



Evaluate the performance of the hospital based on the cascading Implementation strategy of the combined balanced scorecard

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Abstract

Background and objective: To improve an organization's performance, a suitable model is required as it is not possible to reach the goals without a suitable model. In addition, assessment and review of the programs will not be done effectively without employing a suitable model, and also the organizations could not have effective management on their performance without considering the results of their activities. Using effective tools to evaluate the performance of hospitals as multi-function organizations has always been one of the main challenges of top managers of hospitals. Therefore, evaluation of hospitals' performance is very important; it can also be complex for such a systematic organization.

Method: Hasheminejad Kidney Hospital used the improved and combined Balanced Score Card (BSC) based on the strategic program presented by the top managers in order to evaluate the performance of the hospital. indicators were determined by Delphi method

Results: 30 performance indicators were determined by Delphi method in the Strategic committee of the hospital in four perspective scorecards, and then the performance program and project were defined based on the objectives of each aspect.

Conclusion: This model can be a useful tool for evaluating and comparing the performance of hospitals. However, this model is flexible and can be adjusted according to differences in the target hospitals. This study can be beneficial for hospital administrators and it can help them to change their perspective about performance evaluation.

Keywords: Balance Score Card (BSC), Performance assessment, Cascading strategy, Hospital.

Background and Objectives

Hospital in most parts of the world is an organization comprised of different wards. In most cases, these wards give services as part of an organization or as a system aiming to improve the health level of the population. However, the specialty of these wards (such as imaging, laboratory, laundry, CSSD, pharmacies, etc.) is so high that they can work independently as an independent organization and give services to the patients.

Since one of the main success factors for organizations and managers is to making correspondence between the abilities, skills, attitudes, and motivation of individuals at different jobs in order to achieve a common goal; therefore, evaluation of the performance in an integrated system is very important in a hospital.

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A wide range of systems are available to facilitate health structures in improving the quality, from locally developed systems to those widely recognized by the international health care community such as Continuous Quality Improvement or BSC^{1,2}.

In 1992, Kaplan and Norton proposed a managerial model, called Balanced Score Card (BSC, Kaplan and Norton 1992), to support the decision-making process in business, aimed at providing a multidimensional interpretation of economic performance. BSC was typically applied in business disciplines and in the strategic management area for industries. However, it has been recently proposed in the health sector too.

Baker and Pink were among the first to argue that the theory and concepts of the BSC were relevant to health sector (hospitals)³. Actually, the basic principles of BSC are well documented in the health care literature⁴⁻⁶ and they have had broad application by the health sector internationally, including hospitals systems^{5,7} and national healthcare systems or organizations⁸.

Kaplan and Norton stated that the four dimensions used (KPA) are interrelated with cause-and-effect relationships in a tree-like fashion: cause-and-effect relationships amongst BSC dimensions imply how the fruits (Financial-Economical Measures) in the tree are related to the leaves (Customers), trunk (Clinical Processes) and roots (Human Capital)⁹.

However, although the use of BSC as a strategic management tool is rapidly

evolving, moving from concept to practice has often proved to be difficult for two reasons^{4,10}:

1) The BSC theoretical framework must evolve into a measurement system using explicit, objective formula that defines causal relationships among the areas analyzed, and prescribes the weights to be attached to each key performance area^{11,12}. This problem is clearly linked to the choice of a suitable statistical methodology.

2) The lack of literature (government or academic publications) on causal-effect relationships between different types of indicators and key areas poses difficulty in conceptualizing dynamics and operations. Some authors argue that the assumptions of causal relationships between the four KPAs in the BSC framework remain subjective, and may change in different areas^{4,11}.

Behrouz et al showed that: a) BSC can be implemented by national-level healthcare organizations. This indicates that BSC is a useful performance measurement tool even for national-level healthcare organizations. b) National-level healthcare organizations will pay more attention to the financial perspective of BSC¹³.

