

## Abstract

**Background and Objectives:** Balanced Score Card is an increasingly popular tool for performance evaluation. Healthcare organizations have broadly adopted this method for implementing their strategic plans. There is, however, increasing concerns on barriers toward BSC implementation. Build on the fundamental impacts of organizational culture on hospital performance, this study explored the nature of relationship between balanced score card effectiveness and organizational culture.

**Methods:** A descriptive analytical study of cross-sectional design was conducted within the period of X to Y 2010. One hundred and fifty employees of Hasheminejad Kidney Center were enrolled. The questionnaire developed by Denison and Eiwell ( ) was used as the measurement tool. The questionnaire comprised 2 items addressing balanced score card effectiveness and 60 items related to four dimensions of organizational culture including Involvement, Cohesion, Adaptability, and Mission. Validity of the questionnaire was examined by seeking expert opinion. A high reliability of the questionnaire was ensured by obtaining a Cronbach's alpha of 0.94. Survey results were summarized using descriptive statistics. The relationship between organizational culture and balanced score card effectiveness was measured using Pearson's correlation coefficient, and modeled via regression analysis.

**Findings:** BSC effectiveness showed significant correlations with Involvement ( ), Cohesion ( ), Adaptability ( ), and Mission ( ). Multiple regression analysis identified Involvement as the only predictor of BSC effectiveness ( ).

**Conclusions:** While all factors of organizational culture can influence balanced score card effectiveness, employee involvement holds prime importance. Hence, hospital leadership need to strongly encourage employee involvement in order to achieve high balanced score card effectiveness.

## Background and Objectives

In addition to devising appropriate strategies for reaching goal, organizations also need to find solutions for successful implementation of their strategies and evaluation of related action plans. In recent years, Balanced Score Card (BSC) has emerged as a popular method in strategy implementation and performance evaluation. This method enables management to map the organization's vision, mission, goals, and strategies into defined performance evaluation indices ( ). The usefulness of this method is demonstrated by its widespread use by many organizations across the world. The Institute of American Counters described BSC as the leading method in strategic management and performance evaluation that outperformed several quality management methods such as Malcom Baldrige, EFQM, and

**Comment [Reviewer1]:** The sentence is past tense. You cannot use build. Examples of "build on":  
In his new book he builds on his own discoveries, and he builds on current theory. The president is building upon the extraordinary commitment to volunteerism Americans have.

**Comment [MP2D2]:** I converted built to build. No "explored" is ok?

**Comment [MP2D3]:**  
I was uneasy with "reflected by".  
Was it ok?  
How about demonstrate?  
به طور کلی در استفاده از demonstrate همیشه احتیاط وجود دارد زیرا مفهوم اثبات شدن در آن هست.  
آیا می توان آنرا در مفهوم "نشان داده شدن" هم به کار برد؟

**Comment [Reviewer4]:** Demonstrate d means it exists and can be seen. So it does in fact mean proven to be.

Six Sigma. Hack Group reported that by 2008, over 700 American organizations were among "Mature Users" of the BSC method (1).

Among the sectors that increasingly welcome the BSC in strategy implementation is the Health Sector. A large and ever growing body of academic literature has demonstrated the advantages of BSC in different aspects of hospital strategic management (1). Notwithstanding, there is also evidence of barriers and challenges toward implementing and maintaining BSCs (1). It seems that even in the simplest projects, there is a diverse range of factors affecting BSC success, and several occurrences of failure have also been reported (1). Despite that, only a limited number of studies have been conducted to identify the factors and context of BSC failure. One factor frequently reported to impede BSC effectiveness is organizational context (Pakistan, 7). Studies identified several contextual factors influencing goal achievement including support from leadership, employee involvement, harmony between leaders and employees, positive attitudes toward interventions and organizational culture (Pakistan 8, 9). The last factor is of particular importance. Organizational culture (OC) is a comprehensive concept involving beliefs, traditions, norms and knowledge, and technology of an organization, and exerts fundamentally impact on the behavior of members (Park & Kim, 200). Culture is described as the soul of an organization and the source of its members' social energy that moves the organization forward (1). Several studies showed that successful changes in the organization strongly depend on organizational culture (Doostmohammadi, 1386). The developer of BSC, Kaplan and Norton, introduced OC as a determinant of BSC effectiveness. Garnego *et al.* indicated that adoption and use of performance evaluation systems are significantly influenced by organizational culture (1). The field study of Deem *et al.* confirmed the positive relationship between BSC effectiveness and OC (1). Chavan concluded that effective implementation of the BSC may require introducing fundamental changes in OC (1).

Exploring the impact of context factors in performance evaluation has received increasing attention in the literature (Pakistan 4). However, research regarding into the impact of the contextual factor on effective implementation of BSC in hospitals is limited. To contribute in filling this gap, this study explored the relationship between organizational culture and BSC effectiveness in a sample health setting. Using the organizational culture framework proposed by Denison, our study sought evidence in support of the following five hypotheses:

Hypothesis 1- Organizational culture is positively associated with BSC effectiveness.

Hypothesis 2- Employee "Involvement" is positively associated with BSC effectiveness.

Hypothesis 3- Employee "Cohesion" is positively associated with BSC effectiveness.

Hypothesis 4- Employee "Adaptability" is positively associated with BSC effectiveness.

Comment [MP2D5]:

منظور این است:  
یکی از عواملی که به کرات گزارش شده است که از موثر بودن BSC جلوگیری می کند...

آیا impede واژه مناسبی است؟ فکر می کنم impede جلوگیری مطلق و شدید است. در اینجا در واقع منظور این است که "غالبا جلوگیری می کند"

ایا ساختار جمله صحیح است؟

No problem.

Comment [MP2D6]: The is deleted, now ok?

The question again is which literature? Many, other

Comment [MP2D7]:

Why not the original "into"?

I've changed so you can have into

Comment [Reviewer8]: Still not to my liking.