



The impact of applying the balanced scorecard on the performance of health organizations

An applied study at King Fahad Hospital in Jeddah

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Abstract:

The aim of the study is to find out the impact of applying the balanced scorecard on the performance of health organizations, and to reach this goal, the study adopted the following dimensions of the balanced scorecard: (its financial dimension, its customer side dimension, the education and growth (training) dimension, and the internal operations dimension. After the statistical analysis of the answers of the sample members done, The study came out with a number of results, the most important of which are: The respondents strongly agree on the financial dimension of the balanced scorecard, and this was evident in their reports that the financial dimension of the balanced scorecard affected the creation of systems to control expenses, which were characterized by transparency in the complex, and that it could contribute to Make good use of hospital resources, The results also indicated that the respondents strongly agreed on the axis of the customer dimension of the balanced scorecard, and it was found in their testimony that it contributed to the complex's response to the complaints and suggestions of patients and auditors, and it also helped the complex in providing medical staff in a way that suits patients, and there is also strong approval on the axis of the education dimension. and growth (training) of the Balanced Scorecard ,especially with regard to the aspect of the hospital's interest in developing the performance of employees, as well as the complex's interest in qualified and highly skilled employees, and also the results indicated agreement with the internal operations dimension of the balanced scorecard, and we found that they reported that it made the employees have the ability to accomplish their work, with minimal effort and high efficiency,

and that it reinforced the concept of self-control among the complex's employees. The results of the study showed a relationship between the application of the balanced scorecard and the performance of health organizations, in terms of reducing patients' waiting to see a doctor, and improving the quality of health services. While the study recommended a number of results, the most important of which are: the need to pay attention to the use of the financial dimension of the balanced scorecard in health organizations, through the exploitation of available financial resources, the need to use the customer dimension of the balanced scorecard to measure the performance of health organizations, through the development of the quality of services provided to patients, Interest in using the internal operations dimension of the balanced scorecard in health organizations, through the development of administrative work in health organizations, increasing the interest of health organizations in using the growth and learning (training) dimension card for balanced performance, by providing training programs to develop employee performance.

المستخلص:

الهدف من الدراسة هو معرفة أثر تطبيق بطاقة الأداء المتوازن على أداء المنظمات الصحية، وللوصول لهذا الهدف، تبنت الدراسة الأبعاد التالية للبطاقة الخاصة بالأداء المتوازن: (بُعدُها المالي، وبُعدُها في جانب العملاء، بُعدُ التعليم والنمو) (التدريب) وبُعدُ العمليات الداخلية)، استخدمنا في هذه الدراسة المنهج الوصفي التحليلي، واستعانت بأداة الاستبيان، الذي تم توزيعه على عينة من العاملين بمستشفى الملك فهد بجدة، بلغ عددهم (٣٢٥) فرداً، وبعد التحليل الإحصائي، خرجت الدراسة بعدد من النتائج أهمها: أفراد العينة موافقين بشدة على محور البُعد المالي، لبطاقة الأداء المتوازن، واتضح ذلك في إفادتهم عن أن البُعد المالي لبطاقة الأداء المتوازن، أثر في إيجاد نظم لضبط المصروفات، تميّزت بالشفافية في المجمع، وأنه من الممكن أن يساهم في استغلال موارد المستشفى بشكل جيد، كما أفادت النتائج أن أفراد العينة موافقين بشدة على محور بُعد العملاء لبطاقة الأداء المتوازن، وتبيّن في إفادتهم بأنها ساهمت في استجابة المجمع لشكاوى واقتراحات المرضى والمراجعين، كما أنها ساعدت المجمع في توفير الكادر الطبي بما يتناسب مع المرضى، وهناك أيضاً موافقة

بشدة على محور بُعد التعليم والنمو (التدريب) لبطاقة الأداء المتوازن، خاصة فيما يخص جانب اهتمام المستشفى بتطوير أداء الموظفين، وكذلك اهتمام المجمع بالموظفين الأكفاء، وأصحاب المهارات العالية، وأيضاً أشارت النتائج بموافقة بُعد العمليات الداخلية لبطاقة الأداء المتوازن، فوجدنا أنهم أفادوا بأنها جعلت الموظفين يتمتعون بقدرة على إنجاز أعمالهم، بأقل جهد وكفاءة عالية، كما أنها عززت من مفهوم الرقابة الذاتية لدى العاملين بالمجمع، أظهرت نتائج الدراسة وجود علاقة بين تطبيق بطاقة الأداء المتوازن، وأداء المنظمات الصحية، من حيث التقليل من انتظار المرضى لمقابلة الطبيب، وتحسين جودة الخدمات الصحية، في حين أوصت الدراسة بعدد من النتائج أهمها: ضرورة الاهتمام باستخدام البُعد المالي، لبطاقة الأداء المتوازن في المنظمات الصحية، من خلال استغلال الموارد المالية المتاحة، ضرورة استخدام بُعد العملاء، لبطاقة الأداء المتوازن لقياس أداء المنظمات الصحية، من خلال تطوير نوعية الخدمات المقدمة للمرضى، الاهتمام باستخدام بُعد العمليات الداخلية، لبطاقة الأداء المتوازن بالمنظمات الصحية، من خلال تطوير العمل الإداري بالمنظمات الصحية، زيادة اهتمام المنظمات الصحية في استخدام بطاقة بُعد النمو والتعلم (التدريب) للأداء المتوازن، من خلال توفير برامج تدريبية لتطوير أداء الموظفين.