Ishani et al apply of mixed method by nonprofit BSC and Delphi for evaluation of Australasian Healthcare organization¹⁴

Souissi et al implemented the balanced scorecard to drive its strategy and cascade its strategic goals down to its operating units in Danish hospital¹⁵. Regragui, et al developed through three main phases. First, related literature of performance measurement systems was conducted, to

identify the appropriate model to their context. Second, after analyzing different PMS, They apply BSC to evaluate the hospitals. Based on the literature review and panel of experts, they determined the criteria, sub-criteria and key performance indicators (KPIs). Third, the relative weights of the chosen evaluators were calculated by Analytical Hierarchy Process (AHP) technique. The analysis results highlight the critical aspects of evaluation criteria as well as the gaps to enhance hospital performance for achieving desired target(16). Rahimi et al Based on the 4 perspectives described by the balanced scorecard (BSC), the evaluation indicators of hospital performance and key performance indicators (KPIs). Then, the decision making trial and evaluation laboratory (DEMATEL) method was employed for the determination of the cause-and-effect relationships between the indicators, differentiation of the effective and significant factors, and construction of the strategy map to ameliorate hospital performance¹⁷.

Method:

Hasheminejad Kidney Hospital is the first and the only specialized medical center for kidney diseases in Iran dating back to more than 50 years ago; today it is working under the supervision of Iran University of Medical Sciences. This hospital, in addition to giving services related to Urology, Nephrology, Andrology, and Vascular Surgery, has also some wards for alternative therapies such as hemodialysis, peritoneal dialysis, dialysis, and kidney transplantation wards. It is a teaching hospital in which all students;

surgery, kidney surgery, and kidney internal medicine are registered and trained.

In order to survive and compete, a hospital with such history needed fundamental changes after years of recession, for which a trend commenced after president replacement and forming a team of top managers.

In the early years, the ability and development of managers were evaluated, and using performance measurement tool (EFQM model), the present situation was evaluated and the improvable aspect were prioritized. A few years after implementation of this model hospital and focusing on giving with high quality services, the work processes became strategic and based on the strategies of the organization. Consistent with the growth and development of the organization, the top managers decided to apply a model for implementation and evaluation of the organization's performance to achieve its strategic objectives.

As Kaplan and Norton model included all perspectives of the organization, four areas of this model were translated into the perspectives of stakeholders, processes, learning and growth, and financial; therefore, this model enabled the organizations' managers to evaluate the implementation of the strategies.

In Hasheminejad hospital, a new and complete model covering all areas was designed and utilized using JCI accreditation standards, clinical governance and EFQM model of organization sublimity and the combination of these standards with

Balanced Score Card (BSC) model dimensions¹⁸, which was discussed in the above mentioned article at length but after establishing the integrated model of balanced score card, a system was to be designed in order for the model to be implemented throughout the organization and to be effective in action. In this system not only the top managers played a role in designing and confirming the strategic program, but also intervened in performing measures resulting from decisions and

monitored them. On the other hand, the middle managers and field staff played their own roles in implementing decisions and strategies. After considering all factors, structures, relations, facilities and capacities of the organization, a conceptual model with all the mentioned features was created. The conceptual model in this study, is being implanted, performed and evaluated for organizational improvement and achieving goals (Figure 1)

