pienaar & Penzhorn, 2000). When building the vision and mission statements, managers should make sure that the statement contains an integrated set of objectives and measures confirmed by all senior executives and describe the long term derivers of success. All the organizational levels and units must work together to reach an accepted vision and mission statements for all units and what is more important to be able to translate the words of the vision and mission statements into clear operational activities that can be understood and implemented by all members of the organization (Kaplan & Norton, 1996).

Phase two: Communication and linking.

After the senior managers of an organization set its vision and mission statements, they translate them into set of strategies. For each strategy, managers must develop set of goals that support the organization's strategies. Finally, for each goal a clear measurable set of performance indicators must be identified to be used in evaluating the organization's performance (Kaplan & Norton, 1996). Thus the Balanced Scorecard can be used as a vehicle for communication by cascading it down through the organization and by defining more measures relate to organization's detailed activities (Pienaar & Penzhorn, 2000). One of the most important problems that organizations face when implementing their strategies is that only top managers

understand the organization's strategies while employees from other levels have no idea about these strategies. The BSC solved the problem since all administrative levels are involved in the creation and implementation of the BSC framework. The broad participation in building the BSC may take a long time but at the same time it is very helpful because employees from all levels will have a better understanding for the organization's long- term strategic goals. Employees from all levels will have stronger loyalty, commitment, and awareness. The successful implementation for any strategy starts with educating those who have to execute it (Kaplan & Norton, 1996).

Phase three: Business planning.

Planning is considered one of the most important factors for the success of any organization. Planning is not an easy task that requires an ability to allocate the organization's resources to fit with the long term priorities set by the organization by quantifying organization's long- term outcome and identifying mechanisms to achieve these outcomes (Pienaar & Penzhorn, 2000). The implementation of the BSC means an integration between the organization's strategic plan and organization's resources while ensures that the organization's resources supports the formulated strategies. The BSC encourages managers to focus on improving or re-engineering the organization's processes according to the organization's priorities (Kaplan and Norton, 1996).

Phase four: Feedback and Learning.

When strategies are defined, managers expect that the implementation should be smooth exactly as in theory. Unfortunately, this is not the case especially in our changing environment where new opportunities and threats appear every minute.

Organizations must be able to test the efficiency of its strategies at any time. As a result, managers must get used of the feedback given from organization's stakeholders' in order to test the correlations among measures and to check if the implementation of the strategies is working as it should be (Kaplan & Norton, 1996).

2.3.3 Balanced Scorecard in higher education:

After improving the BSC efficiency in business sectors, researchers who are interested in performance quality in education started few initiatives to implement the BSC in education. In the year 1999 Bailey made a survey that targeted the deans within business schools. In the survey, the school's deans were asked to suggest potential useful measures for the BSC in education (Papenhausen & Einstein, 2006). In 2005 Demetrius Karathanos and Patricia Karathanos from Southeast Missouri State University published an article about "Applying the Balanced Scorecard to Education". In their article the authors explained the Baldrige Education Criteria for performance excellence and how this criterion adopted the concept of BSC in higher education. They also viewed the main differences between implementing the BSC in business sector and educational sector (Karathanos & Karathanos, 2005).

In 2006, Ching- Chow Yang and Jiun-Yan Shiau from Chung-Yuan University published a study titled "The application of balanced scorecard in the performance evaluation of higher education". In the study, the researchers viewed the BSC as an evaluation tool and proposed a BSC framework in which performance indicators were classified in the four perspectives of the BSC. The framework contained many important indicators. The financial perspective items were well- chosen and clearly

classified unlike the other three perspectives. In the stakeholders' satisfaction perspective, the framework considered students as the only stakeholder and ignored all other expected stakeholders like employees, families, employers and community, board of trustees, media and press, protest groups, research centers, and other higher education institutions. In the internal processes perspective and growth and innovation perspective, wide variety of targets and measures were used but their classification was very confusing. In addition to that the effect of many other important internal processes like research, mentoring system, registry system, and learning resource management system was ignored (Chow Yang & Shiau, 2006).

In 2007 a study was made by Venkatesh Umashankar and Kirti Dutta from the Institute for International Management and Technology in India. The study titled "Balanced scorecards in managing higher education institutions: an Indian perspective". The aim of the study was to view the BSC concept and to discuss its applicability in Indian HEIs. In their study the authors depended on the literature written about the BSC and the experience of other higher education institutions in implementing the BSC. The study found that the BSC is an effective approach in evaluating higher education performance and a comprehensive tool that translates the organization's mission into set of quantitative measures. The study viewed the framework based on the four perspectives of the BSC. The proposed framework ignored the important role of many stakeholders like board of trustees, media and press, protest groups, research centers, and other higher education institutions. The framework also considered students and families as one group which is not precise because they are two different groups and in addition, students can be classified into many groups. The internal processes perspective focused on few internal processes

and ignored the effect of many other important processes. The growth and innovation perspective was comprehensive compared to other frameworks in the literature. Unlike other frameworks in literature, financial perspective was not comprehensive and it missed the effect of many important financial indicators (Umashankar & Dutta, 2007).

In the year 2008 a study title "Balanced Scorecard application in universities and higher education institutes: implementation guide in an Iranian context" was made by three researchers from the Yazd university. The study focused on the importance of improving the quality of higher education institutions and also on the importance of the BSC as a strategic measurement tool. It presented a framework for the BSC that is customized for Iranian context. In the stakeholder's perspective, the framework viewed students, academic staff, community, university, and employers as the only stakeholders and ignored the effect of other possible stakeholders. In addition to these stakeholders, the framework proposed an item in the stakeholders' perspective called general and set number of goals and measures in this item. The goals inside this item are closer to internal processes than stakeholders. In internal processes perspective, the framework ignored the effect of many important processes. The classification of measures in some of the viewed framework was confusing. In innovation and growth perspective, the framework viewed limited set of goals. Some of the goals contain more than one different aspect to be measured in the same goal which may confuse the users of the framework (Farid et al., 2008a).

Another research by the same team was published in the same year (2008) .The title of the research was" prioritizing higher education balanced scorecard performance indicators using fuzzy approach in an Iranian context". The aim of the research was

to prioritize the measurement indicators used in the BSC framework using fuzzy TOPSIS technique. The reviewed framework was designed for Yazd University School of Humanities. The proposed framework differed from the framework proposed by the team in the other study because it was designed for different school. It focused on financial performance indicators and ignored the effect of other non-financial indicators like stakeholders and growth and innovation perspectives. It considered students and staff as the only stakeholders while in the growth and innovation perspective, the framework suggested only three indicators related to the use of technology and ignored other related items such as training, rewarding and feedback. In internal processes perspective, the indicators were mixed together. The internal processes were not classified clearly and there were no indicators to measure the effect of academic programs and courses, the effect of mentoring system, the effect of institution's physical resources management system, the effect of registry system, the effect of provided services, and social environment at school (Farid, Nejati, & Mirfakhredini, 2008b).

In the year 2011, Charles Pineno and Randy Boxx proposed an integrated framework based on existing BSCBSC framework done by Bailey, Chow, and Haddad in the year 1999. Pineno and Boxx adopted and customized the framework to fit with their research requirements. In the stakeholders' perspective, the framework was more comprehensive than existing BSC frameworks but it ignored some important stakeholders like students' families, media and press, board of trustees, protest groups, and institution's administrative and technical employees. In the internal processes perspective, the framework focused on few processes and ignored the effect of other important processes like research, mentoring system,

registry system, and managing learning resources. In learning and innovation perspective, the framework grouped teaching, learning, faculty development in the same goal and used large set of measures while it was possible to divide it into three separate goals. The framework ignored the effect of training, awarding, and the use of technology. Financial perspective was well described as most of the existing BSC frameworks (Pineno & Boxx, 2011).

2.3.4 BSC as a strategic management tool.

Researchers found the BSC can be a powerful strategic measurement tool for the following reasons:

- Kaplan and Norton the creators of the BSC summarized the strengths of the BSC as a strategic management tool in their first article titled :" Balanced Scorecard – Measures that derive performance" as follows:

  ✓ In single management report, the BSC provides managers with comprehensive overview about the separated elements of the institution.

  ✓ The BSC encapsulates general knowledge that managers already had and supplies managers with data about the degree of stakeholders' satisfaction, the effect of the internal processes into the organization's overall performance, the organization's ability to learn and innovate and finally the financial indicators that may affect the organization's performance.

  ✓ The use of the BSC prevents sub-optimization and ensures that the improvement of one element is not at the expense of another element.

✓ The BSC helps managers understand the interrelationships between the different factors. For example, satisfying customers is one of the most important goals for any organization. Managers must understand the operations and activities in the organization and increase the customers' satisfaction. (Kaplan & Norton, 1992).

- From its name, the BSC takes into consideration the required balance between external measures like operating income and internal measures like developing new products and services. Kaplan and Norton believed that the BSC functions as a corner stone for the organization's current and future successes. They believed that the BSC helps managers diagnose problems immediately and take the required actions to solve them. The BSC works as a focal point that helps organizations set their priorities. It translates the organization's mission into strategies and defines set of quantitative measures to measure the organizations performance from four different financial and operational perspectives (Kaplan & Norton, 1993).

- In 1996, Kaplan and Norton in their article "Using the Balanced Scorecard as a Strategic Management System" added the following strengths to what they already proposed in 1992 and 1993:

    ✓ Get an agreement and consensus about the organization's vision, mission, and strategies.

    ✓ Link strategic objectives and measures through the organization.

    ✓ Support and connect the organization's vision and strategies with personal and departmental goal.

✓ Plan, define organization's targets, and bring into line any possible strategic initiative.

✓ Review the organization's strategies systematically to apply any required adjustments before it gets so late.

✓ Get use of the provided feedback to improve the organization's strategies.

• Using the BSC, the organization's performance is studied and evaluated from both tangible and intangible perspectives not as other quality measurement systems that base its evaluation in only one of them. It helps in overcoming the shortages of in financial measures by integrating set of leading and lagging performance measures (Kaplan, 2001).

• The use of information systems and modern technologies provided managers with huge amount of data that make them unable to choose what they really need to know (Punniyamoorth & Murali, 2008). The strength of the BSC that the number of used measures is limited and focused on measuring the most critical sides that affect the organization's performance directly. Organizations will never face the problem of having few indicators (Kaplan & Norton, 1992).

• The BSC helps the organization link its long term strategies with short term actions (Krishnan & Ravindran, 2008; Mc Devitt, Giapponi, & Solomon, 2008).

2.3.5 Barriers that may face the implementation of BSC as a strategic measurement tool.

Implementing any quality measurement system is not an easy task. It is not only an administrative decision that can be taken by senior managers and directly adopted and implemented by the institution. Each institution has its own environment, features and culture. Many aspects must be considered when implementing any quality assurance measurement system. The BSC proved its efficiency and effectiveness in both business and education sectors but its implementation may face many barriers and obstacles. According to Punniyamoorth & Murali (2008), implementing BSC as a strategic management tool may face four kinds of barriers:

1. Vision barriers: when no one inside the organization understand the organization's strategies.

2. People barrier: when the objective set by organization's decision makers are not related to the organization's strategies.

3. Resource barriers: organizational resources like energy, time, and money are not allocated to achieve organization's strategies.

4. Management barriers: when decision makers spend too short time identifying organization's strategies and too long time on short- term technical decisions.

According to Rowley (1995), many other challenges and barriers may occur when implementing the BSC as a quality measurement system in general and in higher education in particular including:

• The resistance of viewing students as customers. It is not easy to accept that students are considered as customers for HEIs, since the word customer is always connected with money and business.

- Time required for implementing the BSC is another challenge because implementing any quality assurance method is a long run task that can't be achieved in one week or one month or even one year. It may require years to start and monitor the implementation in the institution.

- Unproved commitment by top management and institution's employees is a critical challenge that faces implementing the BSC in HEIs. Theoretical commitment toward the BSC must be followed with actual work to get to the expected results. There will never be a total acceptance through the whole members of the institution for the use of the BSC as quality measurement system.

- One of the most critical mistakes that may lead to the failure of the BSC implementation is choosing measures that do not relate to the organization's defined strategies. These measures will be misleading and will never reflect the organization's real evaluation.

In general, adopting the BSC as a strategic management tool is an evolutionary process that may cause critical changes in the organization's culture. These changes must be persistent by managers' support, leadership, involvement, and sponsorship. Problems may occur when executives are so busy to monitor every little step in implementing the BSC (Rinehart, 2006).

2.4 Conclusion:

Measuring performance quality became one of hottest topics in the last 20 years. Many performance measurement systems were created and used. The BSC strategic management tool was created in 1992 by Kaplan and Norton. The BSC proved its efficiency in evaluating performance quality business and academic sectors. After

in-depth study of the literature related to quality measurement systems, it was found that only few initiatives around the world proposed BSC frameworks that can be implemented in HEIs. The same was in both internal processes perspective and learning and innovation perspective. None of the available researches in the literature were comprehensive. The following is a summary for the main points that available BSC frameworks focused on each of the BSC four perspectives:

Figure 2: An overview for main points that available BSC framework focused on.
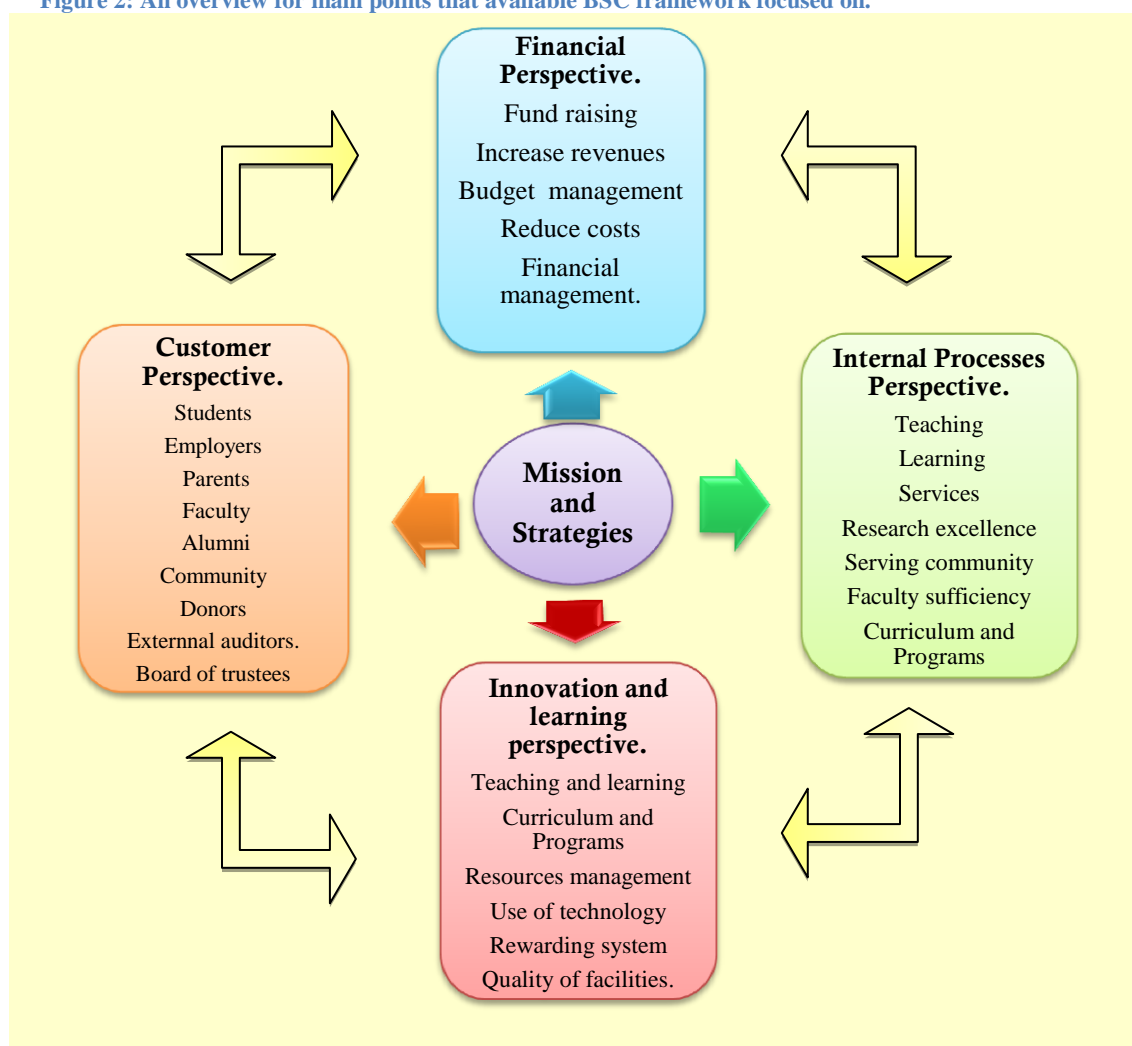
Source: The researcher.

This study aims to review and revise the BSC adopted by other studies and propose a BSC generic framework that utilizes the strengths of the previous frameworks.

Chapter Three
Methodology

3.1 <u>**Introduction.**</u>

This chapter reviews detailed explanation for the research methodology. It discusses the research type, research design, data collection methods, sampling, reliability, and validity of the research and finally the research limitations.

3.2 <u>**Research type.**</u>

This research took the approach of an applied research. Applied research aims to find solutions for a problem that the institution is currently facing. It uses model construction to investigate and make in depth analysis about an occurred phenomena (Williams, 2001). This research is an applied research because it proposes the BSC as an effective solution for the problem of the unavailability of an effective strategic measurement tool to be used in evaluating performance in HEIs. In this research a BSC generic framework is constructed and explained to be used by HEIs as an evaluation tool to measure performance quality.

3.3 <u>**Research design.**</u>

This research is designed as an exploratory research. Exploratory research aims to investigate and learn more about an area where little data or even no data is known about it (Sekaran, 2000). This research is an exploratory research because it is conducted to explore more about academic quality assurance and BSC as a strategic measurement tool for evaluating the quality of performance in HEIs. The research topic is new since few researches around the world were conducted about the implementation of the BSC as a strategic management tool for evaluating HEIs

performance. Most of the conducted researches were made in developed countries and very few in developing countries. This research is the first initiative in Palestinian higher education. No other researches were made and published in Palestine. This research utilizes the strengths of the BSC by proposing BSC generic framework that can be used to evaluate HEIs' performance. The proposed generic framework is designed to cover the BSC four perspectives. For each perspective, the framework contains the strategic theme that the institution must start from, followed by proposed goals for achieving the strategic theme and finally a set of performance indicators to measure the achievement of each goal.

In this research a combination between qualitative and quantitative research methods was conducted. The construction of the proposed generic framework relied mainly on meta-analysis of the available BSC frameworks in the literature. A case study was made to evaluate the proposed BSC generic framework in Palestinian context. The case study included the Accreditation for Quality Assurance Committee in Palestine (AQAC) and three Palestinian HEIs which are: Birzeit University, Al- Najah National University, and Palestine Technical University (Khadoorie). The components of the proposed framework were evaluated using research qualitative methods like interviews with specialists in the institutions covered by the case study and researcher's observation data. In addition a survey questionnaire was conducted to evaluate a selective set of performance indicators in the internal processes perspective proposed in the generic framework. It was distributed to a random sample of Birzeit University students. The use of different research techniques was necessary to ensure the consistency of the findings.

3.4 **Data collection.**

In this research, data was collected using a combination of qualitative and quantitative research methods. The following is a deep explanation for the used methods.

3.4.1   Meta - analysis research technique.

The main outcome of the research is a BSC generic framework that can be used as a strategic measurement tool in evaluating performance quality in HEIs. The generic framework is constructed based on comprehensive analysis and synthesis of the secondary data available in the literature. The analyzed resources can be divided into two groups. The first group represents resources that contain BSC frameworks conducted in HEIs. The resources used in this group are: (Farid, Nejati, & Mirfakhredini, 2008a), (Farid, Nejati, & Mirfakhredini 2008b), (Chow Yang & Shiau, 2006), (Cullen, Joyce, Hassall, & Broadbent, 2003), (Karathanos & Karathanos, 2005), (Papenhausen & Einstein, 2006), (Pineno & Boxx, 2011), (Stewart & Carpenter- Hubin, 2000) (Vermaak & Cronjé, 2001), (Kassahun, 2010) and (Umashankar & Dutta, 2007).

The second group represents resources about indicators used to measure: teaching excellence, learning excellence, research excellence, innovation excellence, and services excellence, the effective use of technology in education, students' satisfaction, and employees' satisfaction. The resources used in this group are: (Varis, 2007), (Boscia & McAfee, 2008), (European Commission, 2003) (Colling & Harvey, 1995), (Martello, Watson, & Fischer, 2008), (Ruben, 1999), (Thomas, 2007), (The Committee for Economic Development Digital Connections Council,

2009), (Maclellan, 2007), (Rose, Shipp, Lal, & Stone, 2009),and (Smith, IPPA organization, 2006).

3.4.2 Observations.

The researcher was working as teaching assistant at Birzeit University at the time of preparing the research. This enabled the researcher to observe on site practices related to the research.

3.4.3 Semi-structured Interviews.

To cover the different aspects of the research and evaluate the proposed generic BSC framework, nine interviews were conducted between March 2011 and December 2012. The interviews were conducted at three levels. The first interview was conducted at the primary data collection level before the generic framework was built, while interviews 2 to 4 were conducted after the first draft of the framework was constructed, and finally interviews 5 to 9 were conducted after completing the construction of the proposed BSC generic framework.

The first interview was conducted with the head of quality unit at Birzeit University. It was conducted for at least one hour. The interview was semi- structured where questions about general concepts in academic quality assurance, performance evaluation, evaluating academic programs, and the quality unit at Birzeit University were asked (interviews' questions: see Appendix 1).

Interviews two to four were conducted in the primary evaluation level for the proposed generic framework. Interview number two was conducted with an employee in the quality unit at Al-Najah National University; while interview number three was conducted with the head of registry department at Palestine

Technical University (Khadoorie), and interview number four was conducted with a faculty member from Al- Najah National University. The previous interviews were semi-structured interviews. Interviews had lasted for at least ninety minutes and started by asking interviewees a set of questions about quality assurance in HEIs (see Appendix 1), then they were asked about the main indicators that might be used in measuring performance quality in HEIs. After that, the first draft of the proposed framework was discussed according to the following factors: comprehensiveness, effectiveness, and reliability of the proposed framework.

Interviews five to nine were conducted after completing the construction of the proposed framework. Interview number five was conducted with the director of the Quality Assurance Department in the Accreditation and Quality Assurance Commission- Palestine, while interviews six and seven were conducted again with head of registry department at Palestine Technical University and the same faculty member from Al- Najah National University. Interviews were semi-structured and had lasted for at least ninety minutes. In interview number five, the researcher asked the interviewee the same questions conducted in the first interview (see Appendix 1), and then he was asked to evaluate the proposed generic framework according to the following factors: comprehensiveness, effectiveness, and reliability, implementation costs, required resources, and barriers that may affect the implementation of the proposed framework. In interviews six and seven, interviewees were directly asked to evaluate the proposed generic framework according to the above factors. The reasons why the researcher had interviewed the same people were:

- Interviewees became familiar with the components of the generic framework and with the BSC as a strategic measurement tool.

- Interviewees had participated in the initial evaluation of the generic framework which made them able to realize the framework progress.

Interview number eight was conducted with strategic management specialist in a private collage. The interview last for 30 minutes. The specialist was asked to evaluate the strategic structure of the proposed BSC generic framework, the goals and the objectives. The framework components where adjusted based on the specialist recommendations. Interview number nine was conducted with the Financial Director at Palestine Technical University. It lasted for about 40 minutes. In the interview, the Financial Director was asked to evaluate the financial perspectives of the proposed BSC generic framework.

3.4.4 Questionnaire.

Questionnaires are examples for quantitative research methods that help researchers gather large amount of quantitative data with low cost, efforts and short period of time (Sekaran, 2000). The questionnaire was conducted to evaluate a selective set of performance indicators that are proposed to evaluate the quality of internal processes suggested in the generic framework. The survey questionnaire was distributed and collected by the researcher. The questionnaire consisted of 30 questions, three demographic questions, and 27 indicators to be evaluated. Students were asked to put the degree of their agreement into the effect of the performance indicator on their performance. The questionnaire was mainly conducted in English then it was translated into Arabic to avoid results inconsistence since students are more fixable

in responding to Arabic survey questionnaires than English ones. Questions translation was made under the supervision of languages experts to ensure the reliability of the translation. Students' responses had been measured and evaluated using Likert scale of 5 points.

3.5 **Sampling.**

The survey questionnaires were randomly distributed to Birzeit University students. The population of the sample was Birzeit University students excluding first year students. The reason why first year students were excluded is that the survey was distributed on October 2012. At that time first year students were studying at the university since two months only, so they will not be able to evaluate the framework objectively because they are still not involved in universities' rules, regulations, and environment. The total survey population was 8000 students, which is the number of Birzeit University students after excluding first year students. The sample size was 265 students distributed as %50.9 females and % 49.1 were males (see Appendix 2 for demographic distribution of the sample).

3.6 **Validity and reliability.**

The research used quantitative and qualitative research methods during the data collection process. The validity and reliability used in the research was taken into consideration for both quantitative and qualitative research methods.

To assure the validity and reliability of the conducted interviews, the researcher did the following:

- The researcher discussed the sequences and the questions with the research supervisor before conducting interviews.