Preface

:The work environment at the present time has witnessed many developments, perhaps the most prominent of which is the emergence of globalization, technological development, intense competition, and customers' desires and their need for high-quality products and services. .

These challenges and pressures constituted types of new requirements that necessitated responding to them, in order to succeed, achieve these changes, and survive in the competitive business environment, and the pressures it imposed on it, and this required that it adopt modern methods in the field of planning and control, and performance evaluation, in ways and methods fit with those challenges and changes (Al-Kaabi and Omran, 2013).

Perhaps the method of the balanced performance card is one of the most recent methods used at the present time to evaluate performance, which has proven its superiority over the

traditional method of performance evaluation, because it did not focus on financial measures only, as is the case in the traditional method, it was concerned with non-physical measures as well, such as customers, and the organization's internal operations, whether production or service, as well as learning and growth, and managing the organization's external environment, taking into account the risks that the organization might be exposed to, and the purpose for that. It is to develop a complete vision of the organization's performance, identify weaknesses in its various activities and work to remedy and correct them (Khalaf, 2013).

This research addresses a major problem, represented in the health organizations not relying on modern practical methods in evaluating their performance, including the balanced scorecard, and continuing to use traditional methods, which relied on financial indicators, which did not fit with the current stage, which negatively affected performance evaluation. These hospitals properly and accurately.

Therefore, the aim of the research was to evaluate the performance of the King Fahad Hospital in Jeddah, through the use of the balanced scorecard method, so that the complex's management can identify the strengths and weaknesses in its performance, and the extent to which it achieves the set goals.

Research Problem

Health organizations face many challenges, the most important of which are: their failure to fulfill the wishes and requirements of patients, as well as the disparity in the level of services from one hospital to another, and the lack of objective financial and non-financial indicators, in light of the lack of interest of some performance appraisal methods in linking strategic objectives and performance indicators, the importance of the balanced scorecard scale has emerged. Where this measure expressed the hospital's strategy, through a balanced set of indicators, which were linked together with cause-and-effect

relationships, including the customer dimension (patients), by which the hospital's performance can be judged, in light of the focus on the strategic performance dimension. , dimensions of internal processes, dimensions of learning and growth, and the financial dimension, these actually represented the four dimensions of the balanced scorecard (BSC), and that there is no integrated application of the balanced scorecard (BSC) model, as a tool for measuring health organizations. Therefore, the study dealt with (a study of the impact of applying the balanced scorecard on the performance of health organizations: an applied study at King Fahad Hospital in Jeddah.

Accordingly, the study problem was summarized in the following main question:

Is there impact of applying the balanced scorecard on health organizations?

1. Research aim and objectives

The aim of the study is to study and analyze the impact of applying the balanced scorecard on the performance of health organizations. . To meet this aim, this study will move towards attaining the following research objectives:

1. Presentation and analysis of the impact of applying the financial dimension of the balanced scorecard on the performance of health organizations.
2. Presenting and analyzing the impact of applying the customer dimension of the parallel scorecard on the performance of health organizations.
3. Presentation and analysis of the effect of applying the education and growth (training) dimension of the balanced scorecard on the performance of health organizations.
4. Presentation and analysis of the effect of applying the internal operations dimension of the balanced scorecard on the performance of health organizations.

Study Variables

Dependent variable: the performance of health organizations.

Independent Variables ;(Dimensions of the Balanced Scorecard):

1. The financial dimension of the balanced scorecard.
2. The Customer Dimension of the Balanced Scorecard.
3. The education and growth (training) dimension of the balanced scorecard.
4. The internal operations dimension of the balanced scorecard.

5.The importance of study:

Theoretical significance:

1. This research may contribute to enriching scientific research with one of the important topics in the fields of management, which is the use of the dimensions of the balanced scorecard.
2. According to the researcher's knowledge, there is a lack of research and studies that aim to measure performance in health organizations using the dimensions of the balanced scorecard.

Applied importance:

1. This research may positively affect senior management (decision makers) by providing them with information on the degree of importance of using the dimensions of the balanced scorecard to measure the level of performance within health organizations.
2. This research may represent a picture of the degree of using the dimensions of the balanced scorecard in health organizations, whose results and recommendations may be of importance to those interested in these hospitals.

Literatures Review and previous studies

Balanced Scorecard (BSC):

The names of this card differed, as it was called the Balanced Score Card, or the Balanced Achievements Card, as well as the Balanced Goals, and no matter how many names it was, it was related to the measurement of performance

indicators, and we reviewed here some definitions of the Balanced Performance Card (BSC) as follows:

Al-Omari defined it as a practical and scientific perspective that aims to improve the performance of the organization at the present time and in the future, by counting measures in four axes: the customer axis, the financial aspect axis, the internal operations axis, as well as the learning and growth axis (Al-Omari, 2012) .

