Abstract

Background: This article seeks to complement the previous literature and clarify the importance of paying attention to the various performance evaluation methods. Also, should be noted in this research, a balanced scorecard is examined. A balanced scorecard model with four dimensions of vital financial, internal processes, customer, and learning and growth, seeks to control short-term operations of the organization with its long-term vision and strategies. Therefore, the organization focuses on key performance ratios within the scope of the goals. Aim: This article seeks to identify the determinants, to find the affect performance assessment of the organization by balanced scorecard method in the performance of the organization. Setting: In this research, a questionnaire has been used that includes 28 questions, and for each balance point card 7 points are considered, it should also be stated that the results are the result of a survey of 60 people. Methods: In this study, Mini-Tab software has been used to calculate the value of z and p-value, and we conclude with a significant level of 0.05 28 questions. So that if it is more than 0.05. The assumption at the significant level is 0.05 = we accept otherwise, and the insurance organization between 10 -30 years projects strategic goals. An average of 6 is considered for testing hypotheses. Results: Research hypothesis test results shows that the $H_1$ assumption is accepted. In other words, we can say that all four aspects of the balanced assessment card: financial, customer, internal processes, and the perspective of growth and learning lead to the achievement of the goals of the organization's strategy. Conclusion: Regarding the mentioned cases, it can be said that the insurance company has achieved its goals and the four-way alignment function is appropriate.

Keywords: performance appraisal; balanced scorecard; insurance; quadruple dimensions

1. Introduction

Today, senior executives from many companies and organizations spend much time, energy, and financial resources on the core strategies of their organizations, but most of them talk about the lack of proper implementation of their strategies. The vision that these managers imagine for their organization is clear to them, but the employees' awareness and understanding of this very low perspective, and their coherence and consensus for achieving the goals of this outlook are much lower. Therefore, senior executives have always been looking for a solution to ensure that their strategies are implemented. In the meantime, the evaluation methods have been chosen as a means of controlling the implementation of their strategies. In the age of knowledge-based economics, value-creating organizations do not rely on their proprietary assets. Nowadays, the knowledge and ability of employees in relations with customers and suppliers of the quality of products and services of information technology and organizational culture are assets that are far more valuable than physical assets, and the ability of organizations to use these intangible assets forms the main strength of their value creation and measurements based on measurements. The financial ability to evaluate these intangible assets does not reflect their impact on the success of organizations. In the early 1990s, a balanced assessment method was introduced by several researchers. The method believed that performance evaluation should not depend solely on financial measures, but also
performance should be evaluated from other important perspectives such as perspective (customer) (internal processes) and (learning and growth), [1].

For organizations that operate hazardous technologies and have a high level of safety performance, this is only a partial view of the way power is distributed. In such organizations, professional groups other than managers also have significant power and authority when it comes to safety decision-making [2].

Awareness of insurance performance is one of the important factors that can affect the process of strategy implementation and decision making in the coming years. Regarding this important issue in this study, using the Balanced Score Card (BSC) model, by identifying the performance of the insurance organization, the strengths of the failure in different areas, a well-defined framework for improving working methods to improve the organization's performance following the goals and strategies it will be provided.

In general, the present research seeks to answer this question: does the performance assessment of the organization by balanced scorecard affect the performance of the organization?

Questions and research hypotheses.
Research questions:
1. Is customer satisfaction related to the organization's performance in implementing the BSC model?
2. Is the BSC model relevant to obtaining a new customer with the organization's performance?
3. Does the BSC model increase the development of new facilities with the organization's performance?
4. Is the performance, efficiency, and quality of internal processes relevant to the organization's performance in implementing the BSC model?
5. Is the implementation of the BSC model relevant to the development of competencies through training?
6. Does the implementation of the BSC model relate to organizational functions and organizational infrastructures and resources?
7. Does the BSC model have a reduction in unnecessary costs associated with the organization's performance?