- The researcher avoided recording the interviews in order to keep interviewees comfortable with the atmosphere of the environment.

- The researcher used a tabular form consisting of two columns. One was set for interviewee answers and the other was set for researcher's notes. This helped the researcher distinguish between the answers and the researcher's notes.

- The research reviewed the answers with the interviewee to avoid any misconception and checked the answers.

To ensure that the survey questionnaire was valid and well designed, it was distributed to small group of experts in the field. There feedback was taken into consideration and reflected in the design of the questions before distributing them to students. Then the questionnaire was piloted by distributing them to 30 students and received their feedback about the language and any vague points that needed to be explained. The internal consistency reliability of the measures used in the questionnaire is good since the value of Cronbach's α for the questions excluding the first three demographic questions equals to 0.81 it is above 0.7 the acceptable value for Cronbach's α in social sciences researches (Sekaran, 2000) (See Appendix 3).

3.7 **Research limitations.**

As any research, there were set of limitations that affect conducting the research, the limitation can be summarized as follows:

   Methodological limitations:

- The construction of the proposed generic framework relied mainly on meta-analysis of existing BSC frameworks conducted in the literature. The problem is that meta- analysis is based on sharing subjectivity and gives researcher a space to make decisions based on their own judgments which leave these decisions open to criticism by other researchers (Blettner et al., 1999). As aresult, it expected that the proposed strategic themes, goals, and performance indicators proposed in the generic framework will be creticized by other researchers.

Practical limitations:

- In this research it was not possible to conduct a field experiment to quantitatively compare the differences in HEIs performance quality before and after the use of the generic framework because of the following reasons:

  1. The BSC as an evaluation system is not used in any local HEIs.

  2. The BSC generic framework is proposed by the researcher so it is not used yet by HEIs.

  3. The construction of field experiment required long period of time, huge financial support, and huge teamwork which are limited in this research.

Sample limitations:

- The research results are limited with the sample of the study which is relatively small.

Resources limitations

- The financial constraints, short available period of time, and the unavailability of team to work make it difficult to quantitatively evaluate the performance indicators proposed in the generic framework from all proposed

stakeholders point of views. It was only possible to quantitatively evaluate a selective set of indicators from Birzeit University students' point of views.

- For the same limitations, it was also not possible to quantitatively evaluate the selected performance indicators by students in different local and international HEIs.

- Not all internal processes were included in the questionnaire because they needed to be evaluated using another questionnaires. Some of them required to be evaluated by different sample. Students may feel confused and their answers might be misleading if they were asked to evaluate different groups of measures. They will get distracted and can't focus on one idea. Even in the same internal process, some measures were not included in the questionnaire because students cannot give an opinion about them.

3.8 **Conclusion.**

This chapter reviewed the methodology of the research. It explained the research type and design. It reviewed in details both quantitative research methods used in the data collection process and the research sampling. . The chapter also explained the validity, and reliability of the used research methods and finally the research limitations.

Chapter Four
Findings, Discussion, and Proposed generic framework.

4.1 <u>Introduction.</u>

This chapter contains the results and findings of the research. The outcome of this research is a proposed BSC generic framework. A case study was made to evaluate the framework in Palestine HEIs. The case study included the AQAC in Palestine and three Palestinian HEIs; Birzeit University, Al Najah National University, and Palestine technical University (Khadoorie). This chapter will start by an overview of the main findings of the interviews and survey questionnaires. Then the proposed BSC generic framework will be presented and deeply explained based on the finding of the meta-analysis of the pervious literature. The content of the proposed BSC generic framework will be supported by the findings of the interviews and the survey questionnaires.

This research is expected to answer the research questions that were asked at the beginning of the research and to design BSC generic framework to be used as evaluation tool for HEIs.

4.2 <u>An overview for interviews findings.</u>

As explained in research methodology, semi structured interviews were conducted to collect data to enable answering research questions and evaluate the BSC generic framework proposed in this research according to the Palestinian context. Nine interviews were conducted at three levels; before building the framework, after

building the first draft of the framework and finally after finishing the framework. A detailed explanation for the methodology of the interviews was explained in the previous chapter. The results and findings of the interviews can be divided into two parts. The first part will review interviewees' responses toward the research problem statement and the research questions, while the second part will review the interviewees' evaluation for the proposed BSC generic framework according to the following factors: comprehensiveness, effectiveness, and reliability, implementation costs, required resources, and barriers that may affect the implementation of the proposed framework. While interviewees evaluation to the components of the proposed BSC generic framework will be reflected during the explanation of these components.

- Interviewees' responses to the first question: What are the current tools used in evaluating performance quality in HEIs in Palestine?

  ➢ All interviewees agreed that the academic quality assurance is a new concept. It is an important issue that local and international HEIs became aware of.

  ➢ Quality units are still new in Palestinian HEIs; institutions started initiating special units for quality assurance. But still these units are learning about the topic because of the lack of knowledge and experience in the field. The head of the quality assurance unit at Birzeit University said that" We have to improve people awareness about the importance of quality first, then we can build an effective quality system" (Head of Quality Unit at Birzeit University, 2011).

➢ HEIs mainly focused on evaluation forms that required huge time and effort and may not be comprehensive and objective. Evaluation forms can be used as part of the quality assurance process but the whole process can't depend on them.

- Interviewees' responses to the second question: What are the weaknesses and shortcomings in measuring the performance of HEIs?

  ➢ One of the most critical problems that HEIs in Palestine face is the unavailability of an evaluation tool to measure performance quality. New initiatives have been started to adopt measurement system but still, these initiatives are not clearly defined.

  ➢ Another critical problem in HEIs is the lack of awareness among institution's students, and employees toward the critical effect of quality on their performance and on the overall educational process. They think that the main role done by this unit is preparing evaluation forms and analyze the data.

  ➢ According to the director of the quality department in AQAC there is no identified party that is responsible for evaluating quality in Palestinian HEIs. Each institution has its own independent unit and own procedures. The Ministry of Higher Education is mainly responsible for evaluating new and existing academic programs. HEI cannot start a new academic program until the Ministry of Higher Education approves it. The ministry is not responsible for evaluating performance quality inside HEIs

- Interviewees' responses to the third question: What are the expected barriers that may face the implementation of quality measurement systems in general and the BSC in particular in evaluating HEIs' performance?

Implementing any quality assurance system in general and the BSC in particular may face the following barriers:

➤ Lack of resources: Implementing quality assurance system required the availability of financial, human, and physical resources and according to the political situation on Palestine and the economic troubles, it will be very challenging for Palestinian HEIs to offer all required resources.

➤ Lack of experience: Academic quality assurance is a new concept so as the BSC as a strategic evaluation tool. Palestinian HEIs do not large experience in the field. They are learning from success stories made by other international HEI.

➤ Resistance toward implementing new evaluation tool: People are used to work with traditional evaluation techniques like evaluation forms. It will not be easy for them to accept the use of new strategic measurement tool like the BSC especially that the BSC is a new tool and people are not aware about its efficiency.

➤ The BSC is business oriented approach. It considered students as customers and concerns about the outcome of HEIs from the business side which is not accepted in a culture considered HEIs as non for profit organizations.

➤ The implementation of any quality assurance system requires long time. The implementation results will not appeared immediately it may take

years to feel the positive effect of adopting a quality measurement system.

➢ In the case of the BSC, identifying the performance indicator is a critical factor that may cause the failure in implementing the BSC. Choosing unrelated indicators may cause gather misleading data and as a result the evaluation processes will not be accurate.

All interviewees agreed that the first and most important step that HEIs in Palestine must start with, is adopting a measurement tool for assuring their performance quality and stop working randomly because keep working without having clear tool to use in evaluating institution's performance will cause more damages to the higher education system instead of improving it. Palestinian HEIs must include the use of an evaluation tool in its strategic plan. They have to adopt an effective measurement tool immediately. Interviewees believed that the BSC proved to an effective strategic management tool in many HEIs around the world and it can be the same in Palestinian HEIs.

In respect to the proposed generic framework, Interviewees' responses can be viewed as follows:

➢ The idea of proposing a BSC generic framework is new because the idea of quality assurance is new. There were no initiatives in Palestine to proposing such framework.

➢ The proposed BSC generic framework represents an effective solution for the problem of not having a strategic measurement tool to evaluate the performance quality in HEIs. According to a director in the Accreditation and Quality Assurance Commission:" It is amazing to find a master thesis

proposing such a framework in Palestine" (The Accreditation and Quality Assurance Commission, 2012).

➢ The proposed framework utilizes the strengths of the BSC which proved to be an effective evaluation method in many HEIs around the world.

➢ The proposed BSC generic framework is comprehensive; it reviews all possible number of stakeholders that HEIs may have relations with. It also views possible academic and non-academic internal processes that the institution must be excel at to ensure high quality performance. The same with leaning and innovation perspective, the proposed framework views wide range of activities that ensure institution's current and future development. In financial perspective, the proposed framework measures the main financial indicators used to assess institution's performance. The proposed BSC generic framework can be the starting point for decision makers in HEIs to customize their own BSC.

➢ The classification of proposed goals and performance indicators is objective. They are well- classified. Performance indicators are related directly to proposed goals.

➢ In interviews 2 to 7, interviewees agreed with researcher approach of including indicators related to handicaps in the proposed BSC generic framework since handicaps are part of our society and they have rights as all society members and it is necessary take their requirements into consideration in the evaluation of HEIs performance quality.

➢ Interviewees 2- 7 agreed that the proposed BSC generic framework discussed the important effect of important systems like the mentoring system, training

system, rewarding system, and registry system. These systems play an important role in HEIs work and affect stakeholders' satisfaction.

➢ In interview number eight, the interviewee confirmed that the proposed BSC is comprehensive and well- strategically built. The proposed Strategic themes are consistent with the general mission of the HEIs and the goals proposed to achieve the strategic themes are consistent with the strategies.

➢ The financial indicators proposed in the BSC generic framework are comprehensive and fit with the financial requirements of HEIs in general and in Palestine in particular (The Financial Director- Palestine Technical University (Khadoorie), 2012).

➢ The proposed BSC generic framework highlighted the role of academic and non- academic staff. It emphasizes the role of administrative employees in improving the quality of HEIs' performance.

➢ The implementation of the proposed BSC generic framework in HEIs is expensive when it is first implemented but then when the system works effectively the outcomes of the framework and the effects on institution's performance will cover all expenses paid to implement it.

➢ The success factors for implementing the BSC as strategic measurement tool in HEIs can be reviewed as follows:

❖ The BSC should be an important part of the institution's strategic plan.

❖ HEIs must increase stakeholders' awareness about the necessity of having a strategic measurement tool for evaluating performance quality in HEIs.

❖ HEIs must ensure the involvement of all institution's levels in implementing the framework which will increase their commitment, moral, and loyalty for the institution.

❖ The availability of all required financial, human, physical, technological resources.

❖ Understanding the cultural and environment inside and outside the institution.

4.3 An overview of survey questionnaire findings.

The aim of the survey questionnaire was to evaluate the validity of a selected set of performance indicators in internal processes perspective from students' point of view. 27 performance indicators were evaluated. The results are reflected in the explanation of each of the tested indicator. Students' responses were classified into three categories. The first category has is "Agreement" and contains the percentage of students whose answers were strongly agree and agree. The second category is "Neither agree nor disagree" while the third category is "Disagreement". According to the results of students' responses to questionnaire, it is clear that students agreed that the proposed indicators have an effect on their performance quality. None of the evaluated measures was extremely disagreed. For some questions, the percentage of students' who were not able to judge the effect of indicator was relatively high between %15 and %20. This might be explained because the number of students in the sample is small and students' do not experience the case in reality and have previous perceptions that made them not able to decide the direction of their

answers. To review students' responses toward survey questionnaires see Appendix 5.

4.4 <u>The proposed BSC generic framework.</u>

In this section, the proposed BSC generic framework will be presented and explained. The proposed strategic themes and goals in the BSC generic framework are written in the researcher's language based on the meta- analysis of available BSC frameworks in the literature and the researcher's experience and reviewed through and evaluated through an interview conducted with strategic management specialist in a private collage.

The performance indicators in the four perspectives of the proposed BSC generic framework can be divided into two groups. The first group is written in the researcher's language based on meta- analysis of the available BSC frameworks in the literature while the second group represents new indicators that none of the available BSC frameworks had proposed before. The source of the indicator is presented in the explanation for each indicator. All performance indicators in the four perspectives of the proposed BSC generic framework were evaluated in the conducted interviews. Selective set of the indicators proposed in the internal processes perspective were quantitatively evaluated using survey questionnaire.

Figure 3: The proposed BSC generic framework.

Delighting stakeholders and satisfying their needs

Goals
- Attract High quality potential students.
- Improve the quality of current students.
- Students' satisfaction.
- Alumni satisfaction.
- Attract high quality academic and administrative staff.
- Employees' satisfaction.
- Ensure students' families' satisfaction.
- Graduate high quality students that are ready to work.
- Social responsibility.
- Create positive image for the institution.
- Attract potential donors.
- Donors' satisfaction.
- Emphasize cooperating with research centers.
- Emphasize balanced relationship with institution's Board of trustees.
- Communicating well with students' council, labor union, and protest groups.
- Create institution's reputation among media and press.
- Emphasize cooperation relationships with governmental agencies.
Cooperate with external auditors.
- Establish cooperation and collaboration relations with other HEIs.

Delighting stakeholders by guaranteeing excellence in institution's academic and non- academic internal processes.

Goals:

A. **Academic internal Processes:**
- Learning excellence.
- Teaching excellence.
- Academic programs and curricula excellence.
- Managing learning resources effectively.
- Research excellence.
- Establish an effective mentoring system.

B. **Non - academic internal processes:**
- Providing institution's students and employees with excellent services.
- Using an effective registry system.
- Physical facilities management.
- Support social relations inside and outside institution.

Customer Perspective

How do customers see us?

Internal Processes Perspective

What must we excel at?

BSC Generic framework

Innovation and learning perspective.

Can we continue to improve and create value?

Financial Perspectives

How do we look to shareholders?

Improve systems and internal processes to match institution's longterm strategic plan.

Goals:
- Support learning process growth and innovation.
- Support teaching process growth and innovation.
- Developing institution's academic programs and courses.
- Research growth and innovation.
- improvement employees skills and qualifications.
- Establish an active training unit.
- Motivating institution's stakeholders using an effective rewarding system.
- Effective use of technology.
- Efficiency and effectiveness of feedback system.
- Growth and innovation in providing services.
- Physical resources growth and innovation.
- Improve institution's social activities.

Establish an efficient financial system.

Goals:

- Maintain income stability.

- Generate new sources of income.

- Managing institution's expenses.

(Source: the researcher)

4.4.1 Stakeholders' / Customer Perspective. How do customers see us?

Based on the BSC first perspective, the proposed generic framework starts with a strategic theme that describes the strategy that institution must start with when implementing the proposed BSC generic framework. The framework proposes 13 stakeholders. Nine of them (students, employees, employers, families, community, board of trustees, donors, governmental agencies, and external auditors resulted from the meta- analysis of the available literature while the other four stakeholders (research units and centers, (employees' union, students' council, and protest groups), Media and press, and other HEIs) are proposed by the researcher and none of the available frameworks analyzed in the meta- analysis had proposed them before.

The following is the proposed BSC generic framework- stakeholders' perspective, followed by deep explanation of the proposed goals and measures.

Table 1: Proposed BSC generic framework- Stakeholders perspective.

Strategic Theme	Stakeholders	Goal	Measures
Delighting stakeholders and satisfying their needs.	1. **Students**	• **Attract high quality potential students.**	1. Academic evaluation during the last three years at school. 2. Participating in social community. 3. Prerequisite Admission Exams. 4. Number of excellent students adopted (sponsored) by HEI and other sponsors. 5. Secondary School Students Orientation programs.
		• **Improve the quality of current students.**	1. Students' grades over time. 2. Percentage of honored students. 3. Percentage of dismissed students. 4. Class Attendance.
		• **Students' satisfaction**	1. Tuitions payment compared to peer institutions. 2. Financial aid offered. 3. Participation in decision making. 4. Students' complaints.
		• **Alumni Satisfaction.**	1. Employment rate. 2. Events held for alumni. 3. Numbers of alumni participate in events held for them. 4. Number of on – campus recruitments.
	2. **Employees (academic, administrative, and technical).**	• **Attract high-quality academic and administrative staff**	1. Selection criteria. 2. Basic salary. 3. Institution's rank among peer institutions.
		• **Employees' satisfaction.**	1. Turnover rate. 2. Workload. 3. Number of employees complaints. 4. Participation in decision making. 5. Protective work law.
	3. **Families.**	• **Ensure students' Families' satisfaction**	1. Number of events held for families. 2. Percentage of participants in events held for families. 3. Number of families complaints. 4. Participating in decision making.
	4. **Employers (Market)**	• **Graduate high quality students that are well-prepared for work.**	1. Availability of graduate students in specific field. 2. Number of employers participating in career days. 3. Number of cooperation programs between HEIs and market organizations.

	5. Community.	• **Social responsibility.**	1. Environment protection procedures. 2. Chemicals disposal. 3. Recycling material.
		• **Create positive image for the institution.**	1. Number of social events and activities supported by the university. 2. Serving community course. 3. Percentage of Students' and employees participating in social events and activities.
	6. Donors (individuals and organizations).	•**Attracting potential donors.**	1. Number and quality of proposals submitted to donors.
		•**Donors' satisfaction.**	1. Increase in yearly fund. 2. Number of projects and initiatives funded by donors. 3. Number of donors participates in institution's events and activities.
	7. Research units and centers.	•**Emphasize cooperating with research centers.**	1. Number of researches made in cooperation with research centers. 2. Number of staff and students work in research centers.
	8. Board of trustees.	• **Emphasize balanced relationship with institutions board of trustees.**	1. Involvement of board of trusties in decision making. 2. Number of events made. 3. Active participation in HEIs activities and events.
	9. Employees' union, students' council, and protest groups.	• **Communicating well with employees' unions, students' council and protest groups.**	1. Number of meetings, events, and activities held for employees' union, student council, and protest groups. 2. Respond to employees' union, students' council and protest group requests 3. Frequency of protest activities.
	10. Media and Press	•**Create Institution's reputation among media and press.**	1. Number of events covered by media and press. 2. Number of local and international newspapers, radios, and television covered events held by HEIs. 3. Participating in media and press programs. 4. Availability of media and press units related to the institution.
	11. Governmental agencies.	• **Emphasize cooperation relationships with governmental agencies.**	1. Number of cooperation projects. 2. Number of students train in government institutions. 3. Active participation in events and activities.

	12. **External auditors**	• **Cooperate with external auditors.**	1. Number of field visits and meetings. 2. Clarity of auditing criteria.
	13. **Other HEIs.**	• **Establish Cooperation and collaboration relations with other HEIs.**	1. Number of exchanging visits, activities, and events. 2. Cooperation programs.

Strategic Theme: *Delighting stakeholders and satisfying their needs.*

HEIs must work hard to make stakeholders delighted and provide them with outstanding services that exceed their expectations.

Stakeholders list:

Stakeholder number 1: Students.

Students are the first and main stakeholder (customer) in HEIs (Farid et al., 2008a; Karathanos & Karathanos, 2005; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011; Umashankar & Dutta, 2007) This finding was supported by the interviews findings (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

According to the proposed BSC framework, there are four main goals that any HEIs must seek for in order to ensure improving the quality of institution's performance:

A. Attract high quality potential students.

B. Improve the quality of current students.

C. Students' satisfaction.

D. Alumni satisfaction.

For each of the above goals, the framework is proposing a set of quantitative performance indicators that can help HEIs to measure performance quality.

Goal number1: Attract high quality potential students.

HEIs must work hard to attract high quality students especially with the sever competition among institutions (Kassahun, 2010; Pineno & Boxx, 2011). To measure the achievement of this goal, the proposed framework suggests five performance indicators:

1. *Academic evaluation during the last three years*.

According to the meta- analysis of the existing literature, students' evaluation in secondary school is an indicator for the quality of students' performance (Pineno & Boxx, 2011). Students with high grades in the last three years at schools are expected to be the same in the university. An analysis for students' data that confirmed the effect of this indicator was conducted by Palestine technical University (Khadoorie) (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. *Participating in social community.*

Active students who participate in social activities and events before joining HEIs are tend to be the same when attending HEIs (Head of Registration   Department - Palestine Technical University (Khadoorie), 2011 a).

3. *Prerequisite Admission Exams.*

HEIs may create their own admission exams or they can use international exams like TOFEL, GRE, and GMath. Admission exams measure students' skills in languages, mathematics, logic and basic concepts for the field they intend to join. According to

the meta- analysis of existing literature, that students' achievement in the admission tests is an indicator of their performance quality (Pineno & Boxx, 2011).

4. *Number of excellent students adopted (sponsored) by HEI and other sponsors.*

Excellent students always look for people how are believe on them. Offering opportunities to adopt and sponsor excellent students is a good attractor for high quality students. Excellent students will severely compete to join HEI (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

5. *Secondary School Students orientation programs.*

Secondary school students need orientation about higher education. They need to know about the higher education system, rules, and regulation, offered programs, future job opportunities, and institution's culture. HEIs can attract high quality potential students by contacting excellent students by telephone, email, focus groups, brochures, and summer camps. HEI can invite target students to participate in institutions academic and social activities (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). It is worth saying that this indicator was not used in any of the proposed frameworks in the literature. It is proposed by the researcher and verified by the conducted interviews.

Goal number 2: Improve the quality of current students.

The proposed BSC generic framework suggests three performance indicators to measure the achievement of this goal:

1. **_Students' grades over time._**

According to the meta- analysis of available frameworks, students grades over time is an indicator for students' performance quality (Pineno & Boxx, 2011). Having high grades overtime is an indicator for student's high quality. "If student's grades are decreasing over time then there must be a problem somewhere" (Faculty member- Al- Najah University- Palestine, 2011a).

2. **_Percentage of honored students._**

The increase in the number of honor students is an indicator of the students' high performance. "Honored students represent HEI's best quality" (Faculty member- Al- Najah University- Palestine, 2011a). Each institution has own criteria to select honor students (Head of Registration   Department - Palestine Technical University (Khadoorie), 2011 a).

3. **_Percentage of dismissed students._**

 HEIs take an action toward students with low academic performance and with less respect behavior starting with treatment steps and ending with dismissing the student (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). As a result, the percentage of dismissed students can be considered as an indicator for the quality of institution's current students.

4.   __Class attendance.__

If class attendance for specific course is relatively low, then there might be a problem either in one or more of the following: the students' commitment, the curriculum, the instructor, and (or) the learning conditions (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department – Palestine Technical University (Khadoorie), 2011 a).

Goal number 3: Students' satisfaction.

Students' satisfaction is a critical goal that is important to be reached for the success of the institution (Farid Farid et al., 2008b; Pineno & Boxx, 2011).To measure the achievement of this goal; the proposed BSC generic framework suggests four performance indicators:

1.   __Tuitions payment compared to peer institutions.__

According to the meta- analysis of available frameworks, tuitions paid by students as expenses for studying at HEIs affects students' degree of satisfaction (Pineno & Boxx, 2011). There are two important aspects relate to tuitions payment; payment criteria and amount paid compared to other peer institutions. It won't be a pleasure for students to spend the whole day waiting in a long line until they had the chance to finish their financial issues. HEIs can establish relations with widely extended banks that have many branches around the country to simplify payment for students. HEIs can make better use of new technologies like credit card and e-banking

services to make payment procedures easier. About the second factor it is worth saying that HEIs will be negatively affected if students are not satisfied about the quality of education and services they receive compared to tuitions they pay. They may feel that they are wasting their money for nothing. In addition, students will be dissatisfied if there is a gap between tuitions paid to the institution compared to other HEIs without reasonable reasons for tuition differences. This will affect the degree of confidentiality between institution and students (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2012 a).

2. *__Financial aid offered.__*

According to the meta- analysis of available BSC frameworks, the financial aid offer by HEIs is an indicator for institution's performance quality (Pineno & Boxx, 2011). The lack of financial resources may enforce excellent students to switch to other programs or other institutions or may enforce them to leave studying at all. Institutions must have clear, fair, and transparent criteria of the way financial aids are distributed among students and take into consideration student's quality by supporting high quality students who have financial troubles with all possible help. Another way that may help students who have financial troubles is dividing tuitions into number of installments (Head of Registration Department - Palestine Technical University (Khadoorie), 2012 b).

3. __Participation in decision making.__

Students like to play an important role in making decisions relate directly or indirectly to them. Participating in institution's decision making process increases

the confidentiality between institution and students (Faculty member- Al- Najah University- Palestine, 2012 b; Head of Registration Department - Palestine Technical University (Khadoorie), 2012 b).

4. *Students' complaints.*

According to the meta- analysis of available frameworks students' complaints are indicators of their degree of satisfaction (Farid et al., 2008b). Students' complaints can be submitted to people in response through complaints box, students' council, students' affairs office, emails, social networks, students' satisfaction survey, evaluation forms filled by students and finally oral complaints among students. HEIs must take students' complaints seriously and take immediate actions before these complaints turn into serious problems (Head of Registration Department - Palestine Technical University (Khadoorie), 2012 b; Faculty member- Al- Najah University-Palestine, 2012 b).

Goal number 4: Alumni satisfaction.

