

University of Hradec Králové
Faculty of Informatics and Management

The role of Strategic Control over the efficiency and effectiveness of performance

Master's Thesis

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Master's Thesis

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Hradec Králové

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Declaration:

I declare I wrote the Master's thesis myself, using only the listed bibliography.

In Hradec Králové,

Signature:

Dedication

To whom she challenged the destiny and got what she sought for.

My dearest

My mother

Abstract

The strategic control is very important, especially that the organizations are currently faced a changeable environment constantly, either as an internal or external environment. The success of an organization is not considered as a guarantee to futuristic success which leads to a difficulty in controlling and strategic assessment in these days. The problem of the research is to find out if the concept of strategic control has obtained the interests up to date hospitals in United Arab Emirates (Al Noor hospital in particular). The results show us that the strategic control process is efficient and effective and proper measuring techniques are used for assessing the performance. However there was some room for improvements so some recommendations were made.

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1. Introduction

The success and the failure of an organization depends on the extend of its ability to realize its mission objectives and purposes that demand to put a specific strategy and seek to implement it in the shade of various changes surround the organization to follow-up the implementation of its strategies or amend it while performing the strategic control process.

The strategic control is very important, especially that the organizations are currently faced a changeable environment constantly; either as an internal or external environment. The success of an organization is not considered as a guarantee to futuristic success which leads to a difficulty in controlling and strategic assessment in these days.

The implementation of the pre-prepared strategy does not mean it has been done successfully, the change in the internal or/and external environment of an organization will consequently lead to aging of strategies despite its quality and excellence constantly; and it may result out from the strategic management process decisions that may have clear consequences on the long term. Some wrong decisions therefore may cause big uncorrectable or unchangeable mistakes. Strategists must review and assess the strategy and control during their execution periodically and continuously not only by the end of the year or biannual because the strategic management process itself does not ever cease. This is for the companies that have clear specific parameters not random ones.

For companies that do not have specific strategies it doesn't mean they don't have the application of their strategic control; despite the fact that the applicable strategies are unofficial but they may realize their objectives by any technique. Therefore; the application of strategic control at these companies shall have the same importance if not greater than the applied companies to the strategies officially and appropriately. Whereas the role of strategic control shall be as a correction of many mistakes exposed by those companies at appropriate time and provide a handle, appoint and exploit the available strength points in the organization and the available changes before it, as well as to avoid weakness points and threats that are faced by those companies.

The importance of the research is derived from the importance of the strategic control as it direct us to the correction of the execution of the set strategy as well as it directs us to the correction of this strategy itself and the demand to amend or change it. Further, it emphasizes on the necessity to take into the account the financial standards as well as the non-financial standards at the time of designing the control system.

The problem of the research is that the concept of strategic control has not obtained interests up to date as it is not applicable in most government and private sectors in United Arab Emirates neither the production as well as the adopted tools in measuring and assessing the performance. The concept of strategic control is also limited on the use of traditional tools that assess the financial side and neglecting the other side's which are important as well in the performance of the organization as the assessment of customers satisfaction and operation quality measurement.

2. Literature review

2.1. Strategic Control

According to Mr. David there are five functions of management which are listed and explained as follows:

- Planning: if there is one thing that we are sure about it in the future of organizations that is change. Planning is the only way we can go to future and reach those changes in order to achieve our goals. *“Planning is the process by which one determines whether to attempt a task, works out the most effective way of reaching desired objectives, and prepares to overcome unexpected difficulties with adequate resources.”* (David, 2011, p. 100)
- Organizing: organizing involves all of those managerial activities which result in a structure of task and authority relationships. *“Organizing means determining who does what and who reports to whom.”* (David, 2011, p. 100)
- Motivating: Motivating involves those efforts which lead to shaping human behavior and it is defined as: *“the process of influencing people to accomplish specific objectives.”* (David, 2011, p. 101)
- Staffing: it is also called personnel management or human resource management and it includes all of those activities which are related to the employees like recruiting, interviewing, testing, selecting, orienting, training, developing, caring for, evaluating, rewarding, disciplining, promoting, transferring, demoting, and dismissing employees, as well as managing union relations.
- Controlling: it includes all of those activities which are taken to make sure that the actual operations of the organization go as they were planned by the organization. The responsibility of controlling is on all of the managers and these responsibilities are conducting performance evaluations and taking necessary steps towards minimizing inefficiency in the organization. The most important role of the controlling function is in the evaluation of the effective strategy. (David, 2011)

According to David controlling consists of four basic steps:

1. Establishing performance standards.
2. Measuring individual and organizational performance.
3. Comparing actual performance to planned performance standards.
4. Taking corrective actions. (David, 2011, p. 102)

Drummond and co-authors state that the ability to measure is the basis of control. They go on by saying that essentially it is a comparing between what should happen with what actually happened or will happen. But, there is always the tendency that the managers would measure something that is easier to measure rather than how important it is. Therefore control systems come in handy.

“Good control systems often detect and rectify problems before they become significant and managers should remember that prevention is better than cure. Try to be proactive rather than reactive.” (DRUMMOND, ENSOR, & ASHFORD, 2008, p. 275)

The process is broken down into following steps:

1. A target is set.
2. A method of measurement has to be determined and implemented.
3. Results are measured and compared with the predetermined target(s) and if required, corrective action is undertaken. (DRUMMOND, ENSOR, & ASHFORD, 2008)

There are different definitions that handle the concept of strategic control, for example, some define it as: " a system to recognize the extend of the implementation of the organization's strategies which means the extend of the success to realize its objectives and purposes by a comparison between what have actually implemented to what it planned for it and the amendment of the strategy on the grounds of the results of the implementation.

Thus, the development of the capability of the organization is needed in order to accomplish its objectives and purposes. (Ashour, 1983)

While others see it as: "A choice for the organizational strategy, its constructions and control creation for orientation and assessment. (Kadim, 2004)

We notice that strategic control is a system to ensure the realization of the organization to its objectives by putting levels for the required performance, then measure the actual performance and finally compare it to the set of standards to recognize the extent to realize the objectives of the strategic performance and appoint deviations than what is planned to be handled. (Kadim, 2004)

Out of this definition we notice that the strategic control system requires availability of a system for information as the effectiveness of the strategic control depends on the access to true information in appropriate time. Hence, we see the necessity to define some concepts:

- **Strategy:** it consists from an integrated mixture between competitive movements and commercial orientations employed by the directors of the organization to satisfy customers and compete successfully to realize the objectives of the organization. (Ashour, 1983)

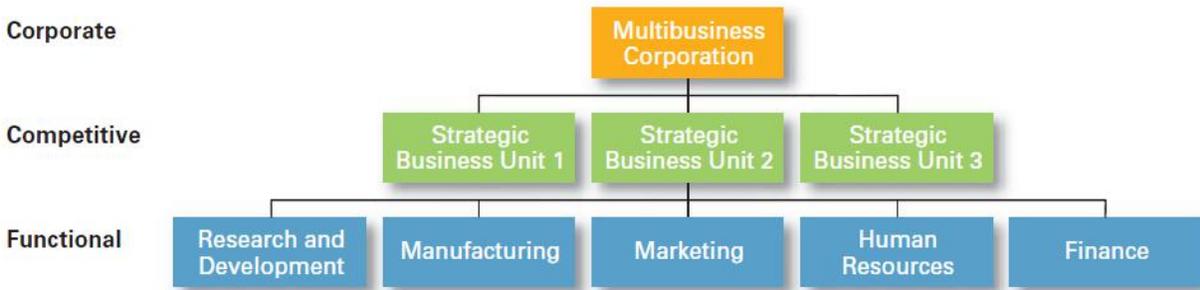
“Strategies are declarations of intent. They define the direction in which the organization is going in order to achieve its mission.” (Armstrong, 2006, p. 126)

Robbins and co-authors classify strategies into three levels:

1. Corporate strategy: A corporate strategy is an organizational strategy that specifies what businesses a company is in or wants to be in and what it wants to do with those businesses.
It's based on the mission and goals of the organization and the roles that each business unit of the organization will play.
2. Competitive strategy: A competitive strategy is a strategy for how an organization will compete in its businesses.
3. Functional strategies: Functional strategy includes those strategies used by an organization's various functional departments to support the competitive strategy. (ROBBINS, DECENZO, & COULTER, 2013)

The illustration below (Figure 1) is a graphical representation of these organizational strategies.

Figure 1 – Organizational strategies



Source: (ROBBINS, DECENZO, & COULTER, 2013, p. 112)

- **Mission of the organization:** It is the current identity of the organization, its current business. The mission of the organization describes the current capability of the organization and focus on customers, results and the commercial form. (Ashour, 1983) “A mission statement defines the core purpose of the organization - why it exists.” (Niven, 2002, p. 72)

Mr. Drummond and his colleagues define mission as “*The mission of the organization is the unique purpose that distinguishes it from other companies and defines the boundaries of its operations. The mission statement is a proclamation of the organization’s primary objective that encapsulates its core values.*” (DRUMMOND, ENSOR, & ASHFORD, 2008, p. 133)

Mission is the organizations purpose for its continued existence. (Ritson, 2011)

- **Objectives:** They are the objectives of the organization in performance, results and revenues that the organization seeks to realize. Objectives are considered as a benchmarks or parameters to follow-up the performance of the organization and the extent of its progress in business. (Ashour, 1983)

Armstrong believes that objectives can be set out under the following headings:

- Financial: targets for profit, added value, sales revenue, overhead rates, return on capital employed, economic value added, earnings per share etc;
- Product/market development: projects for new or improved products or services or new markets;
- Operational development: projects for the development of new systems and processes;

- Performance improvement: targets for productivity, cost reduction, stock turn etc;
- Growth: acquisitions, mergers, joint ventures etc;
- People: strategies for making the organization a compelling place to work.

(Armstrong, 2006, pp. 126-127)

Objectives provide first of all a sense of direction and secondly they are a measure of success achievement. (Ritson, 2011)

- **Strategic plan:** it includes everything; the mission of the organization and its future orientations on the long and short terms to realize its objectives, performance and set strategy for business. (Ashour, 1983)

Neil Ritson believes that there is a need for strategies in modern days to achieve goals and objectives, to give meaning and direction to the organization, because of the recent changes in the social and technological environments of the organization. He defines strategy as bridge between the organization and the environment.

Mr. Ritson states that “*Strategic management is the organized development of the resources of the functional areas: financial, manufacturing, marketing, technological, manpower etc, in the pursuit of its objectives. It is the use of all entity’s resources; it is a set of policies adopted by senior management, which guides the scope and direction of the entity. It takes into account the environment in which the company operates.*” (Ritson, 2011)

Robbins and the co-authors (2012) believe that strategic management is important due to three reasons:

The most significant reason why strategic management is important is that it can make a difference in the quality of an organization performance. Studies about the factors that contribute to organizational performance have shown a positive relationship between strategic planning and performance.

Another reason strategic management is important has to do with the fact that organizations face continually changing situations despite their types and sizes. The strategic management process

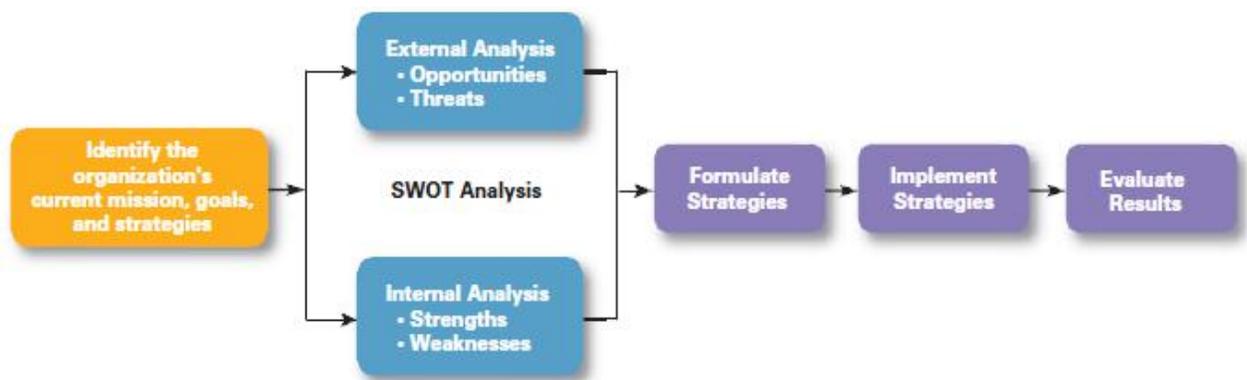
helps them cope with uncertainty caused by changes and helps them to examine relevant factors and decide what actions to take.