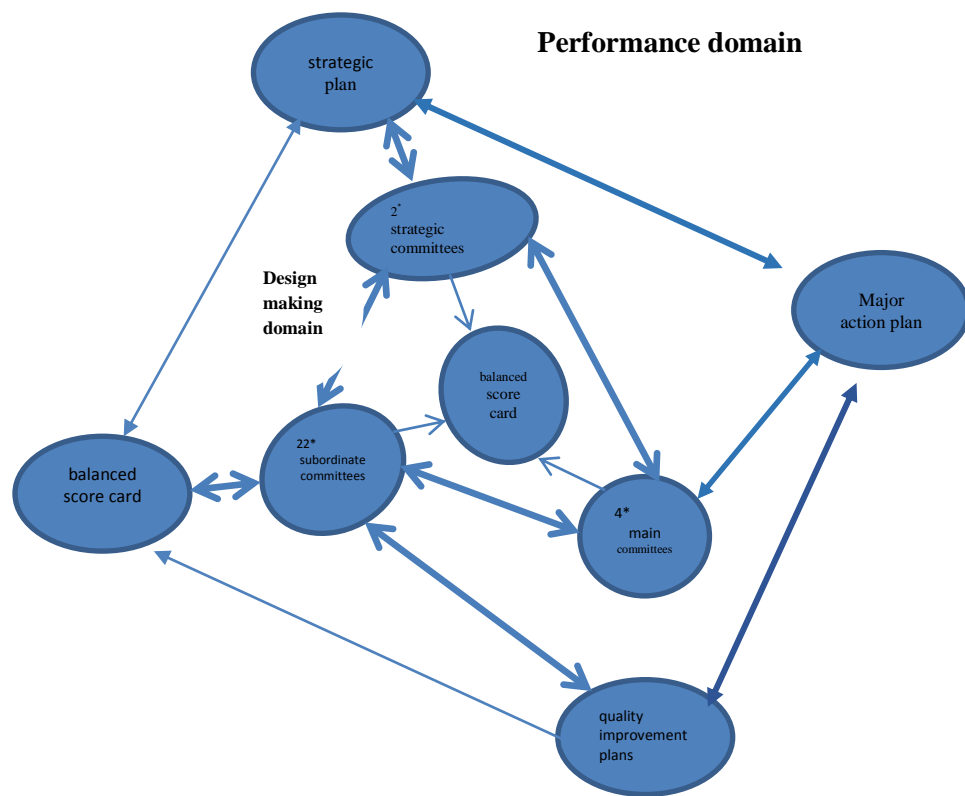


Figure 1-Conceptual Model

- Number of committees

The model which is called the leadership and management model consists of two operating and decision making levels, each of which includes several parts whose formation and execution process

will be described. In the operational level, the formation of the strategic program, operating program and improvement programs and sectional Score Cards will be demonstrated and in the decision

making level of the pyramid model, the Hierarchy pyramidal decision making of the hospital will be clarified .

The decision-making level consists of three categories of decision-making committees. Strategic committees or committees of senior hospital managers, that determine the hospital's strategic plan and goals based on balanced scorecard funds. The main committees include the Committees on Customer Satisfaction (Patients), Mortality, Infection Control, Drug Economics and Treatment, which this committees plan the organization's operational plans at various levels based on the strategic plan of the organization. There are subcommittees, which are hospital-level and each department develops a balanced scorecard based on the organization's strategic goals and operational plans.

Stages of formation of the document of the organization's strategies .

Hasheminejad Kidney Hospital determines and reviews the general framework of analysis to develop its strategies in accordance with the priorities and outlines determined by the managers of the organization, each year. The three stages of input, comparison, and decision-making were discussed in the meeting of the top managers of the organization, and after several discussion forums, the strategies were finalized. Input data including SWOT, stakeholders' expectations, objectives-mission and values, analysis of the data obtained from the measurement of previous BSC functions (the degree of achieving the objectives in the last year), the Iran University's vision, research results, learning and explicit activities, development of projects in the past year, changes in the Health Ministry instructions, CSF, core competencies of

the managers and partners of the organization, and the feedback results of auditors evaluation will be developed and placed in the BSM model based on the form used in the organization¹⁸.

In 2007, in order to finding the main opportunities and focusing on the resources to reach the objectives, and also regarding the criteria of the EFQM model that enforce the organization to develop and apply a strategic program, the organization decided to make a strategic document. Since the organization's strategies rely on the opportunities, and on the other hand, they are not related to the environmental factors but its capabilities (internal factors) affect their formation (Ghaffarian., 2004), the organization in order to have more potential opportunities to develop its capabilities, decided to design a program with key features, which are the basis of advantage of organizational competition in this hospital compared to other hospitals. Therefore, in some cases, there are even some breaking rules, including removal of warehouse, transportation, staff attendance system, etc. Key steps in designing the strategic document of the organization are as following (Four important steps will be explained in detail in the coming paragraphs:

- Planning the path of the progress
- Setting the main objectives
- Division of the organization's objectives into a four-perspective of scorecard (stakeholders, processes, learning and growth, and financial(
- Setting the minor and objective goals
- Setting the indicators that measure the objectives
- Setting the objectives of indicators
- allocating special employing staff in order to measure and monitor the indicators and the reliability of the indicators

- Determining the projects and strategies that help the organization to reach its goals
- Appointing the project manager

1) **Planning the path of progress:** In the document, there was an agreement on planning the programs based on BSC in three-year period. It was decided that after beginning of this project, the implementation of this program should be reviewed once a year. In order to achieve the goals, an operational program was made and set in the four main perspectives of the BSC so that each perspective had an operational program.

2) **Setting goals and organizing them in the scorecards:** The main objectives of the organization that were defined in accordance with the instructions, the conflux of the strength and weak points, opportunities and threats, and other inputs mentioned above were set in the four perspectives of the BSC.

3) **Setting the secondary objectives of the indicators:** Secondary objectives cover the general ones. Their identification is based on three ways: the available indicators according to the previous years, the standard values or the values in best practice hospitals, and also the measurements defined by the superior organizations. The managers define the objectives for a 3-year program, and suggested to set the objectives in the Balanced Scorecard.