Alumni are the output of higher education process. The level of alumni giving in their specialty and social life reflects the way the institution prepares its student in both aspects (Farid et al., 2008a; Kassahun, 2010; Pineno & Boxx, 2011). Alumni satisfaction will motivate high quality potential students to think of the institution as an option for their higher education study. Institution can stay connected and can get alumni feedback by electronic and hard copy surveys, focus groups, interviews, public events, emails, social websites, institution's website, institution's newsletters, and cellphone (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

The proposed BSC generic framework suggests the following four measures as performance indicators for alumni satisfaction.

1.Employment rate.

According to the meta- analysis for the existing literature, the percentage of alumni who got jobs is an important indicator for alumni satisfaction (Pineno & Boxx, 2011). The name of higher education institution where alumni graduate from and its rank among peer institutions may affect alumni opportunities in finding adequate job with fair starting salary (Employee at the Quality Unit- Al Najah University, 2011.

2. Events held for alumni.

According to the meta- analysis of the available BSC frameworks, the events like meetings, focus groups, celebrations held by HEIs for alumni are important for alumni satisfaction (Pineno & Boxx, 2011). These events are very important in emphasizing social relations among alumni and academic staff. These events offer an opportunity to strengthen social relations, meet new people, exchange experiences, and explore potential opportunities between institution and alumni and among alumni themselves. Events offer opportunities to other interested alumni such as job vacancies, scholarships, strategic alliances, and business partnerships (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al-Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

3. Numbers of alumni participate in events held for them.

Participation rate in any event is an indicator for the successes of this event (Pineno & Boxx, 2011). It is important to look at the number of alumni who join events made and investigate about the reasons why some of them miss these events. Is this

related to technical issues in events' establishment like the time, place, or communication or it is an indicator for alumni dissatisfaction? (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a)

4. *Number of on – campus recruitments.*

According to the meta- analysis of the available frameworks, the number of on campus-recruitments can be considered an indicator for institution's performance quality. By giving priority to their alumni, HEIs prove their confidentiality about alumni quality, level of performance, moral, and loyalty (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

Stakeholder number 2: Employees (academic and administrative).

According to the meta- analysis of the available frameworks, employees in HEIs are important stakeholders. High quality employees mean high quality internal processes and shiny reputation. All available frameworks in the literature that considered employees as stakeholders focused on academic staff while most of them ignore the role of administrative employees (Farid et al., 2008a; Kassahun, 2010, Papenhausen & Einstein, 2006; Pineno & Boxx, 2011; Umashankar & Dutta, 2007). The proposed BSC generic framework is balancing between both academic and

administrative employees. The framework suggests two main goals that are important to be reached when talking about employees. These goals are:

A. Attract high-quality academic and administrative staff.

B. Employee satisfaction.

For each of the above goals, the proposed framework suggests number of measurable indicators that enable HEIs to measure performance quality.

Goal number 1: Attract high-quality academic, administrative, and technical staff.

The proposed BSC generic framework suggests three measures that can be quantified measures:

1.*Selection criteria.*

Employees' selection criterion is an important step in the recruitment process. When an institution identifies its needs for specific job vacancies, it goes through a set of administrative procedures related to the recruitment process. It must be based on a combination of standards that are consistent with job requirements. Institutions can also improve their own excellent students who are going to be potential candidates for future positions in the institution (Employee at the Quality Unit- Al Najah University, 2011).

2.*Basic salary.*

High quality employees especially in sensitive positions need motivation to be attracted to the job. According to the meta- analysis of the available frameworks, the basic salary compared to other competitors is a critical factor that affects the quality of the institution's staff (Umashankar & Dutta, 2007). If high quality employees feel underestimated then they will search for other opportunities that

satisfy their financial ambitions(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

3. *Institution's rank among peer institutions.*

According to the meta- analysis of the available frameworks, institution's rank among peer institutions is an important indicator in measuring performance quality (Farid et al., 2008b). High quality employees seek to have job vacancies in well-known HEIs that have high national and international rank among peer institutions. They believe that these institutions will do the best they can, not only to keep their high rank but also improve it. These institutions will support employees to be creative and work hard (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

Goal number 2: Employees' satisfaction.

HEIs must work hard to ensure that employees are not only satisfied but also delighted. Satisfied employees are always motivated to improve their skills and abilities and are loyal to the institution. HEIs can measure employees' satisfaction using questionnaires, interviews, meetings, and focus groups. The proposed BSC generic framework views six measurable indicators that can represent the degree of employees' satisfaction (Farid et al., 2008b).

1.Turnover rate.

According to the meta- analysis of available literature, the turnover rate can be considered an indicator for employees' degree of satisfaction in HEIs (Pineno & Boxx, 2011). If the employee is not satisfied about work, then he/she will search for better opportunities (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

2.Workload.

According to the meta- analysis of the available literature, the workload is another important indicator for employees' satisfaction (Pineno & Boxx, 2011). Tired employees with workload more than what they can stand will be dissatisfied. It is important to ensure equity in the divisions of workloads and pay overtime allowance for any additional workload. Having no workload can be considered a problem too because active qualified will feel ignored and useless (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

 3.Number of employees complaints.

According to the meta- analysis of the frameworks in the literature, complaints are an obvious sign for stakeholders' degree of satisfaction (Chow Yang & Shiau, 2006). HEIs must response to quickly before small complaints turned into serious problems that may affect institution's image and reputation and cause the loss of many high quality employees and students (Employee at the Quality Unit- Al Najah

University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

4. *Participation in decision making.*

According to the meta- analysis of the existing literature that employees like to be part of the institutions' major decisions (Kassahun, 2010; Pineno & Boxx, 2011). Employees will not be satisfied if institution adopts a set of new adjustments, rules, and regulations without taking into consideration employees' opinions.

5.*Protective work laws.*

According to the meta- analysis of the existing literature, employees like to be protected by formal laws that identify their rights and duties. Feeling safe is an important factor for employees' satisfaction. It encourages them to be loyal and committed to the institution. They will be brave and will not be scared to announce any violations in institutions work. They will believe that their rights are kept and preserved by laws and regulations (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

Stakeholder number 3: Students' Families.

According to the meta- analysis of the existing literature, students' families play an important role in supporting institution's performance quality (Pineno & Boxx, 2011; Umashankar & Dutta, 2007). Satisfied families will announce their happiness and satisfaction among their relatives, work colleagues, friends, and even public places. Another way is the financial support provided by student's families. If

families are satisfied about institution's performance they will not hesitate to provide any possible financial support for the institutions. Satisfied parents can become great donors, future partners, or employers. The proposed BSC framework suggests one goal to be reached when dealing with students' families and defines four measurable indicators to measure the assigned goal.

The proposed goal: Ensure students' Families' satisfaction

While the four measures are:

1.*Number of events held for families.*

According to the meta- analysis of the available literature, the number of events hold for students' families is an indicator to measure families' satisfaction. Examples for families' events: meetings with the staff, open days, sport events, music concerts, and celebrations. HEIs can invite family members to be guest speakers in the field of their specialty. Participation in institution's event increases families' satisfaction about institution's performance (Employee at the Quality Unit- Al Najah University, 2011).

2.*Percentage of participants in events held for families.*

 Percentage of families' participation reflects the degree of families' satisfaction about institution's work. If the percentage is too low then there must be a problem. Families might not be satisfied about institution's work, or the events were not properly set and announced. HEIs must ensure choosing the best time and place to hold the events. It must also ensure choosing the best way for inviting student's families (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

3.Number of families complaints.

Resources in available literature considered students' and employees' complaints an indicator to measure satisfaction (Farid et al., 2008b). Similar to this, the proposed BSC generic framework considered families' complaints an indicator for measuring families' satisfaction. Institutions must take families complaints seriously and respond to these complaints quickly before small complaints turned into large problems and cause the loss of many high quality students and institution's current and potential donors. Angry families will spread their anger everywhere (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Farid et al., 2008b; Head of Registration Department - Palestine Technical University (Khadoorie), 2011 a).

4.Participating in decision making.

Resources in available literature considered students' and employees' participation in decision making process an indicator to measure satisfaction Families will be satisfied to participate in decision making process (Kassahun, 2010). Similar to this, the proposed BSC generic framework considered families participation in decision making process an indicator for measuring families satisfaction. Institutions can ask for families' opinions about staff that may affect them by electronic and paper surveys and questionnaires, personal interviews and focus groups. Participating in decision making process will make families feel how important and effective they are in institution's work (Faculty member- Al- Najah University- Palestine, 2012 b; Head of Registration Department - Palestine Technical University (Khadoorie), 2012 b).

Stakeholder number 4: Employers (market).

Graduated students are the output of HEIs' processes. Alumni may face severe competition for job vacancies in the market. Every year large number of students graduate and start looking for jobs. To increase the opportunity of students, HEI must prepare students to fit with markets' needs and requirements in both academic and social fields. HEIs can investigate about market needs and complaints using survey questionnaires, focus groups, and meetings. If employers have restrictions over graduate students from specific institution, then the institution image and reputation will be negatively affected. The proposed BSC framework views the following goal that the institution must work to achieve toward employers:

Graduate high quality students that are well- prepared for work.

To measure the degree of achieving the goal, the framework proposes three measures as follows:

1. *Availability of graduate students in specific field.*

That availability of graduate students in specific field is very important for employers' satisfaction. It is not enough to find large number of graduated students. They must be well- prepared for the market. They must have adequate skills that help the work effectively in the market. If there is a lack in number of graduate students in one filed, then employers' will be enforced to export employees from outside the country (Employee at the Quality Unit- Al Najah University, 2011).

2. *Number of employers participating in career days.*

According to the meta- analysis of the existing literature, the number of employers participating in career day is an indicator for employers' satisfaction (Kassahun,

2010). HEIs try to help their students finding job opportunities and establish relations between them and employers by organizing regular career days. The main goal of career days is giving students an opportunity to know more about organizations in the market, submit their CVs and interview companies' representatives. Career days on the other hand provide employers with an opportunity to investigate inside HEIs and look for high quality students and attract them to the market (Employee at the Quality Unit- Al Najah University, 2011).

3. *Number of cooperation programs between HEIs and market organizations.*

According to the meta- analysis of available frameworks, the cooperation programs between HEIs and market organizations is an indicator for employers' satisfaction (Kassahun, 2010). It is clear evidence that these organizations believe in the quality of students graduated from these institutions. It reflects that organizations are interested in programs provided by these institutions and are interested in strengthening the relations between them (Employee at the Quality Unit- Al Najah University, 2011).

Stakeholder number 5: Community.

HEIs are established from the community to serve community. HEIs are the source of human resources. If community members are satisfied about HEIs' performance then, it will support it with all available (financial and non- financial) resources. This will increase institution's rank among peers and will motivate it to keep improving work performance (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of

Registration Department - Palestine Technical University (Khadoorie), 2011 a). The proposed BSC generic framework views two goals that the institutions must achieve to ensure community satisfaction.

A. *Goal number 1: Social responsibility.*

Social responsibility is a new concept that community became interested in. There was no awareness among society of the role they had to play toward their society. Lots of violations toward environment, economics, and society were committed without asking responsible parties about damages. The situation is different now, people become aware of what happens around them. They will not stand silent toward any violations made by any institution toward society (Employee at the Quality Unit- Al Najah University, 2011). To improve its position and ensure community satisfaction, HEIs must draw attention to its responsibility toward society. Having high sense of social responsibility will increase community trust and support for the institution which will surly affect performance quality positively. The proposed BSC framework defines three measures that reflect the degree of achieving this goal. The following is an overview of the measure with an explanation for the reason that makes these measures effective.

1. **Environment protection procedures.**

This indicator was not used in any of the proposed frameworks in the available literature. It is proposed in the BSC generic framework for the first time. HEIs gather large number of students, employees, and visitors. The existence of large numbers of people makes HEIs a source of large amount of wastes and an important cause of potential environmental damages. As a result, institutions must be strict about environmental violations like car smokes, disturbing green area,

garbage, and sewage. HEIs must have clear procedures that are known for institution's students, employees, and visitors. These procedures must be announced everywhere inside the institution using signs, websites, and boards. Punishments steps should be taken by the institution toward any violations toward environment. This will make community satisfied about institutions' performance. HEIs must have clear announced method for getting rid of waste and adopt environmental friendly methods for waste disposal. This will emphasize institution's image among society which will positively affect institution's performance quality (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a).

2. *Chemicals disposal.*

This indicator was not used in any of the proposed frameworks in the available literature to measure community satisfaction. It is proposed in the BSC generic framework for the first time. HEIs may teach courses which deal with chemical materials. The degrees of damages these chemicals may cause vary according to the nature of the material especially high toxic chemicals. HEIs must have well-prepared labs to deal with any kind of chemicals. It must offer any additional setup that may be needed for disposing chemicals outside the lab or even the institution. Institution must also prepare labs for keeping and preserving these chemicals properly in order to assure general safety roles (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a).

3. *Recycling material.*

This indicator was not used in any of the proposed frameworks in the available literature to measure community satisfaction. It is proposed in the BSC generic

framework for the first time. Recycling material can consider a sigh for the increase in people awareness to recent environmental issues. People become aware of the necessity of recycling material and the use of it instead of just disposing it after one use. Institutions can provide special garbage for each used material like glass, plastic and papers. Institutions can use recycled materials to produce new products. This behavior increases community trust of the institution's sense toward community (Faculty member- Al- Najah University- Palestine, 2012 b).

B. *Goal nmuber2: Create positive image for the institution.*

Institution's image among community is very critical for the institution's success and survival (Umashankar & Dutta, 2007). Institution must work hard to draw gleaming image for its achievements. At the same time this image must be realistic and reliable Institution can't decorate problems to make them less harmful. Lying to community may destroy institution's image and reputation forever.

The proposed BSC generic framework suggests measurable indicators that reflect the degree of achieving the above goal.

1. **Number of social events and activities supported by the HEIs.**

HEIs can support many social events and activities for the benefit of community. Helping school students with their study during weekends, collecting financial support for people in need, planting trees, and blood donation campaigns, helping old people and helping people with special needs are some examples. Supporting these activities increase trust between institution and community. It reflects how an institution builds ethical beliefs in students.

2. *Number of serving community courses.*

According to the meta- analysis of the available literature, the number of community serving courses is an indicator for measuring institutions' performance toward community (Papenhausen & Einstein, 2006). HEIs must adopt non- degree courses for serving community in its curricula. These courses are useful for students because they improve students' social skills and emphasizing their sense of commitment and responsibility toward society by being involved inside society, learning more about people; especially people how have difficulties and problems; and having close sight for all levels of people and how they live in our community. Being that close will increase community satisfaction about institution's approach toward community which will positively affect the institution's performance quality (Employee at the Quality Unit- Al Najah University, 2011).

3. *Percentage of students and employees participating in social events and activities.*

Making regular events and activities to support community is very important for institution's reputation (Umashankar & Dutta, 2007). What is important in addition to that is the percentage of students and employees who participate in events and activities. High percentage participation and involvement reflect the degree of students' and employees' commitment toward society which will increase community satisfaction toward institution, which will affect institutions overall quality (Employee at the Quality Unit- Al Najah University, 2011).

Stakeholder number 6: donors / (individuals and organizations).

HEIs need all possible help and support to survive and improve. Institutions will be grateful to be supported both financially and non- financially by donors

(individuals, or organizations). It is known that convincing donors to pay money for financing projects; especially large projects; is not an easy task. Donors must be sure about the way how each cent will be spent. It is important to emphasize trust between HEIs and donors to keep donors' support and attract new donors (Kassahun, 2010). By the fund provided by donors, institutions can offer financial aid for students, start development projects, and extend research activities. Availability of financial resources is an attractive reason for high quality students and employees to join HEIs because students and employees believe that the availability of financial resources increases the availability of resources and adequate learning and teaching environment Head of Registration Department - Palestine Technical University (Khadoorie), 2012 b).

The proposed framework discusses two goals that HEIs must achieve when targeting donors.

A. *Goal number 1: Attracting potential donors.*

HEIs must always look for new donors to be able to survive, grow, and improve. To measure if the institution is effectively attracting new donors, the proposed BSC generic framework suggests the following two measures:

1. ***Number and quality of proposals submitted to donors.***

This indicator was not used in any of the proposed frameworks in the available literature. Projects' proposals are very important for convincing donors about the necessity of their donations. Institutions must prepare comprehensive proposals about required projects and send them to the donors. Submitting too many proposals is not enough; the quality of these proposals is an important aspect that must be taken into consideration. Weak built proposals may cause the loss of many

important projects .Institutions must be sensitive toward every single word written in the proposal because any misleading data may cause the loss of a potential donors (Employee at the Quality Unit- Al Najah University, 2011).

Goal number 2: Donors' satisfaction.

In addition to attracting potential donors, institution must preserve current donors and ensure that they are satisfied about institution's performance and the criteria of spending money. The proposed BSC generic framework suggests four measures that reflect the degree of donors' satisfaction:

1. ***Increase in yearly fund.***

   According to the meta- analysis of the available frameworks in the literature, the increase in fund provided by donors is an important measure for institutions' performance quality (Pineno & Boxx, 2011). Increase in yearly fund can be considered as a sigh either to increase in number of donors or in the amount of fund provided by the existing donors or both and both cases reflect that donors are satisfied about institution's performance and ready to keep their support (Employee at the Quality Unit- Al Najah University, 2011).

2. ***Number of projects and initiatives funded by donors.***

According to the meta- analysis of the available frameworks in the literature, the number of projects and initiatives funded by donors is an important indicator institution's quality (Kassahun, 2010). The increase in the number of projects and initiatives funded by donors might be an indicator that donors are satisfied about institution's performance. While decrease in number of projects and initiatives might be an indicator for donors' dissatisfaction. In this case, institution must

reevaluate its behaviors toward donors and investigate about the sources of donors' dissatisfaction (Employee at the Quality Unit- Al Najah University, 2011).

3. *Number of donors participates in institution's events and activities.*

According to the meta- analysis of the existing literature, this indicator was used for other stakeholders like students and families (Pineno & Boxx, 2011). The proposed BSC generic framework is suggesting the use of this indicator in the case of donors. Donors will appreciate being invited to institution's activities and events. They will be encouraged to keep supporting current and future projects required to support institution's work. They will also encourage any other potential donor to support the institution (Employee at the Quality Unit- Al Najah University, 2011).

Stakeholder number 7: Research centers.

Research centers are not proposed as stakeholders in any of the proposed frameworks in the available literature. They are included in other perspectives like internal processes and learning and innovation but not as stakeholders. HEIs usually have a research unit that is responsible for research and publications such as work space, equipment, laboratories, and required resources. Institutions may need to work with other research units or centers in other educational institutions, factories, big companies, or independent research centers. Institutions' relations with other research centers must not be random. It must be clearly identified. Institutions work hard to establish fruitful relations with research centers because they have shared interests and goals. Good relationships with research centers will affect the quality of the institutions' performance positively. It will attract high quality students and academic staff to join HEIs because students and employees

know that they are going to find all required resources for research activities (Faculty member- Al- Najah University- Palestine, 2012 b).

The proposed BSC framework suggests one goal that HEI must seek when having relations with other research centers.

The proposed goal is: Emphasize cooperating with research centers.

HEIs are the starting point for many important researches. Academic staff members and students may suggest creative ideas in class room or technical laboratory. These ideas may become important inventions or sound discoveries if they are developed adequately. That is why the cooperation between HEIs and research centers is very critical to improve institutions' performance quality. To measure the achievement of the goal, two measures are proposed:

1. *Number of researches made in cooperation with research centers.*

   The number of researches made in cooperation between HEIs and research centers is an indicator for the degree of cooperation between them. Each of the two parties contributes with its core competencies for the benefit of both of them (Faculty member- Al- Najah University- Palestine, 2012 b).

2. *Number of staff members and students work in research centers.*

   Academic staff members and students are the main actors in HEIs research units and research centers relations. The increase in number of participants in shared projects is an indicator for the strong cooperation relationship between them (Faculty member- Al- Najah University- Palestine, 2012 b).

Stakeholder number 8: Board of trustees.

According to the meta- analysis of the existing literature, board of trustees is considered one of the HEIs stakeholders. Institution usually have board of trustees how are responsible for institution's policies. The role of the board of trustees integrated with of the work of senior managers in HEIs. The balanced involvement in decision making process by board of trustees' members reflects the democratic environment of the institution. It emphasizes that decision making process is not limited by HEIs' senior managers which will increase the transparency and reliability of the decisions. The spread of this positive image about decision making process in an institution attracts high quality students and employees to join the institution. They will believe that decisions will always be in the direction of improving institution and supporting creativity. Having these ideas in students' and employees' minds will encourage them to be more active, effective, and creative (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). The proposed BSC generic framework suggests that institutions must work to achieve the following goal in its relation with board of trustees' members:

The proposed goal is: Emphasize balanced relationship with institutions board of trustees.

To measure the above goal, the proposed BSC generic framework suggests the following indicators:

1. Involvement of board of trusties in decision making process.

The relationship between board of trustees' members and institution's senior managers must be balanced. Critical issues must be discussed in the presents of board of trustees' members. Their decisions must be respected and never be ignored by managers. At the same time these decisions must not interrupt institution's

autonomy. Decisions must be balanced, and rational. No extreme decisions should be taken if they are against public benefit and only serve personal interests for one or more of the boards' members (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. **Number of events made.**

Institutions must invite board of trustees' members to institutions' activities and events like open days, sport activities, graduations ceremony, the opening of new buildings, and launching new project or new academic program. This reflects institution's degree of respect for board's members. Board's members will be satisfied about these positive feelings, this satisfaction will reflect positively into boards' members' loyalty toward institution (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

3. **Active participation in HEIs activities and events.**

If board of trustees' members rarely participates in institution's events and activities then institution must rethink of the reasons. Inactive participation could mean board's dissatisfaction about institutions work. It may also reflect that members are not very concern about institution's interests and they may have other interests with higher priority than being board members in the institution. Another possible reason for inactive participation may relate to the inefficient arrangements for these activities. Institution must take into consideration the other responsibilities assigned to board members when arranging any event and activities (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Stakeholder number 9: Employees' unions, students' council and protest groups.

Employees' unions, students' council, and protest groups are not proposed as stakeholders in any of the proposed frameworks in the available literature. Inside HEIs, there are many groups and parities that may have an influence into HEIs work like: employees' unions, students' council, and protest groups like human rights defenders and environment defenders. If any of these groups feels dissatisfied about HEI's activities, then they may cause huge mass and interruption in institution's work. Some possible reasons for protest groups' dissatisfaction are:

• Violating students' rights like (admission rules and regulations, tuition, discrimination in all ways; gender, race and religion; and learning environment).

• Violating employees' rights like (wages, health insurance, work load, and work environment and allowances).

• Causing environment threats like (pollution, unsafe disposal of wastes and chemicals and threating natural resources).

• Violating social behaviors.

Institution must be wise when dealing with these parities. There must be an opened communication channel between these groups and decision makers in the institution. These groups can negatively affect institution's performance quality in many ways. One way is the mass that may happen if any of these parities decides to start a strike. Another way is the spread of negative reputation and image about the institution which may cause in the loss of high quality students and employees. These interruptions cause instability in institution's work process and reputation.

Some of institution's decisions can be rational but might not be accepted by these groups. So institution must be smart in marketing existing and new ideas, decisions, rules, and regulations. It must be able to absorb protest groups' anger before it turned into sever conflicts. Institution should listen to them but at the same time it must keep its autonomy. The proposed BSC generic framework highlights the effect of protest parities and suggests the following goal to keep stability in its relations with protest groups.

The proposed goal is: Communicating well with employees' unions, students' council and protest groups.

To measure the achievement of this goal the proposed BSC framework suggested three measures:

1. Number of meetings, events, and activities held for employees' union, student council, and protest groups.

Listing and conversation must be the base of the relationship between HEIs and employees' unions, students' council, and protest groups. Each party has its own ideas, agenda, and interests. HEI must not ignore the effect of these groups. It must not ignore them and must be sensitive in making decisions so no violations occur. Communication can happen through regular meetings, online and paper surveys, and participating in shared events that relates to each group. This kind of communication may reduce the gap between them and keep stability in relationships (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. <u>Respond to employees' union, students' council and protest group requests.</u>

Employees' unions, students' council, and protest groups have needs and requirements. They seek to achieve their supporters' needs and improve their conditions; as a result they will always have requests to the HEI decision makers. Decision makers must consider these requests and try to be as cooperative as possible to maintain stability in the relationship (Head of Registration Department-Palestine Technical University (Khadoorie), 2011 a).

3. <u>Frequency of protest activities.</u>

Employees' unions, students' council, and protest groups reflect their dissatisfaction, anger, and rejection through set of actions like flyers, protest standings, and strikes. HEIs must be careful that protest activities do not to turn into violence that may cause dangerous results. If protest activities happen frequently, then institution must take urgent steps to find an effective permanent solution for existing problems instead of adopting temporary procedures that may not actually solve the problem (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

<u>Stakeholder number 10:   Media and Press.</u>

Media and press are not proposed as stakeholders in any of the proposed frameworks in the available literature. They are proposed for the first time in the proposed BSC generic framework. New technologies and globalization turned the world into a small village. People become aware of what happen around them. The increase in numbers of competitors make HEIs realize the critical role of media and

press in establishing institution's image and reputation. Institution must market itself by effectively use media and press in announcing institution's achievements, activities, recent news, rules, and regulations and success stories. Institution's excellent students, excellent employees, and decision makers can be guest speakers in interviews and programs. Advertisements and short programs can be made to increase community's awareness about the institution. Efficient use of media and press is very important to improve institution's performance quality by increasing stakeholders' awareness about institution's achievements and create positive image and reputation for the institution (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a)**.**

The proposed BSC generic framework suggests that HEIs must achieve the following goal in its relationship with media and press:

The proposed goal is: Create Institution's reputation among media and press.