Organizations are complex and diverse, and because of this, strategic management holds some importance. Strategic management helps every part of an organization to work towards achieving the overall organization's goals and objectives. (ROBBINS, COULTER, BERGMAN, & STAGG, 2012)

According to Robbins and the co-authors of Fundamentals of management (2013) the strategic management process is contains six steps which encompasses strategy planning, implementation, and evaluation. Even thou the first four steps are about the planning which is necessary, implementation and evaluation are as necessary as the previous four steps. If management doesn't implement or evaluate those steps properly, even the best strategies are not safe and can fail. (ROBBINS, DECENZO, & COULTER, 2013)

These six steps are illustrated below (Figure 2) in order of which have to be taken.

Figure 2 - The strategic management process



• Source: (ROBBINS, DECENZO, & COULTER, 2013, p. 109)

Kotler and his co-others define SWOT analysis as follows: “*SWOT analysis draws the critical strengths; weaknesses, opportunities and threats (SWOT) from the strategic audit. The audit contains a wealth of data of differing importance and reliability.*” (KOTLER, ARMSTRONG, SOUNDERS, & WONG, 1999, p. 94)

Strengths may be:

- Being a market leader
- Having access to the group's leading world.
- Having a worldwide distribution.
- Being a market leader in several big markets

Weaknesses may be:

- Not being a market leader.
- Excessive product range with several low-volume brands.
- Relatively low advertising and promotions budget.
- Product range needs many manufacturing skills.
- Poor store presence in several large markets
- Overall poor profits performance.

Opportunities may be:

- Economic climate
- Demographic
- Market
- Technology

Threats may be:

- Competitive activity
- Channel pressure
- Demographic changes
- Politics

(KOTLER, ARMSTRONG, SOUNDERS, & WONG, 1999)

Mr. Ritson says that there are several levels of planning which are derived by moving from general plans to specific ones and putting the intention into action in the development of the plans. These levels are illustrated below in Figure 3:

Figure 3 - levels of planning



Source: (Ritson, 2011, p. 17)

According to Hill and Jones (2013) there are five main steps for the formal strategic planning, these steps are:

1. Selecting the corporate mission and setting major corporate goals.
2. Analyzing the organization's external competitive environment in order to identify opportunities and threats.
3. Analyzing the organization's internal operating environment in order to identify the organization's strengths and weaknesses.
4. Selecting strategies that build on the organization's strengths and correct its weaknesses in order to take advantage of external opportunities and get rid of external threats.

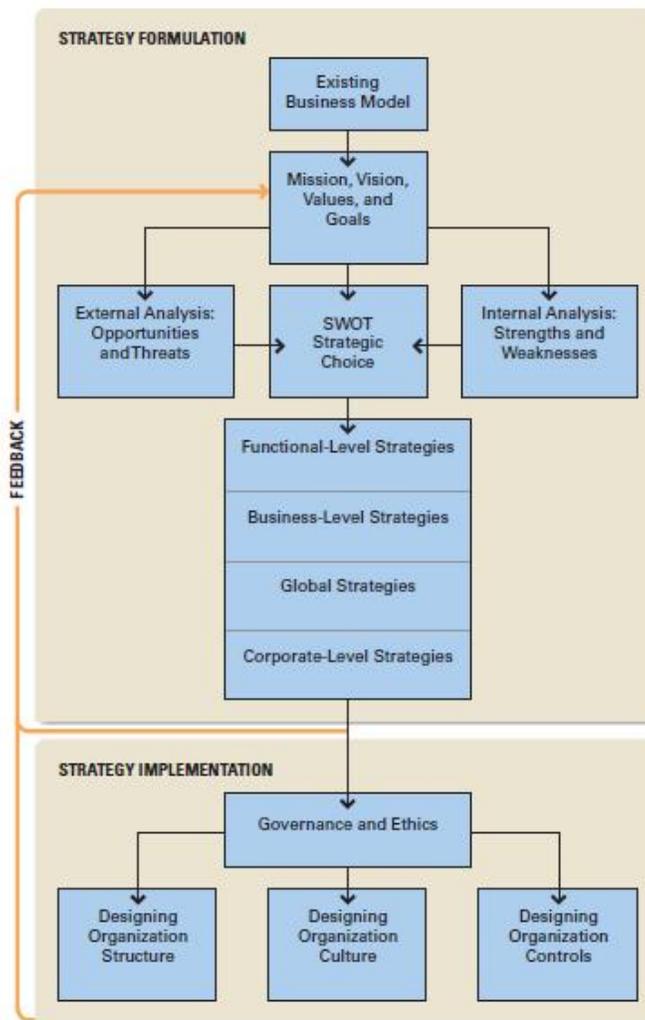
Not only these strategies have to be consistent with the mission and major goals of the organization but also they should be compatible and constitute a viable business model.

5. Implementing the strategies. (Hill & Jones, 2013)

The strategy formulation starts with the task of analyzing the organization's internal and external environments in order to select appropriate strategies. Then the strategies must be implemented

according to the company’s corporate, business, and functional levels. At first step of the planning process starts with a statement of the corporate mission and main corporate goals and objectives. This statement is made by the existing business model of the company. Then the mission statement is followed by the foundation of strategic thinking, which is external analysis, internal analysis, and strategic choice. The last but not least, strategy-making process ends with the design of the organizational structure, the culture, and control systems which are necessary to implement the organization’s chosen strategy. (Hill & Jones, 2013) These steps are illustrated below in figure 4.

Figure 4 - Main Components of the Strategic Planning Process



Source: (Hill & Jones, 2013, p. 13)

We conclude from the aforementioned that the objectives are specific steps in the way of realization of a specific mission at the organization; purpose of the organization represents the foundation which the strategy of the organization established thereon. (Ashour, 1983)

The objectives of the strategic control are to recognize the extend of the success of strategy implementation clearly based on whatever are being previously designed; and to ensure that the strategy implementation is what was intended to be; and the implementation of the strategy leads to the required results. (Thomas, 2006)

Some wrong outcome may conceive from the strategic management process decisions which may have consequences on the long term. And these wrong decisions may lead to impose sanctions that are difficult to be changed. Therefore, most strategists agree that strategy is necessary for the benefit of the organization. (Thomas, 2006)

The control that performed at the correct time may alert to an actual and potential problems before the situation turns critical. The strategic control process is associated to the current strategic assessment process. As the assessment of the current control is connected to the future impact, therefore on the performance of the organization as a whole; and such requires the appointment of the extent of its effectiveness in the current time. (Yaseen, 2011)

Hence, we can predict the effectiveness of the organizations performance in future by the past and future performance assessments. Whereas the past performance assessment will be by comparing the actual performance of the organization under the current strategy to the performance connected to the past historic periods for the same organization or competitors. (Yaseen, 2011)

The assessment process of the strategy is a complicated process. Especially in those organizations that are currently faced with dynamic environment where the key components are changing either internally or externally very quickly. (Yaseen, 2011)

The current success does not consider a guarantee to the success in future. This may be attributed to many reasons to make the assessment of the strategy very difficult:

- The domestic and global economies were more stable in the last years.

- The life circle of goods was longer.
- The development circle of the product was also longer.
- The technological progress was slower.
- The technological changes were less.
- The number of the competitors was less.
- The foreign companies were weaker and the industries used to be subject to highly organized rules.
- The rapid development of the plans despite its characteristic with accuracy. (Yaseen, 2011)

It is noted in many public and private organizations, the assessment process of the strategy does not extend more than the assessment of the performance of the organization (Did its assets increase? did its profits increase? did the return on investment increase?). (Yaseen, 2011)

Some organizations see that the strategy is correct as long the answer on the previous inquires is positive but the logic is wrong as the assessment of strategy must be considered from two perspectives: long term and short term. Some organizations do not pay it a real attention as long as they are satisfied on the previous inquires. (Yaseen, 2011)

But strategies influence the results in the short term. Some organizations realize it immediately and work to find suitable solutions but other organizations do not realize it, only when it is too late to carry out any amendments or necessary changes. (Yaseen, 2011)

2.1.1. Levels of strategic control

As we know there are many levels in management which assume the responsibility of the strategic planning which includes a strategic control therein. This means following-up of the strategic control that it is available in, however; we can divide it into the following:

- Strategic control: it is the control that concerns on the application of the strategic plans through the orientations of the critical environment factors and the assessment

the impacts of the organizational strategic works which is found in the supreme and intermediate management levels.

- **Tactical control:** it is a control that focuses on the estimation of the applications of the tactical plans on the level of department and connects the orientation with periodic results and adopting the corrective works if needed.
- **Operational control:** it is the control that is made to ensure the application of the operational plans and orientations of the results daily and adopts all corrective procedures if needed. (Ashour, 1983)

Then the level of strategic control is associated to the level of planning, and for hospitals, in particular, the strategic control is performed in different supreme, intermediate, and supervisory levels by different employees, physicians and the technical working body. In addition subject the patient's satisfaction and people in general about the performance of the hospital. (Kadim, 2004)

2.1.2. Forms of the strategic control

There are many forms for strategic control, different in criterion or the adopted foundation for classification. We will state the most important criteria. (Thomas, 2006)

2.1.2.1. Control according to the time of its practice: the control is divided according this criterion into:

- **Previous control:** it aims to prevent the infliction of the mistake and may be named as the primary, initial or preventive control.
- **Current (simultaneous) control:** it is as checkpoints to ensure the continuity of the process and it is described as screening.
- **Successive control:** it occurs after completion of the process or the completion of the service to ensure its compromising to what it is planned. (Thomas, 2006)

2.1.2.2. Control according to the manner of its implementation

This control is divided on this base to direct control and indirect control (Ashour, 1983)

- **Direct control:** it includes personal or face to face interviews to direct the process or visits paid by chairmen to identify the problems, and challenges that face the implementation in different units.
- **Indirect control:** this form use reports and other written forms to control operations as monthly periodical reports as those sent to the chairmen or budget. (Ashour, 1983)

2.1.2.3. Control as the scope of its implementation

This control in this criterion is divided into the qualitative control and quantitative control (Kadim, 2004)

- Quantitative control concerns about the quantitative measures of performance and whether it reads with whatever was planned.
- While the Qualitative control concerns about the manner of work or service performance. (Kadim, 2004)

2.1.2.4. Other criteria

It can be divided in to:

- Accounting control: it concerns with the financial performance, for example realization of the planned financial objectives by the use of some measurements as return on investment and the financial measurements.
- Administrative control: it concerns about the demand to assess the extent of progress towards accomplishment of the organization to its mission and its objectives.

We also notice that the types of control vary and differ by the difference of the adopted criterion for division. Therefore, each criterion concerns about a specific side in the organization, and this is associated to the nature of the organization, its philosophy and it mission that was established. (Ashour, 1983)

2.1.3. Scopes of strategic control

As strategic control aims to realize the mission of the organization, the control must be carried out on all performance activities practiced by the organization that seeks to realize that mission.