It was also defined as: a method consisting of several performance measures stemming from the strategy of the private health organization, which enables it to translate and implement its strategy through four performance measures related to customer satisfaction: internal organization operations, growth and development, and finally the financial and non-financial aspect (Al-Jizan, 2015).

The Balanced Scorecard (BSC) was defined as well: as an integrated system that measures performance with a strategic concept, through which strategies, performance measures, values, and clear operational objectives were translated into the organization's workflow. (Greyling, 2015).

In light of the definitions provided, we found that the balanced performance card is a system that was developed to measure the performance index of organizations from the perspective of vision and strategies, in terms of its financial side, the customer side, its internal operations, and finally the growth of the organization and education.

Importance of the Balanced Scorecard:

The importance of the balanced performance card has emerged as follows: (Al-Ghosseini and Ragheb, 2014):

1. Linking the cause-effect indicators and providing the relevant managers and chiefs with them.

2. Accurately defining the performance measures in the balanced performance card, as it is the main motivation for the organization to achieve its strategies.

3. It enables the organization, through its four dimensions, to monitor financial results through indicators, as well as to monitor the extent of progress in establishing capacities and acquiring skills.

Finding the connection between the organization's objectives and performance indicators.

5. Giving management a comprehensive picture of the nature of the organization's internal operations, and how to treat them (Adejoka, 2014).

Therefore, the balanced performance card was considered one of the best performance measurement methods at the present time. Its aim is to unify its four dimensions that measure performance, in order to avoid highlighting one aspect and neglecting the other. It focused on measuring financial and non-financial methods, developing internal processes, continuous improvement, and teaching and training organization employees.

Dimensions of the Balanced Scorecard:

We found in previous studies by Kaplan and Norton that there are four dimensions of the Balanced Scorecard, and these dimensions are:

Financial Perspective:

It is the dimension concerned with the financial aspect related to the performance of organizations, and how to look at the shareholders? As the financial objectives in the public sector differ from the private sector, as they represent net profit in the long term, while we found that success in government organizations can be measured by the level of their efficiency in meeting the needs of their customers at the simplest cost and the least time. Despite the importance of non-financial goals and

their impact on the long term, some writers saw that goals in their financial aspect are the best way to apply, and others criticized financial measures in support of non-financial measures, but they did not ignore their impact on performance measurement, and accordingly we consider it important to use the measure The financial dimension with the non-financial measure, giving the financial dimension preference for performance measurement in the balanced performance card (Jawad, 2011).

Customer perspective:

The success of any organization in the productive environment at the present time is based on understanding and measuring the relationship between customers and the organization. On the basis of this dimension, customers' needs are determined, contribute to attracting new customers, and give an indication of their satisfaction or complaints about the service or product (Al-Khalaf, 2013).

Customer satisfaction is an indicator of the efficiency and success of the establishment, as the customer's profitability is one of the important measures for improving performance. We also see this through new customers as a result of the increase in the costs of attracting them over the return achieved from providing services to them, as the real profit here lies in the long term, which is the basis for taking The decision to keep or dispense with them, given the losses that have occurred or will occur (Nadim, 2013).

The researcher believes that this dimension reflects the appearance of the hospital in front of customers, and among its most basic factors: quality of service, short time in providing it, and gaining customer satisfaction.

Internal Business Processes Dimension:

This dimension consisted of three sub-dimensions, namely: (Al-Ghousseini and Tamer 2014):

- Innovation process: It is concerned with developing and innovating the product and service that meets customer needs.
- Operational process: It is the process of production, delivery of the product and service available to the customer, and the basic strategic initiatives of the leading organizations, to improve this process.
- Delivery service: It lies in ensuring customer service after the sale and delivering it to them.

Learning and Growth Dimension:

The interest of the organization in developing its internal capabilities and skills, to achieve long-term goals, requires continuity of development and the development of capabilities to win customers, and an attempt to bridge the gap between the organization's current capabilities and the capabilities to be acquired, through the following main areas: (Al-Kaabi and Omran, 2013)

- Individuals: in terms of remuneration and motivation.
- Systems: Developing a modern information system.
- Regulatory Procedures: Benefiting from the capabilities of workers through training, developing skills, raising competencies, and improving organizational procedures, in order to maintain and improve competitive advantages in the future.

3.Hospital performance:

: It is their ability to implement plans and implement health care goals that reflect their strategy and objectives in their results achieved through the course of work, for all curative or preventive services provided to the individual or society to meet the desires associated with this service (Fakhry, 2016).

Among the factors that affect the performance of hospitals are the following:

1. The number of beds in the inpatient departments and the volume of service in the outpatient clinic.

2. The type of health services provided by the region, whether they were preventive or curative.
3. The space available for the organization, the internal and engineering planning, the location and the availability of spaces for expansion.
4. The size of the demand for services and the demographic distribution of the population of the area in which the health organization has taken place, and the conditions of the environment in terms of public health, air and water pollution.
5. The size and composition of the labor force, and the health skill level of physicians, nurses, laboratory, x-rays, and others.
6. The size of the health organization's budget, funding sources, availability of funds, and speed of obtaining them.
7. The degree of specialization in health jobs directly affected the size of the organization.

Achieving the wishes and expectations of the beneficiary patients, and gaining their trust, is one of the basic and important criteria that must be taken into account when trying to assess the success of organizations of all kinds. Hospitals measured the volume of activities from health services by conducting a survey of the desires and attitudes of current patients and the population.