To measure the achievement of the goal the proposed framework suggests the following four measures:

1. **Number of events covered by media and press.**

   Institution must cover all important events, achievements, and activities by media and press so people will know more about the institution(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. <u>**Number of local and international newspapers, radios, and television covered events held by HEIs.**</u>

Institution must invite national and international media and press to cover institution's activities, events, and news to increase community awareness and institution's positive reputation (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

3. <u>**Participating in media and press programs.**</u>

Representatives from HEIs can be guest speaker on TV or radio programs. They can conduct interviews with newspapers and press to increase people awareness about the institution's achievements and activities (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4. <u>**Availability of media and press units related to the institution.**</u>

Some institutions may have local radio channels, TV channels, and local newspapers issued by the institution. Through them, institutions can keep stakeholders in touch with recent updates. HEIs can make programs about institution's history, mission, vision, academic programs, excellent employees, excellent students, special stakeholders, social activities, recent publications, recent improvements in institution. This will help spreading positive image about the institution and improving institution's reputation among peer institutions. This will encourage high quality students and employees to join the institution and will encourage current students and employees to participate in media and press

activities(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a)**.**

Stakeholder number11: Governmental agencies.

According to the meta- analysis of the existing literature, government agencies play an important role in the work of HEIs (Kassahun, 2010). This role varies according to the political system in this country. Governmental, private, or public HEIs have cooperation relations with the different governmental institutions such as ministries and federal institutions (the name vary according to the political system of the country). HEIs can get used of specialists who work in governmental institutions and on the other side governmental institutions get used of academic staff experience for the benefit of governmental institution. Another important aspect in the relationship between HEIs and governmental agencies is that HEIs internal processes are connected to governmental agencies. Transportation system, healthcare system, institution's internal and external relations, and training programs are examples. Cooperation relations between HEIs and governmental agencies increases students' opportunities in having better practical experience and possible job vacancies which will encourage excellent students to work hard and improve their performance quality (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

The ministry of higher education is one of the most important governmental agencies that have strong relation with HEIs because they have to refer to the

ministry to adopt new academic programs and evaluate existing and proposed academic programs. The relations between HEIs and the ministry of higher education is complicated because institution must take ministry's bless for its activities and at the same time it must keep institution's autonomy and never be controlled by the ministry (The Accreditation and Quality Assurance Commission, 2012).

The goal that HEIs must seek to is:

The proposed goal is: Emphasize cooperation relationships with governmental agencies.

To measure the proposed goal, the following performance indicators can be used:

1. Number of students trained in governmental agencies.

HEIs' students take practical courses in the field of their study. Governmental institutions can be the perfect place for theses training courses because they give students good opportunities to get closer to the reality of country's situation, interact with community, and learn from employees who have practical experience. Governmental agencies can get used of training programs too by selecting excellent students to work in these agencies. It is an amazing opportunity for these agencies to discover excellent students who have outstanding technical and social skills (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. Number of recruited students.

Recruiting large numbers of students who graduated from specific HEI is a sign that students are qualified and having good academic and social skills. This will positively affect institution's reputation which will affect institution's overall

performance quality and encourage high quality potential students and employees to join the institution(Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

3. **Active participation in events and activities.**

HEIs and governmental agencies can arrange many shared activates. One example is exchanging guest speakers from both parties to make professional lectures in the field of their specialty. Another example would be competitions announced by governmental agencies targeted HEIs' students about one of the agencies' requirement. This kind of competitions turned creativity into students and let their talents appears. Initiations can also send invitations for agencies to participate in especial events like graduations ceremony, open days, career day, sport events, and yearly festivals (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Stakeholder number 12: External auditors.

In many educational systems, external auditors are responsible for the process of evaluating institutions academic current and new programs (Becket & Brookes, 2006). The ministry of higher education or responsible parity for evaluating educational programs in HEIs usually sends a group of external auditors to evaluate programs. Evaluators check the availability of many variables such as the availability of academic staff to teaching the program, physical equipment, learning resources and proposed curriculum. The role of external auditor is very critical because they will evaluate programs taught or proposed to be taught by HEIs. If it was announced that a specific program in an institution is facing problems and

might be freeze, then institution's image and reputation will be negatively affected (The Accreditation and Quality Assurance Commission, 2012). The validity of institution's current and new proposed programs will be negatively affected causing the loss of many current and potential excellent students and current and potential qualified employees and generous donors if its programs are evaluated to be bellow standards. The large number of competitors will make things worse because excellent students and employees will find many other options. The relationship between HEIs and external auditors is professional. Institution must cooperate to maximum with auditors, get use of their evaluations, and deal with any bugs before little problems turned into unrecoverable disasters. The proposed BSC generic framework suggests one goal that HEIs have to reach in its relation with external auditors.

The proposed goal: Cooperate with external auditors.

Establishing cooperation relations between HEIs and external auditor is very important for HEIs. Auditors' job is to supervise HEIs not to judge them. If both parties have this belief, then none of them will find problem cooperating with the other (The Accreditation and Quality Assurance Commission, 2012). To measure the degree of cooperation between HEIs and external auditors, proposed BSC generic framework suggests the following measure:

1. **Number of field visits and meetings.**

The work of external auditors requires frequent field visits for HEIs. One visit will not be enough for external auditors to evaluate institution's current and new programs. Institutions need continuous feedback from auditors about institution's progress to emphasize the strengths and overcome the weaknesses. HEIs must

continuously provide external auditors with updates about their work improvements so auditors take these improvements into their consideration. Cooperating with external auditors is very important for improving institution's quality (Employee at the Quality Unit- Al Najah University, 2011).

2. **Clarity of auditing criteria.**

In order to simplify the job of external auditors, there must be clear auditing criteria for evaluating HEIs performance. In some countries, the quality assurance unit in the ministry of higher education identified the auditing criteria. HEIs must have clear documented forms and tutorials that contain detailed explanation for evaluation standards. Having clear vision of what external auditors are looking for help HEIs prepare themselves for the evaluation process. By having all requirements clear and listed, HEIs will be well- prepared. Another important advantage for having well defined criteria is avoiding evaluators' subjectivity. Having written well defined rules and standards protect institution from being affected by evaluators subjectivity or bad mode at the moment of evaluation. And help HEIs identify their needs, and set priorities (Employee at the Quality Unit- Al Najah University, 2011).

Stakeholder number 13: Other Higher Education Institutions.

The relationship between national and international HEIs is complicated. HEIs cannot pretend that there are no other institutions. According to the meta- analysis of the existing literature, the relationship between HEIs is a competition relation. None of the previous frameworks in the available literature announced other HEIs as stakeholders. The proposed BSC generic framework is the first framework to

represent other HEIs as stakeholders (Kassahun, 2010). HEIs must have cooperation and collaboration relations. In addition to the competition between them, HEIs can share projects, exchange students, academic staff, develop core competencies, learn from others experience, and exchange resources. However it is important that HEI never forget that dealing with competitors and must keep core competencies protected. Relations with other HEIs help institution improve it resources and competences which will surly affect institution's performance quality (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

The proposed BSC framework suggests one goal to identify relationship with competitor which is:

The proposed goal: Establish cooperation and collaboration relations with other HEIs.

To measure the achievement of this goal, the following measures are suggested:

1. Number of exchanging visits, activities, and events.

Exchanging visits is an effective way to emphasize relations among HEIs. Exchanging visits allow students and academic staff to know more about other institutions, learns from their experiences, and get used of modern technologies used by other institutions. HEIs can invite guests from other institutions to get used of their experience and hear about their success stories. Another good sign for cooperation and collaboration between institutions is exchanging invitations to events, academic and non- academic activities like sport matches, and musical concerts made by institutions (Faculty member- Al- Najah University- Palestine,

2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. **Cooperation programs.**

The availability of formal cooperation agreements with other HEIs is an important sign for positive relations. Examples for agreements: allowing students from both institutions to take courses in other institutions, providing students with full access into available learning resources, and allow students to work in laboratories in case the required materials and equipment are not available in their institution (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4.4.2   Internal processes perspective. What must we excel at?

The proposed BSC generic framework classifies HEIs' internal processes into:

1.   Academic internal processes.

2.   Non- academic internal processes.

For each type, the BSC generic framework proposed 10 goals that must be achieved by HEIs to ensure being excellent in internal processes and to ensure exceeding stakeholders' needs and expectations. Some of these goals were used in previous frameworks in the available literature while the others are proposed by the researcher based on the meta- analysis of the previous literature, the conducted interviews, and the researcher's observations. It is the same for the measures proposed for achieving each goal. In addition, 27 performance indicators relate to different internal processes

were quantitatively evaluated by a survey questionnaire distributed randomly to students at Birzeit University.

The proposed strategic theme: **Delighting stakeholders by guaranteeing excellence in institution's academic and non- academic internal processes.**

Table 2: Internal Processes Perspective.

Strategic theme	Internal Processes Types	Goals	Measures
Delighting stakeholders by guaranteeing excellence in	**A. Academic Internal Processes**	• **Learning excellence.**	1. Availability of course material. *2.* Availability of course material for handicaps. *3.* Average number of students per class. 4. Percentage of students completing program in time set for the program. 5. Percentage of students who passed specific course vs. students' failed the same course.
		• **Teaching excellence.**	1. Student / academic staff member ratio. 2. Percentage of full time academic staff members. 3. Number of academic staff members in specialized area. 4. Number of academic staff members with PhD degree. 5. Students' assessment criteria in specific course.
		• **Academic programs and curricula excellence.**	1. Availability of programs (diploma, bachelor, master, and PHD). 2. Availability of courses in specific program. 3. Local and Global students' exchange programs. 4. Number of available online programs. 5. Handicaps academic programs.
		• **Managing learning resources effectively**	1. Number of available books, international journals, and newspapers. 2. Average waited time for reserved needed books. 3. Availability of digital resources. 4. Availability of raw materials 5. Number of working hour for library, labs, and computer lab. 6. Availability electronic

institution's academic and non-academic internal processes			management system for learning resources.
		• **Research excellence**	1. Budget allocated for research. 2. Number of publication /citation compared to other institutions. 3. Number of parallel research. 4. Number of new patents
		•**Establish an effective mentoring system.**	1. Number of students per tutor. 2. Freshman student's orientation programs. 3. New employees' orientation programs. 4. Treatment programs for students with low academic performance. 5. Number and frequency of mentoring errors.
	B. Non – Academic internal processes. (Administrative and social).	• **Providing institution's students and employees with excellent service.**	1. Availability of in campus book store and bookshops with adequate prices. 2. Availability of canteens and cafeterias. 3. Availability of housing services. 4. Availability of nursery for kids. 5. Availability of in campus clinic. 6. Availability health insurance. 7. Availability of transportation system.
		•**Using an effective registry system.**	1. Number of students registered per day. 2. Average time required for one student to register. 3. Student's records are maintained effectively. 4. Course schedules are managed effectively. 5. Studying rooms and other learning facilities are allocated effectively. 6. Exams schedules are managed effectively. 7. Availability of official documents. 8. Effective electronic registry system.
		•**Effective management for institution's physical facilities.**	1. Institution's facilities are well-prepared for academic and non- academic activities. 2. Institution's facilities are prepared for handicaps. 3. Institution's facilities are prepared for Natural disasters.

			4. The availability of qualified maintenance team. 5. Availability of effective safety system.
		•**Support social relations inside and outside institution.**	1. Number of social events and activities. 2. Number of participant in social events and activities. 3. Number of sport teams. 4. Budget allocated for social events and activities.

A. Academic internal processes:

Academic internal processes contain all processes that affect stakeholders' satisfaction and relate directly to the three academic important tasks: learning, teaching, and research. The BSC generic framework proposes six goals to be achieved by HEIs to assure excellence in academic internal processes.

Goal number 1: Learning excellence.

Learning relates to the process of getting knowledge by students. It was proposed in many frameworks in the available literature (Cullen et al., 2003; Farid et.al, 2008aKassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). The learning process is affected by all other internal processes. Students' learning process relates to academic programs, courses, environment, and course material. To assure achieving this goal, the proposed BSC framework suggests the following measures:

1. *Availability of course material.*

Students need learning material to emphasize the knowledge they got inside class room. Students may not be able understand all topics discussed in class room and

even if they understand at that precise moment they may fail to remember all details after a while. As a result, students need to find material for the courses. Courses' material can be books taught by instructors, support references, electronic websites, samples for exams' questions, and summarized notes related to course. The material must be available for students in acceptable prices, an easy to reach bookstores and adequate format .If students want be able to get course material their level of learning will be affected and they may violate copy rights and get the material by photocopying books or downloading them using unauthorized programs. HEIs may support foreign students learning programs in languages that differ from the language to teaching in HEI; in this case HEIs must offer course material in languages that forging students can understand (Faculty member- Al- Najah University- Palestine, 2011a). According to students' responses to the survey questionnaire, % 92 agreed, % 7 has no opinion while %1 of the students disagreed that the availability of course material affects their academic performance.

2. *Availability of course material for handicaps.*

Handicaps students have the right to learn as normal students. HEIs must offer course materials for handicaps. None of the frameworks available in literature mention the necessity of offering adequate course material for handicaps. The efficiency of this indicator was confirmed through conducted interviews (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, 82% of the students agreed that the availability of course material for

handicaps in an important indicator for students' performance, % 12 of the students' has no opinion while % 6 of the students disagreed.

3. *__Average number of students per class.__*

An important factor that may affect learning excellence in HEIs is the average number of students inside class room. "When class rooms especially discussion classes or laboratories, are full students may not be able to ask questions, they may find listening difficulties and the instructors can't give required attention to all class students" (Faculty member- Al- Najah University- Palestine, 2011a).

According to students' responses to the survey questionnaire, %89 of the students found that this indicator affect students' performance, % 6 of the students has no opinion while % 5 of the students disagreed.

4. *__Percentage of students completing program in time set for the program.__*

According to the meta- analysis for the available BSC frameworks, this indicator is an important indicator in measuring performance quality in HEIs (Farid et al., 2008a; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). Each academic program has defined range of time to be finished. HEIs laws and regulations do not allow students to exceed the defined range unless they have exceptional reasons. If it is noted that the percentage of student who had exceeded required range in specific program is increasing in comparison the percentage of students who complete the program in the assigned time, then there must be a problem in students' learning in this program. HEI must investigate about the causes of this phenomenon because it is negatively affecting learning excellence in HEI (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

5. ***Percentage of students who passed specific course vs. students' failed the same course.***

According to the meta- analysis for the available frameworks in the literature, pass percentage is an indicator for the quality of students' performance (Farid et al., 2008a; Papenhausen & Einstein, 2006; Vermaak & Cronjé, 2001). In each academic course, not all students pass the course. Some students may fail and have to take it again. If failed students percentage is relatively high, then HEI must investigate about the reasons. There might be a problem in the course itself, the instructor, learning resources, or students themselves (Head of Rigistration Department - Palestine Techniqal University (Khadoorie), 2012 b).

Goal number 2: Teaching excellence.

Teaching relates to the knowledge transferred to students by academic staff and how are academic staff members doing this. Teaching is a very sensitive and critical process because it defines the way how HEIs will be designed. It was proposed in many frameworks in the available literature as one of the most important internal processes in HEIs (Farid et.al, 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). The proposed BSC generic framework suggests a set of quantitative performance indicators to measure the excellence of teaching process in HEIs.

1. *__Student / academic staff member ratio.__*

This indicator was used in the previous framework in the literature to measure performance quality (Farid et al., 2008b; Vermaak & Cronjé, 2001). Students per teacher ratio can be calculated by dividing the total number of institution's students into the total number of academic staff in the institution. When the number of students per an academic staff member is relatively low, staff member will be able to give students required time, effort, and attention Faculty member- Al- Najah University- Palestine, 2011a).

2. *__Percentage of full time academic staff members.__*

According to the meta- analysis for the available frameworks in the literature, this indicator is an important indicator to measure teaching performance quality (Pineno & Boxx, 2011). Full time academic staff members are completely committed to the institution. Teaching excellence in HEIs is positively affected when academic staff members are full time because their attention will be only toward students. Sometimes HEIs employ part time academic staff members because of the lack in staff members in specific fields or because of financial concerns. Part time academic staff members can work in many places at the same time. Their time and effort is divided into many tasks at the same time. Students will find difficulties in communicating with them because they are available for limited period of time and do not have an access over HEIs' websites According to the meta- analysis of the available literature. According to students' responses to the survey questionnaire, %71 of the students agreed that the percentage of full time academic staff members is an important indicator that affect HEI's performance while %19 of the students were not able to judge the indicator and % 10 disagreed with the effect of the factor.

3. ***<u>Number of academic staff members in specialized area.</u>***

According to the meta- analysis for the available BSC frameworks in the literature, this indicator affects performance quality in HEIs (Umashankar & Dutta, 2007). Institution must ensure having an adequate number of academic staff members to teach in each specialized area. If not, the level of teaching in the institution will be negatively affected because institution will not be able to teach many important programs and courses, or HEIs may let staff members from other closer specializations to teach courses that do not relate directly to their specialization. Another action would be employing part time staff. All the pervious suggestions can have negative impacts into the teaching level in the institution (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al Najah University-Palestine, 2011a). HEIs must make sure that there are sufficient numbers of academic staff members who are able to teach both existing courses and new proposed courses. According to students' responses to the survey questionnaire, % 85 of the students agreed that the availability of sufficient number of academic staff members is specialized area affects students' performance. % 9 of the students has no opinion while % 6 of the students disagreed.

4. ***<u>Number of academic staff members with PHD degree.</u>***

According to the meta- analysis for the available BSC in the literature, this indicator has an effect into HEIs' performance quality (Pineno & Boxx, 2011) .The level of teaching in HEIs is affected by academic staff level of education. Staff members with PHD certificates have more knowledge than people holding fewer certificates. They are more specialized in their specializations since they had studied more

courses and made more researches (Faculty member- Al- Najah University-Palestine, 2011a). According to students' responses to the survey questionnaire, % 72 of the students' agreed that the number of academic staff members with PhD degree affects students' performance, % 15 of the students were not able to judge while %13 disagreed.

5.***Students' assessment criteria in specific course.***

According to the meta- analysis for the available BSC frameworks in the literature, this indicator was not used before. The proposed generic framework is the first to use it. According to the interview conducted with a faculty member at Al Najah National University, students' assessment criterion in specific course is an important indicator for the excellence of teaching process. Assessment is a critical procedure that requires time, effort, and money. It started from the first class until the end of the course and based on students' attendance to classes and performance in course exams, activities, presentations, and projects. Institution's academic staff must be well-prepared for evaluating students' performance in different ways because the efficiency of the assessment criteria will be reflected into institution's excellence in academic internal processes (Faculty member- Al- Najah University- Palestine, 2011a). According to students' responses to the survey questionnaire, % 71 agreed that the assessment criterion in specific course is an indicator for students' performance, % 20 of the students were not able to decide; while %9 of the students' disagreed.

Goal number 3: Academic programs and curricula excellence.

Learning and teaching internal processes are the processes for knowledge taken by students and provided by academic staff members. Students are not taking random courses during their study. They register in specific academic programs and take identified courses. Students have to pass group of courses that varies according to the academic program that students' belong to. It is important for any HEI seeking excellence to ensure developing excellent academic programs and curriculum by initiating new academic programs that fit with market requirements, updating current academic programs, and updating the content of courses. According to the meta- analysis of the available literature, academic programs and curricula excellence is a major process in HEIs (Cullen et al., 2003; Farid et.al, 2008a; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). To measure institution's excellence in developing academic programs and curriculum the proposed BSC generic framework suggests the following quantitative performance indicators:

1. ***Availability of programs (diploma, bachelor, master, and PHD).***

To assure excellence in developing academic programs and curriculum, HEI must offer variety of academic programs in different degrees that belongs to fields of specialization. HEIs may focus on scientific specializations. Others may focus on art, business, law, literature, or a mixture of many specializations. The availability of wide variety of courses enable students to choose the program the like most instead of being enforced to choose some other program because they don't have other options (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire,

% 81 of the students agreed that the availability of different academic programs is an indicator that affects their performance; % 13 of the students didn't have an opinion about the indicator while %6 of the students disagreed.

2. **_Availability of courses in a specific program._**

The availability of different courses in one program is an indicator for institution's excellence in the process of developing academic programs and curriculum (Farid et al., 2008a). The availability of a wide range of courses in one program gives students freedom to choose what they like most. They will never be stuck with few courses. In addition, the availability of different academic courses will give students the chance to learn about many topics relates to the main field of their study. For example mathematics has many topics; algebra, statistics, numerical analysis and many other topics. The more courses proposed to cover these topics, the more developed the academic program and curricula are expected to be (Head of Registration Department - Palestine Technical University (Khadoorie), 2012b). According to students' responses to the survey questionnaire, % 84 of the students' agreed that the availability of courses in a specific program affect students' performance; % 10 of the students were not able to judge the indicator and % 6 of the students' disagreed.

3. **_Local and Global students' exchange programs._**

The availability of local and global exchanging programs is an indicator for institution's excellence in developing academic programs and courses (Farid et al., 2008b; Pineno & Boxx, 2011; Umashankar & Dutta, 2007). Exchange programs enable students and academic staff members to get new knowledge and skills, meet new people, and open new communication channels with local and global HEIs.

Institutions can get used of exchanging programs by getting ideas about new programs or new courses to be adopted in existing programs and learning about different activities and services provided by other HEIs (Faculty member- Al- Najah University- Palestine, 2012 b). According to students' responses to the survey questionnaire, % 71 of the students' agreed that the availability of local and global exchange programs affects students' performance; % 19 of the students were not able to give an opinion and % 10 of the students disagreed. The large percentage of students' who didn't have an opinion about the indicator might occur because in the population where the survey was made, it is not very common to have local and global exchanging programs which may confused students about the effect of the indicator into their performance.

4. _**Number of available online programs.**_

Globalization, telecommunications, and technological improvements expand the limits of learning. Students in one country can study in another country without traveling there by talking online course. Students can get knowledge while they are at home. According to the meta- analysis of the existing literature, the availability of online courses is an important indicator for academic programs excellence (Farid et.al, 2008b). It expands institution's geographical existence and attracts students from all over the world to study in the institution (Faculty member- Al- Najah University- Palestine, 2012 b).

5. _**Handicaps academic programs.**_

This indicator was not used in any of the proposed BSC frameworks in the available literature. It is proposed by the researcher and was evaluated in conducted interviews. People around the world become aware of the critical role that handicaps

can play in society. Handicaps' rights were ignored for a long period of time. But recently people become aware of the necessity of preserving handicaps needs and requirements. HEIs must take into their consideration handicaps needs when designing academic programs and curricula. They must adapt it to fit with handicaps needs and expectations. The availability of handicaps especial academic programs with adjusted curricula to fit with their need is an indicator for HEI's excellence in academic programs (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Goal number 4: Managing learning resources effectively

According to the meta- analysis of the existing literature, learning resources management is an important internal process (Kassahun, 2010; Umashankar & Dutta, 2007). The learning process does not only depend on getting new knowledge inside class rooms. Students may need to search for more information about the field of their study so they need more learning resources than assigned books like. Available learning resources must be managed effectively to assure getting the maximum benefit of the available learning resources. To measure HEIs' in managing learning resources effectively, the proposed BSC generic framework suggests the following measurable indicators.

1. **_Number of available books and international journals and newspapers._**

In many of the BSC frameworks available in the literature, the library contents and space is an important indicator for measuring performance quality in HEIs (Farid et

al., 2008a; Farid et al., 2008b; Karathanos & Karathanos, 2005; Papenhausen & Einstein, 2006). Libraries are always known as the main source of knowledge. Students, academic and non- academic employees, people from outside the institution get used of the institution's library (Faculty member- Al- Najah University- Palestine, 2011a). According to students' responses to the survey questionnaire, % 63 of the students' agreed that the number of available books, international journals, and newspapers available in HEI's library is an important indicator that affects students' performance; % 19 of the students how didn't have an opinion and % 17 of the students' disagree. The high percentage of students who didn't have an opinion may relate that students are not used to go to the library and search for new references as a result; they were not able to judge the indicator. To better evaluate this indicator, it is suggested to evaluate it from other stakeholders' point of views such as: graduate students and academic staff members.

2. ***Average waited time for reserving needed books.***

This indicator was not proposed in the BSC frameworks available in the literature. Based on researcher observations, students may need to wait for a long time to get the chance to reserve specific books because many students reserve them and there are no enough copies. According to students' responses to the survey questionnaire, % 73 of the students agreed that the average waited time for reserving needed books affects students' performance, % 18 of the students were not able to judge the indicator and % 8 of the students' disagreed. A possible reason of why the percentage of students' with no opinion is relatively high might be that the sample students' do not experience the case when they have to wait for a long time waiting to reserve a book from the library.