They are the activities of production, finance, marketing, individual performance, quality of the process, and etc. They are naturally different according to the type of the organization, it depends on the organization whether it's in production or in services. In connection to the scope of the control in hospitals, then it is associated to all activities practiced by the hospital. (Kadim, 2004)

2.1.3.1. Internal process control:

The internal process control aims to improve the quality of health care by reducing the errors in treatments and reducing the incidence of harms to patients (Kadim, 2004) i.e. the internal process control cares about the improvement of the quality of the produced service.

Whereas the quality of the overall features and characteristics of the provided services to meet the provided needs. This quality will be the goal to meet the needs of the customers at the present and the future; and it should meet the customer's needs properly. (Kadim, 2004)

2.1.3.2. Customer's (patients) satisfactions:

It concerns about the improvement of the relationship with the patient by the increase of care and reduce the percentage of patient's complaints, reduce waiting period. (Ashour, 1983)

In addition to the improvement of the external relationship to improve the reputation of the hospital with the external parties it deals with addition the reputation of the hospital amongst people in the society. (Ashour, 1983)

2.1.4. Steps of strategic control:

The implementation of the strategic control requires the existence of an effective control system to compare the actual performance to the desired results and adopt appropriate procedures to realize the mission of the organization. (Kadim, 2004)

This requires adopting the phases of the sequential series logically to realize the objectives of the control. Opinions differ and vary about appointing the main phases and steps that strategic control goes through. (Kadim, 2004)

Some divided it into three phases while others divided it to four phases or more but there is quasi-consensus about the content of these steps and its logical sequence. These steps are: (Kadim, 2004)

“The control process is a three-step process of measuring actual performance, comparing actual performance against a standard, and taking managerial action to correct deviations or to address inadequate standards. The control process assumes that performance standards already exist, and they do. They’re the specific goals created during the planning process.” (ROBBINS, DECENZO, & COULTER, 2013, p. 350)

These three of the control process steps are explained below.

Step 1: measuring. Measuring is the first step in control process. By measuring, managers acquire the information needed about the actual performance, and therefore they would be able to go to the next step.

Step 2: comparing. This step reveals the degree of deviation actual performance and the standard to find out the size and the direction of the deviation in order to see if it is in the acceptable range of variation.

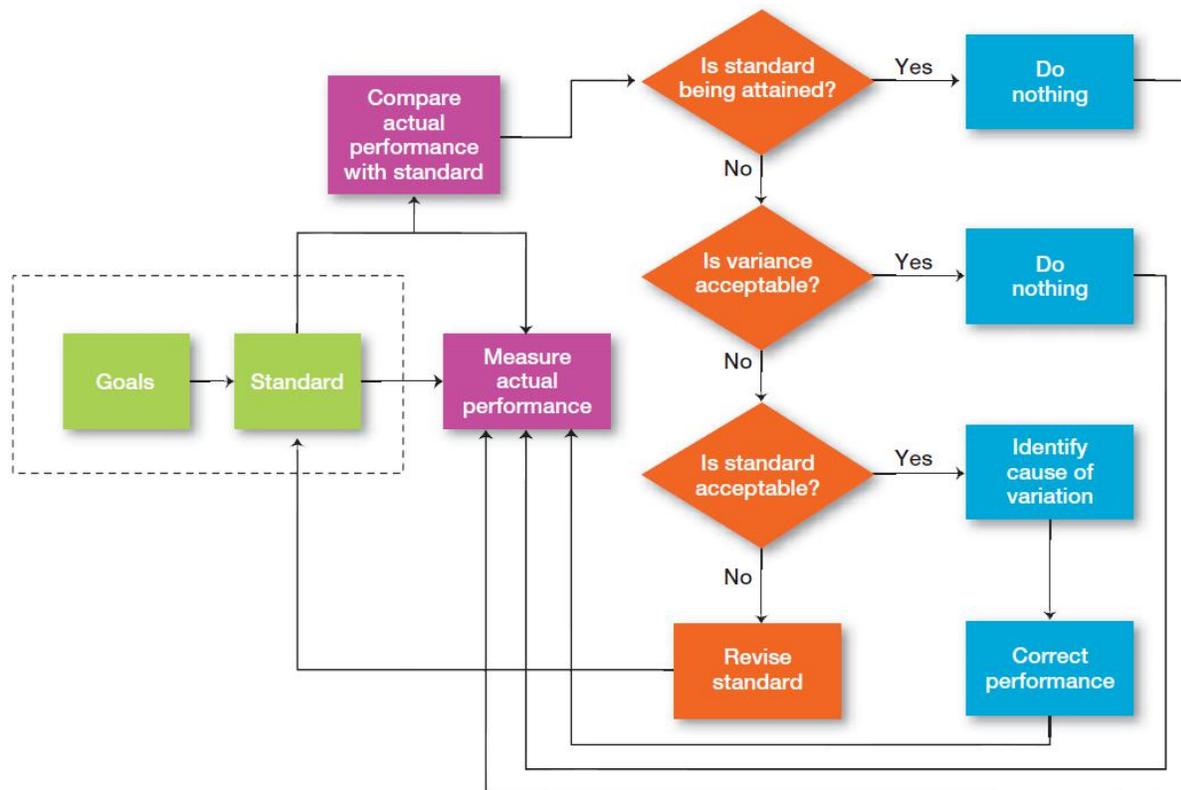
Step 3: taking managerial actions. There are three possible actions managers could choose from which are: doing nothing, they could correct the actual performance, or the standards could be revised. (ROBBINS, COULTER, BERGMAN, & STAGG, 2012)

There are four common sources of information which are frequently used to measure actual performance.

These sources are personal observation, statistical reports, oral reports, and written reports. Each of these sources has some particular strengths and weaknesses;

Nevertheless, use of a combination of them would lead to an increase in both the number of input sources and the probability of receiving reliable information. (ROBBINS, DECENZO, & COULTER, 2013) The control process is illustrated in figure 5.

Figure 5 - The control process



Source: (ROBBINS, DECENZO, & COULTER, 2013, p. 350)

2.1.4.1. Appointing the required activity for assessment:

The implementation of the mission of the organization, its objectives and purposes need to carry out many integrated activities and controlling.

Its implementation, the appointment of the activity desired to be assessed and its control facilitates the control process by choosing the quality of control; is it quality, quantity or is it both quality side and quantity side together? Is it previous control or successive one?

Which means objectives of performance must be appointed first and focus on the most significant elements in each process and it should be measured statically and objectively then we move to set out the performance standards. (Kadim, 2004)

2.1.4.2. Set out criteria:

On the basis of the mission of the organization, its objectives and purposes, performance standards must be set-out to be used to measure the performance or criteria. Generally levels must be determined before measurement as a model to assess the performance and to be as points that can be compared thereby to the actual performance. (Ashour, 1983)

Performance standards expresses for the details of the strategic objectives and the extent of its regulations appropriately. (Ashour, 1983)

The criteria must include the limits for permission as to accept deviations within the limits. As well as the validity and accuracy of data are the basic essence in control process. Both accuracy and validity depend on designing the adopted measurement. (Ashour, 1983)

There are some considerations and regulations that should be considered at the time of designing performance standards; hence, the effectiveness and accuracy of performance depends on some of those considerations:

- Validity: it means the internal factors in a scale should express about those required by work performance not more, nor less.
- Credibility: it is associated to the stability in the scale not in performance because performance of the individual differs or is subject to changes which may be shown in various values that are given by performance standards.
- Discrimination: it means the ability of the scale to differentiate between different levels of performance, even for small differences.
- To be practicable : it must taken into account the ease to use of the scale , its clarity, relative short time, lack of effort that are spent by the measurement process. (Ashour, 1983)

Then determining the criteria accurately in functional scope that each process will occur therein will contribute in the effectiveness of strategic control process, because criteria is based on the mission of the organization. The realization of these criteria will help the organization to realize its mission, survival, and continuity. (Yaseen, 2011)

2.1.4.3. Performance measurement

Mr. David denotes that “*Measuring individual performance is often conducted ineffectively or not at all in organizations.*” (David, 2011, p. 102) He believes that the reasons behind this fact are that evaluations can lead to confrontations which most of the managers try to avoid or prefer to avoid.

Other reason is that evaluation could take a long time, probably more that the time managers are willing to spend on them and the last but not the least these evaluations need some skills which some managers don't have. (David, 2011)

After determining the criteria that will measure the objectives by them, then the phase of performance measurement and the essence step of measurement in control process come. (Haider, 1999)

For example information collection which represents the actual performance of the activity or individual. In general the actual performance measurement should include both the quantity side and the quality side and the process. (Haider, 1999)

The quantity information collection may be easier than the quality collection and cost lesser as measuring the number of customer's beneficiary out of a service. While for quantity information collection as those related to the intellectual performance that is difficult to set out specific and static scales to measure it as the performance of a sale man etc. (Haider, 1999)

Therefore; performance depends on information collection about the actual performance of the strategy. It is based on the feedback, i.e. information transfer which is the transfer of information reversely to the origin form to set a message or information. (Ashour, 1983)

This means the transfer of information to the strategic implementation. From the minimum administrative level that is responsible for the implementation to the higher administrative level that is responsible for setting out the strategy. (Ashour, 1983)

This may be on a form of reports about various scopes of performance and associated to the strategic assessment adopted by the supreme administration to pass strategic decisions, forming what is called "Administrative Information System". (Ashour, 1983)

It is a specialized system by collecting complete and valid reports about the results of the implementation of the strategy on a long term and analyzes these data, classify and maintain them to use it once needed. (Ashour, 1983)

Most organizations developed its information system by the use of computer which facilitate the analysis process and data classification. Further, connecting the different units in the organization by computer increases the effectiveness of the adopted control system and secure information for the different management levels in appropriate time. (Ashour, 1983)

The appropriate timing to carry out measurement, especially in the case of strategic planning takes time.

For example, in case of setting out a strategic plan for five years: Does measurement be by the end of the five years or it is measured be for more than once during that period?, if measurement carried out by the end of the five years then ratifying deviations will become very lately and it could not be rectified ever. (Kadim, 2004)

In the other hand, if measurement occurred before it, then the results of implementation may not be shown as expected. Therefore, when setting the performance measurement, timing of measurement should be considered; is it during or by the end of the plan duration? And the desired results must be determined. (Kadim, 2004)

Then the appropriate timing to carry out measurement will depend on the purpose from performance measurement, does it perform the steering control? (Kadim, 2004)

For example discovering deviations of the set criteria in each phase to enable the administration to carry out the required correction and shift to the next phase till the completion of the work subject of control or the purpose is to assess the work finally in different phases. (Kadim, 2004)

Finally the effectiveness of the Performance measurement step as a key step in the control process depends on the accuracy and validity of information about the actual performance and on the performance measurement in the appropriate time. As for the performance measurement tools, we will learn about it lately. (Yaseen, 2011)

Measuring organizational performance is strategy-evaluation activity. Among these activities are expected results are compared with the actual results, the deviation between the plans and the results is calculated, individual performances are evaluated, and processes towards meeting the objectives are examined. (David, 2011)

The criteria in which strategies are evaluated must be both measurable and verifiable. Criteria that predict results may be more important than those that reveal what has been already happened. Strategy evaluation must be both in qualitative and quantitative forms. For the quantitative criteria some key financial ratios are very useful for strategy evaluation; these ratios are as follows:

1. Return on investment (ROI)
2. Return on equity (ROE)
3. Profit margin
4. Market share
5. Debt to equity
6. Earnings per share
7. Sales growth
8. Asset growth (David, 2011)

In the other hand qualitative criteria is also important in evaluating strategies as human factor play a significant role in the organizations performance. Therefore some additional key questions are needed to reveal the qualitative strategy evaluation. (David, 2011)

These questions are as follows:

1. How good is the firm's balance of investments between high-risk and low-risk projects?
2. How good is the firm's balance of investments between long-term and short-term projects?