Previous studies

To determine the benefits of applying the balanced scorecard in non-profit hospitals, and to link the sub-objectives of health organizations with their strategy, this study concluded that: for another. Adopting financial and non-financial indicators and measures in evaluating performance after taking into account all the success factors targeted by the organization, which gave a clear picture of the performance of those organizations. The balanced scorecard is an integrated system for evaluating performance by relying on a set of factors (client,

education and growth, internal operations, financial perspective (Al-Kaabi and Omran, 2013).

In order to find out the extent to which it is possible to evaluate the performance of public hospitals using the balanced scorecard and to know the importance of using the balanced scorecard in evaluating the performance of public hospitals, the most important results of the study were: The possibility of using the balanced scorecard (BSC) in public hospitals, and there are obstacles facing the use of the balanced scorecard (BSC).) In public hospitals, the financial dimension of the Balanced Scorecard (BSC) is available in hospitals without the other dimensions. Among the most important recommendations of the study: urging the hospital administration to use the Balanced Scorecard (BSC); Because it is a modern tool that included the financial and non-financial aspects of the evaluation process, adopting a clear strategy, developing staff capabilities, responding to patient complaints, and making the best use of the equipment available to it. (Khalaf, 2013).

As for another study, it showed that the most important advantages of using this tool are that it does not focus on measuring a specific aspect of performance at the expense of other aspects, as well as identifying the reality of the practical application of the balanced scorecard in private hospitals, as their published financial statements have been subjected to the purpose of performance evaluation. finance using the balanced scorecard. Among the most important conclusions of the study were: there is an effect of applying and using the four axes of the balanced scorecard on performance measures based on accounting profit, with its indicators, the rate of return on assets, the rate of return on equity in private hospitals, (Nadim, 2013).

As for the study (Umashankar, 2011), it indicated that the application of the balanced scorecard in the management of health institutions has positive effects in evaluating the financial

performance after taking into account all the success factors targeted by the organization.

The study (Hladchenko, 2015) sought to determine the relationship between the application of the balanced scorecard and financial performance in some government hospitals in Germany and to define the general framework of this scorecard, which relates to the structure and elements of the scorecard, and to develop the scorecard at various levels of the health institutions management system. The results of the study indicated that the balanced scorecard provides a strategic vision according to the needs of the health institution. The results also showed that the development of performance measurement requires participatory performance to achieve financial performance compatibility, with all departments in the organization, taking into consideration that the development process is difficult and takes a long time.

To find out the feasibility of performance evaluation methods applied in non-profit Saudi hospitals. Saudi non-profit hospitals have improved in recent years, and monitoring has become computerized. And that the extent to which the balanced scorecard can be applied in the hospitals under study ranged from average to above average, due to several factors, the most important of which are; That these hospitals have implemented the programs predetermined by their administrative affiliates, and that the non-profit Saudi hospitals possessed a comprehensive, clear, implementable and well-studied strategy, and that the application of the balanced scorecard in the hospitals where it is implemented is considered effective in most cases, and that the presence of the balanced scorecard helped activate interest in patient satisfaction, and the study recommended the importance of continuing to work with the authorities donor of health credits; for the effectiveness of its impact on the development of performance, and the need to develop the aspect

of time commitment in administrative procedures in non-profit Saudi hospitals, and the importance of working with modern management accounting tools, the most important of which is the balanced scorecard, and by working on more knowledge and seeking help from specialists when wanting to apply the balanced scorecard in non-profit Saudi hospitals (Al-Marri, 2016).

To interpret the results of the exploratory experiment related to the application of the Balanced Scorecard (BSC), in German non-profit institutions in terms of levels of implementation, dimensions, challenges, main obstacles, and the use of performance measures, the most important results of the study were: Most of the German non-profit institutions are in a stage Early implementation of the Balanced Scorecard (BSC), where the Balanced Scorecard (BSC) was used as a measurement tool rather than as a management system, the results also showed that the balanced scorecard (BSC) applied in these institutions did not adapt sufficiently to the requirements of non-profit operations. (Greyling, 2015).

To assess the integration between management performance development along with the Balanced Scorecard (BSC) as a tool for evaluating the performance of Mthatha General Hospital located in South Africa. They were aware of the balanced scorecard as an evaluation tool, and 52% of the respondents believed that the current evaluation tool does not provide opportunities to go to training, and that half of the health care workers did not agree that the development of performance management is useful for improving personal skills, and 85% of the respondents believed that the employees did not disagree with administrative decisions. The measurement was based on the Balanced Scorecard (BSC), (Adejoka and Bayat, 2014).

In order to evaluate the performance of employees using the balanced scorecard and show the importance of its

application in institutions, and urge national hospitals to apply modern models and approaches to measure and improve performance, while adapting them to hospital conditions, and highlighting the foundations and components of the balanced scorecard, one of the most important conclusions of the study was: weighted goals In addition to being an input for measuring performance, it can be used as a tool to achieve a set of administrative functions that can improve performance. The emergence of the weighted goals card contributed greatly to overcoming the problems facing contemporary institutions (Abdul Qader, 2013).