3. ***Availability of digital resources and electronic databases.***

Many BSC frameworks viewed the effect of using technology into HEIs' performance quality but none of them proposed this precise indicator. Technological advancements and internet connections became important learning resources for HEIs. Knowledge is not limited with books content because digital resources like CDs, DVDs, and electronic data bases become rich knowledge resources. HEIs may not be able to offer all required books but it can provide users with an access for electronic databases that are full of articles in all fields. The availability of digital resources and electronic data bases is an important indicator for the availability of well managed learning resources system in HEIs (Faculty member- Al- Najah University- Palestine, 2011a). According to students' responses to the survey questionnaire, % 80 of the students agreed that the availability of digital resources and electronic database affects students' performance. While % 15 of the students did not judge the indicator and % 5 of the students' disagreed.

4. ***The availability of raw materials.***

None of the BSC frameworks in the available literature viewed the effect of this precise indicator. They usually talk about resource in general. Students take many practical courses in additional to theoretical courses. In practical courses, the availability of raw materials such as: chemicals, is essential for the successes of these courses. Raw materials are considered as type of learning resource as a result their availability will have an effect into institution's internal processes excellence (Faculty member- Al- Najah University- Palestine, 2011a). According to students' responses to the conducted questionnaire, % 91 of the students agreed that the

availability of raw materials affects students' performance. While % 5 of the students didn't have an opinion and % 4 of the students' disagreed.

5. *Number of working hours for library, labs, and computer lab.*

None of the BSC frameworks in the available literature viewed the effect of this precise indicator. They usually talk about the library contents but not the working hours. The availability of learning resources will not be enough if people who need to use them do not find time for that. Working hours must be adjusted to fit with users' requirements and needs. HEIs can set added overtime shifts to provide interested user with comfortable access to required resources (Faculty member- Al-Najah University- Palestine, 2011a). According to students' responses to the survey questionnaire, % 70 of the students' agreed that the number of working hours in libraries and laboratories affects students' performance. While % 19 of the students didn't have an opinion and % 11 of the students' disagreed

6. *Availability of electronic management system for learning resources.*

Many years ago, before the spread of computers' programs, and internet connection; HEIs used to manage the available learning resources using paperwork. Today things are different. Electronic management systems are widely used in managing institution's resources. Effective management systems organize data records about the available resources and enable users to easily search for through these resources. The availability of an effective learning resource management system will positively affect institution's internal processes excellence (Employee at the Quality Unit- Al Najah University, 2011).

Goal number 5: Research excellence.

Research is one of the most important activities in HEIs' work. Many BSC proposed in the literature discussed the indicators that may affect HEIs' performance quality and relates to the research activities in an institution (Cullen et al., 2003; Farid et al., 2008a; Kassahun, 2010; Pineno & Boxx, 2011; Ruben, 1999; Stewart & Carpenter-Hubin, 2000; The Committee for Economic Development Digital Connections Council, 2009). Being active in research and publications is very important for success of any HEI. Researches are the starting point for new inventions and discoveries. Great inventions started with small ideas that were developed by researches. Most of these researches had occurred in HEIs' laboratories. To measure institution's excellence in research activities the proposed BSC generic framework suggests the following set of measurable indicators:

1. *Budget allocated for research.*

According to the meta- analysis of the existing literature, the budget allocated for research is an indicator for the quality of researches in HEIs (Farid et al., 2008a). Sometimes the availability of creative ideas is not enough if there is no money to continue search about them. The budget allocated by HEIs for research activities is one of the most critical factors that affect the quality of researches. Institutions may reduce money allocated for research activities in the benefit of other expenses causing negative effects into institution's excellence in research activities in particular and institution's internal processes in general.

2.<u>Number of publication /citation compared to other institution</u>.

Researches won't be effective unless their results are published and announced to public. According to the meta- analysis of the existing literature, the number of publication /citation published by the institution compared to other HEIs is an important indicator for research excellence. (Boscia & McAfee, 2008; Farid et al., 2008b; Papenhausen & Einstein, 2006 ; Pineno & Boxx, 2011; Stewart & Carpenter-Hubin, 2000).

3. <u>Number of parallel Researches.</u>

One of the most important indicators for institution's research excellence is the number of parallel researches that institution can conduct at the same time. It reflects the availability of enough budget and resources to support research activities in an institution (Faculty member- Al- Najah University- Palestine, 2011a).

4. <u>Number of new patents</u>

New inventions and discoveries required protection from stolen. The number of issued patents helps in protecting copyrights. It encourages researchers to work hard because they knew their achievements will be protected, and both the owner of the idea and the institution will get financial returns because they issued patents that preserve their rights According to the meta- analysis of the existing literature, the number of new patents is an indicator for the research quality in HEIs (Kassahun, 2010).

<u>Goal number 6: Establish an effective mentoring system.</u>

According to the meta- analysis for the available BSC frameworks, the effect of mentoring system was found as performance indicator for other goals (Farid et al.,

2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). The proposed BSC generic framework considered mentoring as part of the HEIs' internal processes and proposed set of performance indicators to measure its quality. Establishing an effective mentoring system is an important goal that leads HEIs to have excellent internal processes. Students may face academic or social problems during their study. They might need help and orientation. Employees in HEIs may need to be oriented too. Institution's effective mentoring system will have positive effect into students' and employees' performance which will positively affect institution's excellence in internal processes (Head of Registration Department-Palestine Technical University (Khadoorie), 2011 a). The proposed BSC generic framework suggests the following indicators to identify the efficiency of institution's mentoring system:

1.*Number of students per tutor.*

To assure the efficiency of mentoring system in HEIs, institution must assign an acceptable number of students to each tutor. If tutor is overloaded and responsible for too many students he/she will not be able to effectively manage work because there is no enough time to listen to all students. Tutor will not be able to focus into may get distracted and guide students incorrectly. This will negatively affect the mentoring system and the overall internal processes excellence in an institution (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 70 of the students' agreed that number of students per tutor affect students' performance, % 17 of the students did not have an opinion and % 13 of the students' disagreed.

2.*Freshman student's orientation programs.*

Freshmen students don't have clear vision about life in HEI. They will find it difficult to adapt from high school level into higher education. They will need to be oriented and supervised by professional tutors to help them overcome the level. An effective mentoring system must prepare a series of orientation programs for freshmen during the first year. Students need continues orientation about the academic programs and courses, number of registered credit hours, and performance progress overtime (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 82 of the students' agreed that the availability of orientation programs for freshmen students affect students' performance, while % 9 of the students did not have an opinion and % 9 of the students' disagreed.

3.*New employees' orientation programs.*

According to the meta- analysis for the available frameworks in the literature, employees' orientation programs in an important indicator for performance quality in HEIs (Farid et al., 2008a; Karathanos & Karathanos, 2005; Papenhausen & Einstein, 2006). New Employees in HEIs needed to be oriented especially at the beginning of their career life. They may face problems and needed to be supervised by professionals. Effective mentoring system for institution's academic and non-academic employees will improve institution's internal processes excellence(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4.Treatment programs for students with low academic performance.

Students who have problems in their academic performance can't be treated as regular students. They need more time and effort to well- understand their problems and create treatment plan to deal with their problems which will positively affect HEIs internal processes excellence (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 81 of the students' agreed that the availability of treatment programs for students with low academic performance affects students' performance. While % 11 of the students did not have an opinion and % 8 of the students' disagreed.

5.Number and frequency of mentoring errors.

Mentoring system is managed by human being so it is normal that they may commit mistakes. It is worth to monitor the number and frequent of mentoring errors to make sure they are within normal ranges The number and frequency of mentoring errors is an indicator for the quality of institution's performance (Papenhausen & Einstein, 2006).. The less number and frequent of mentoring errors the more efficient institution's mentoring system is, which surly will affect institution's internal processes excellence (Head of Registration Department- Palestine Technical University (Khadoorie), 2012 a).

B. Non- academic internal processes (administrative and social).

After explaining the goals that HEIs must work to achieve excellence in academic internal processes, similar explanation will be viewed for the non- academic internal processes. Non- academic internal processes relate to the important internal

processes that affect stakeholders' satisfaction and the quality of HEIs' output but do not directly represent the three main academic processes (learning, teaching, and research). The proposed BSC generic framework suggests four goals that HEIs must achieve to be excellent in non- academic internal processes. It is worth to add that some HEIs use the term support activities when talking about non- academic activities. Examples for support activities unities: registration department, financial department, human resources department, and computer center. The activities of the registry unit are explained in details in the proposed BSC generic frameworks while measures relate to the activities performed by the other three departments are included in other related goals. The goals that are proposed by the BSC generic framework are:

Goal number1: Providing institution's students and employees with excellent service.

Services provided by HEIs may seem irrelevant to the main work of the institution but in fact without having excellent level of services, institutions' performance quality will be negatively affected (Farid et al., 2008a; Karathanos & Karathanos, 2005; Kassahun, 2010; Pineno & Boxx, 2011). High quality students and employees will not be attracted to study and work in institutions that do not provide adequate services. It would be impossible to have high quality academic performance without having high quality services. As a result the availability of excellent services will emphasize excellent internal processes in an institution. According to the meta-analysis for the available BSC frameworks in the literature, these frameworks viewed indicators related to services in general not to a specific services while the

proposed BSC generic framework is more specific about the provided services. The proposed BSC framework suggests the following quantitative indicators to measure institution's excellence in provided services.

1. ***Availability of in campus book store and bookshops with adequate prices.***

Students and academic staff may need to buy books, buy stationery, and print papers. It will not be practical to leave the campus and look for a book store or book shop to get what they need. It is also important to assure that staff prices inside these book stores and shops are adequate for students because if prices are expensive compared to real price then students and employees will not join them (Employee at the Quality Unit- Al Najah University, 2011).

2. ***Availability of canteens and cafeterias.***

Food is one of the three factors that human being need to have to stay alive. The availability of canteens and cafeterias is an important service that affects services' excellence in HEIs. HEI must ensure that canteens and cafeteria are serving healthy safe food. Regular tests by healthcare experts for the quality of the served food, expiry dates, and cleaning levels must be made to ensure that canteens and cafeterias are following health standards in their work. Institution must also ensure that prices in these cafeterias are acceptable. Institution may also try to find external fund or support for cafeterias and canteen to reduce prices that students have to pay to support them (Employee at the Quality Unit- Al Najah University, 2011).

3. *__Availability of housing services.__*

Finding an adequate house is an important concern for HEIs' students and employees especially freshmen and new employees who come from different places and can't travel to their houses every day. HEIs must offer adequate houses that are provided with the main requirements like: furniture, utilities, internet connection, cafeteria, cleaning, and housekeeping. Houses should be closed to the campus with an available transportation system from houses to campus and vice versa. HEIs should provide the housing service in adequate prices to all students. The availability of high quality housing services is an indicator of institution excellent services which will positively affect institution's internal processes excellence(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4. *__Availability of nursery for kids.__*

Huge number of HEIs' students and employees are having kids. They need to find adequate places for their kids while they are studying or working. Some of them especially mothers may have to leave study or work because they don't have adequate places for their kids. The availability of well-equipped nursery for kids will solve the problem that many students and employees face. Having their kids in a place that is closed to the HEI will improve their performance because they will not be distracted thinking about kids' safety. The availability of nursery will increase the level of services excellence and the level of institution's internal processes excellence (Employee at the Quality Unit- Al Najah University, 2011; Faculty

member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4. ***Availability of on-campus clinic.***

According to the meta- analysis of the available literature that, the availability of health care services in an important indicator for the quality of services provided by HEIs (Karathanos & Karathanos, 2005; Kassahun, 2010; Maclellan, 2007). Students and employees in HEIs may feel sick or get injured. As a result, there must a clinic inside the campus where student or employees can find help. Institution must hire qualified staff and well- prepare the clinic for urgent cases The availability of well- prepared clinic increase excellence to provided services in particular and to institution's internal processes excellence in general (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

5. ***Health insurance.***

Health care is one of the most expensive services around the world. Many qualified employees may prefer to work in HEIs with good academic level if they will have better health insurance system. HEIs must offer adequate health insurance system to encourage high quality students and employees to join the institution(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

6.*Availability of transportation system.*

According to the meta- analysis of the available BSC frameworks in the literature, the availability of transportation system is an indicator for the quality of services provided by HEIs (Karathanos & Karathanos, 2005). Students and employees who join HEIs may not live close to institution's campus and need to travel for long distances before they reach destination. HEIs must ensure that public transports are available all the time. HEIs must offer an internal transportation system to enable students and employees move easily inside the institution and get to their classes on time. The availability of an easy public transportations system and an effective internal transportation system is an important indicator for institution's excellence in provided services and in internal processes (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Goal number2: Using an effective registry system.

The use of an effective registry system is important for institution's excellence in non-academic internal processes. It is responsible for arranging students' and academic staff schedules, issuing formal documents, and allocating classroom for different courses (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). The BSC frameworks available in the literature only talked about the effect of the time required for student to register but it did not consider registration efficiency as an independent goal (Farid et al., 2008a; Papenhausen &

Einstein, 2006). The proposed BSC generic framework suggests the following quantitative indicators to measure registry system excellence in HEIs:

1. *Number of students registered per day.*

Number of students registered every day is an important indicator for the efficiency of institution's registry system. The more students registered per day, the more efficient the registry system is expected to be. If the system is very slow then institution will waste long time working in students' and faculties' schedules. If any problem happens suddenly, then the registration process will stop (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. *Average time required for one student to register.*

Time required for one student to register is an important indicator for the efficiency of institution's performance quality (Farid et al., 2008a; Papenhausen & Einstein, 2006). Spend long time in preparing students' courses' is an indicator of the inefficiency of the used registry system. Conflicts in student's programs, employees' inefficiency, or system bugs are that main causes for the delay in registry process. The shorter the time required for one student to register, the more efficient institution's registry system is (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 77 of the students' agreed that the average time required for one student to register affect student' performance, while % 14 of the students had no opinion and % 9 of the students' disagreed.

3. *Student's records are maintained effectively.*

One of the most critical factors that affect the efficiency of HEIs' registry system is the way how students' records are kept and maintained (Farid et al., 2008b). The

records of the first student joined the institution until today must be kept is safe place. Student may need to have formal documents or academic certificates from HEI. If students' records are not maintained effectively, then students will not be able to get any document. They will not be able to approve that they had studied and graduated from this institution (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 72 of the students agreed that maintain students' records effectively affect students' performance while % 19 of the students do not have an opinion and %9 of the students' disagreed. The reason of the large percentage of students with no opinion is that students believe in the necessity of keeping their records but they are not able to see how is this going to affect their academic performance.

4. *Course schedules are managed effectively.*

Students take many courses each semester. It is not necessary that all students in the same year and specialty take the same course. Managing Courses' schedules for both students and academic staff is an important process (Vermaak & Cronjé, 2001). Schedules must be designed well. They must not be overloaded and have no conflicts. Schedules must be managed well in order to effectively use students' and employees' time. If registry system is effective, then courses' schedules will be effectively managed too (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses questionnaire, % 85 of the students' agreed that the effective management for students' courses' schedules affect their performance, while % 10 of the students do not have an opinion and % 5 of the students' disagreed.

5.*Studying rooms and other learning facilities are allocated effectively.*

The adequacy of class rooms is an important indicator for performance quality in HEIs (Farid et al., 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). One of registry system tasks is allocating class rooms and other learning facilities to specific courses and specific instructors. There must be a match between the courses that will be taught, the expected number of students who register in the course and the required learning resources to teach that course. Effective registry system must take into consideration the nature of the course; is it theoretical or practical; so the assigned classroom fits with the nature of the course. An efficient allocation for classrooms provides maximum efficiency of the available resources which reflects the efficiency of the institution's registry system (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

6.*Exams schedules are managed effectively.*

One of the tasks that registry system is responsible for is managing exams' schedules for all students and academic staff members in an institution. Schedules must be managed well to avoid conflicts in the numbers and time of assigned exams. It must take into consideration the maximum number of exams that student can have in one day. It should try to design balanced exam's programs so students' performance won't negatively affected by exams overload. Efficient exams' schedules increase the efficiency of the registry system and the level of excellence of institution's internal processes (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

7.*Availability of documents like transcripts and degree certificates in the required time, cost, and quality.*

Students may need to get official documents like student's transcripts or degree certificates. To get these documents, employees in registry department must return back to student's records that are maintained by registry system .If registry system is effective then official documents will be available to students in required time, cost, and quality (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 66 of the students' agreed that the availability of official documents in required time, cost and quality affect their performance ,while % 16 of the students did not have an opinion and % 16 of the students' disagreed. The large percentage of students' with no opinion may occur because students believe in the importance of the availability of official documents but they won't be able to see how is this going to affect their academic performance. While the large percentage of disagreement might happen because at beginning students' study in the university they do not continually experience the necessity of getting official documents in required time, quality and cost so they won't be able to see how is this going to affect their performance.

8.*Effective electronic registry system.*

Traditionally, registration process was made using paper work. It required long time and effort to finish student's records effectively and error free. Nowadays many HEIs use electronic registry systems. These systems are useful because they eliminate the use of paper work, save time, money, and effort, and simplify registration process for students and employees. Electronic registry systems reduce

conflicts and help in finding best arrangements for students' and academic staff members' schedules. The availability of an effective electronic registry system increases the efficiency of registry system so as the level of institution's internal processes (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 85 of the students' agreed that the availability of an effective electronic registry system affect students' performance, while % 10 of the students did not have an opinion and % 5 of the students' disagreed.

Goal number3: Effective management for institution's physical facilities.

Managing HEI's physical resources has deep effect into institution's internal processes excellence (Farid et al., 2008a; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). Without having well-built infrastructure and high quality physical resources, institutions will waste money, time and effort in fixing infrastructure damages and technical problems. Managing HEI's physical resources effectively is an important indicator for institution's internal processes excellence. The proposed BSC generic framework suggests 5 indicators to measure institution's excellence in managing

1.***Institution facilities are well-prepared for academic and non-academic activities.***

Instituions' facilities readiness for activities is an important indicator for measuring instituions' performance quality (Farid et al., 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). Institution's academic activates are made

in classrooms and laboratories. Class rooms and labs must be equipped by all required furniture like chairs, tables, boards, and microphones. Institutions must ensure that each classroom contains proper number of chairs with adequate arrangement that fits with the classroom design, space, and purpose. Laboratories must be internally designed to fit with the nature of the courses that they are made for. For example: chemistry labs must be supplied with special machines for chemicals disposal, connected to water resources, had an effective conditioning system, safe gas sources and safe chemical containers. Institution's non-academic activities like formal meetings, special events' celebrations, graduation ceremonies, musical concerts, and sport matches can be made in especial holes, meeting rooms, playgrounds, and open areas. HEIs must ensure that lighting and conditioning systems are working properly in all institution's facilities. HEIs can add orientation's signs everywhere to improve the efficiency of institution's facilities and ensure safety. Maps for institution's main buildings, map for each building, rooms' numbers, rooms' names, employees' names, exit sings, and general instructions signs are examples for orientation signs. Institution must also ensure offering places for students to sit down like seats, bus waiting stations, and green open areas. In its management for physical facilities, HEI must take into consideration the availability of car parking's. Students and employees will not be happy if they didn't find a car parking close to the building where they are going to be. It will be also a problem if there are no suitable places for large vanes with products to stop and empty its contents, because vans will be enforced to park anywhere and may cause traffic jam (Faculty member- Al- Najah University-

Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2.***Institution's facilities are prepared for handicaps.***

None of the available BSC frameworks in the literature suggested indicators about the physical preparations for handicaps. The proposed BSC generic framework is the first framework to propose this indicator. Handicaps are an important part of our society. HEIs must have proper physical setup for handicaps students and employees. Institution must build special parking's, roads, and bathrooms that fit with handicaps needs and requirements. There must be special classrooms that have any special additional setup for handicaps students and faculty members. Institution's efficiency in managing physical resources to fit with handicaps increases institution's internal processes excellence (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 83 of the students' agreed that institution's facilities must be prepared for handicaps; while % 12 of the students did not have an opinion and % 5 of the students' disagreed.

3.***Institution's facilities are prepared for Natural disasters.***

None of the available BSC frameworks in the literature suggested indicators about institutions' preparation for natural disasters. HEIs must be well prepared for natural disasters like earth quake, floods, and storms. It must take into consideration all required procedures and standards to protect institution's students and employees and avoid human and physical losses. Having well prepared facilities for natural

disasters increases institution's efficiency in managing physical resources. This will positively affect institution's internal processes excellence (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to survey questionnaire, % 66 of the students' agreed that institution's preparations for natural disasters affect their performance; while % 22 of the students did not have an opinion and % 12 of the students' disagreed. The large percentage of students who did not have an opinion might be explained because students' believe in the necessity of institution's preparation for natural disasters but at the same time they don't think it necessary because these phenomena are very rare in Palestine.

4. __The availability of qualified maintenance team.__

Institution's facilities need continues maintenance. HEIs must have qualified technical team to quickly and effectively fix and damages. Technical team must contain engineers, carpenters, plumbers, and technicians who have experience in lighting systems, conditioning systems, and electricity. The availability of excellent technical teams is an important indicator for the institution's efficiency in managing institution's facilities (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

5. __Availability of an effective safety system.__

One of the most important services that HEIs must excel at is the safety system inside institutions (Karathanos & Karathanos, 2005). Students and employees need to feel safe while they are inside the institution. There must be security employees

everywhere. No weapons can be used inside the institution. HEIs must put signs everywhere to identify students and employees about the main rules and procedures that must be followed. For example: there must be a sign to aware people of water during cleaning process. Safety rules inside institution must be printed and given to students and employees. They must be published in bulletin boards and institution's websites to make sure that all interested people read it (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to students' responses to the survey questionnaire, % 88 of the students' agreed that the availability of an effective safety system affect students' performance; while % 6 of the students did not have an opinion and % 6 of the students' disagreed.

Goal number 4: Support social relations inside and outside institution.

Social life in HEIs can't be separated from academic life. HEIs have an effect into their society and affected by it. Examples for events that can be held by HEIs and may support social relations inside and outside HEIs are: graduating ceremony, national events, musical ceremonies, sport matches, competitions, and international days like: women day, teacher day, and workers' day. Additional examples for social activities that institutions' students and employees can participate in: conduct free classes to help schools' students in their study, blood donation, helping farmers in their activities, helping patients in hospitals, visiting old ages in their houses, collecting money, food and clothes for people who have economic difficulties, and participating in cleaning campaigns for towns and cities.

According to the meta- analysis of the existing literature, supporting social relations inside and outside institution was not considered an independent internal process. It was considered as an indicator for the stakeholders' satisfaction (Farid etal., 2008a; Maclellan, 2007; Pineno & Boxx, 2011; Stewart & Carpenter- Hubin, 2000). The proposed BSC generic framework is the first to propose it as an independent internal process. It suggests the following indicators to measure the quality of this goal:

1. *Number of social events and activities.*

According to the meta- analysis of the existing literature, the number of social events and activities held by HEIs is an important indicator for institution's excellence in supporting social relations inside and outside institution which will also affect institution's non- academic internal processes excellence (Stewart & Carpenter- Hubin, 2000).

2.*Number of participant in social events and activities.*

Number of participants in social events and activities is also an important indicator for institution's excellence in supporting social life inside and outside institution. If the number of participants in social events and activities is relatively low then institution must investigate about the reasons (Employee at the Quality Unit- Al Najah University, 2011.

3.*Number of sport teams.*

Sport activities are one of the most important non- academic activities in HEIs. Both students and employees can join one or more of sport teams in an institution. The number of sports' teams in an institution is an indicator of institution's interest in social activities which will emphasize institution's excellence in non -academic activities (Employee at the Quality Unit- Al Najah University, 2011; Faculty

member- Al- Najah University- Palestine, 2011a). None of the available BSC frameworks in the literature suggested this indicator as performance indicator.

4.*Budget allocated for social events and activities.*

The BSC frameworks viewed indicators about the budget allocation in general. No indicators were found about the social events in precise. Allocating sufficient budget for social events will enable institution to cover all events and be well- prepare for them. The availability of financial fund enables institutions to make all required arrangements and preparations to perfectly cover social activities. This will surly have positive effect into institution's excellence in non- academic internal processes (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a).

4.4.3 Learning and innovation perspective: How can the institution grow, be innovative, and create new value?

The stakeholders' perspective and internal processes perspective identify the most critical factors that lead to institution's current and future success but our life is changing every day. To fit with these changes, HEIs must keep improving, and ensure that the institution's activities are not the same. Institution's activities must move toward the long term goals of the institution. HEIs must answer the question "how can HEIs grow, be innovative, and create new values for stakeholders?" which is the third perspective of the BSC (Kaplan and Norton, 1996).According to Kaplan and Norton (1996), Institution's learning and growth can be presented in three sources: people, systems, and institutional procedures. If institution does not adopt

any action to improve these sources then a gap will exist between the level of these sources and institution's long term strategies. These sources may not be good enough to meet institution's future plans and stakeholders' expectations. The proposed BSC explains in details the growth and innovation perspective. The BSC generic framework is mainly constructed based on meta- analysis of the available BSC literature and on researcher's observations. The framework proposed set of goals that HEIs must follow to learn, grow, and be innovative. These goals are related to the three sources of learning and growth that Kaplan and Norton had suggested: people, systems, and institutional processes. For each proposed goal, a set of quantitative measures are proposed to enable institution to measure achievement in each goal.

Table3 : Learning and innovation Perspective.