3. How good is the firm's balance of investments between slow-growing markets and fast growing markets?
4. How good is the firm's balance of investments among different divisions?
5. To what extent are the firm's alternative strategies socially responsible?
6. What are the relationships among the firm's key internal and external strategic factors?
7. How are major competitors likely to respond to particular strategies? (David, 2011, p. 294)

2.1.4.4. Comparing the actual performance to the set out criterion

In this step we compare the actual performance to the desired performance to determine whether there was matching or differences between them. (Thomas, 2006)

Is such difference is acceptable or not? Within the comparison between the actual performance and the desired performance we can determine the gap between them and try to work on filling up the gap by identifying the internal and external changes of the organization. (Thomas, 2006)

Then, in this step we recognize the differences between the actual performance and the planned one and whether this difference is important and should be corrected or can be acceptable? This comparison is built on the feedback of the results of the actual performance.

2.1.4.4. Adopting corrective procedures

It is a final step in the strategic control process, we conclude two choices:

- The compromising of the actual performance with the planned performance, in this case we continue the control process.
- Existence of a deviation that the planned performance (Ashour, 1983)

In this case corrective procedures should be adopted. This will be by investigating the causes led to the deviation by analyzing its different aspects; does deviation happen by accident, by mistake in operational application? (Kadim, 2004)

In order for it to work, treating and correcting is needed after identifying the real causes. So the organizations will determine the realistic objects in future by amending the objectives or techniques. (Kadim, 2004)

Then the central process is continues process as long there is a plan to implement and the selection of the monitoring points is a key issue in the effectiveness of the control. (Haider, 1999)

The control should vary according to these categories:

- Economical control
- Financial control
- Social control
- Technical control

The good management is the one that can select the control criteria and appoint its type, monitoring points, repetition of its control, and all of its aspects according to the activity it performs. (Haider, 1999)

Which are imposed by environment, surrounding conditions in a manner suits its plans, organization, activates its employees, and makes it go in a harmony and coherent towards the objects of the organization. (Haider, 1999)

Then the deviation correction in performance depends on recognizing the real cause of deviation, whether it occurred by accident or by a mistake in the operational implementation, mistakes in setting- out criteria or otherwise to seek treatment to the cause and implementation of the strategic plan as it is. (Haider, 1999)

2.2. Designing the control system:

“The basic essence of control is the ability to measure and take action. Control systems are concerned with efficiency and effectiveness and often operate as simple feedback loops.”
(DRUMMOND, ENSOR, & ASHFORD, 2008, p. 289)

The effective control process should go through chained phases logically each step forms a preliminary to the next step.

The control system at the time of designing should follow up the following instructions:

- The control system should be limited to the minimum requirements.
- The control system should follow up only the important activities and results despite any difficulties in measurement, both qualitative and quantitative measurement should be adopted.
- Appropriate timing should be considered in control process to enable the adoption of the corrective procedures before it is too late in addition to pay attention to the steering control
- Both long term and short term control tools should be adopted.
- It should pay attention to the success reward for realizing the desired performance rates or amend it instead of punishing the failure to realize such rates. (Thomas, 2006)

Designing control systems needs care and all effective control mechanisms have some common generic principles. However it is important to retain some degree of flexibility as with management processes. (DRUMMOND, ENSOR, & ASHFORD, 2008)

In order to have effective control, the project manager can deploy the following principles:

- Involvement: Encouraging participation in the process is the way to achieve this. Management can achieve desired results by using consultation.
- Target setting: while setting targets two important factors must be considered, first the criteria of the target must be objective and measurable, and secondly it must be challenging but achievable.
- Focus: special attention must be paid to not to take care of the symptoms but also to eliminate the causes of the problems.
- Effectiveness: people often confuse efficiency with effectiveness when they measure. Whereas efficiency is the productivity of assets and effectiveness is about doing the right thing.
- Management by exception: management attention must go to where it's needed; the process involves setting benchmarks for the operations and to act only when pre-set limits are breached.

- Action: a good control system requires some action, not only to identify the problems but to be able to solve them as well. (DRUMMOND, ENSOR, & ASHFORD, 2008)

It is not easy to develop a good control system. The project manager needs proper knowledge of general problems and solutions associated with control systems. As no control system is 100 percent accurate, some problems may occur. (DRUMMOND, ENSOR, & ASHFORD, 2008)

The most common problems with control systems are as follows:

1. Such systems could be very expensive.
2. Control systems stifle effort and creativity.
3. Control promotes a view of inspection as opposed to development. (DRUMMOND, ENSOR, & ASHFORD, 2008)

2.3. Performance Management and measurement techniques

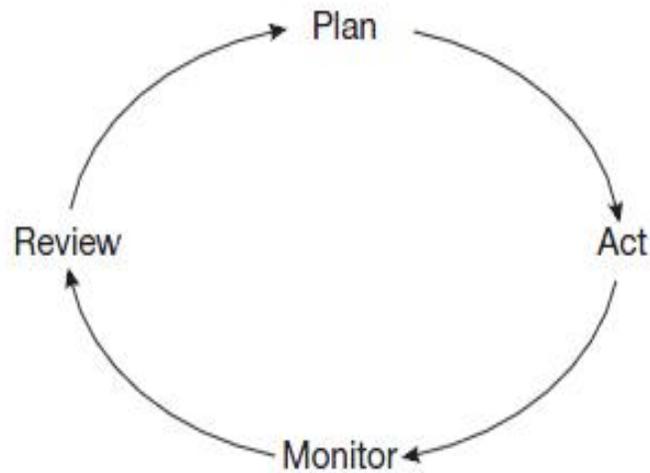
Performance management is defined by Armstrong as “*a systematic process for improving organizational performance by developing the performance of individuals and teams. It is a means of getting better results from the organization, teams and individuals by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements.*” (Armstrong, 2006, p. 1)

Generally as Armstrong says, the main aim of performance management is to make a high performance culture in the organization in which individuals and teams are responsible for a continuous improvement. (Armstrong M. , 2006)

The continuous improvement should be in both of their own skills and contributions, and the improvement of the business processes within a framework provided by the effective leadership. (Armstrong M. , 2006)

Armstrong continues by characterizing the performance management by forming the following statement: “*Performance management is a planned process of which the primary elements are agreement, measurement, feedback, positive reinforcement and dialogue.*” (Armstrong, 2006, p. 3)

Figure 6 - Performance management cycle



Source: (Armstrong, 2006, p. 16)

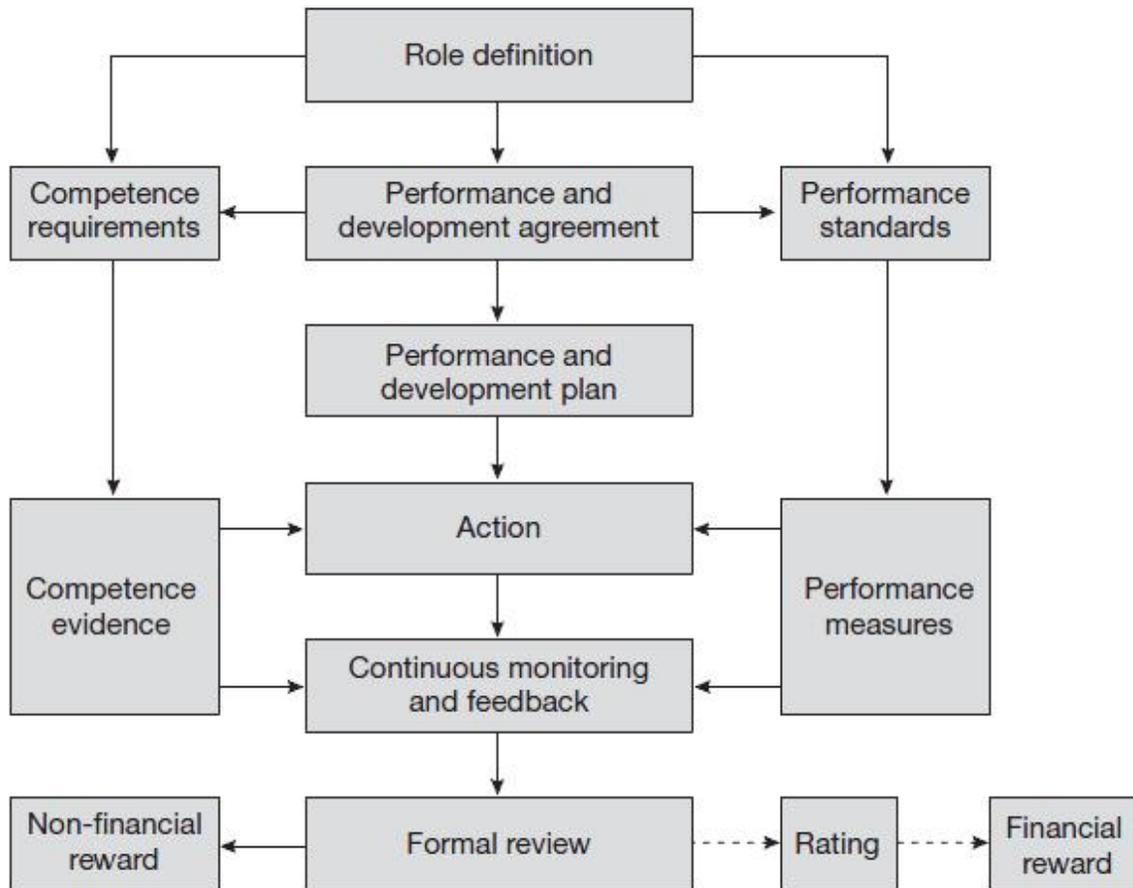
Performance management consists of the basic activities:

- Plan: is what to do and when to do it.
- Act: to do what's necessary to implement the plan.
- Monitor: is to continuously check out the progress of the implementation process to assess the progress.
- Review: to learn from what has been done in order to use the knowledge in future performances. (Armstrong, 2006)

Armstrong (2015) talks about the aim of performance management as follows: “*The overall objective of performance management is to develop and improve the performance of individuals and teams and therefore organizations.*” (Armstrong M. , 2015, p. 11)

The sequence of the performance management is illustrated below in figure 7.