4) **Allocating special staff in order to measure and monitor the indicators and their reliability:** All indicators with certificates were presented to define the types of indicators, degree of realization, method of measurement, and the intervals of monitoring the indicators. In

addition, the person responsible for measuring and monitoring the indicators was determined in the sessions and recorded in the certificates and in the scorecard.

5) **Determining strategies and projects:** In order to accelerate and achieving goals, some strategies were defined and a person in charge and a Gantt Chart were specified. In determining strategies, the focus is on applying opportunities which hasn't yet been used by the organization.

By general consensus of the managers on the designed card and its balance, the scorecard was approved and set at corporative level of daily dashboard of the organization's top managers. Then as a strategic plan of the organization, it was announced to all wards. Afterwards, it was agreed that after two 3-year periods when all middle managers got familiar with the balanced strategic management, a scorecard connected to the main card be given to all wards.

The main objectives in the perspective of stakeholders, population and service areas

1) Increasing the stakeholders' satisfaction

The main objectives in the internal processes' perspective

1. Improving the quality and standard of the services
2. Improving safety
3. Improving performance management
4. Promote research

The objectives in the growth and learning perspective

1. Personnel Recruitment and retention management
2. Empowerment
3. Promotion of ICT
4. Development of organizational culture

The main objectives in the financial perspective

1. Cost management
2. Revenue management

Setting secondary and objective goals and indicators

At the next stage, based on the defined goals in each perspective, 30 performance indicators were defined in four perspectives of the scorecard by Delphi method in the specialized committee so

that the objective goals were smart and the evaluation criteria could be determined by them. Based on the developed and combined BSC model¹⁸), the BSC was designed and completed in different areas. An example of this Score Card is shown in Table 1

Table 1-Balance Score Card of hospital

Organizational values
 Customer oriented, employee dignity, excellency and lean thinking, social and environmental responsibility, corporation and participation,

Mission
 Providing excellence educational services, treatment and care
 Kidney and urinary tract diseases

The Balanced Scorecard-2015-2016
 (SHahid Hasheminejad Hospital)
Statement 2020: Foremost quality of care and training in the country

Project progress		Projects	improvement Percent of operation plan 2015-2016	The average perspective in advance Percent of 94 goals 2015-2016	2015-2016	2014-2015	2013-2014	2012-2013	Feb-Mar	Jan-Feb	Dec-Jan	Nov-Dec	Oct-Nov	Sep-Oct	Aug-Sep	Jul-Aug	Jun-Jul	May-Jun	Apr-May	Mar-Apr	Dimension	Monitoring trustee	Corresponding measures	indicators	goal	perspective		
Program	performance																											
		Customer relationship management system				86	85.7	82														Average		Satisfaction of patients and their relatives	Increase Stakeholder satisfaction	perspective of community stakeholders and service areas		
						75	62	70															Average				Rate of Learners satisfaction	
						87	88	90																Average				Satisfaction Partners
						53	52.2	71																Average				Satisfaction Community (Neighboring)
		Patient safety improvement				1.1	1.4	1.5																Average		Death & Mortality	Improving the quality and standard of service	internal processes perspective
						1.9	2.6	4.1																Average		Infection rates		
		Monitoring and implementation of process management system				3.14	1119	1.83																The cumulative number		Nursing		
							244	222	60																The cumulative number		Medical	
							386	567	157																The cumulative number		Non Clinical	

Project progress		Projects	improvement Percent of operation plan 2015-2016	The average perspective in advance Percent of 94 goals 2015-2016	2015-2016	2014-2015	2013-2014	2012-2013	Feb-Mar	Jan-Feb	Dec-Jan	Nov-Dec	Oct-Nov	Sep-Oct	Aug-Sep	Jul-Aug	Jun-Jul	May-Jun	Apr-May	Mar-Apr	Dimension	Monitoring trustee	Corresponding measures	indicators	goal	perspective	
Program	performance																										
		International Accreditation Certificate			9																The cumulative number		never event				
					384	385	480															The cumulative number				readmission	
					91	80%	86%															Percent of Under 9hours				Admission time in emergency ward	
					9																	The cumulative number				Directional processes improved	
		Risk Management			22																	The cumulative number		clinical processes Improved	Improve safety		
		Crisis management			41	56	52															The cumulative number		patient Fall			Accident
					27%	22%	5.3%															Average percentage					
					28	0	24															The cumulative number		Accident employee			
		Deploy nursing documentation system			88.9	88%	83.4 %															Cumulative percentage		Clinical assessment	Upgrade of performance management		
					70	83%	79%																Cumulative percentage				Para clinical assessment
					83.2	82%	76.4 %																Cumulative percentage				Management assessment
					25	24	54															The cumulative number		Published Articles	Promote research		