Strategic Theme	Goals	Measures
Improve institution 's people, systems, and internal processes to match institution 's long-term strategic plan.	• **Support learning process growth and innovation.**	1. Percentage of growth in excellent students' enrolled in an institution. 2. Increase in number of new initiates made by students starting from the class rooms. 3. Increase in Percentage of students finish programs in required time 4. Increase in pass students' percentage overtime.
	• **Support teaching process growth and innovation.**	1. Increase in full time academic staff members. 2. Growth in the number of academic staff in specialized area. 3. Growth in number of academic staff members with PHD degree.
	• **Developing institution's academic programs and courses.**	1. Systematic revision for academic programs and courses. 2. Number of new programs introduced. 3. Number of new courses introduced.

	• **Learning resources growth and innovation.**	1. Percentage of new books, papers, and journals added to the library. 2. Percentage of new electronic databases. 3. Percentage of increase in geographical area allocated for library and laboratories.
	• **Research growth and innovation.**	1. Number of new research projects. 2. Percentage of increase in budget allocated for research. 3. Percentage of increase in publication in comparison to peers.
	• **Improving employees' skills and qualifications.**	1. Percentage of increase in members with new educational degrees. 2. Participation in national and international workshops and conferences. 3. Budget allocated for employees' development
	• **Establish an active training unit**	1. Number of training courses for institution's stakeholders. 2. Degree of matching between training courses topics and trainee's need. 3. Capacity of training courses. 4. Number of participants in different training courses. 5. Practical training programs. 6. International training programs
	• **Motivate institution's stakeholders using an effective rewarding system.**	1. The availability of defined rewarding criteria 2. Timely events made to reward institution's stakeholders. 3. Announcement of rewards achievers.
	• **Effective use of technology.**	1. Average time for updating computers. 2. Number of new adopted technologies. 3. Percentage of increase in budget allocated for updating used technologies. 4. Number of computer labs in institution 5. Number of computers per lab. 6. Availability of wired and wireless internet connection. 7. Availability of new technological hardware (smart boards, LCD projectors, video conferences set up … etc). 8. Availability of technicians and experts. 9. Use of social networks. 10. Initiation's website.
	• **Efficiency and effectiveness of feedback system.**	1. Timely students' feedback for teaching, staff, services, internal processes, and academic programs and courses. 2. Timely employees' feedback for quality of students, courses, services, programs and curriculum. 3. Timely stakeholders' feedback

		4. Varity of feedback techniques 5. Institution's response time toward feedback information.
	• **Growth and innovation in provided service**	1. Improvements in current provided services. 2. Number of new services initiated. 3. Institution's rank in provided services compared to peer institution's 4. Percentage of increase in budget allocated for institution's services.
	• **Physical resources growth and innovation**	1. Average cycle time for renewing institution's physical resources. 2. New physical resources added. 3. Percentage of increase in budget allocated for renewing institution's physical resources.

The strategic theme the HEI can start from **"Improve institution's people, systems, and internal processes to match institution's long-term strategic plan".** To achieve this strategy the proposed BSC generic framework proposed the following goals:

Goal number 1: Support learning process growth and innovation.

According to the meta- analysis of the available literature; learning process is one of the most important processes that HEIs must care of. Learning process is non-stoppable operation. Institution must keep improving students' learning (Farid et al., 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011; Ruben, 1999; The Committee for Economic Development Digital Connections Council, 2009). To measure institution growth and innovation in learning process, proposed BSC framework suggested the following measures:

1. ***Percentage of growth in excellent students' enrolled in an institution.***

Percentage of growth in number of students enrolled is an indicator for growth an innovation in learning process. Excellent students are attracted to study in

institutions that offer high level of learning so the increase in the number of excellent students who enrolled in the institution means reflects growth in institution's level of learning Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2.*Increase in number of new initiates made by students starting from the class rooms.*

According to the meta- analysis of the available literature, the number of new initiatives starting firm the class rooms is an indicator for institutions' grow (Pineno & Boxx, 2011).The process of learning relates to new knowledge gained by students. Having the ability of starting new initiates from classrooms is an indicator for students' creativity and excellent level of learning they reach so the increase in the number of initiatives starts by students from classrooms is an indicator for the growth in the level of learning process.

3. *Increase in percentage of students finish programs in required time.*

In the internal process perspective, the number of students who finished their study in required period used to measure the efficiency of learning process. The increase in the percentage of students who finish at required time is an indicator for the growth in learning process overtime Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4. *Increase in pass student' percentage overtime.*

It was found in the internal processes perspective that the percent of pass students is an indicator for the excellence in learning process as a follow up the increase in the

percentage of students' passed compared to students' failed is an indicator for the growth and improvement in learning process (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Goal number 2: Support teaching process growth and innovation.

The necessity of the teaching process was explained in the previous perspectives. It is not enough that HEIs start with an excellent teaching system. It is important to keep improving teaching system and ensure institutions'' growth and improvement in this process (Colling & Harvey, 1995; Farid et al., 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011; Ruben, 1999 ;The Committee for Economic Development Digital Connections Council, 2009).

1. *Increase in full time academic staff members.*

The number of full time academic staff is considered as an indicator for teaching excellence while the growth in this number can be considered as an indicator for the improvement and growth in teaching process. Teaching process will be positively affected by the increase of number of full time academic staff Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. *Growth in the number of academic staff in needed specialized area.*

Institution always suffers from the availability of academic staff members in many of programs. The number of academic staff in needed specialized area is considered as an indicator for teaching excellence while the growth in this number can be considered The growth of number of academic staff in required fields is an indicator

for improvement and growth in institution's internal processes (Faculty member- Al-Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

3. ***Growth in number of academic staff members with PHD degree.***

The increase in number of academic staff members who carries PhD certificate is an indicator for the improvement and growth in teaching process in an institution Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

Goal number 3: Developing institution's academic programs and curricula.

HEIs can't teach the same academic programs and the same courses all the time. They must improve current academic programs and update them regularly. Institutions may find that an academic program is but after a while, the program may become old fashioned and not attractive. In this case institutions must update the program to reactivate it. Institutions must also revise courses taught in each program and make any required up dates. It must also search for new courses that fit with the new improvements in the academic program and with the market requirements ((Farid etal., 2008a; Vermaak & Cronjé, 2001).To measure institution's academic programs and courses development the following measures are proposed by the BSC proposed framework:

1. *Systematic revision for academic programs and courses.*

According to the meta- analysis of the available literature; HEIs must systematically revise academic programs and courses (Farid et al., 2008a). They can get used of stakeholders' feedback and from alumni level of giving in market place Faculty

member- Al- Najah University- Palestine, 2011a; Head of Registration Department-Palestine Technical University (Khadoorie), 2011 a).

 2.*Number of new programs initiates.*

 The number of new programs initiated in all academic degrees; diploma to PhD; is an indicator for institution's efforts in improving academic programs (Farid et al., 2008a; Papenhausen & Einstein, 2006; Umashankar & Dutta, 2007).

3. *Number of new courses initiates.*

The number of new courses that HEI initiate is also an important indicator for institution's growth and innovation (Papenhausen & Einstein, 2006; Pineno & Boxx, 2011).

Goal number 4: Learning resources growth and innovation.

Wide explanation for learning resources was viewed in the internal processes analysis. What is needed to be added is that the institution must keep improving available learning resources in order not to find itself late comparing with peer institutions. To measure institution's growth and innovation in learning resources, the proposed BSC framework proposed the following measures.

1. *Percentage of new books, papers, and journals added to the library.*

The percentage of new books, papers, and journals added to institution's library is an indicator for institution's interest in improving available learning resources. The increase in percentage of new resources is an indicator for institution's interest in developing it learning resources. HEI can compare the percentage through specific period of time to monitor growth trends in new books, papers, and journals added to the library and analyze the causes and effects for changes through time (Faculty

member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. *Percentage of new electronic databases.*

Most frameworks in the literature focused on the effect of technology in growth and innovation but this indicator was not mentioned directly in the previous BSC frameworks in the literature. HEIs register in many electronic data bases. In many of these databases institution must pay money to register and enable students and employees using them without tuitions. The percentage of new electronic database that the institution is registered at is an indicator for institution interests in developing learning resources (Faculty member- Al- Najah University- Palestine, 2011a).

3. *Percentage increase in geographical area allocated for library and laboratories.*

This indicator is proposed based on researchers' experience. HEI allocate an area for keeping learning resources. HEI may expand the area allocated for learning resources if there is no enough available space for learning resources and for participants. So the percentage of increase in allocated area is an indicator for institution's interest in improving learning resources (Faculty member- Al- Najah University- Palestine, 2012 b).

Goal number 5: Research growth and innovation.

The important effect of the research activity was clarified in the internal processes perspective. In this perspective the indicator that can be used in measuring the growth in institutions' research activities are proposed.

1. *<u>Number of new research projects.</u>*

The number of new initiated research projects is an indicator for institution's interest in improving research activity (Pineno & Boxx, 2011). The increase in number of research reflects positive attitude toward research activity improvement while the decrease of initiated number of research reflects a problem that must be investigated (Faculty member- Al- Najah University- Palestine, 2011a).

2. *<u>Percentage of increase in budget allocated for research.</u>*

The availability of fund is an important obstacle in front of research activity growth and improvements. According to the meta- analysis of the available literature, the percentage of increase in budget allocated for research activities is an indicator for institution's interest in improving research activities (Maclellan, 2007; Papenhausen & Einstein, 2006).

3. *<u>Percentage of increase in publication in comparison to peers.</u>*

If the percentage of new publications issued by institution is increasing continuously among years and in comparison to peer institutions then institution is interested in developing and improving research activities (Faculty member- Al- Najah University- Palestine, 2011a).

<u>Goal number 6: Improving employees' skills and qualifications.</u>

HEIs must encourage employees to improve their skills and qualifications over time. Institution's positive attitude toward the employees will motivate them to keep learning and employ what they learn in institution's excellence (Farid et al., 2008a; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). The proposed BSC

framework suggested the following quantitative performance indicators to measure HEI's excellence in improving employees' skills and qualifications.

1. ***Percentage of increase in number of employees who got new educational degree.***

HEI's employees' educational degrees vary from illiterate employees to PHD level. If institution's polices support employees' improvement then many employees will think in improving their educational level to higher levels. Illiterate employees may start illiteracy classes. Employees with bachelor degree may complete their masters and so on. The percentage of increase in number of employees who got new educational level is an indicator for institution's excellence in the process of improving employees' skills and qualifications (Faculty member- Al- Najah University- Palestine, 2012 b; Head of Registration   Department - Palestine Technical University (Khadoorie), 2012 b).

2.   ***Budget allocated for employees' development.***

The availability of financial support is an important factor for improving employees' skills and abilities. Without money no improvements activities will be made. The increase in budget allocated for employees' development is an important indicator that reflects institution's interests in developing employees' skills and competencies (Pineno & Boxx, 2011). The decrease in budget allocated for employees' development and improvement reflects that the institution is not that interested about employees' development.

3.***Participation in national and international workshops and conferences.***

Participation in national and international workshops and conferences help improving participants' knowledge and skills. It also reflects employees' awareness

about the importance of representing their institution in workshops and conferences. Participating in large number of workshops and conferences reflects institution's attitude toward improving employees' knowledge and skills. According to the meta-analysis for the available literature, employees' participation is an indicator for the improvement in employees' qualifications in HEIs (Farid et al., 2008a; Kassahun, 2010; Pineno & Boxx, 2011 (Vermaak & Cronjé, 2001).

Goal number 7: Establish an active training unit.

Training activities play an important role in HEIs growth and innovation. Training courses do not only affect institution's students and employees but also affects all institution's stakeholders. The effect of training into the performance quality of HEIs was clarified in many frameworks in the available literature (Karathanos & Karathanos, 2005; Kassahun, 2010, Martello et al., 2008; Pineno & Boxx, 2011; Smith, IPPA organization, 2006; Varis, 2007). None of the proposed goals were found in the available BSC studied through the meta-analysis of the available literature. Goals were mainly proposed by the researcher and evaluated through the conducted interviews. The following are the proposed goals:

1.*Number of training courses for institution's stakeholders.*

An active training unit or center in HEIs must arrange training courses for all institution's stakeholders .The number of training courses made by an institution is an indicator for institution's interest in developing stakeholders' skills which surly support its strategy that support people growth and innovation (Faculty member- Al-

Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

1. ***Degree of matching between training courses topics and trainee's need.***

Training unit efficiency is not limited with the number of training courses. But it also relates to the topics covered by these training courses. The choice of training courses must be designed to match with stakeholders' expectations and needs (Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. ***Capacity of training courses.***

Another important indicator for the efficiency of institution's training unit is the capacity of each training course especially practical training (Employee at the Quality Unit- Al Najah University, 2011). If the capacity of training courses is very low in comparison to the number of applicants then training unit should reconsider its work plan to increase the efficiency of the unit.

3. ***Number of participants in different training courses.***

Number of participants in different training courses is an indicator for the efficiency of the course. If only few participants are interested in specific topics then training unit should rethink of the reasons that make this course not attractive (Employee at the Quality Unit- Al Najah University, 2011).

4. ***Practical training programs.***

Training course can be theoretical and can be practical according to the topics they covered. Practical training courses can be made inside institution or outside it based on the availability of resources. Training unit can arrange with governmental

agencies, and companies to accept training students in the field (Faculty member-Al- Najah University- Palestine, 2012 b).

5. ***International training programs.***

Training unit in HEIs must arrange for training programs outside the country. Training units can also arrange international exchanging training programs by sending groups of students and employees to get training courses in other educational and non- educational institutions outside the country and accept students from these institutions to get training course in the institution. International training courses offer an opportunity for institution to learn new knowledge, learn new skills, and how to use new technologies (Faculty member- Al- Najah University- Palestine, 2012b).

Goal number 8: Motivate institution's stakeholders using an effective rewarding system.

Human beings are very sensitive. Rewarding their achievements provide them with great motivation and encourage them to work harder in order to be always on the top. On the other hand continuous critiques decrease their work motivation and make them disappointed and self-unconfident. HEI must be aware of the critical role that an effective rewarding system plays in emphasizing institution's growth and innovation. Institution's stakeholders will be excited to get rewards as a sigh for appreciating their achievements. They will be motivated to find creative ideas that make them deserve being rewarded. "Rewarding students for being excellent, for doing any honorable academic or non- academic activity, winning competition, being an active member in academic or non- academic activities, or positively

contribute to society. Students will be motivated to improve their students if they feel appreciated by HEIs" (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). According to the meta- analysis of the available frameworks in the literature, the effect of the rewarding system was never used as an independent goal. It was mentioned as an indicator for other components (Farid et al., 2008a; Farid et al. 2008b; Pineno & Boxx, 2011; Stewart & Carpenter- Hubin, 2000). In addition, none of the proposed goals were found in the available BSC frameworks studied through the meta-analysis of the available literature. The goals were mainly proposed by the researcher and evaluated through the conducted interviews.

1. ***The availability of defined rewarding criteria.***

Having well-defined, clear, transparent, and announced rewarding criteria is very important to assure institution's rewarding system reliability. If institution's rewarding criteria is vague for stakeholders, then given rewards will have no value and institution will be harmfully criticized. Rewarding criteria includes: targeted stakeholders, reward name, and set of standards that make nominated stakeholders deserve to be rewards. Institution must be smart when choosing the reward to give according to the reward target. For example: students will be very excited if financial rewards will be given while employees may prefer to get a promotion instead of financial rewards while other stakeholders like board of trustees' members may prefer to have an appreciation letter for the effort they had made for institution's excellence. Efficient rewarding criteria will have positive effect into stakeholders' attitude and performance which will positively reflects institution's

attitude toward growth and innovation(Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

2. *Timely events made to reward institution's stakeholders.*

The continuity of the rewarding process is an important indicator that the institution is serious about rewarding deserved stakeholder (Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a). Stakeholders will be excited while preparing themselves for the coming rewarding events. Establishing well-timed rewarding events will increase the efficiency of rewarding system and ensure institution's efforts toward growth and innovation.

3. *Announcement of rewards achievers.*

Rewards achievers will appreciate the announcement of their names into medial and press. Other stakeholders will work hard to get the same chance because being rewarded by HEI will offer great opportunities for excellent stakeholders. They may not get these opportunities if nobody knew that they are excellent. For example: announcing the students' honor list will make students, their teachers, and their families satisfied. It will encourage interested donor to invest in these students and they may job offers or scholar ships to complete their higher education study. The case is similar for other stakeholders. For the institution itself, announcement is an evidence of institution's excellence and high quality level of performance. Announcing rewards achievers is an indicator for the efficiency of rewarding system for institution's support for growth and innovation (Faculty member- Al- Najah University- Palestine, 2012 b; Head of Registration Department- Palestine Technical

University (Khadoorie), 2012 b; The Accreditation and Quality Assurance Commission, 2012).

Goal number 9: Support institution's improvements in the use of modern technologies.

Institution's effective use of modern technologies is one of the core factors that affect institutions growth and innovation. New technologies are invited around the world every day. HEIs must always look for any new technologies that improve work efficiency and keep institution's stakeholders satisfied. According to the meta-analysis of the available BSC in the literature, the effect of technology is mentioned in many frameworks but as performance measure not as independent goal. The proposed BSC generic framework is the first to declare it as independent goal (Chow Yang & Shiau, 2006; Farid et al., 2008a; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011). Some of the proposed goals were found in previous BSC frameworks while the other were nor found and were proposed by the researcher and evaluated through the conducted interviews. To measure institution's attitude toward improving used technologies, the proposed BSC framework suggested the following measures.

1.Average time for updating computers and other used technologies.

As said before, new technologies appear every day. If average time for updating computers and other used technologies in an institution is relatively long, then institution will end with set of expired hardware that used to be recent technologies (Farid et al., 2008b).

2. *Number of new adopted technologies.*

Another important indicator for institution's concern about improving used current technologies is the number of new technologies adopted by institution compared to peer institutions (Vermaak & Cronjé, 2001).

3. *Increase in budget allocated for updating used technologies.*

The assigned budget for updating used technologies is an important indicator for institution's degree of concern about technology growth and improvements. The increase in budget assigned by institution for updating used technology in an indicator that the institution is concern about keeping used technologies up to date and adopting the use of any efficient new technology Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

4. *Number of computer labs in institution.*

Students need to use computers in their study. They need to spend long time searching for data and preparing reports (Pineno & Boxx, 2011). Not all students own their own computers; they might need to use computers' lab in HEI. Some of the academic courses needed to be taught practically in computer labs as a result the number of computers' laboratories in an institution is an important indicator for the effective use of technology and surly institution's overall excellence in academic internal processes. The number of computers' labs must be logical and institution must take into consideration the spread of these labs in institution's different collages.

5. <u>Number of computers per lab.</u>

Another important indicator to measure institution's effective use of technology is the number of computers per lab. HEIs cannot offer a computer for each student but at least it must offer an acceptable number of computers especially in practical classes where students have to depend on computers during the class. It would be meaningless to fine more than one students using one computer because HEI is not offering the needed numbers of computers (Faculty member- Al- Najah University- Palestine, 2011a).

6.<u>Availability of wired and wireless internet connection.</u>

Internet becomes an important part of our lives. At home, work, and school. One of the most important indicators that HEI is effectively using technology is the availably of both wired and wireless internet connection in every place in the institution inside and outside facilities (Karathanos & Karathanos, 2005)

7.<u>Availability of new technological hardware (smart boards, LCD projectors, video conferences set up … etc.).</u>

Modern technology is not limited with computers and internet connection. It expands into new technological hardware used inside class rooms, in the meeting rooms, and in technical laboratories. The number of modern new technologies that HEI can use in its work is unlimited. The availability of up to date modern technologies in an institution is an indicator that the institution is effectively using technology (Farid et al., 2008a; (Papenhausen & Einstein, 2006; Vermaak & Cronjé, 2001).

8. <u>Availability of technicians and experts.</u>

The availability of modern technologies is an important indicator for institution's level of excellence but at last these technologies are machine that may stop or damaged. HEI must have high quality technical teams for each type of used technologies. The availability of technicians and experts is an indicator for institutions' effective use of technology which will positively affect institution's learning and innovation abilities (Employee at the Quality Unit- Al Najah University, 2011).

9. *Use of social networks.*

Nowadays social networks play an important role in our life especially young generations. Most of HEIs' students are members of one or more social websites like Facebook and Twitter. Social networks can have both positive and negative effects. HEI must be smart and try to adapt student's use for these websites for the benefit of education processes. Institution's ability to positively use these social networks is an indicator for institution's high level of growth and innovation (Employee at the Quality Unit- Al Najah University; Faculty member- Al- Najah University- Palestine, 2011a).

10. *Institution's website.*

Modern technologies and internet connection simplify our life. HEI's stakeholders do not have to go to the institution personally to get data or submit applications. They can do this without leaving their seats using institution's web site. Institution must develop user friendly website that offer information for all stakeholder. All institution's tasks like jobs applications, admissions applications, courses registry, and financial transact transactions can be made through institution's website. The availability of an active user friendly website is an important indicator for

institution's effective uses of technology which will surly affect institution's learning and innovation abilities (Employee at the Quality Unit- Al Najah University; Faculty member- Al- Najah University- Palestine, 2011a).

Goal number 10: Efficiency and effectiveness of feedback system.

Feedback is one of the most important processes that the institution must work hard to achieve because it provides institution with up to date data about institution's performance in all internal process and about institution's academic programs and curricula. Feedback gathered from institution's different stakeholders provides institution with valuable data about what stakeholders think about the institution. Effective feedback system helps institution identifying strengths and weaknesses which will help institution adjust strategies and internal processes to fit with stakeholders' needs and expectations. HEIs can gather stakeholders' feedback using questionnaires, interviews, focus groups, and regular meeting. They can discuss shared interests, common problems, new initiatives, and cooperation projects. None of the BSC frameworks available in the literature suggested the feedback system as an independent goal. They only notify to its effect in performance indicators.

To measure the efficiency of institution's feedback system, the proposed BSC framework suggested the following measures:

1. ***Timely students' feedback for teaching, staff, services, internal processes, and academic programs and courses.***

Students are the key players in HEIs. HEIs care about their satisfaction toward institution's staff and activities. Institution listens to students' feedback carefully and tries to deal with any problems. Students' may provide institution with feedback

about academic and non- academic staff, internal processes, academic programs, and courses, and students' relations with institution's stakeholders. Institution must gather students' feedback regularly. It can't take it once and then stops or wait for a very long time. Feedback collection must be continuous and well- timed (Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011).

2. ***Timely employees' feedback for students' progress, courses, services, programs, and curriculum.***

Academic and non- academic staff are another important actor in an institution. Their feedback is valuable for improving institution's work. It is important to get employees' feedback seriously and carefully because they are on the field dealing with students, other stakeholders, institution's internal processes, and academic programs (Kassahun, 2010; Papenhausen & Einstein, 2006). Employees' feedback will enrich institution with valuable suggestions about what should and should not be made which definitely will increase institution's processes excellence and emphasize efforts toward growth and improvement (Employee at the Quality Unit- Al Najah University, 2011).

3. ***Timely stakeholders' feedback.***

Feedback provided by other stakeholders about students' level of performance and institution's internal processes is very important for institution's successes because other stakeholders. Having other stakeholders' feedback will provide institution with a complete vision about institution's performance and about stakeholders' opinion of institution's overall quality which will help institution assure continuous support for growth and innovation in institution's processes (Employee at the Quality Unit- Al Najah University, 2011).

4. *<u>Varity of feedback techniques.</u>*

Institution can gather stakeholders' feedback using different methods like: questionnaires, surveys, interviews, focus groups, phone calls, regular meetings, word of mouth, and complaints. The collected feedback will be more reliable if institution uses may methods to collect feedback from specific stakeholder about specific part. If there are contradictions between data gathered about the same thing then something wrong had happen and institution must investigate about the conflict before taking any step. Feedback reliability is very critical for the efficiency of feedback system in an institution (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

5. *<u>Institution's response time toward feedback information.</u>*

Institution's response time for stakeholders' feedback is very critical for the efficiency of feedback system in an institution. If stakeholders feel that the institution is taking their feedback seriously then they will be very cooperative and will continually provide institution with any important feedback before they were even asked. Stakeholders will be more objective in their assessment if they feel that the institution is taking their feedback seriously (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

<u>Goal number 11: Growth and innovation in provided service.</u>

As mentioned before, services provided by institution have great influence into stakeholder's satisfaction. Institution must pay aware of the necessity of improving

available services and initiating new services so stakeholders will be always satisfied about institution's provided services. To measure institution's growth an innovation in provided services, the proposed BSC framework suggested the following measures:

 1. _Improvements in current provided services._

When HEIs start new services, they make sure that these services are matching with stakeholders' needs and expectations. HEIs must always monitor provided services and search for any new possible improvements that keep existing services efficient (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al-Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

 2._Number of new services initiated._

Institution must always think about new services that keep stakeholders happy and satisfied. It can get used of services provided by other institutions, and can also make surveys about stakeholders' needs and expectation for services provided by institution. The number of new services initiated by HEI is an indicator for institution's interest in services growth and innovation (Employee at the Quality Unit- Al Najah University, 2011; Faculty member- Al- Najah University- Palestine, 2011a; Head of Registration Department- Palestine Technical University (Khadoorie), 2011 a).

 3._Institution's rank in provided services compared to peer institution's._

Institution's rank that relates to provided services is an important indicator fir institution's interest in services growth and innovation among peer institutions.

Working hard to improve its rank is an indicator that the institution is very concern about is rank among peer institutions (Farid et al., 2008b).