Figure 7 - The sequence of the performance management



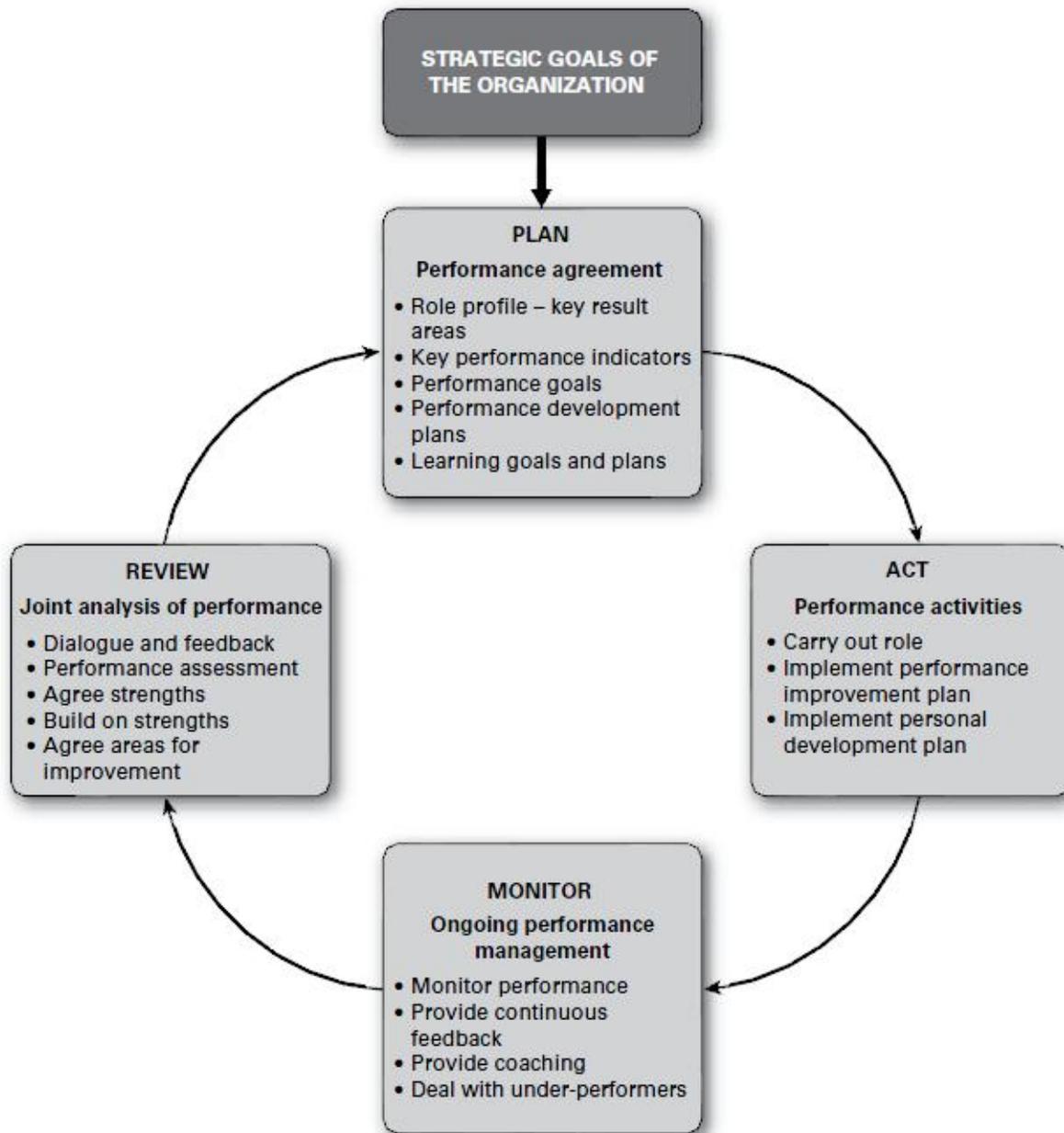
Source: (Armstrong, 2006, p. 17)

As we have previously noted that performance measurement is considered as important and basic steps in the strategic control and is based on information collection that represents the actual performance of the activity or individuals. (Thomas, 2006)

The techniques that enable us to collect information effectively to be used in assessment of this performance and adopt the corrective procedures are divided in to traditional and modern techniques. (Thomas, 2006)

Armstrong (2015) describes and models a performance management system as shown below in figure 8.

Figure 8 - performance management system



Source: (Armstrong M. , 2015, p. 17)

Armstrong states that Strebler (2001) suggested the following principles are necessary for performance management in order to work effectively:

- Have clear aims and success criteria must be measurable.
- Be designed and implemented with appropriate employee involvement.

- Be simple to understand and operate.
- Make its use fundamental to achieving all management goals.
- Allow employees a clear 'line of sight' between their performance goals and those of the organization.
- Focus on role clarity and performance improvement.
- Be closely allied to a clear and adequately resourced training and development infrastructure.
- Make crystal clear the purpose of any direct link to reward and build in proper equity and transparency safeguards.
- Be regularly and openly reviewed against its success criteria. (Armstrong M. , 2015, p. 14)

2.3.1. Traditional Techniques

- **Assessment techniques by behavior guidance**, it includes the following techniques:
 - Subject narration: The easiest type to assess the system id subject narration as there is a description to the strength and weakness points. It helps in setting-out proposals for implementation. If the narration was well, it would enable the performance of comparisons between individuals, groups or departments.
 - Arrangement: this technique based on the arrangement of users from top to bottom (from the best to the worst) or the opposite after comparing each user to others.
 - Dual comparison: it is the most organized technique because it compares the performance of each user to another. In this technique each user is compared to other users till reaching the last user.
 - Mandatory distribution: it is another form of technique to compare the users one by one to others. This distribution takes the natural form.
 - Behavior control: This technique is provided by expressions describe the behavior connected the work in order to control behavior as the description be by the use of expressions. The users are evaluated in accordance with this expression "is he good or bad?" (Thomas, 2006)
 - Critical incidents: It is a new technique to some extent. In this technique, a report includes all critical incidents that affected the performance of the user as success or failure side by side determining the importance of each indicator is set-out.

- Pictured estimated graphic scale: it is the most adopted technique. these scales differ in three ways:
 - The degree that implies the meaning of response is limited in a conditional form.
 - The degree that represents the assessment of the individuals could clearly determine what it meant.
 - The degree that determines therein the dimension of performance. (Thomas, 2006)
- Proved estimated graphic scale: it slightly differs than the previous technique and its basic benefit is determining the dimensions of behavior assessment. It uses critical incidents to describe various level of performance. (Thomas, 2006)

- **Technique of assessment according to results**

- Management by objectives: it one of the common techniques in management, it depends on setting-out the basic objectives to establish objectives of the organization as a whole and each department and manager within each department for each user and management. (Thomas, 2006)
 The technique of management by objectives is not a scale to measure behavior but rather it is as a measurement of the contribution of each user in the success of the organization. (Thomas, 2006)
- work analysis and review: it is similar to the system of management by objectives in addition it emphasizes on the periodical revision for the work plans by the supervisor and the subordinates to ensure the realization of the objectives and recognizing existed problems and the need to training. (Thomas, 2006)
- Each technique has its own advantages and disadvantages. We cannot preference one than the other. Organization's conditions and the purpose of measurement determine the adequate technique as to benefit from the advantages of the adopted techniques. (Thomas, 2006)

2.3.2. Modern Techniques

One of the modern techniques to measure and assess the performance is The Balance Scorecard. The balanced scorecard defines as: "the assessment from the effectiveness of a technique unless

it is the adopted one" it is established on some expression rather than the cash units. (Yaseen, 2011)

It includes various types from the main ratios related to the business to contribute in the development of the organization in future and as expression of the balanced scorecard indicates to "the manner of creating balance from various selected elements mirror the strategy of business" (Yaseen, 2011)

Mr. Niven defines balanced scorecard as "*We can describe the Balanced Scorecard as a carefully selected set of measures derived from an organization's strategy. The measures selected for the Scorecard represent a tool for leaders to use in communicating to employees and external stakeholders the outcomes and performance drivers by which the organization will achieve its mission and strategic objectives.*" (Niven, 2002, p. 12)

Mr. Niven continues by saying that he sees this tool as three things which are:

- Measurement system.
- Strategic management system.
- Communication tool.

The use of the selected measurement to complete the financial control reduces the danger of using a short term intervention and at the same time it makes the dealer with the organization more aware to measure their business and perceptions about the future of the organization. (Niven, 2002)

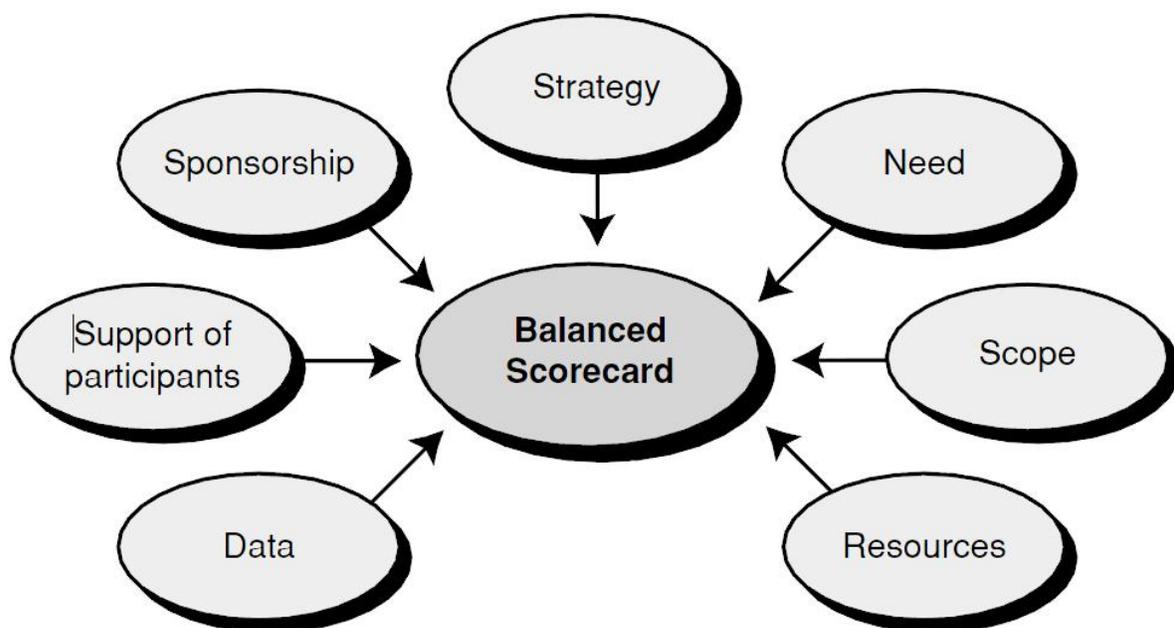
The basic idea from the view of the organization is established on four pivots (customers pivot, financial pivot, internal operation, learning and growth) for the purpose of connecting the operational control in the short term to the long term and business strategy. (Yaseen, 2011)

Then we can say that balanced scorecard is a new technology to measure performance. It differentiates than the traditional techniques that it bases on the vision of the organization and its mission as well as it considers the factual situation and planned objectives within the four pivots which makes it as an effective tool to measure the performance and realizing the mission of the organization and its vision in the long term. (Yaseen, 2011)

“The Balanced Scorecard assists organizations in overcoming two fundamental problems: effectively measuring organizational performance and successfully implementing strategy.”
(Niven, 2002, p. 23)

Mr. Niven believes that there are seven elements which are important to select an appropriate organizational unit for choosing the best balanced scorecard as shown in the illustration below.
(Niven, 2002)

Figure 9- Important elements for Balanced scorecard



Source: (Niven, 2002)

- Strategy: which is the most important criteria in selecting whether the unit under consideration possesses a coherent strategy.
Nevertheless, Balanced Scorecard is a methodology designed to help you in translating your strategy into objectives and measures that will let you to gauge your effectiveness in delivering on that strategy.
- Sponsorship: there must be an executive sponsor to provide leadership for the program not only in words but also in deeds.
- Need for balanced scorecard: the balanced scorecard is an important tool and therefore there is the need for that in the organization

- Support of key managers and supervisors: without a doubt the executive support is crucial for the balanced scorecard but it is also very important that the managers and supervisors use this tool in their work.
- Organizational scope: the unit we choose to work with must have a strategy, some specific processes, defined customers, operations, and administration.
- Data: the organization must be able to supply data and in the other hand must be able to measure those data.
- Resources: The best Balanced Scorecards are produced from a team of individuals committed to a common goal of excellence and cannot be done alone. (Niven, 2002)

Another tool in measuring the performance is benchmarking. Mr. David defines benchmarking as: *“an analytical tool used to determine whether a firm’s value chain activities are competitive compared to rivals and thus conducive to winning in the marketplace. Benchmarking entails measuring costs of value chain activities across an industry to determine “best practices” among competing firms for the purpose of duplicating or improving upon those best practices.”* (David, 2011, p. 120)

Benchmarking gives the firm the ability to take action in order to improve its competitiveness by finding out and identifying value chain activities which other firms have like comparative advantages in cost, services, reputation, or in their operations and then to improve upon them. (David, 2011)

The author of Strategic management believes that the hardest part in benchmarking is in fact gaining access to other firms’ value chain activities which are associated with costs. (David, 2011)

2.4. Financial control & strategic control

The traditional management control in the last century faced many circumstances centered in the limitation of the financial measurement scope due to the differentiations in circumstances of today than it were at the time of establishment of the traditional management control. Some of most important criticisms:

- It provides mislead information about costs, income and profits; as the traditional financial measurement depends on the results of the previous activities. This may conflict with the strategic objectives.
- It does not meet the strategic requirements of the organizations of today. This is due the stability of the expressions of the financial measurement which leads to ignore some of the non-financial considerations as customer's satisfaction as well it gives mislead instructions about effectiveness and profits.
- It encourages short term thinking. Because it faces the problems of pessimism for critical challenges in realizing the balance between the long term and short term.
- It does not meet the requirements of the financial accounting.
- It provides mislead information about distributions and investments control. Usually costs control does not analysis the flow of cost. It only indicates to the amount of the cost and traditional rule for distribution of costs to direct and indirect costs that are changed by the increase of expenditures.
- It provides theoretical information about users. This information is unimportant for a great part of the organization. Users do not see a relationship between their works and the illustrated numbers in many monthly and quarterly reports.
- It neglects the work environment. The financial measurement neglects the customer pivot as well the competitor's pivot. i.e. it focuses on the internal elements and neglects the external influences. It is only used to make comparison to previous periods and it is difficult to compare the organization to the competitors.
- It may give mislead information. Leaders of today tend to use monthly and quarterly reports, which help them in making short term investment decisions. (Haider, 1999)

2.5. Management information systems

“A management information system (MIS) is a system used to provide management with needed information on a regular basis.” (ROBBINS, COULTER, BERGMAN, & STAGG, 2012, p. 667) Authors of Management (2012), state that MIS could be manual or computer-based but recently

most of the companies have moved computer-supported applications. The main focus of MIS is specifically in providing information to the managers, not only data.