Research hypotheses:
1. In executing the BSC, customer satisfaction is related to the organization's performance.
2. In implementing the BSC model, obtaining a new customer is related to the performance of the organization.
3. In implementing the BSC model, the increase and development of new facilities are related to the performance of the organization.
4. In implementing the BSC model, the efficiency, efficiency, and quality of internal processes are related to the organization's performance.
5. In the implementation of the BSC model, competency development is related through training with organizational performance.
6. In implementing the BSC model, infrastructure and organizational resources are related to the organization's performance.
7. In implementing the BSC model, the reduction of unnecessary costs is related to the performance of the organization.

2. Theory and literature
2.1. Literature

Performance appraisal. Performance appraisal refers to a set of actions and activities that are aimed at increasing the level of optimal use of resources and resources in order to achieve the goals and methods of economics together with efficiency and effectiveness. Evaluation of the performance of many years in the public sector has become more common in most developed countries and some of the developing countries. In these countries, the adoption of specific performance evaluation laws is a component of the requirements.

Preference assessment. Most studies implemented preference assessments that involved opportunities to interact directly with selected or provided items/activities to determine preferences. The majority of the studies (69%; N=11) relied primarily on a paired-stimulus preference assessment to determine preferences [3-13]. A paired-stimulus preference assessment consists of presenting two choice options at a time and ensuring each option is presented with each of the other options under evaluation [14]. These options may be presented as objects or pictures representing an activity to follow a selection [4]. Object or picture representations of work tasks may need to be explicitly taught due to their abstract nature; to do so, five studies (31%) using paired-stimulus preference assessments initially paired object as cues to signify conditions to participants [6-10]. These five studies utilized a control condition in which object cues were periodically presented with a potent reinforcer to
determine if choices made (2000) presented tasks options in pairs for choices, only a single choice was made each day because preferences for tasks were noted to vary. One study (6%) used the paired-stimulus preference assessment only if a multiple-stimulus without replacement preference assessment plus staff opinion was unsuccessful [15]. A multiple-stimulus without replacement preference was a reliable determinant of preference. While Mulaire-Cloutier et al., [11] assessment consist of presenting three or more stimuli at a time to allow choices and removing previously chosen items from the array after the interaction has occurred [16]. Two studies (13%) used a single-stimulus preference assessment [17-18], and one of these (6%) compared the results to free choice sessions [18]. Single-stimulus preference assessments involve presenting a single task and measuring related behaviors in response to the presence of each task (e.g., positive and negative affect behaviors, time engaged [19]).

Two studies (13%) used video-based preference assessments [20-21], one of which also matched participants to jobs based on skill sets [20]. Assessments took place via the Occupational Information Network (National Center for O*NET Development [22]). Participants indicated preference by their ratings ("thumbs up" or "thumbs down") based on brief video demonstrations. They did not directly interact with the work materials as part of the assessment.

Five studies (31%) defined high- and low-preferred by criteria regarding how often stimuli were chosen [3-5, 12, 15]. For instance, Bambera and colleagues defined high-preferred tasks as those selected for at least 75% of opportunities and low-preferred tasks as those selected for at most 25% of opportunities. One study (6%) required only high-preferred tasks to meet a set criterion [13]. The remainder of studies (63%; N = 10) considered preferences for stimuli as relative, without specific criteria.

Performance evaluation models:

A. Sink and Tuttle model

The performance of an organization stemming from the complex relationships among the seven performance indicators is as follows (Fig.1):

1. **Effectiveness** is "doing things right, at the right time and with the right quality." In practice, the effectiveness of the actual output ratio is presented on the expected outputs.
2. **Efficiency**, the simple meaning of which is "doing the right thing," and defined by the ratio of expected consumption of resources to actual consumption.
3. A **quality** that has a broad concept and measures it from six different aspects to enhance the concept of quality.
4. **Productivity** introduced by the traditional definition of output-to-input ratio.
5. The quality of work life that its improvement greatly contributes to the organization's performance.
6. **Innovation**, which is one of the key components for improving performance.
7. **Profitability** is the ultimate goal of any organization [23].