In the study "To explain the methodology of applying balanced performance in Saudi institutions", and to identify the importance of using the balanced scorecard to improve the performance indicators of organizations and institutions in the Kingdom of Saudi Arabia, one of the most important results of the study was: the axis of growth and learning in the balanced scorecard, which means meeting distant goals range, and global competition, which required permanent development of performance and skills. The need for organizational culture and values to be characterized by strength and future orientation, accepting change and striving to rely on performance measurement measures permanently, and the need to pay attention to building awareness in the field of performance measurement through seminars and meetings. The study recommended the following: The need to pay attention to strategic concepts, without which there is no intellectual and philosophical framework to be followed by the organization, not even a path map that the administration can follow, or a unified program of behavior to achieve the desired results. Attention to relying on clear, measurable goals can therefore be given an accurate description of the actions required to be carried out to achieve those goals (Al-Omari, 2013).

To evaluate the financial performance in the hospital using the balanced performance model (BSC), the most important results of the study were: The balanced performance model (BSC) is the best and most objective tool for evaluating the hospital's performance; Because it allows to identify the results achieved in each department or department in the hospital, the lack of an integrated application of the Balanced Performance Model (BSC) in the hospital as a result of the defect in the performance of the basic axes that make up the model, due to the lack of qualified technical expertise necessary to train workers on it (Al-Ghosseini, and Tamer, 2014).

On the role of the balanced scorecard technique in evaluating performance: The most important conclusions of this study were: The balanced scorecard technique is one of the most important modern techniques of strategic managerial accounting, which has proven to be superior to the traditional method of performance evaluation; Because it covered a wide range of internal operations, as it included financial and non-financial measures (Jawad, 2011).

To develop a balanced scorecard in Lithuanian hospitals and to achieve efficiency and effectiveness, and to enhance the competitive position of those organizations, the most important conclusions reached by the study were summarized: The application of the balanced scorecard led to a fundamental improvement in internal operations, and there is support for the idea of a compatibility between the balanced scorecard And between the system of rewards and incentives (Cuzaitė), 2015).

5. Literature gap:.

The current study was distinguished from previous studies in its focus on the dimensions and axes of the balanced performance card that have the most impact on performance, namely: (the financial dimension, the customer side dimension,

the education and growth dimension, and the internal organization operations dimension).

Research Methodology

Research Methodology

The research employed a quantitative approach and data was collected applying a questionnaire approach. The survey was formulated to investigate the readiness among healthcare workers to privatization of healthcare sector. The survey was administrated electronically to participants to assist in data collection.

A quantitative method using a descriptive design had recommended for this type of studies. A questionnaire had used as the data collection tool. According to (*Parahoo, 2006*), the quantitative method initiated from the idea that human phenomena and variables in human behavior had been studied objectively, however, this method had carefully selected as a suitable research approach. (*Robson, 2007*), added that quantitative research uses a solid design that organizes in advance the research question and a comprehensive method for data collection and analysis.

Population and Sampling

The study population consists of all employees at at King Fahad Hospital in Jeddah, including doctors, technicians, nursing staff, and administrators, and their number is (2363) individuals. A sample was taken using statistical tables at a confidence level of 95% and an error degree of 5%, so that the minimum sample size is 325 individuals.

Data Collection Instrument

The questionnaire tool was used to collect data for this study, and it was divided as follows:

First, the demographic variables:

Job title, gender, nationality, educational qualification, age, work experience.

Axes of the study tool:

1. The first axis: the financial dimension of the balanced scorecard.
2. The second axis: the customer dimension of the balanced scorecard.
3. The third axis: the dimension of education and growth (training) of the balanced scorecard.
4. The fourth axis: the dimension of the internal operations of the balanced scorecard.
5. The fifth axis: the performance of health organizations.

Study application procedures:

The questionnaire tool for this study was designed after reviewing previous studies such as the study of (Al-Khilaf, 2013), the study of (Al-Jizan, 2015) and the study of (Al-Kaabi, 2013), in order to collect through it all the data and information related to it, due to the nature of this tool in terms of its special objectives, and the approach that track it down

It was distributed to the individuals participating in the study during the month of April 2023.

After collecting questionnaires for statistical analysis, it became clear that (5) questionnaires were invalid because their data were incomplete, so that the valid number for analysis would be (320) questionnaires.

After that, the data were analyzed statistically after emptying it in the (SPSS) program, then we found the coefficient of validity and stability of the tool, and finally the results.

Judgment Criterion:

The following table shows the criteria for judging each paragraph of the questionnaire, in which we relied on the five-

point Likert scale, which is: (fully agree, agree, not sure, disagree, totally disagree).

The table below shows the weights for responding levels of the statements and the weighted mean – according to five-level Likert scale. Likert scaling is a bipolar scaling method, measuring either positive or negative response to a statement (Cronbach, L. J., 1951).