Project progress		Projects	improvement Percent of operation plan 2015-2016	The average perspective in advance Percent of 94 goals 2015-2016	2015-2016	2014-2015	2013-2014	2012-2013	Feb-Mar	Jan-Feb	Dec-Jan	Nov-Dec	Oct-Nov	Sep-Oct	Aug-Sep	Jul-Aug	Jun-Jul	May-Jun	Apr-May	Mar-Apr	Dimension	Monitoring trustee	Corresponding measures	indicators	goal	perspective
Program	performance																									
						19	9	18													The cumulative number		done Research			
						75	66	46													The cumulative number		Research-based innovation			
						71	69%	75													Average		Employee satisfaction index	Personnel Recruitment and retention management		
						78	77.4%	-													Average		Physician satisfaction index			
						67	52	54													Person-Time Cumulative		Employee Educational times	empowerment		
		The use of information technology in medical documentation				88	88%	85													Cumulative percentage		Succession			
		Improve the technical skills of secretaries				79%															Cumulative percentage		The use of electronic medical record	Promotion of ICT		
		Project EMR				77%	75.40%	65													Cumulative percentage		The use of electronic documentation			
		Disseminate good practice Hasheminejad hospitals				2.2	1.5	0.6													Cumulative percentage		Recommendation rate	Development of organizational culture		
						7															The cumulative		Management Articles			

Project progress		Projects	improvement Percent of operation plan 2015-2016	The average perspective in advance Percent of 94 goals 2015-2016	2015-2016	2014-2015	2013-2014	2012-2013	Feb-Mar	Jan-Feb	Dec-Jan	Nov-Dec	Oct-Nov	Sep-Oct	Aug-Sep	Jul-Aug	Jun-Jul	May-Jun	Apr-May	Mar-Apr	Dimension	Monitoring trustee	Corresponding measures	indicators	goal	perspective
Program	performance																									
																					number					
					5																The cumulative number			Management books		
		programing the budget			3.5	4	3														Average			Basic insurance deductions	Cost management	Funding perspective
					23%	25%	24%														Average			Drug cost divided by total revenue		
		deductions Management			28%	35%	28%														Average			Drug costs divided by total income consumer appliances	Cost management	Funding perspective
		Supply balance sheet			294	170	30														Milliard Rial Cumulative			Indirect overhead costs to each patient		
					238	179	60														Milliard Rial Cumulative			The cost of per capita of training staff	Revenue management	Funding perspective
		External audit report on the 5 past years with corrective action			40	261	207														Milliard Rial Cumulative			Operating income		

In this table, in the first row at the top of the card, the statement of organization including the vision, mission and organizational values was inserted. In the next row, topics of the columns were defined: the first column, perspective of the card; the second column, strategic objectives; the third column, indicators; the fourth column, the person responsible for indicator; the fifth column, staffs who monitor the indicators; and the sixth column, dimensions. Then 12 months were set in the table, respectively. The 9 columns are related to the desired measures of indicators in achieving the goals during a 3-year period. The other column is related to the percent of indicators based on the defined goals. Another column is related to the percent of success of the operational program related to the perspective, and the other one is related to the projects or strategies. The two last columns deal with the project progress based on the program and performance.

According to the Kaplan and Norton's model, if the Score Card could meet the desired measures, it is shown in green, if it could not, it is shown in red, and if it relatively could meet the desired measures, it is shown in yellow in order to find the degree of organization's progress at a glance.

The decrease or increase in the trend of key performance indicators (KPI) depends on many factors. For example, the indicator's target value may change over the years, based on previous years' output or management goals, for example, the patient satisfaction index with a score of 82% per year 2012-2013 is green, while this index is red in the 2014-2015 year with a score of 86%, that it is show the rich of organization's goals.

Improvement of indicators can be due to various reasons, such as design and implementation of operational plans, proper cooperation of staffing, proper supervision of executives, etc.

One of the factors that has reduced some of the indicators in the year 2013-2014 is the rigorous program and planning that the hospital's senior management team planned.