 4.*Increase in budget allocated for institution's services.*

To improve current services and start new services, HEI needs money for that. The increase in budget allocated for services growth and innovation is an indicator for institution's care about provided services (Employee at the Quality Unit- Al Najah University, 2011).

 Goal number 12: Physical resources growth and innovation.

When they first initiate, physical resources in HEIs are new but after being used, they will need maintenance and update. There will be a need to add new resources to match with new requirements and updates in institution's environment and needs (Farid et al., 2008a; Pineno & Boxx, 2011). To measure institutions degree of concern about physical resources growth and innovation, the proposed BSC framework suggested the following indicators to measure institution's concern about physical resources growth and innovation:

1. *Average cycle time for renewing institution's physical resources.*

The average cycle time for renewing educational physical resources like building, facilities, and educational equipment is an important indicator for institution's concern about growth and innovation. In one hand, average renewing time must be logical. It must not be so long so institution's stakeholders' satisfaction and internal processes excellence are negatively affected. On the other hand institution must not make unnecessary changes and updates causing institution unreasonable financial losses (Farid et al., 2008b).

2. *<u>New physical resources added.</u>*

New physical resources added to the institution represent an indicator for institution's degree of concern about physical resources growth and innovation. These additions can be new building, new green areas, new lighting systems, and new furniture and physical equipment (Faculty member- Al- Najah University- Palestine, 2011a; Employee at the Quality Unit- Al Najah University, 2011)

3. *<u>Percentage of increase in budget allocated for renewing institution's physical resources.</u>*

The Percentage of increase in budget allocated for physical resources growth and innovation is an important indicator for institution's interest in institution's physical resources growth and development (Faculty member- Al- Najah University- Palestine, 2011a; Employee at the Quality Unit- Al Najah University, 2011).

4.4.4 Financial Perspective. How do we look to shareholders?

The fourth and last perspective of the BSC is the financial perspective which answers the question "How do we look to shareholders "(Kaplan & Norton, 1992). This perspective describes tangible outcomes that the institution is willing to achieve (Farid, et al., 2008).Traditionally, institutions depended on financial measures to evaluate institution's work performance. The BSC completed the effect played by financial indicators with the effect of other non- financial indicators to provide decision makers with complete vision about institution's performance (Kaplan & Norton, 1992). HEIs are usually nonprofit organizations but they have to monitor their financial situation because they have huge expenses in utility costs, salaries, teaching costs, and services. Institutions must ensure that financial situation is

stable. The proposed goals and measures are mainly conducted based on meta-analysis for available frameworks in the literature and written in the researcher's language and evaluated by an interview with the Financial Director in Palestine Technical University (Khadoorie). The BSC generic framework proposes the following strategic theme that HEIs must work to achieve: "**Establish an effective financial System".**

The following table contains an overview of the financial perspective of proposed BSC framework:

Table 4: BSC Financial Perspective.

Establish an efficient financial System.	1. Maintain income stability	1. Cash earned from students' tuition. 2. Cash earned from services provided by HEI. 3. Government financial support. 4. Financial support given by donors.
	2. Generate new sources of income	1. Number of new initiatives funded by donors. 2. Percentage increase in students' tuitions. 3. Increase in income resulted from non - free services offered by HEI.
	3. Managing institution's expenses	1. The difference between actual costs and budgeted amount. 2. Percentage of Students' loans compared to other expenses. 3. Cost per student. 4. Cost per credit hours.

After viewing the proposed BSC framework financial perspective table, an explanation for each goals and used measure will be explained as follows:

Goal number 1: Maintain income stability.

Profit and non- profit HEIs have to maintain their income stable. HEIs have many financial commitments and expenditures that required huge financial support. HEIs must work hard to maintain income stability (Martello, et al. 2008). Any instability

in institution's income will cause an interruption in institution's financial system that will reflect into institution's internal processes and growth initiatives which will end in stakeholders' dissatisfaction. To measure institution's income stability, the following measures are proposed:

1. *<u>Cash earned from students' tuition.</u>*

According to the meta- analysis of the available literature, cash earned from students' tuition is an important source of institution's income (Farid et al., 2008b; Kassahun, 2010; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011; Umashankar & Dutta, 2007; Vermaak & Cronjé, 2001). Students' tuitions especially in non- profit HEIs are relatively low. As a result, tuitions may not be enough to cover institution's financial commitments and expenditures but even though it is still an important indicator to measure intuitions income stability. If students do not pay their tuitions in cash and have many debits and loan then institution's income will not be stable and so all institution's financial system (The Financial Director- Palestine Technical University (Khadoorie), 2012).

2. *<u>Cash earned from services provided by the university.</u>*

Another source of income in HEIs is the money it gain from services provided by institution. Institution do not offer huge services because it is not the goal of its work but it might offer few services that relates to work nature in an institution like consulting services, rent institution's equipment's or facilities like holes and some chemical lab tests. According to the meta- analysis of the available literature, income from services provided by HEIs emphasizes institution's income stability (Farid et al., 2008b; Pineno & Boxx, 2011).

3. *Government financial support.*

According to the meta- analysis of the available literature, governmental financial support is an indicator that an institution is maintaining income stability (Karathanos & Karathanos, 2005; Kassahun, 2010). HEIs especially non- profit institutions will not be able to proceed without government financial support. HEIs have many financial commitments that can't be covered by students' tuitions and cash earned by institution's services. Standards and rules that make institution eligible for government financial support vary according to laws and regulations in these governments. Some countries provided all HEIs the same amount of financial support. Other governments link financial support with institution's academic performance and allocate the amount of money according to institution's rank among peer institutions. This indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012).

4. *Financial support given by donors.*

According to the meta- analysis of the available literature, financial support given by donors is an indicator maintaining income stability in HEIs (Farid et al., 2008a; Kassahun, 2010; Martello et al., 2008; Papenhausen & Einstein, 2006). It is an important source of income that keep institution's income stable is the financial support given by donors (The Financial Director- Palestine Technical University (Khadoorie), 2012). Financial support provided can be cash or development projects. Institution can't consider donations as continuous source of income because it may stop or decrease by time but its availability support institution in maintaining income stability.

Goal number 2: Generate new sources of income.

HEIs' activities grow every day. Institution's will always think about new projects and initiatives to attract high quality students and employees, increase stakeholders satisfaction, increase internal processes excellence and support growth and innovation projects in an institution. HEI must always think and search about new source of continuous income to support current processes and future projects to keep financial system effective and support institution's processes and activities (Martello et al., 2008). To measure institution's achievements in generating new sources of income, the BSC framework proposed the following measures:

1. *Number of new initiatives funded by donors.*

HEIs always have new initiatives that needed to be funded by donors. According to the meta- analysis of the available literature, the number of new initiatives funded is an indicator for the generation of new source of income for institution (Farid et al., 2008a; Papenhausen & Einstein, 2006; Kassahun, 2010). To do institution must ensure that current donors are satisfied about institution's justice in allocating donations. As clarified in stakeholders' satisfaction perspective the satisfaction of current donors keep them supporting institution's activities and encourage new potential donors to cooperate with the institutions. It is worth to add that his indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012).

2. *Income growth by the increase in students' tuitions.*

According to the meta- analysis of the available literature, income growth by the increase in students' tuition is an indicator for the generation of new income

resources (Farid et al., 2008a; Kassahun, 2010; Pineno & Boxx, 2011). Income increases by the increase in students' tuition can happen in two ways. The first way is by increase in number of students enrolled into HEI. The more students join the institution, the more income from students tuitions will be. The second way is by increasing students' tuitions for current or new students or both of them. The second way might not be the best solution to increase institution's income especially in non- profit HEIs. If institution is run of options and have no solution except increasing tuitions then it must explain the reasons for stakeholders to avoid any negative reactions that may happen. Institution may decide to adopt fixed percentage of increase in tuition every defined period of time. In this case, institution must declare this strategy for stakeholders and must have good reasons to explain it. This indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012).

3. ***Increase in income resulted from non- free services offered by HEIs.***

This indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012). The increase in institution's income that resulted from non- free services offered by higher education institutions can resulted from the increase in number of provided services, increase in number of service requests done by HEI, and increase in required tuitions for the provided services. According to the meta- analysis of the available literature, the increase in income resulted from non - free services offered by HEI is a new source for institution's income (Farid et al., 2008b; Kassahun, 2010; Martello et al., 2008; Papenhausen & Einstein, 2006; Pineno & Boxx, 2011).

Goal number 3: Managing institution's expenses.

HEIs have large financial costs and expenses. Some of them are fixed like utility costs and employees' salaries while others are variable and may change according to number of institution's students and employees. Weather required expenses are fixed or variable, HEI must manage expenses well to increase the efficiency of financial system. The following are the measures proposed by BSC framework to measure that the institution is well- managing financial costs.

1. ***The difference between actual costs and budgeted amount.***

This indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012). HEI spend large amount of money to pay for institution's fixed and variable costs. If money spent to cover these costs is over the budgeted amount, then institution must investigate about the reasons of this difference (Pineno & Boxx, 2011). Keeping cost within budgeted limits prevents institution form having financial troubles and ensures the efficiency of institution's financial system.

2. ***Percentage of Students' loans compared to other expenses.***

This indicator is important in measuring the quality of financial system in HEIs (The Financial Director- Palestine Technical University (Khadoorie), 2012). Managing students' loans is considered one of the most challenging duties that HEIs must perfectly achieve. Students' loans may cause serious financial troubles for institution if they are not effectively managed. According to the meta- analysis of the available literature, the proposed measure is an important indicator for institutions' efficiency in managing its expenses (The Financial Director- Palestine Technical University (Khadoorie), 2012).

3. __Cost per student.__

According to the meta- analysis of the available literature, measuring the cost per student is an important indicator for managing institutions expenses ((Karathanos & Karathanos, 2005). It helps HEIs to better planning for its expenses and better allocation for resources (The Financial Director- Palestine Technical University (Khadoorie), 2012)

4. __Cost per credit hours.__

According to the meta- analysis of the available literature, measuring the cost per credit hours is an important indicator for managing institutions expenses (Pineno & Boxx, 2011). By allocating the cost of credit hours, HEIs can estimate the cost of each program which helps in identifying the programs that may cost the institution large expenses and do not have enough return (The Financial Director- Palestine Technical University (Khadoorie), 2012).

4.5 Conclusion.

This chapter viewed the main findings of this research. It discussed in details the main contribution of this research which is the proposed BSC generic framework. The four perspectives of the proposed framework were viewed followed by an extended explanation for strategic themes, goals, and performance indicators for each of the four perspectives.

Chapter Five
Conclusion and future work

5.1 <u>Introduction:</u>

This chapter starts by viewing the main contribution of this research. It summarized the importance of the proposed BSC framework and how does the framework contribute to quality assurance in HEIs especially in Palestine. After that, conclusions about research questions are summarized. Finally, the research recommendations for future work are described.

5.2 <u>Research contribution.</u>

The main contribution of this research is the proposed BSC generic framework which is designed to provide HEIs in general and in Palestinian HEIs in particular with an effective strategic measurement tool to evaluate performance quality. The proposed BSC generic framework is built to cover the BSC four perspectives. The BSC generic framework is constructed mainly based on meta- analysis for existing BSC frameworks in the literature. A case study was made to evaluate and discuss the efficiency and applicability of the proposed framework. Nine interviews were conducted with faculty members from three Palestinian HEIs: Birzeit University, Al Najah University, and Palestine technical university (Khadoorie) and with a quality specialist and the Accreditation and Quality Assurance Commission (AQAC). To strengthen the evaluation of the used performance indicators, a selective set of performance indicators related to the internal processes perspective were quantitatively evaluated by a survey questionnaire that was distributed to random

sample of Birzeit University students. This research in general and the proposed BSC generic framework can be considered a valuable contribution to knowledge in the field of quality assurance in higher education especially in Palestine for the following reasons:

✓ Few initiative were made in the literature about implementing the BSC in higher education, most of them were made in developed countries and very limited initiatives were made in the third world counties. In Palestine, two studies were made about implementing the BSC as strategic measurement tool. One of them was in e-government sector and the other was in business sector. This research can be considered as the first initiative in Palestine about implementing the BSC as strategic management tool in HEIs.

5.3 Conclusions about proposed BSC generic framework.

After deep study to the existing BSC frameworks in the literature. It can be said that the proposed BSC generic framework is different from other BSC frameworks proposed in the literature for the following reasons:

✓ The proposed generic framework is comprehensive compared to other frameworks reviewed in the literature. It covers all HEIs expected stakeholders. The framework highlighted the main academic and non- academic internal processes that HEIs must excel at to achieve stakeholders satisfaction. The framework provides HEIs with wide range of growth and innovation fields and finally the framework focus on the main financial goals that HEIs must consider to be financially successful.

✓ Unlike the proposed frameworks in the literature, the BSC generic framework proposed by this master thesis is gathering all the expected stakeholders in one framework. According to the meta- analysis for the literature the following are the expected stakeholders for HEIs: students, employers, parents, faculty, community, donors, external auditors, and board of trustees. In addition, the generic framework proposed additional four expected stakeholders: 1) Research units and centers, 2) Employees' union, students' council, and protest groups, 3) Media and Press, and 4) Other HEIs. The detailed explanation for the proposed generic framework explains how these stakeholders are going to affect the quality of HEIs' performance.

✓ Decision makers can consider the framework as the starting point for effectively implementing the BSC as a strategic management tool in evaluating performance quality in HEIs.

✓ The framework provides decision makers with comprehensive vision of HEIs stakeholders, internal processes, innovation sources, and financial indicators.

✓ Although the implementation of the proposed BSC generic framework is expensive at first but when it starts working its effect into institution's performance will reflect into the outcome. The institution will get the cost paid to implement the BSC framework and will gain more profit.

✓ It is worth to add that the effective implementation of the proposed BSC framework requires taking into consideration the following success factors:

❖ Including the implementation of the BSC as strategic management tool in the institution's strategic plan and strategic processes.

❖ Increase stakeholders' awareness about the importance of using the BSC generic framework as a strategic management tool in evaluating performance quality in HEIs.

❖ Involving employees from all levels in the construction and implementation of the framework.

❖ Listen to stakeholders' feedback about the framework and get used of the provided feedback.

❖ Emphasize employees' beliefs in the importance of the framework. Without believing in the efficiency of the framework, employees will not work seriously in assuring the success of implementing the framework.

5.4 <u>Conclusion about research questions.</u>

Based on the existing BSC literature and supported by interviews' results explained in research methodology, the answers of the research question can be summarized as follows:

Question number 1: What is the current situation of the academic quality assurance in the Higher Education Institutions?

Higher education is one of the most critical educational levels in any country. It is the main sources of knowledge and the main generator for human resources in all fields. It is the level where students' characters are built and improved. The influences of this level are not limited with students who receive education. It expands much further to reach the whole society. Higher education doesn't only build students' knowledge in academic field, but also builds their characters, moral, and attitudes toward their family, work, and community (Mishra, 2007). According to the literature, the quality concept is a new concept that HEIs around the world

became aware of (Mashhad et al., 2008).Globalisaztion, the use of modern technology ,the increase in HEIs numbers and the sever compititon among these institutions made HEIs relized the necessity of improving performance quality Instituions are still learning about academic quality assurance and about the best techqnices to be used in evaluating performance quality (Mashhad et al., 2008).

The case is the same in Palestinain HEIs. Each instituion has its own independent quality assurance unit that is responsible for assuring quality inside the institution using different methods like evaluation forms and financial indicators programs. Some of the HEIs in Palestine are recently working on implementing strategic quality assurance systems but still the implementaion is in its earlly stages. (Employee at the Quality Unit - Al Najah University, 2011; Head of Quality Unit at Birzeit University, 2011). The Accreditation and Quality Assurance Commission in Palestine started to work in 2002. It is mainly responsible for approving new academic programs and evaluating existing academic (The Accreditation and Quality Assurance Commission, 2012)

Question number 2: What are the weaknesses and shortcomings in measuring the performance of higher education institutions?

The research results should that the main problems and shortcomings that HEIs mainly face can be summarized as follows:

➢ The unavailability of an evaluation tool to measure performance quality.

➢ The use of traditional measurement of financial indicators which are too historical, focus on input and ignore the output, do not capture critical changes happen in the organization until it is too late and no recovery or fixing actions

can be taken, don't reflect non- functional processes, they only reflect the functional processes only, do not have the flexibility to predict the future performance for the organization and may lead into rewarding the wrong behavior (Kaplan & Norton, 1992; Kaplan & Norton, 1993; Kaplan & Norton, 1996).

➢ The resistance of viewing students as customers. It is not easy to accept that students are considered as customers for HEIs, since the word customer is always connected with money and business (Rowley, 1995).

➢ Another critical problem in HEIs is the lack of awareness among institution's students, and employees toward the critical effect of quality on their performance and on the overall educational process. They think that the main role done by this unit is preparing evaluation forms and analyze the data (Head of Quality Unit at Birzeit University, 2011) (The Accreditation and Quality Assurance Commission, 2012).

➢ The unavailability of a unified unit that is that is responsible for coordinating quality steps in HEIs. Each institution has its own independent unit and own procedures. In the case of Palestine, The Ministry of Higher Education is mainly responsible for evaluating new and existing academic programs It is not responsible for evaluating performance quality inside HEIs (The Accreditation and Quality Assurance Commission, 2012).

Question number 3: What are the recommended solutions to bridge the weaknesses and shortcomings?

➢ HEIs are recommended to take urgent steps and procedures to overcome the weaknesses and shortcomings they face (Employee at the Quality Unit- Al Najah

University, 2011). The main and most important step is to stop the random evaluation processes and adopt the use strategic measurement tool. HEIs need to expand it quality performance techniques to more that financial indicators and programs approval. They must adopt a strategic measurement tool that considers the effect of both financial and operational factors.

➢ HEIs must identify their main stakeholders and their targets and start planning how to attract high quality stakeholders to join HEIs.

➢ HEIs must increase stakeholders' awareness about the important effect of quality into institutions' performance. They must emphasize stakeholders' faith and confidentiality about institutions' achievements and activities.

Question number 4: Is the Balanced Scorecard an appropriate approach for measuring academic quality assurance?

The BSC is a strategic management tool that was founded in the year 1992 by Kaplan and Norton. It was first used in the business sector and proved to be an efficient strategic measurement tool to evaluate institution's performance. BSC doesn't depend on financial indicators only as traditional measurement tools did. It measures performance from four different perspectives which are: customer perspective, internal processes perspective, learning and innovation perspective, and financial perspective (Kaplan & Norton, 1992).As it proved huge successes in business sector, BSC proved to be an efficient performance measurement tool in the education sector. There was little number of actual cases where higher education institutions used the BSC as an evaluation tool. In all cases, the BSC proved to be an effective measurement tool in HEIs. According to Kaplan and Norton (1992), BSC is not a fixed template that can be designed and implemented the same way

everywhere. It has four main perspectives while the content of these perspectives is left to users who can set their strategies, goals, and measures. The institution can apply the four perspectives of the BSC, add new perspectives, or remove an existing perspective according to their needs (Nayeri, Mashhadi, & Mohajeri, 2007).

The implementation of the BSC as a measurement tool is an expensive decision for institutions. It requires large financial support, time, and effort when it is first implemented but once it starts working, the positive effects of the BSC into evaluating institution's performance will appear and will help institutions improve their performance which will surely reflect into institution's income. Not only institution's financial situation will be improved but also institution's image and reputation in the society because the BSC does not evaluate institution's financial performance but also institution's performance towards stakeholders. BSC helps HEIs by defining their main stakeholders, identifying internal processes that institution must excel at so institutions would be able to satisfy stakeholders. Once stakeholders are satisfied about institution's performance, the result will be directly reflected into HEI financial indicators. The BSC doesn't stop at this limit. It will help HEIs to identify the key factors that help in improving current performance and keep growing and improving in the future.

HEIs must stop acting randomly in evaluating the quality of institution's performance and think of adopting an effective measurement tool like the BSC to improve performance in financial and non-financial perspectives.

This research reviews the important role of higher education as an educational level, the importance of assuring quality in HEIs and the BSC as a strategic measurement tool. This research contributes to the academic quality assurance in higher education

by utilizing the strengths of BSC to implement and evaluate HEIs performance by proposing BSC generic framework to be used in evaluation of HEIs performance. None of the BSC used in the literature was comprehensive. All of them were designed for one specific case. There was no balance between the items of the existing BSC frameworks. Some of them focused on stakeholders while others focused on internal processes. No one generic framework had been proposed. The generic framework is important because it provides decision makers with comprehensive vision about what they can measure and how. They can get the generic framework and then customize it to fit with their requirements. Decision makers and quality assurance units can consider this generic framework as the starting point for building their own customized framework. They might think that all components of the BSC generic framework are necessary in their case or they can make any required adjustment to fit with their needs and requirements. Paranjape, Rossiter, and Pantano (2006) found that the BSC is the most popular, widely implemented and least criticized measurement system among large number of common frameworks such as: Skandia's Navigator proposed by Edvinsson and Marlone, the Performance Prism proposed by Neely, Adams and Kennerley, and the IC-Navigator model developed by Goran Roos, Dragonetti, and Edvinsson (Paranjape, Rossiter , & Pantano, 2006)

5.5 <u>Recommendation for Future research.</u>

The proposed BSC generic framework can be considered as the first step in the path of implementing the BSC as an effective measurement tool in higher education sector. As future work it is suggested to:

✓ Conducting more quantitative evaluations for the performance indicators from all stakeholders' point of views. As idea to conduct the evaluation process, the researcher suggest to make higher education students' contribute in the evaluation processes by conducting parts of the evaluation processes in their graduation projects. This will help offering massive amount of feedback from different stakeholders' points of views and using different research methods.

✓ Evaluating performance indicators quantitatively into a bigger sample to reduce the percentage of students' who have no opinion about the measure and move students' answers in an obvious direction.

✓ Expanding the evaluation of the proposed BSC generic framework to cover national and international HEIs.

Finally, it is worth saying that assuring quality in HEIs is a critical issue. Institutions must not waste time waiting for magical solutions for their performance problems. The generic BSC framework is the starting point for HEI to have an outstanding level of performance compared to other peer institutions around the world.

Appendixes

Appendix 1: Interviews' Questions.

- What are the current tools used in evaluating performance quality in HEIs in Palestine?

- What are the weaknesses and shortcomings in measuring the performance of HEIs?

- What are the expected barriers that may face the implementation of quality measurement systems in general and the BSC in particular in evaluating HEIs' performance?

Appendix 2: demographic distribution of the sample.

Figure 4: Sample distribution according to their faculty.

Number of students

Faculty	Number
Graduate Students Program	9
Commerce and Economics	75
Nursing and Allied Health Professions	8
Engineering	63
Education	1
Low and public administration	18
Science	35
IT	16
Arts	40
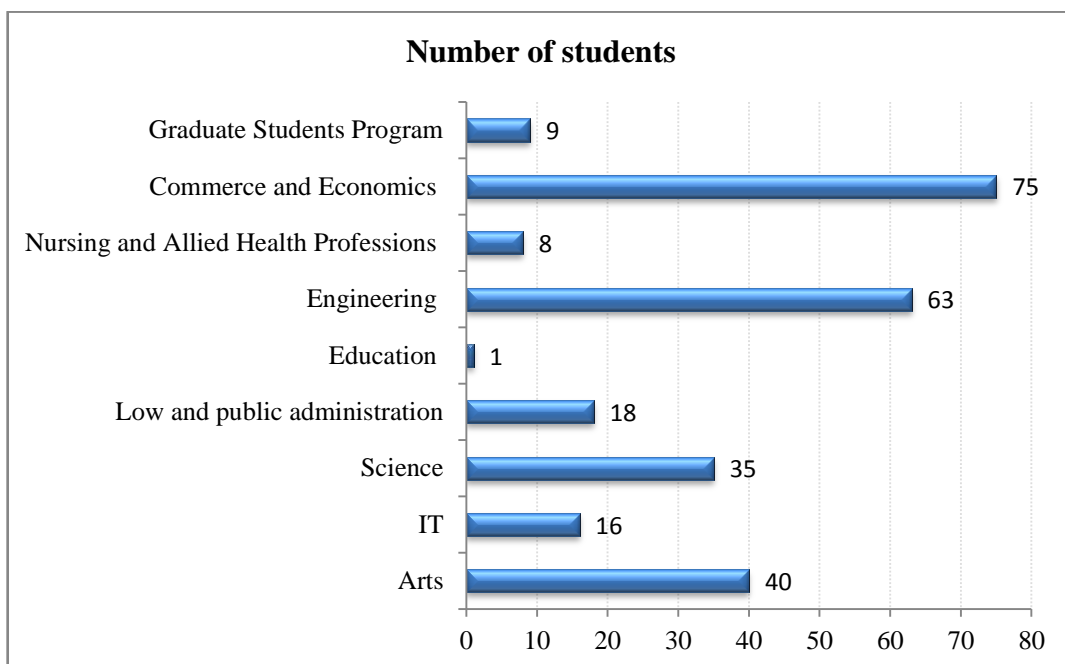
Figure 5: Students' distribution according to their academic year.