Table 1 Five-level Likert items

Answer	Weight	Weighted Mean
Strongly disagree	1	1 to < 1.8
Disagree	2	1.8 to < 2.60
Neutral	3	2.60 to < 3.40
Agree	4	3.40 to < 4.20
Strongly Agree	5	4.20 to 5

5. Data Collection Procedure:

After designing the research tool, the following actions were taken

- Application of the search tool electronically distributed to the research personnel in the period between the beginning of June to end of June 2023 .
- Unloading the statistical package (SPSS) data for statistical analysis.
- Finding the validity and reliability of the research tool
- Analyze data statistically
- After designing the study tool, the following procedures were carried out:
- Application of the study tool electronically distributed to the study members.
- Unloading the data into the (SPSS) program for statistical analysis.
- Finding the validity and reliability of the study tool.
- Analyze the tool statistically.

The reliability and validity of the study tool:

Validity of the tool:

What is meant by the validity of the tool: the extent to which the purpose of the study for which it was actually developed was measured, which is to study the impact of applying the balanced scorecard on the performance of health organizations. final study tool.

1. Reliability:

What is meant by the stability of the measurement tool: is to give the same results when re-application of the questionnaire on the same sample and in the same conditions, and it was measured by the Alpha Cronbach stability coefficient, using the SPSS program, and the results were as follows:

Table (2) Alpha Cronbach stability coefficients for each statement

العبارة	ألفا كرونباخ	العبارة	ألفا كرونباخ	العبارة	ألفا كرونباخ
1	.956	10	.956	19	.956
2	.956	11	.956	20	.956
3	.956	12	.956	21	.961
4	.957	13	.956	22	.958
5	.957	14	.957	23	.956
6	.956	15	.956	24	.958
7	.956	16	.956	25	.956
8	.955	17	.957	26	.956
9	.956	18	.956	الدرجة الكلية	.956

The above table shows the Alpha Cronbach coefficients for each axis of the study tool, and for the tool as a whole. We found that the values for the Alpha Cronbach coefficients ranged between (0.961-0.955) for the axes, and for the total score they reached ((0.956), which are high values, indicating that there is a clear stability on this tool From the answers received from the sample, which means that this tool can be relied upon in terms of data collection, as well as the possibility of generalizing the results of this study.

2. The validity of the internal consistency of the questionnaire items:

What is meant by the internal consistency of the questions that were developed in the questionnaire: is the extent of the strength of the correlation between the scores in each field, and between the scores in the overall questions of the questionnaire, and honesty is simply the measurement of the questions that were developed in the questionnaire or the test that was designed to measure it, that is, the measurement of the function that is supposed to be It actually has to be measured.

Correlation coefficient between each statement and the total score of the study tool:

In the following table, the correlation coefficient of the statements included in the questionnaire and the total score of the study tool are shown.

Table No. (3) Correlation coefficients between the study tool phrases and the total score

العبارة	معامل الارتباط	العبارة	معامل الارتباط	العبارة	معامل الارتباط
1	.743**	10	.799**	19	.775**
2	.761**	11	.789**	20	.730**
3	.754**	12	.637**	21	.416**
4	.695**	13	.680**	22	.557**
5	.687**	14	.510**	23	.738**
6	.781**	15	.639**	24	.628**
7	.808**	16	.608**	25	.732**
8	.809**	17	.731**	26	.645**
9	.730**	18	.745**		

The previous table showed that the correlation coefficient between the total scores and each statement of the study tool ranged between (0.416-0.809), which are high values. This indicates that there is internal consistency between each statement and the scores of the overall study tool.

6.Statistical methods:

The data of this study, which were collected using the computer, were subjected to statistical analysis through some of its statistical methods provided by the SPSS statistical package system, namely:

Arithmetic percentages and averages.

- Pearson correlation coefficient.

- Chi-square.

- AlphaCronbach.

Data Analysis and Results' Interpretation

The demographic characteristics of a sample:

In this part of the chapter, we dealt with the demographic characteristics of the study sample:

Analysis of the demographic characteristics of the study sample:

1. Statistical analysis of sample characteristics:

The characteristics of the study sample members were determined by, Gender , Nationality, Job title, Years of Experience and Age .The frequencies and percentages of personal data were calculated as follows.

Table(4) Frequency distribution of demographic characteristics

Variables	Frequency	Percent
Nationality		
<i>Saudi</i>	193	60%
<i>Non-Saudi</i>	27	40%
Job title		
<i>Physician</i>	65	%20.3
<i>Nurse</i>	116	%36.3
<i>Technician</i>	84	%26.3
<i>Administrative</i>	55	%17.2
Years of Experience		
<i>< 5 Years</i>	83	%25.9
<i>5 - 10 years</i>	135	%42.2
<i>11- 14 years</i>	102	%31.9
<i>15 - 20 years</i>	-	-
Age		

20- 30 years	45	14.1%
31 - 35 years	163	50.9%
36 - 40 years	72	22.5%
> 40 years	40	12.5%
Total	320	100.0%

Table No. (1-4) shows the qualitative distribution of the participants in the survey, as it appears that the largest percentage of the participants was Saudis, at a rate of about 60%, while the percentage of non-Saudis in the poll represented about 40%, and about 51% of the study sample are between the ages of 30 to 45 years, while about 23% of the respondents are between the ages of 45 to 60 years, 42% of the study sample have experience ranging from 5 to 10 years, and shows that 43% of the study sample hold a bachelor's degree, while the percentage of holders of postgraduate degrees (Master's and PhD) represents about 57% of the study sample.

and that 36% of the study sample are nurses.