B. Performance matrix

Keegan introduced the performance matrix in 1989, which is shown in the Fig. 2. [24].

![Fig. 1. Seven Performance Indicators](image-url)
C. Performance pyramid

One of the needs of each performance evaluation system is the existence of a clear relationship between performance indicators at different organizational hierarchy levels so that each unit works to achieve the same goals. One of the models that involve how to create this relationship is the performance pyramid model. The goal of the pyramid is to establish a link between the organization's strategy and its operation. This performance evaluation system consists of four levels of goals that illustrate the effectiveness of the organization (the left side of the pyramid) and its internal efficiency (right of the pyramid). This framework reveals the difference between indicators that focus on external entities (such as customer satisfaction, quality, timely delivery) and internal business indicators (such as productivity, timing, and discharges).

Creating a pyramid of organizational performance begins with the definition of the organization's vision at the first level, which then becomes the goals of the business units. On the second level, business units focus on setting short-term goals such as profitability and cash flow and long-term goals such as improving market conditions (financial and market). Business operating systems are the bridge between high-level indicators and everyday operational indicators (customer satisfaction, flexibility, and productivity). Finally, four key performance indicators (quality, delivery, cycle, and waste) are used in daily units and work centers (Fig. 3) [25].
D. Stakeholder analysis

The design of a performance appraisal system begins with understanding the goals and strategies of the organization, and this is why the balanced scorecard begins designing a performance appraisal system with the question: What are our shareholders' demands?

The balanced scorecard model implicitly assumes that they are the only stakeholders that influence the organization's goals and that other stakeholders do not play a role in determining goals. In other words, this model ignores the influence of other stakeholders on the organization. The lack of attention to the differences in the impact of different stakeholders in different environments is one of the main reasons for the failure of some large companies to use this model (Fig. 4) [26].

![Stakeholder Analysis Model](image)

In this model, the stakeholders are grouped into two groups: key and non-key stakeholders.

Key stakeholders have a direct control over the organization, and their demands are crystallized in the goals of the organization (such as shareholders), and non-key stakeholders use external mechanisms such as market and culture to maintain their interests and not affect targeting (such as customers).

E. Medori, D. and Steeple, D., framework

This model is one of the comprehensive and integrated frameworks for auditing and enhancing performance evaluation systems. This approach involves six interconnected steps (Fig. 5). Like most other frameworks, the starting point of this model is the definition of the organization's strategy and its success factors (step 1). In the next step, the organization's strategic requirements are matched with six competitive priorities that are quality, cost, flexibility, time, timely delivery, and future growth (Step 1). Then select the appropriate indexes using a checklist that contains 105 indicators with complete definitions (step 3). The existing performance appraisal system is then audited to identify the company's current usage indicators (step 4). In the next step, we will discuss how the indicators are applied, and each indicator is described with eight components: title, goal, pattern, equation, times, the source of information, responsibility and improvement (step 5). The final stage is the periodic revision of the company's performance appraisal system (step 6), [27].
F. Fisher's pattern for performance evaluation

In this model, performance indicators are classified into three categories of qualitative, semi-quantitative and quantitative indicators. Qualitative indicators are essentially argumentative and based on judgmental and personal perceptions of individuals (such as organizational culture, leadership, and ethical characteristics). In semi-quantitative indices, subjective indices have replaced their quantitative indices. In other words, for the qualitative judgments, the value is set to a small value. Indicators are indicators that can express the various activities carried out in the organization in numbers and numbers [28].