Operational programs related to the BSC.

In the first year of applying this model, only the design of this card, measurement of indicators' progress, measurement of projects or strategies, and insertion of figures in the card were performed. With further investigation, the top managers found that some of the indicators were not related to the defined goals, and the changes of the indicators did not help the organization to reach its goals. Further meetings were held, and again more discussions on choosing the indicators took place in the committee. Finally, it was decided that the main and critical indicators that were thoroughly smart should be chosen; in other words, the strategic goals were changed into the objective goals. On the other hand, it was found that the personnel who measure and monitor the indicators should be thoroughly involved in the process related to the indicators (e.g. the personnel of the ward who are responsible for dealing with clients).

It was also agreed to write an operational program for each perspective of the card as written for the projects/strategies with Gantt chart and schedule. The program was written by the top managers to improve the main processes of the organizations that are significantly related to the strategic objectives. Therefore, each perspective of the scorecard included a documented operational program. There were some personnel for its implementation and its schedule was determined and its implementation and efficiency were measured in a 4-month period .

As explained, during the implementation of the model, the method of PDCA was used.

Programming, implementation of the program, control and supervision, and finally, evaluation

of the program in order to analyze its efficiency are proceedings of implementation of BSC in Hasheminajd Hospital .

Therefore, after implementation of the first phase of the program, two columns were added to the scorecard; the first column is related to achieving the indicators based on setting goals, and the second one is related to the progress or efficiency of each aspect of the operational program. This innovation in the implementation of Kaplan and Norton's model in the organization made this model operational, and encouraged the managers to try hard to reach the defined goals.

One of the main and effective factors that made this model effective in Hasheminejad Kidney Hospital was the system of management that is not managed by an individual or top managers of the organization, rather it is a system that is applied at all levels of the organization. Therefore, the pyramid of organizational decision was defined and designed at three levels of decision-making, decision- planning and decision-processing. Partnership system of the personnel was organized in the form of 20 clinical committees with a ratio of 1.5 to the total personnel of the organization in which the personnel could represent their suggestions, ideas, and results of their performance; they can participate in the process of decision-making.

All indices measured in different departments and recorded in inter-departmental score cards by middle and executive managers, will be discussed in committees. The operating programs' progress is monitored as well .

Two committees involving top managers and executive managers are at the top of the

pyramid and make the crucial and strategic decisions. Four committees are at the level below and consist of representatives from the main committee as well as their own middle managers who are the main members. At lowest level, there are subordinate committees where representatives from top managers and middle managers participate but other members include organizational field staff. As mentioned before, decision making levels are defined through these three levels. Decisions are studied and processed at the lowest level, in the middle level different decisions are made and at the top of the pyramid decisions from the lower levels and study results are announced and finalized by top managers. In summary: processing decisions transpire in subordinate levels, making decisions in main committees' level and finalizing decisions in strategic committees' level of the organization.

Through designing and executing this system, not only a 20% staff participation in decision making is applied, but also by forming 20 committees, team working spirit and group work is promoted in the organization. Using this, staff and people in charge can observe their comments, ideas and work performance in programs and short-run and mid-run goals as well as intervening in the decision making process .

Since members of the committees are aware of the improvement programs and the amount of change in indices, as well as being a part of the decision making process, they support the decisions participate in executing those decisions even more. The following displays our hospital's decision making pyramid.