Statistical analysis of the study sample's responses to the study variables:

The first axis: the financial dimension of the balanced scorecard at King Fahad Hospital in Jeddah :

Table (5) Results of the statistical analysis of the respondents' answers to the financial dimension axis of the balanced scorecard .

Statements	Mean	ST.D	Chi-Square
Find systems to control expenses that are transparent in the complex	4.70	1.26	41.5**
Utilize the resources of the complex well.	4.68	1.26	82.3**
Reviewing and amending budgets to suit changing needs	4.65	1.38	50.2**
Reviewing the complex's approved budget according to what is planned	4.62	1.38	43.7**
Preparing financial reports periodically and continuously	4.61	1.22	110.8**

Statements	Mean	ST.D	Chi-Square
Contribute to providing sources of financing for the complex	4.60		
Total	4.64	1.30	53.7**

This result showed that the arithmetic means ranged between (4.60-4.70), which are very high, and the degrees of agreement are highly consistent with all statements.

We noticed from the value of the statistical significance level of the chi-square test, corresponding to each statement separately, that all levels of statistical significance amounted to (0.000) less than (0.05).

The second axis: the customer dimension of the balanced scorecard at King Fahad Hospital in Jeddah:

Table (6) Results of the statistical analysis of the respondents' answers to the customer dimension axis of the balanced scorecard .

Statements	Mean	ST.D	Chi-Square
Hospital response to complaints and suggestions of patients and reviewers	4.77	1.06	115.2**
Assisting the complex in providing the medical staff in proportion to the patients	4.73	1.05	115.6**
Developing the quality of health and medical services for clients	4.71	1.08	117.4**
Providing the necessary service to patients with high quality	4.71	1.15	105.5**
The complex's commitment to providing services on time	4.68	1.34	27.9**
Total	4.72	1.13	95.9**

This result showed that the arithmetic means ranged between (4.68-4.77), which are very high, and the degrees of agreement are highly consistent with all statements.

From the value of the statistical significance level of the chi-square test, corresponding to each statement separately, it is noted that all levels of statistical significance amounted to (0.000) less than (0.05). This indicates that there are statistically

significant differences on all axes, and these differences are in favor of strongly agreeing.

The third axis: the internal operations dimension of the balanced scorecard at King Fahad Hospital in Jeddah:

Table (7) Results of the statistical analysis of the respondents' answers to the internal operations dimension axis of the balanced scorecard.

Statements	Mean	ST.D	Chi-Square
Making employees have the ability to complete their work with minimal effort and high efficiency	3.54	1.06	115.2**
Developing the concept of self-control among the employees of the complex	4.62	1.05	115.6**
Contribute to finding cooperation between all sections and departments of the complex	4.59	1.08	117.4**
Easy patient data processing	4.58	1.15	105.5**
Contribute to finding cooperation between all sections and departments of the complex	4.57	1.34	27.9**
Total	4.59	1.13	95.9**

The results showed that the arithmetic means ranged between (4.43-4.71), which are very high, and the degrees of agreement are highly consistent with all statements.

From the value of the statistical significance level of the K-square test corresponding to each statement separately, it is noted that all levels of statistical significance amounted to (0.000) less than (0.05), this indicates that there are statistically significant differences on all axes, and these differences are in favor of strongly agreeing.

The fourth axis: the dimension of education and growth (training) of the balanced scorecard at King Fahad Hospital in Jeddah:

Table (8) Results of the statistical analysis of the respondents' answers to the dimension of education and growth (training) of the balanced scorecard at King Fahad Hospital in Jeddah

Statements	Mean	ST.D	Chi-Square
The complex's interest in developing employee performance.	4.62	1.13	84.6**
. The complex's interest in qualified and highly skilled employees	4.59	1.20	179.4**
Encouraging and motivating employees	4.58	1.23	104.7**
Provide appropriate training programs for employees	4.57	1.09	121.4**
Total	4.59	1.17	164.7**

The results showed that the arithmetic means ranged between (4.57-4.62), which are very high, and the degrees of agreement are highly consistent with all statements.

From the value of the statistical significance level of the K-square test corresponding to each statement separately, it is noted that all levels of statistical significance amounted to (0.000) less than (0.05), this indicates that there are statistically significant differences on all axes, and these differences are in favor of strongly agreeing.

Fifth Axis: Performance at at King Fahad Hospital in Jeddah:

. Table (9) Results of the statistical analysis of the respondents' answers to the performance axis

Statements	Mean	ST.D	Chi-Square
Reducing waiting for patients	4.67	1.00	237.9
High quality of health services	4.64	0.94	282.7
Reduce medical errors.	4.63	1.16	166.6
Hospital bed occupancy	4.62	1.09	198.5
number of patients.	4.50	0.83	158.4
Improving hospital profitability by controlling costs	4.42		
Total	4.58	1.01	168.3

The result showed that the arithmetic means ranged between (4.42-4.67), which are very high, and the degrees of agreement have a strong agreement for all statements.

From the value of the statistical significance level of the K-square test corresponding to each statement separately, it is noted that all levels of statistical significance amounted to (0.000) less than (0.05), this indicates that there are statistically significant differences on all axes and these differences are in favor of strongly agreeing.