Number of sample students in each academic year

Academic Year	Number
Bachelor- Fifth year or above	25
Bachelor- Fourth year	88
Bachelor- Thierd year	62
Bachelor- Second year	80
Graduate Students Program	10
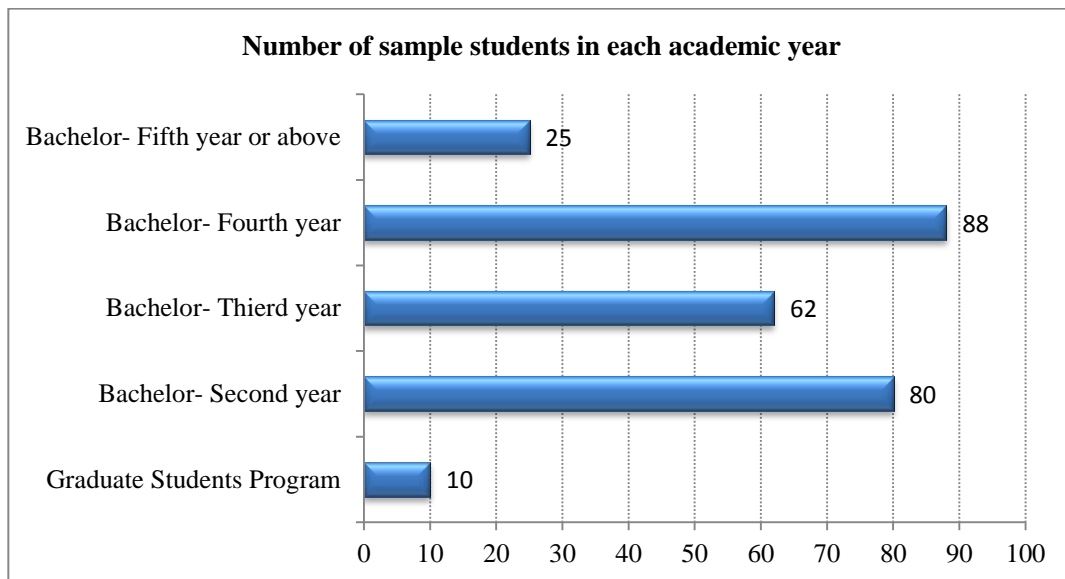
Appendix 3: Survey Questionnaire.

عزيزي الطالب عزيزتي الطالبة:

الاستبانة التالية تتضمن مجموعة من الأسئلة ذات الصلة بموضوع الجودة في مؤسسات التعليم العالي .

الاستبانة التالية هي جزء من دراسة بعنوان " تنفيذ سجل الأداء المتوازن كأداة تقييم في مؤسسات التعليم

العالي و ذلك بهدف اتمام متطلبات الحصول على درجة الماجستير في برنامج ادارة الأعمال.

أرجو منكم التكرم بالاجابة عن أسئلة الاستبانة بدقة و موضوعية .علما بان هذه المعلومات ستستخدم

لأغراض البحث العلمي.

نقدر لكم تعاونكم و تقبلوا جزيل الشكر و الاحترام

عزيزي الطالب عزيزتي الطالبة: <u>الرجاء الاجابة عن الاسئلة التالية بوضع اشارة √ في المربع المجاور للاجابة المناسبة :</u>

1. **الجنس :** ☐ ذكر ☐ أنثى

2. **الكلية التي تدرس بها:**

....

3. **السنة الدراسية :**

☐ بكالوريوس ثانية ☐ بكالوريوس ثالثة ☐ بكالوريوس رابعة ☐ بكالوريوس خامسة فأكثر ☐ دراسات عليا

الرجاء الاشارة بعلامة √ عند الاجابة التي تجدها مناسبة :

تؤثر المؤشرات التالية على المستوى الأكاديمي لطلبة مؤسسات التعليم العالي المختلفة (الجامعات، المعاهد، الكليات) :

أولا : مؤشرات ذات صلة بعملية التعلم.

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	نص الفقرة	رقم الفقرة
					توفر المادة التعليمية من كتب و مراجع مختلفة لكل مساق يدرسه الطالب.	1
					توفر المادة التعليمية للطلبة ذوي الاحتياجات الخاصة	2
					متوسط عدد الطلاب في داخل الصف الدراسي.	3

ثانيا: مؤشرات ذات صلة بعملية التعليم

					عدد الأساتذة الذين يعملون بدوام كامل (Full time instructors).	4
					عدد الأساتذة المتخصصين في مجال معين.	5
					عدد الأساتذة من حملة شهادة الدكتوراه.	6
					طرق التقييم المتبعة في كل مساق.	7

ثالثا: مؤشرات ذات صلة بتطوير البرامج و المساقات الأكاديمية .

					تنوع التخصصات الأكاديمية التي تطرحها المؤسسة.	8
					تنوع المساقات المطروحة في التخصص الواحد.	9
					برامج تبادل الطلبة مع جامعات محلية و عالمية.	10

رابعا: مؤشرات ذات صلة بادارة مصادر التعلم.

					عدد الكتب و المقالات والمجلات الموجودة في مكتبة الجامعة	11
					الوقت الذي ينتظره الطالب حتى يستعير كتابا استعاره طالب آخر	12
					توفر مصادر معلومات رقمية مثل قواعد البيانات الالكترونية و **DVD, CDs**	13
					توفر المواد الأولية في المختبرات (مثلا المواد الكيميائية اللازمة لعمل التجارب في المختبرات).	14
					عدد ساعات العمل في مكتبة الجامعة و المختبرات العلمية.	15

خامسا: مؤشرات ذات صلة بنظام الارشاد للطلبة

				عدد الطلاب الموزعين على كل مرشد أكاديمي.	16
				توفر برامج ارشاد لطلبة السنة الأولى.	17
				توفر برامج علاجية للطلبة الذين يعانون من مشاكل أكاديمية	18

سادسا:مؤشرات ذات صلة بنظام التسجيل المستخدم.

				متوسط الفترة الزمنية التي يحتاجها الطالب للتسجيل للفصل الدراسي.	19
				حفظ بيانات الطالب بشكل منظم.	20
				برنامج الحصص الدراسية للطالب منظم بشكل فعال.	21
				سهولة حصول الطالب على أوراق ووثائق رسمية (شهادات، كشوف علامات).	22
				توفر نظام تسجيل الكتروني فعال.	23

سابعا: مؤشرات ذات صلة بادارة مرافق المؤسسة. (المباني، الممرات، الغرف الصفية، مواقف للسيارات)

				جاهزية مرافق المؤسسة للأنشطة الأكاديمية والغير أكاديمية.	24
				جاهزية مرافق المؤسسة للطلبة ذوي الاحتياجات الخاصة.	25
				جاهزية مرافق المؤسسة في حال وقوع كوارث طبيعية.	26
				توفر بيئة آمنة داخل مرافق المؤسسة.	27

شكر لكم تعاونكم
وتقبلوا جزيل الشكر و الاحترام

Appendix 4: Questionnaire reliability table.

Table 5: Reliability **statistic based on the value of Cronbach's α.**

Reliability Statistics

Cronbach's Alpha	N of Items
.814	27

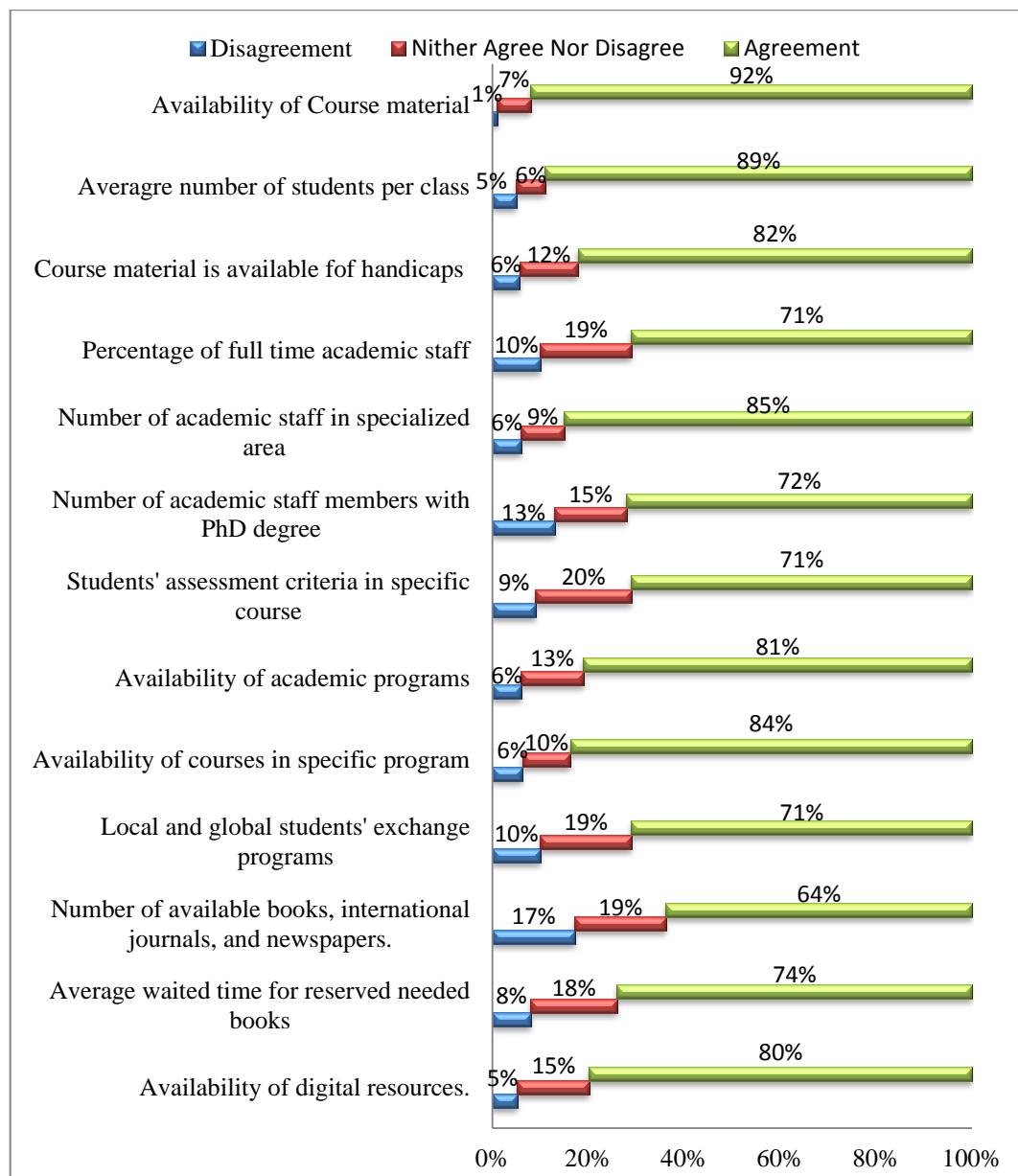# Appendix 5: Survey Questionnaires results.

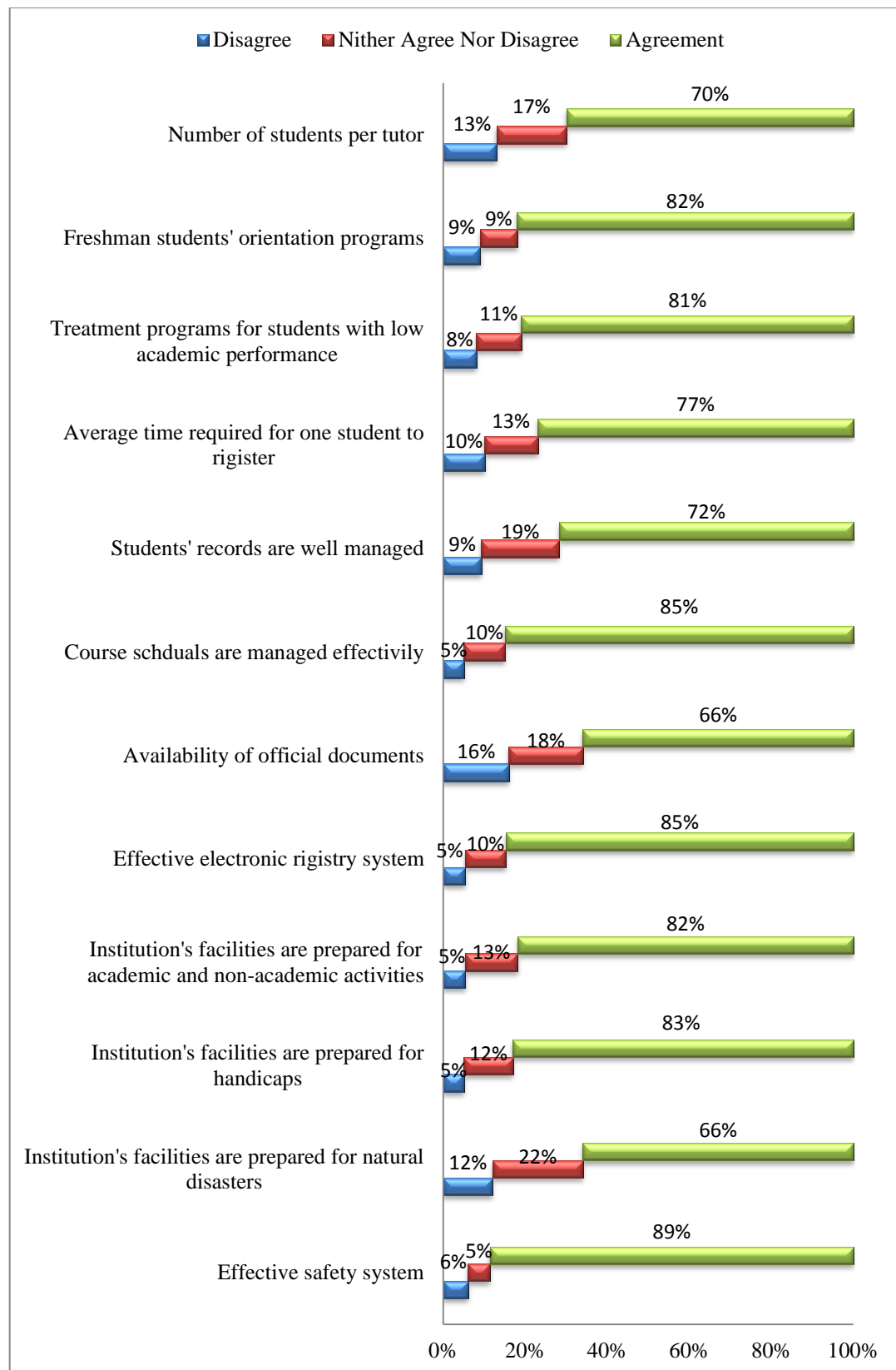**Figure 6: Survey questionnaire results**

Figure 7: Survey questionnaire results- continued.

References

(2011 a). Head of Registration Department- Palestine Technical University (Khadoori). (S. Othman, Interviewer)

(2011). Employee at the Quality Unit- Al Najah University. (S. Othman, Interviewer)

(2011, 3 15). Head of Quality Unit at Birzeit University. (S. Othman, Interviewer)

(2011a). Faculty member- Al- Najah University- Palestine. (S. Othman, Interviewer)

(2012 b, 9). Faculty member- Al- Najah University- Palestine. (S. Othman, Interviewer)

(2012 b, 9). Head of Rigistration Department - Palestine Techniqal University (Khadoori). (S. Othman, Interviewer)

(2012, 9). The Accreditation and Quality Assurance Commission. (S. Othman, Interviewer)

(2012, 12). The Financial Director- Palestine Technical University (Khadoorie). (S. Othman, Interviewer)

AL Bandary, M. (2005). Meeting the challenges: The development of quality assurance in Oman's Collages of Education. *Higher Education*, 181-195.

Ambras, A., & Tamosiunas, T. (2010). The Implementation of the Balanced Scorecard System in Strategic Management of Siauliai University Social Sciences Faculty. *Socialiniai tyrimai/Social Research*, 5-18.

Anderson, G. (2006). Assuring Quality/ Resisting Quality Assurance: Academics' responses to 'quality' in some Australian universities. *Quality in Higher Education*, 161-173.

Atkinson, A., Waterhouse, J., & Wells, R. (1997). A Stakeholder Approch to Strategic Performance Measurement. *Sloan Management Review*.

Atkinson, H. (2006). Strategy implementation: a role for the balanced scorecard? *Management Decision*, 1441-1460.

Barnett, R. (1992). Improving Higher Education: Total Quality Care. *Buckingham SRHE & OU*.

Becket , N., & Brookes, M. (2006). Evaluating quality management in university departments. *Quality Assurance in Education*, 123-142.

Bernnan, J., & Shah, T. (2000). Managing Quality in Higher Education: An International Perspective on Institutional Assessment and Change. *Buckingham: OECD, SRHE and Open University Press*.

Blettner, M., Sauerbrei, W., Schleofer, B., Scheuchnpflug, T., & Friedenreich, C. (1999). Traditional reviews, mata- analysis and pooled analysis in epidemiology. *International Journal of Epidmiology*, 1-9.

Boscia, M., & McAfee, R. (2008). USING THE BALANCE SCORECARD APPROACH: A GROUP EXERCISE. *Developments in Business Simulation and Experiential Learning,*, 8-14.

BSI. (1991). Quality Vocabulary Part2: Quality Concepts and Related Definition. *London: BSI*.

Campbell, A. (1997). Keeping the engine humming. *Business Quarterly*, 40–46.

Chow Yang, C., & Shiau, J. (2006). The application of balanced scorecard in the performance evaluation of higher education. *The TQM Magazine*, 190-205.

Colling, C., & Harvey, L. (1995). Quality control, assurance and assessment- the link to continuous improvement. *Quality Assurance in Education*, 30-34.

Council of Higher Education Accrediatation. (2001). *Glossary of key terms in quality assurance and accreditation.* Retrieved from http://www.chea.org/international/interglossary01.html

Cullen, J., Joyce, J., Hassall, T., & Broadbent, M. (2003). Quality in Higher Education: Montoring to management. *Quality Assurance inEducation*, 5-14.

Dorweiler, P., & Yakhou, M. (2005). Scorecard for academic administration performance on the campus. *Managerial Auditing Journal*, 138-144.

European Commission. (2003). *Higher Education/Research Relations in order to strengthen the strategic basis of the ERA.* Belgium: Office for Official Publications of the European Communities.

Farid, D., Nejati, M., & Mirfakhredini, H. (2008a). Balanced Scorecard application in universities and higher education institution: Implementation guide in an Iranian Context. *Annals of University of Bucharest, Economic and Administrative Series*, 31- 45.

Farid, D., Nejati, M., & Mirfakhredini, H. (2008b). Retrieved from CORE: http:www.lexetscientia.univnt.ro/download/228_lesij_es_XV_2_2008_art_29.pdf

Hadawy, S., Poursadegh, N., Zeinab, N., & Khavandi, R. (2011). Developing an Strategy for Mobin Petrochimical Company by usin the Balanced Scorecard Attitude. *Business Intelligence Journal*, 129 - 141.

Harman, G. (1998). The management of quality assurance: A review of international Practice. *Higher Education Quarterly*, 345-364.

Jeliazkova, M., & Westerheijden, D. (2002). Systemic adaptation to a changing environment: Towards a next generation of quality assurance models. *Kluwer Academic Publishers*, 433-448.

Kaplan, R. (2001). Strategic Performance Measurement and Management in Nonprofit Organizations. *Nonproft Management and Leadership*, 353-369.

Kaplan, R., & Norton, D. (1992). The balanced scorecard-measures that drive performance. *Harvard Business Review*, 71-79.

Kaplan, R., & Norton, D. (1993). Putting the balanced scorecard to work. *Harvard Business Review*, 134- 147.

Kaplan, R., & Norton, D. (1996). Linking the balanced scorecard to strategy. *California Management Review*, 53-79.

Karathanos, D., & Karathanos, P. (2005). Applying the Balanced Csorecard to Education . *Journal of Education for Business*, 222-229.

Kassahun, T. (2010). Rethinking institutional excellence in Ethiopia: adapting and adopting the balanced scorecard (BSC) model. *JBAS*, 22-53.

Kettunen, J. (2006). Strategic planning of regional development in higher education. *Baltic Journal of Management*, 259-269.

Krishnan, A., & Ravindran, R. (2009). The Balanced Scorecard as a Strategic Performance Control Tool and its link to the Economic Profit Measurment - EVA and MVA: A Literature Review. *Journal of Applied Finance and Accounting*, 76-87.

Maclellan, B. (2007). *http://chco.ca/reports.* Retrieved from http://www.chco.ca: http://chco.ca/reports/files/balancedscorecard.pdf

Martello, M., Watson, J., & Fischer, M. (2008). Implementing A Balanced Scorecard In A Not-For-Profit Organization. *Journal of Business & Economics Research*, 67-80.

Martello, M., Watson, J., & Fischer, M. (2008). Implementing A Balanced Scorecard in Not-For Profit Organization. *Journal of Business & Economics Research*, 67-80.

Mashhad, M. M., Mohajeri, K., & Nayeri, M. D. (2008). A Quality-Oriented Approch toward Strategic Positioning in Higher Education Institutions. *World Academy of Science, Engineering and Technology*, 322-236.

Mc Devitt, R., Giapponi, C., & Solomon, N. (2008). Strategy revitalization in academic: a balanced scorecard approach. *International Journal of Education Management*, 32-47.

Merican, F., Zailani, S., & Fernando, Y. (2009). Development of MBA Program-Service Quality Measurment Scale. *International Review of Business Research Papers*, 280-291.

Mishra, S. (2007). *Quality Assurance in Higher Education: An Introduction* . Bangalore: National Printing Press.

Nayeri, M., Mashhadi, M., & Mohajeri, K. (2007). Universities Strategic Evaluation Using Balanced Scorecard. *International Journal of Human and Social Sciences*, 230-235.

Newton, J. (2000). Feeding the Beast or Improving Quality?: academic perceptions of quality assurance and quality monitoring. *Quality in Higher Education*, 153-163.

Ong, T., Teh, B., Lau, C., & Wong, S. (2010). Adoption and Implementation of Balanced Scorecard in Malaysia. *Asia-Pacific Management Accounting Journal*, 21-40.

Papenhausen, C., & Einstein, W. (2006). Insights from the Balanced Scorecard Implementing the Balanced Scorecard at a coolage of business. *Measuring business excellent Journal*, 15-22.

Paranjape, B., Rossiter , M., & Pantano, V. (2006). Insights from the Balanced Scorecard Performance measurement systems: successes, failures and future – a review. *Measuring Business Execellence*, 4-14.

Pfeffer, N., & Coote, A. (1991). Is Quality Good for You? A Critical Review of Quality Assurance in the Welfare Services. *London: Instituite of public Policy Research*.

Pienaar, H., & Penzhorn, C. (2000). Using the Balanced Scorecard to Facilitate Strategic Management at an Academic Information Service. *Libri*, 202–209.

Pineno, C., & Boxx, W. (2011). The business School Strategy: Continuous Improvement by Implementing the Balanced Scorecard. *APD Journal*, 1-15.

Pond, W. (2002). Twenty- first century education and training Implications for quality assurance. *Internet and Higher Education* , 185-192.

Rose, S., Shipp, S., Lal, B., & Stone, A. (2009, March). *Athenaalliance Organization.* Retrieved from http://www.athenaalliance.org/pdf/innovationFrameworks-STPI.pdf

Punniyamoorth, M., & Murali, R. (2008). Balanced scorecard for the balanced scorecard: a benchmarking tool. *Benchmarking: An International Journal*, 420-443.

Rinehart, G. (2006). Brining the Balanced Scorcard to Life . *White Paper*.

Rowley, J. (1995). A new lecture's simple guide to quality issue in higher education. *International Journal of Education Management* , 24-32.

Ruben, B. (1999, Fall). *Higher Education Forum.* Retrieved from http://www.cd1.rutgers.edu/resources/pdf/score.pdf

Sekaran, U. (2000). *Research Methods for Business.* Illinois: John Willey and Sons Inc.

Smith, J. (2006). Retrieved from IPPA organization: http://www.ippa.org/IPPC2/PROCEEDINGS/Article_36_Smith.pdf

Smith, J. (2006). USING A BALANCED SCORECARD AS A STRATEGIC TOOL IN PUBLIC PURCHASING. *INTERNATIONAL PUBLIC PROCUREMENT CONFERENCE PROCEEDINGS*, (pp. 901-921).

Stewart, A., & Carpenter- Hubin, J. (2000). The Balanced Scorecard Beyond Reports and Ranking. *Planning for Higher Education*, 37- 48.

The Committee for Economic Development Digital Connections Council. (2009). Retrieved from www.glp.net: http://www.glp.net/c/document_library/get_file?p_1_id=473519&folderId=1 2858&name=DLEF-16455.pdf

Thomas, H. (2007). Business school strategy and the metrics for success. *Journal of Management Development*, 33-42.

Umashankar, V., & Dutta, K. (2007). Balanced scorecards in managing higher education institutions: an Indian prespective. *International Journal of Education*, 54-67.

UNISCO. (1996). *Learning: The Treasure Within,(Report of the International Commission on Education to UNISCO for the twenty First Century.* Paris: Jacques Delors.

Varis, T. (2007). New technologies and innovation in higher education and regional development. *RUSC*, 16-24.

Vermaak, F., & Cronjé, C. (2001). The balanced scorecard as a potential instrument for supporting accounting education in South Africa. *Meditari Accountancy Research*, 301-312.

Williams, D. (2001). *systemdynamics.org/conferences/2002/proceed/papers.* Retrieved from systemdynamics.org: systemdynamics.org/conferences/2002/proceed/papers/William1.pdf

Yorke, M. (1999). Assuring quality and standards in globalized higher education. *Quality Assurance in Education*, 14-24.