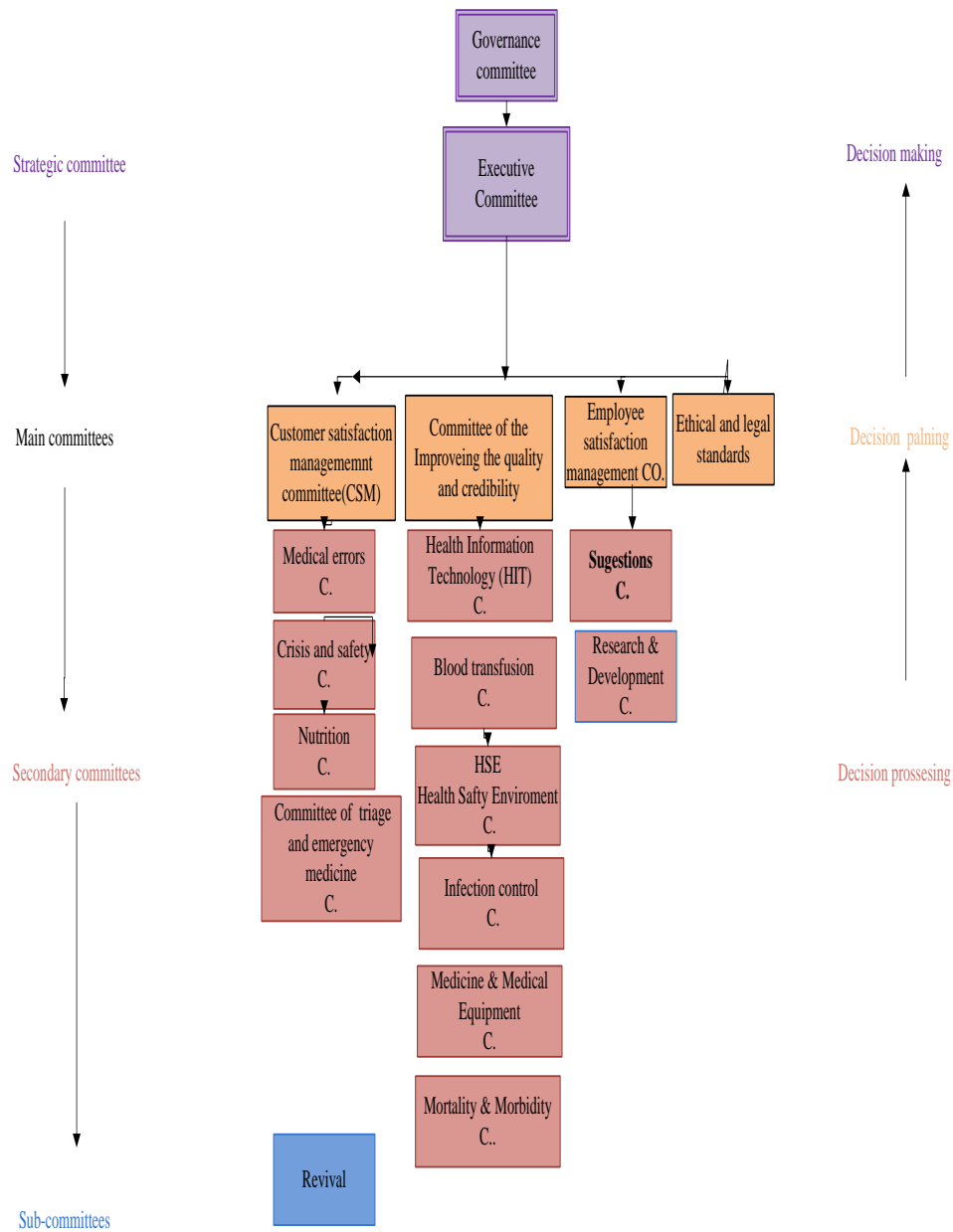


Figure2-Hierarchy pyramidal of decision in Hasheminejad Hospital

Table 2 shows the relationship between the practical projects and indicators in the specialized committees.