For the purpose of monitoring and control and measuring organizations activities and performance information plays a crucial role. The right amount of information is needed by the managers at the right time and in the right form in order to give the managers help to measure, compare and take actions as a part of controlling process. (ROBBINS, COULTER, BERGMAN, & STAGG, 2012)

Controlling is needed for information as well. Because the importance of information is very high and sometimes vital for the organizations and everything they do. Therefore managers must take serious measures to store and protect that information. Some examples how managers can protect information are using data encryption, using firewall systems, and making backups. (ROBBINS, COULTER, BERGMAN, & STAGG, 2012)

2.6. Statistical measures

2.6.1. Measures of Center and Location

- Mean: “a numerical measure of the center of a set of quantitative measures computed by dividing the sum of the values by the number of values in the data.” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 92)

In other words, to calculate mean we have to sum up all the values we have and then divide them by the number of the values. population mean and sample mean are calculated using the following formulas:

Sample mean:

$$\bar{X} = \frac{\sum_{i=1}^n X_i}{n}$$

Population mean:

$$\mu = \frac{\sum_{i=1}^N X_i}{N}$$

Where:

n = Sample size

μ = sample mean

- Median: “*is a center value that divides a data array into two halves.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 98) To calculate the median index point the following formula is needed:

$$i = 1/2 \ n$$

Where:

i = the index point in the data set corresponding to the median value

n= sample size

- Mode: according to Groebner “*Mode is the value in data set that occurs most frequently.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 101)
- Weighted mean: “*the mean value of data values that have been weighted according to their relative importance.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 104) The weighted mean is slightly different than the mean in the sense that some of the values are more important the other ones or they repeat more than other values thus the way weighted mean is calculated are a bit different than mean. the weighted mean is calculated using the following formula:

Weighted mean for a sample:

$$\bar{X}_w = \frac{\sum w_i X_i}{\sum w_i}$$

Weighted mean for a population:

$$\mu_w = \frac{\sum w_i X_i}{\sum w_i}$$

Where:

w_i = the weight of the i th data value

x_i = the i th data value

- Quartiles: “*in a data array are those values that divide the data set into four equal-sized groups. The median corresponds to the second quartile.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 107)

2.6.2. Measures of Variation

- Range: Groebner defines range as “*a measure of variation that is computed by finding the difference between the maximum and minimum values.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 116) In other words to calculate the range we need to subtract the minimum number from the maximum as shown below:

$$\text{Range} = \text{Maximum Value} - \text{Minimum Value}$$

- Interquartile Range: “*is a measure of variation that is determined by computing the difference between the third and first quartiles.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 116) This is calculated as demonstrated below:

$$\text{Interquartile Range} = \text{Third Quartile} - \text{First quartile}$$

- Variance: “*the population variance is the average of the squared distances of the data values from the mean.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 118) which is calculated using the following formula:

$$\sigma^2 = \frac{\sum (X - \mu)^2}{N}$$

Where:

= Population variance

μ = Population mean

N= Population size

- Standard Deviation: “*is the positive square root of the variance.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 118) The standard deviation is always in the form of the original units like dollars or pounds, therefore we use the standard deviation more to measure the variations as it’s easier to understand. the standard deviation is calculated using the following formula:

$$\sigma = \sqrt{\frac{\sum (x - \mu)^2}{N}}$$

Where:

σ = Standard Deviation

μ = Mean of all value in data set

N= Number of value in data set

Σ = Sum of

X= each value in data set

- Coefficient of variation: “*the ratio of the standard deviation to the mean expressed as a percentage. The coefficient of variation is used to measure variation relative to the mean.*” (GROEBNER, SHANNON, FRY, & SMITH, 2008, p. 129) The Coefficient of variation for the sample and population is calculated using the following formulas:

$$cv = \sigma/\mu(100)$$

$$cv = s/x(100)$$

Where:

cv = Coefficient of variation

μ = Population mean

σ = Standard Deviation of population

s = Standard Deviation of sample

\bar{x} = Sample mean

3. Objectives and methodology

The general objective of this work is to improve the effectiveness of strategic control in hospitals in the Middle East.

- Presenting a theoretical introduction for the concept of strategic control, traditional and modern performance measurement tools.
- Identifying the extend of the application of the technique of strategic control and utilizing from the results of the field study in presenting some proposals and recommendations that would help facilities subject to the research to increase their performance and realize their objectives.

In this paper we will examine the following hypotheses:

- There is a relationship between the efficiency and effectiveness of the organizations and the adopted control techniques.
- The efficiency and effectiveness of the organization increase by the adopted strategic control techniques.
- There is a relationship between the level of performance and the type of the adopted technique in performance measurements.
- There is a relationship between the adopted information system and effectiveness of the strategic control.

This research is based on:

- Theoretical side: it depends on the descriptive technique by the study and presentation of data handled the subject of the research and analysis theme.
- Field side: it includes the use of the following statistical techniques:
 - Descriptive statistical techniques: as repetition and percentages collected from the sample
 - Inferential statistical technique: comparing between the opinions of the employees (supreme and intermediate administrative level) in Al Noor Hospital (Abu Dhabi).

Al Noor Hospitals are Abu Dhabi's largest private health care company. Al Noor employs over 4000 health care professionals and offers a full continuum of health care services across three hospitals, seven outpatient medical centers and fourteen pharmacies. Together, the entities manage almost 4,500 patient visits per day on average. The team of medical experts comprising more than 600 physicians and 900 nurses who are trained in European or American hospitals. Confirming their dedication to quality and patient safety, Al Noor's three world-class hospitals are all accredited by Joint Commission International (JCI) and certified by ISO. JCI is a recognized leader in international health care accreditation that focuses on improving patient safety and quality of health care around the world.

Service excellence and innovation are fundamental parts of Al Noor's Vision and Mission as they continue to unlock new milestones in health care and adopt the latest technological advances. Over the years, they succeeded in introducing a number of "firsts"; the first to offer laparoscopic (keyhole) surgery, the first to provide in-vitro fertilization (IVF) services, the first to perform open heart surgery, the first to introduce a renal dialysis unit, and the first to provide plastic surgery and sports medicine services in any private hospital in Abu Dhabi.

Part of the Al Noor Hospitals group is the Gulf International Cancer Center, which is the first out-patient facility in the GCC to provide cancer care following US clinical standards, in collaboration with The George Washington Medical Center. The scope of services includes many areas in cancer diagnosis and advanced cancer treatments. The center is managed by highly experienced medical staff, from North America and Europe. GICC received its Joint Commission International accreditation in January 2011 meeting the international health care quality standards for patient care and organizational management.

The vision of Al Noor Hospitals is to provide the highest international standards of patient care with unrelenting attention to medical excellence and patient safety and to offer unparalleled passion and commitment in assuring the best possible health for those who they serve. Their Mission in Al Noor hospitals is to build a compelling health care reputation that positions the Al Noor family of professionals at the heart of patient choice, to strive to be sensitive to emerging trends and the changing needs of their patient groups, to ensure that they are patient-centered, to provide a pleasant environment where safe and effective delivery of services takes place, to provide an evidence-based clinical practice delivered in a consistent and integrated way which

ensure that all staff at Al Noor are committed to providing services in alignment with their hospital's values, to pioneer new standards by continually evaluating the needs of the communities and patients and adding new services and technologies to have the most effective impact on quality of care and outcomes for the patients and incorporate information technologies and service monitoring that support health care decision-making and maximizing quality of patient care.(<http://www.alnoorhospital.com/> 14.08.2016)

4. Theoretical part

4.1. Design of the sample

The sample of the study consists of 100 questionnaire distributed amongst employees of Al Noor Hospital

4.2. Design of the questionnaire

The questioner consists of two groups:

- Personal data: it includes the following data: sex, age, academic qualification, employment level.
- Data connected with the recognition of the extent of the effectiveness of the application of the strategic control and it includes thirteen questions that are distributed amongst the Specialized Al Noor Hospital employees.

As the variants with ordinal nature mirrors the levels of influences, therefore, Likert scale was used; it divides answers to five levels. The following values for levels which express the degree of influence in all questions as follows:

1. Strongly disagree
2. Disagree
3. Natural
4. Agree
5. Strongly agree

We will take this order into consideration at the time of analysis the results and their interpretation.

4.3. Analysis according the following criteria

- Mean: it is for each question and it mirrors the extent of the nearness of the mean to the above mentioned level. The mean of (3.5), for example, is the nearest to influence than the non-influence. Then comparing all averages of each group between themselves. Then

comparing the means between themselves to identify any average that reflects the best influence.

- Standard deviation: this mirrors the extent of the homogeneity or dispersion of answers in the concern of each answer and on the level of group. Where it is familiar that as long as the standard deviation is small, the homogeneity was the best. While the standards deviation was big then it mirrors the scatter of answers about the average and its heterogeneity. Further, the factor of differences could be used to compare between the relative scatterings of answers.
- The percentage of answers for each question: this indicator will give us a quick overview about the percentage of answers where it shows us the extent of concentration in levels. Further a comparison between percentages of answers for each question has been executed. This indicator gives us a quick overview for the percentage of answers hence it shows the extent of concentration on levels. Much more; a comparison between percentages for each question with percentage on the level of the group.
- Data analysis separately: as the nature of the data is according to sex, age, academic qualification, years of experience and others of the studied personal characteristics within this project. Where it can utilize from such data to analyze and interpret the results obtained by the statistical software "Excel" which gives quick accurate results.

5. Application part

For the purpose of this work, as it was explained in the theoretical part, one hundred questionnaires were handed out and later one they were collected.

The answers form the questionnaires were processed as planned. The first four questions in the questionnaire were processed separately as they were about demographics. Then questions 5-12 were analyzed separately as they had quantitative answers.

Weighted mean, standard deviation, and the coefficient of variance were calculated using the formulas in the literature review.

All of the resulted were listed in tables and were presented in graphs in order to have a better understanding of them when they were compared.