The arrangement of the independent variables in terms of the strength of their influence on the dependent variable:

Table 10: Summary results analysis for strength in the influence of the independent variables on the dependent variable

Independent variables	Overall Mean score	Chi Square (x2)
The financial dimension of the balanced scorecard	4.64	53.7**
The customer dimension of the balanced scorecard	4.72	95.9**
The education and growth (training) dimension of the balanced scorecard	4.59	164.7**
The internal operations dimension of the balanced scorecard	4.57	168.3

From the table, it is clear that the independent variables that have the most influence on the dependent variable (the performance of health organizations) are ranked:

The customer dimension of the balanced scorecard, followed by The financial dimension of the balanced scorecard, the education and growth (training) dimension of the balanced scorecard , and the last the internal operations dimension of the balanced scorecard .

Discussions of results and recommendations

It is clear from the results of the axis that there is strong agreement on the axis of the financial aspect of the balanced performance card, especially in finding systems to control expenses that were characterized by transparency in the complex, and that it could contribute to the good utilization of hospital resources, as well as help in reviewing and amending budgets to suit the needs. The changing, and reviewing the approved complex budget according to what is planned..

It agreed with what was indicated by the study (Al-Kaabi and Omran, 2013), which confirmed that the use of the balanced scorecard provided health organizations with appropriate data for setting goals, implementing the financial strategy, and working to evaluate it, through its reliance on the financial dimension and perspective.

A study (Khalaf, 2013) recommended the importance of using the Balanced Scorecard (BSC); As it is one of the latest methods used at the present time within private hospitals to evaluate performance, and to contribute to strategic decision-making in its financial and non-financial aspects, as well as the optimal use of the available capabilities (Khalaf, 2013).

It is clear from the results of the axis that there is strong approval of the axis of the customer dimension of the balanced scorecard, especially in the contribution of the complex's response to the complaints and suggestions of patients and auditors. patients with high quality.

This was confirmed by the study (Al-Marri, 2016), whose results were that the non-profit health organizations within the Kingdom of Saudi Arabia, which have a clear, well-thought-out strategy and can be implemented, in applying the balanced performance card, helped pay attention to customer satisfaction.

A study (Greiling, 2015) indicated that the balanced scorecard (BSC) applied in health organizations, and its application in non-profit organizations, led to customer satisfaction with health services.

It is clear from the results that there is a strong approval of the internal operations dimension of the balanced scorecard, as it makes the employees able to accomplish their tasks with the simplest possible effort and with high efficiency.

This result agreed with what was indicated by the study (Al-Ghousseini and Tamer, 2014), that the Balanced Scorecard (BSC) model is the most objective and best for improving and evaluating hospital performance. Where it led to knowing the results that have been achieved in all sections and departments of the complex, and the lack of integrated application of them led to a defect in the internal operations of the complex.

The study of (Jawad, 2011) reported the same result, as it indicated that the balanced scorecard technique is one of the most important modern techniques of strategic management accounting, which has proven superior to the traditional method of performance evaluation, due to its coverage of a wide area of internal operations, as it included financial and non-financial measures.

It is clear from the results of the axis that there is a strong agreement for the dimension of education and growth (training) of the balanced scorecard, especially with regard to the aspect of the complex's interest in developing the performance of employees, as well as the complex's interest in qualified and highly skilled employees, as it encourages and motivates employees of various categories to develop their performance.

This was confirmed by the study (Adejoka and Bayat, 2014) that providing opportunities to go to training is useful for improving personal skills if this is done on the basis of measuring the balanced scorecard, and this is what is required by health care homes in which the measurement depends on the balanced performance card (BSC).

Also, the study (Abdul Qader, 2013 AD) agreed with this result, as it indicated that the balanced performance card and its objectives, in addition to measuring performance, we can also use it as a tool to achieve some administrative tasks in improving that performance, as its appearance contributed to facing the problems of modern institutions and overcoming them. (Abdul Qader, 2013).

Recommendations:

Through the results of this study, the researcher came out with several recommendations to support the effectiveness of applying the balanced scorecard in health organizations: :

- The importance of applying the balanced scorecard in health organizations, as it is a modern tool that has integrated systems that make it an appropriate means for decision-making and performance evaluation..
- Paying attention to the use of the financial dimension of the balanced scorecard, which leads to taking advantage of the available resources in a way that contributed to improving performance, providing other sources of supply in anticipation of any emergency, and controlling and managing hospital expenses..
- The contribution of the customers' use of the balanced performance card to the development and improvement of services provided to patients, attracting a number of medical staff appropriate to the number of patients, and activating complaints mechanisms to achieve their satisfaction with the quality of services.

- The importance of using the internal operations dimension of the balanced scorecard in health organizations, in developing administrative work, supporting its creative activities, meeting all needs, creating a spirit of cooperation between all departments, and dealing with advanced technologies of the information system, for the speed of completion with the simplest effort and high efficiency.
- Health organizations must be keen to apply the education and growth dimension of the balanced scorecard by organizing training courses to develop performance and reach the required level
- Providing well-qualified medical and administrative staff to apply the dimensions of the balanced performance card to contribute to developing the performance of hospital workers

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