Table 2: The relationship between the indicators and project committees

Committees	Indicators	projects
Nutrition committee	<ul style="list-style-type: none"> • Patient satisfaction • Employee satisfaction • Kitchen performance according to standards • Kilograms of food waste 	
Medicine, medical equipment committee	<ul style="list-style-type: none"> • Drugs deficiency • The rate of drugs errors 	
Morality & Morbidity committee	<ul style="list-style-type: none"> • Number of successful and unsuccessful CPR • Morality rate • Number of complaints related to death • Number of the most common of death 	
Emergency medicine committee	<ul style="list-style-type: none"> • Number of stays over 24 hours in emergency wards • Number of stays over 6 hours in emergency wards • Number of deaths after 24 hours in emergency wards • Number of cases admitted in emergency wards 	<ul style="list-style-type: none"> • OHSAS certification
Employee satisfaction management committee	<ul style="list-style-type: none"> • Employee satisfaction index • Capita education • Capita cost of education • Number of training sessions 	<ul style="list-style-type: none"> • Project of knowledge management • Review of performance-based pay system
Ethical legal standards committee	<ul style="list-style-type: none"> • Number of counseling to patients • Number of counseling to employees • Participates employee 	
Committee of the improving the quality and credibility	<ul style="list-style-type: none"> • Bed sore rate • Quality scores • Scores of performance evaluation of the units • Number of complaints • Never event 	
Executive committee	<ul style="list-style-type: none"> • Percentage of the realization cards goals • The percentage of the progress of projects • Score of national Accreditation scales 	<ul style="list-style-type: none"> • Development of the cooperation models of Moheb and Hasheminejad hospitals • Established Gung ho models
Health information technology(HIT)	<ul style="list-style-type: none"> • Bed occupations • Average length of patient stay • Waiting list • Failure in EMR • Admission & discharge rate • Services available on the portal 	<ul style="list-style-type: none"> • EMR project
CSM committee	<ul style="list-style-type: none"> • patients satisfaction index • partnerships satisfaction index • outpatients satisfaction index • The number of patients complains • Cancellation of surgery 	<ul style="list-style-type: none"> • Establishing a CSM committee • Implementation of client tribute plan • Forming voice of costumer
Committee on medical errors	<ul style="list-style-type: none"> • The number of never events • The number of Medical error safety aspects • Re-admission 	
Infection control committee	<ul style="list-style-type: none"> • Infection rates • Antibiotics use rates 	
Suggestion Committee	<ul style="list-style-type: none"> • The number of suggestion • Rate of applied suggestion • Personnel participations 	
Research & Development Committee	<ul style="list-style-type: none"> • The number of clinical & leaderships researches • The number of clinical & leaderships literatures • The number of clinical & leaderships texts • The number of clinical & leaderships papers 	
Blood transfusion Committee	<ul style="list-style-type: none"> • The number of blood uses • Complication after blood transfusion • Medical error in blood transfusion 	

Committees	Indicators	projects
Crisis and safety Committee	<ul style="list-style-type: none"> • Safety aspects • Percent of realization of the project crisis management • Crisis management criteria's • Risk management criteria's 	
Health Safety Environment Committee	<ul style="list-style-type: none"> • Amounts of trash disposal • Infectious waste disposal • Non-infectious waste disposal 	

Cascading the implementation of the BSC

The latest innovation in the application of this model at a public and teaching hospital was conversion of the scorecard in to 31 wards (cards), respectively. Therefore, one column was added next to the strategic objectives, and each ward wrote its objective related to the organization's objectives.

In addition, if a ward defines one or more strategic objectives, the rows related to those objectives would be blank, and other rows would be fulfilled. Finally, in the column of indicators, the secondary indicators related to each ward were listed instead of the major indicators .

In addition, in accordance with the operational program documented for the main scorecard of the organization, by cooperation with the quality ward, an operational program was documented for each ward's scorecard, and its efficiency was measured .

Effectiveness keeps the organization's programs away from the difficulties that strategic plans usually face. Multiple inputs of the programs help the organization to recognize the workplace objectively and based on facts. The main strategies in the program's review were defined by the chief manager, and managed step by step by the top managers. The strategies of the organization were not

documented but implemented by the middle managers according to the process implementation, and due to using BSC, it was integrated at all levels, and all wards had cooperation in its implementation.

Discussion and Conclusion

Lack of a strategic plan at high levels of the hospital and coordination with other levels causes that measures and activities of the wards change into routine; therefore, in theoretical terms, it is also due to lack of goals in them. On the other hand, lack of strategic programs for making theoretic terms consistent with the functional steps of organization is a barrier for the organization to reach its goals. The mentioned factors led the collective move of the organization (Hosheminejad Kidney Hospital) towards the implementation of Kaplan and Norton's model. Adopting the strategies and objectives of the organization by using this model led to the design of BSC, which, by some changes could meet the needs of a public hospital over the years.

Using this model, the hospital managers, who were almost specialized in the medical and paramedical professions, could evaluate the performance of the hospital and also develop their organization. The quantitative and qualitative information of the organization (that were provided in the form of dashboard), were used effectively, and enabled the managers to monitor and control all progresses and changes of the organization. Any deviation from the objectives was informed as red dots in the card to the managers in

order to enforce them to change the current conditions.

One of the main concerns of the top managers was that the middle managers and personnel were not involved in decision-making, and did not have cooperation in implementation of the measures. However, by using the ward BSC in the hospital, these problems were solved. The strategic objectives were developed in all wards of the hospital as a cascade, and the duties and roles of each ward were presented. The organization's objectives shifted to the ward and individual objectives, and the performance of each ward was monitored and controlled by a member of the organization.

This innovative model could provide appropriate mechanisms for development of the organization so that it is now known as one of the top organizations in Iran (quality management, responsible to customer.....), and that moves in the path of development and its stakeholders are significantly satisfied.

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