6. Results

Descriptive analysis of samples:

6.1. The personal characteristics of study particulars:

The study sample is characterized by several characteristics determined by demographic nature of it. These characteristics are shown in the following:

6.1.1. Gender:

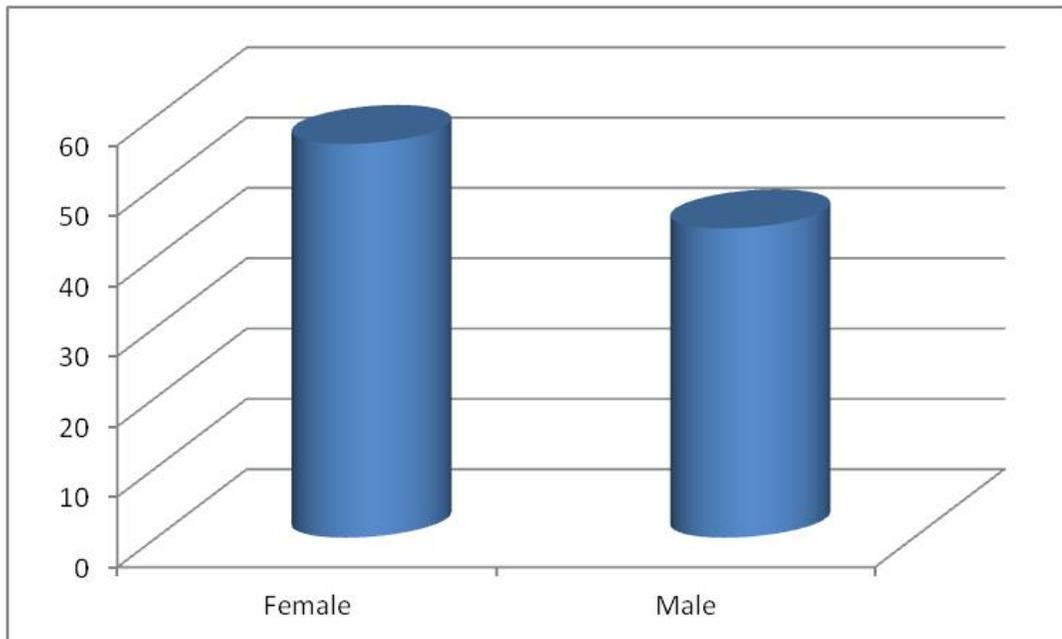
Table 1- Study sample distribution according to gender

item		repetitions	Percentage %
gender	Male	44	44
	Female	56	56
total		100	100

Source: Author

The previous table showed that most of study population in terms of gender is female as the male's percentage is (44%) as the percentage is shown in figure 1.

Figure 10- Study sample distribution according to gender



Source: Author

6.1.2. Age:

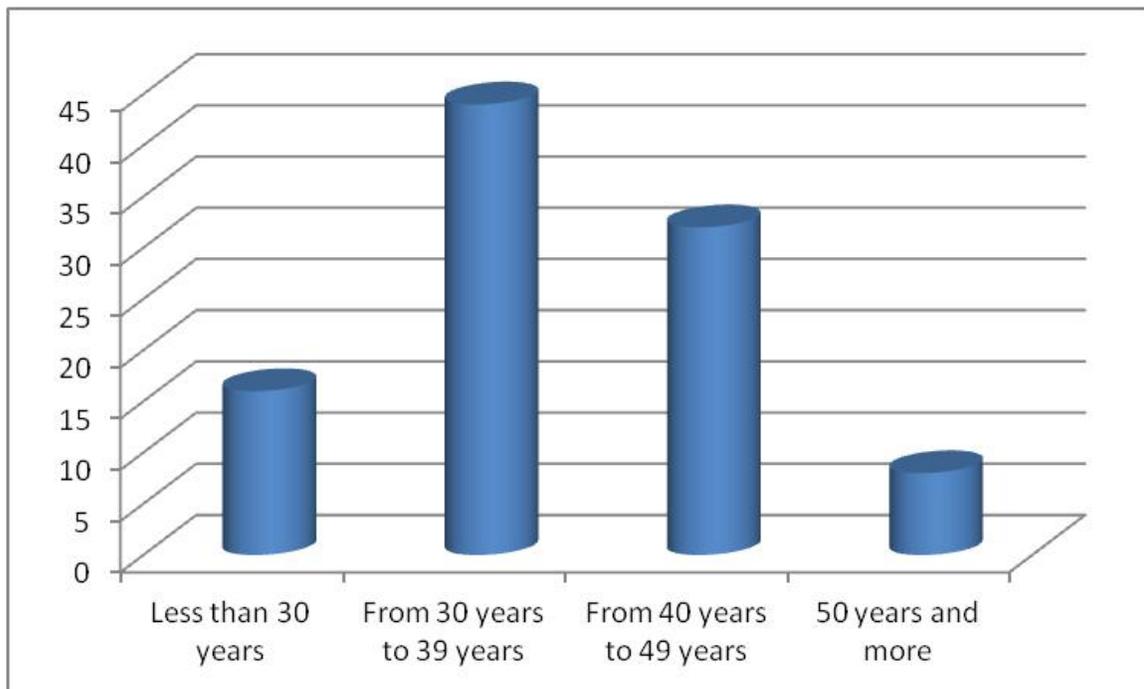
Table 2- Study sample distribution according to age

item		repetitions	Percentage %
age	Less than 30 years	16	16
	From 30 years to 39 years	44	44
	From 40 years to 49 years	32	32
	50 years and more	8	8
total		100	100

Source: Author

The previous table showed that most of study sample range in age (from 30 to 39 years) as it is about (44%) then (from 40 to 44 years) with a percentage of (32%) then (less than 30 years) with a percentage of (16%) then (50 years and more) with a percentage of (8%). It is shown in figure no. 2.

Figure 11- Study sample distribution according to age



Source: Author

6.1.3. The scientific qualification

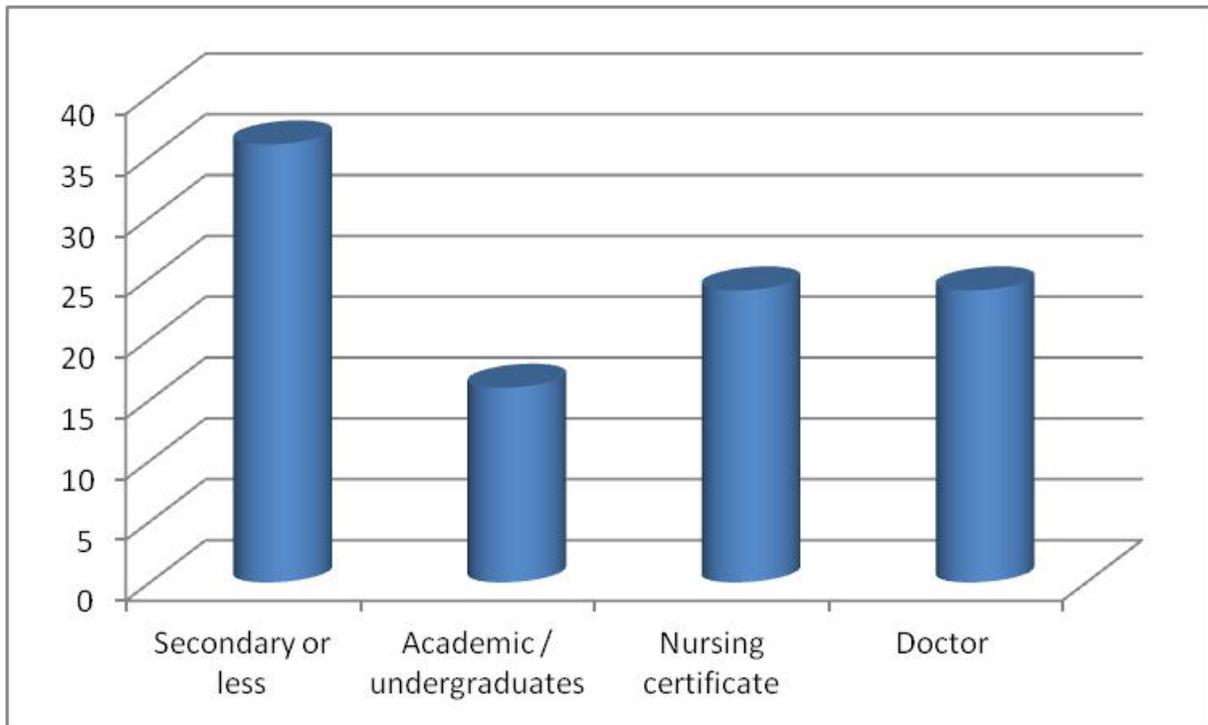
Table 3 -Study sample distribution according to the scientific qualification

item		repetitions	Percentage %
The scientific qualification	Secondary or less	36	36
	Academic/ undergraduates	16	16
	Nursing certificate	24	24
	Doctor	24	24
Total		100	100

Source: Author

The previous table showed that most of samples are holders of General certificates in education or less in a percentage of 36% then holders of medicine and nursing certificates in a percentage of 24% then academics/ undergraduates in a percentage of 24%. It is illustrated in figure no.(3).

Figure 12 -Study sample distribution according to the scientific qualification



Source: Author

6.1.4. The functional level

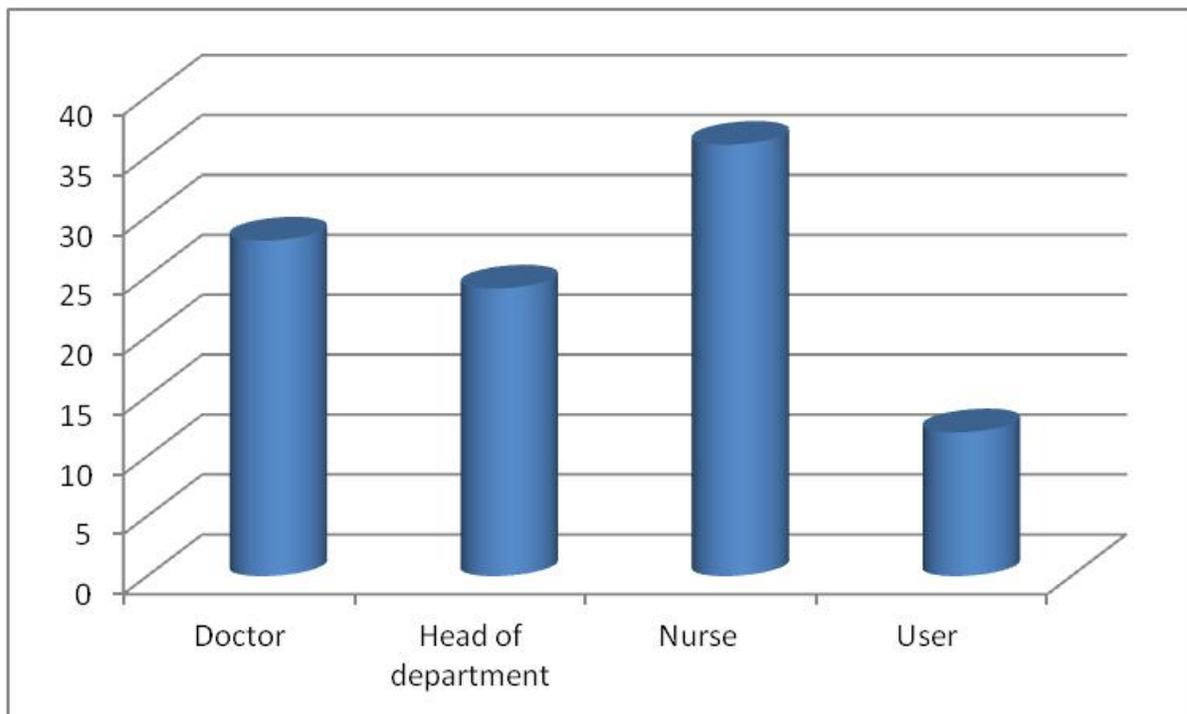
Table 4 -Study sample distribution according to the functional level

item		repetitions	Percentage %
The functional level	Doctor	28	28
	Head of department	24	24
	Nurse	36	36
	User	12	12
Total		100	100

Source: Author

The previous table showed that most of samples are nurses with a percentage of 36% then doctors with a percentage of 28% then head of departments with a percentage of 24% and finally the users with a percentage of 12%. It is illustrated in figure no. (4).

Figure 13- Study sample distribution according to the functional level



Source: Author

6.1.5. Other questions in the questionnaire

Table 5 – The results of questions 5-12 in the questionnaire

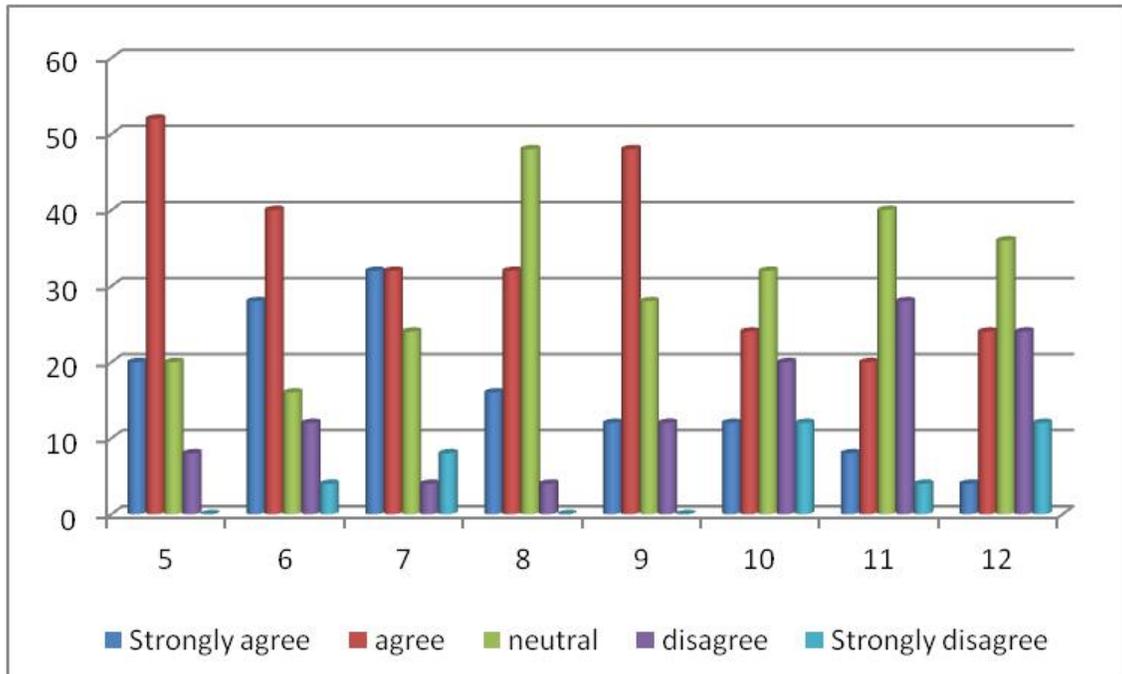
Number of the question	The agree degree					The weighted mean	The standard deviation	The coefficient of variation
	Strongly agree	agree	neutral	disagree	Strongly disagree			
5	20	52	20	8	0	3.84	0.96	25.00
6	28	40	16	12	4	3.76	1.24	32.98
7	32	32	24	4	8	3.76	1.31	34.96
8	16	32	48	4	0	3.60	1.15	31.85
9	12	48	28	12	0	3.60	0.98	27.22
10	12	24	32	20	12	3.04	1.32	43.49
11	8	20	40	28	4	3.00	1.10	36.51
12	4	24	36	24	12	2.84	1.17	41.18

Source: Author

This table is illustrating the results of the questions 5 to 12 in the questionnaire. The first column of the table shows the corresponding question, the next five columns are the scores of the questions from strongly agree to strongly disagree, and then the weighted mean, standard

deviation, and the coefficient of variation are shown. These values were calculated by the formulas presented in the literature review. From these values the following figures were made to have a better visual interpretation of the results.

Figure 14 - The scores of questions 5-12



Source: Author

Looking at the figure 5 we can easily see that most of the people answered either agree or neutral to the questions in the questionnaire. In questions 5 and 9 mostly people agree, in question 7 the majority of the answers were equally divided between strongly agree and agree. In questions 11 and 12 even thou the majority of the answers were neutral but there is a high level of disagreement as well.

Figure 15 - The weighted mean of questions 5-12

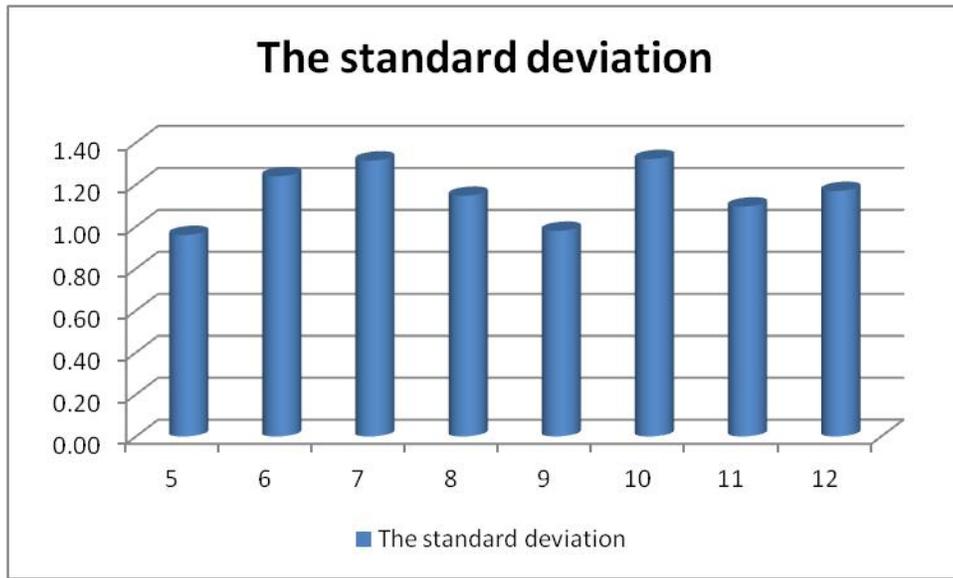


Source: Author

Figure 6 shows the weighted mean for each question. As we can see the weighted mean shows that the majority of the answers were close to agree for the first 5 questions and then drops to neutral for the following 3 questions. We can understand that generally people tended to agree with the questions rather than disagreeing. Question number 5 has the highest rate of agreement and question number 12 has the lowest rate of agreement among the questions. Never the less this doesn't mean that people disagree with question number 12 but it means they agree less.

The next figure (Figure 7) shows the standard deviation for questions 5 – 12. We can see that the standard deviations for the questions are small numbers which means the error in the calculation is not significant. However questions 5 and 9 have the least standard deviations and questions 7 and 10 have the most standard deviations.

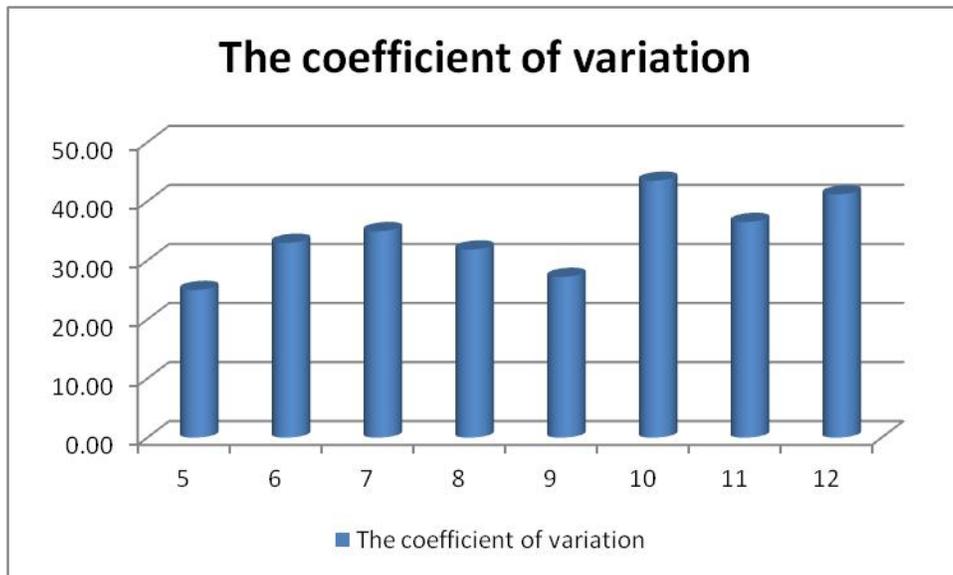
Figure 16 – The standard deviation of questions 5-12



Source: Author

Figure 8 shows the coefficient of variation which is the ratio of standard deviation to the mean in percentage.

Figure 17 – the coefficient of variation of questions 5-12



Source: Author

7. Summary of Conclusions and Recommendations

Following recommendations are possible to make:

- Seeking the application of the strategic control system to utilize its features in the increase of the performance efficiency.
- Attempting to use modern technologies to measure the performance, in particulars, balanced scorecard because it cares about both the financial and nonfinancial sides.
- The necessity to connect different units in hospitals and organizations in general by a better computer network to distribute the necessary information for control purposes.
- Increasing the efficiency of communications system for its influence on the increase of the efficiency of the strategic control.
- Paying attention to the morale of the employees and increasing their satisfaction due to the great influence on the performance of the organization in general.

8. Conclusions and Recommendations

As we learned in the literature review in the organizations today still some of traditional techniques are still used. In addition to them there are some modern trends and approaches which came around mostly or enhanced by the help of information technologies. For example controlling is not a new thing but by the help of information systems, some control systems were designed to aid the managers in the controlling process.

Assessment and strategic control are the process that investigates the strategy itself. Techniques of assessment and strategic control are dependent on the environment where the strategic management works.

If the environment was relatively stabled or predictable, the strategic assessment is designed basically to maintain the direction of the flow of the management and the amount of motion.

While if environment was changing in a totally different direction than the designed strategies or that prepositions in which the strategy is established therefore became invalid, then at that time the need arise significantly to develop the techniques of strategies.

From the results of this work we conclude that people who participated in the research were mostly women, most of participants were between 30 and 39, and answers to questions 5-12 were mostly in the positive side.

Generally we can say that:

1. The individuals of the sample agree that the control technique is with positive and effective influence in the hospital.
2. The returns on performance process is higher than its costs and this an evidence that the control is effective.
3. The control process adjusts the work of the hospital very well.
4. The adopted techniques for control determine the deviations on the plan and it is treated immediately.

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12. Appendix

Questionnaire Form

Please read the question carefully and perfectly and put (X) sign in the appropriated place:

1- Sex:

- Male
- Female

2- Age:

- Less than 30 years
- from 30 to 39 years
- from 40 to 49
- 50 and more

3- Qualification:

- Secondary or less
- Academic
- Nursing Certificate
- Doctor

4- Career Level:

- Doctor
- Head of department
- Nurse
- Employee

5- Does the efficiency of hospital's performance increase by the use of strategic control technique?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

6- Does the adopted technique type affect performance measurement in performance level?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

7- Does the Administration applying the Strategic Control technique?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

8- Does the adopted control technique affect the efficiency of hospital performance?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

9- Does the efficiency of hospital's performance increase by the use of strategic control technique?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

10- Does the type of the technique used in the performance measurement affect the performance level?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

11- Is the return of control is more than its cost?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree

12- Does the administration use the spy system to get more information?

- Strongly disagree - Disagree - Neutral - Agree - Strongly agree