G. Balanced scorecard

Balanced Score Card (BSC) models were presented in 1992 by Harold Business Review by Robert Kaplan and David Norton. This four-dimensional model with vital financial, internal processes, customer, and learning and growth, aims to control the organization's short-term operations with its long-term vision and strategies. Therefore, the organization focuses on key performance ratios within the scope of the goals [29]. The main dimensions of this model are:
- **Customer perspective.** Customers' minds enable organizations to measure, focus and improve the core criteria of customer satisfaction measurement, including satisfaction, loyalty, maintenance and maintenance, obtaining new customers, and more.
- **The perspective of internal business processes.** Measuring value creation and communication between processes can help managers understand the issues. Hence, it is necessary to identify processes that are critical to achieving the goals of customers and stakeholders, etc., whether:
  - Are processes aligned with the intended purpose?
  - Processes translate the values into the necessary parts efficiently?
  - Quality, creativity, innovation, and accountability in the organization?
  - Moreover, finally, what should the organization do?
- **The perspective of innovation and organizational learning.** An organization's ability to innovate, improve, and learn directly is valued as an organization. An organization can have time to grow and innovate, able to develop its skills and leadership, and learn from its mistakes and the behavior of other organizations, and can create new ways for itself.

**Financial perspective.** Acquisition of appropriate financial results in companies and economic institutions is essential for their survival and growth, and measuring and analyzing financial outcomes as the essential outcome of an organization's performance is one of the essential elements for examining the strengths and weaknesses of organizations.

Balanced assessment focuses on three dimensions of time: (1) past, (2) present, and (3) future evaluations, because past performance may result in today's or tomorrow's performance, today's performance results in today or tomorrow. In this model, the indicators are classified into two types of Performance Drivers and Outcomes Measures. This model tries to link organizational strategies by identifying critical success factors and strategic indicators with organizational operations and linking them [29].

H. European Excellence Model (EFQM)

The EFQM model was introduced in 1991 as a business excellence model in which a framework for organizational judgment and self-assessment, and ultimately a European quality reward, was introduced, launched in 1992. This model represents the strengths that an outspoken organization must achieve. This model was quickly considered by
European companies, and it was revealed that public sector organizations and small industries are also keen on using it.

EFQM Excellence Model is a framework unconstrained based on nine criteria, five enabler criteria and four criteria of results (Fig. 6). The empowering measures cover what the organization is doing and the outcome criteria that cover what the organization achieves [30].

The use of the EFQM model can be as follows:
1- Self-assessment
2- Development Strategy
3- Outlook Development
4- Project Management
5- Integration of Organizations
6- Management of Suppliers

The Deming model

The W. Edwards Deming model is one of the primary performance evaluation models developed by the Japan Science and Engineering Association in 1951, who later uses the concepts of the award for designing EFQM excellence models and Malcolm Baldrige 1.

The purpose of this model was to provide incentives for innovation in the design and implementation of statistical quality control methods in Japan's manufacturing companies. The Deming Award, based on it and implemented in Japan since the 1950s, is based primarily on the quality of products and quality control methods. In other words, Deming's award model is based on the principle that it requires high-quality products and services. All-inclusive and comprehensive coordination at the organization level [31].

1 Malcolm Baldrige National Quality Award (MBNQA)

The Malcolm Baldrige model

On August 20, 1984, the President of the United States of America signed the National Quality Improvement Act for Malcolm Baldrige. Baldrige's performance excellence criteria are especially used as a tool for evaluating, modifying and enhancing performance. The main goal of the National Quality Program is to create national-level competition and promote quality in this way.

K. Excellence model in business

Dr. Kanji presented this model for excellence (Fig. 7). In 1996 he introduced his model (modified Kanji pyramid). Conjugated for his operational and operational reasons, he modified his compact model in 1998 (Kanji's Business Excellence model – KBEM).
2.2. Literature reviews

The research was conducted by Mohammad Gholi Zare (2010) as the design of the strategic plan and the preparation of the BSC Specialized Hospital Hospital, which is based on the theoretical framework of the Porter model, the Boston model, and customer analysis. In this model, using a SWOT, SPACE, IE matrix and a matrix of matrices, a series of data has been obtained, and finally, a strategic map of the hospital is developed based on the BSC model.

Company Zeneca Ag Products North America: the company's financial performance in 1992 was the catalyst for the use of the Balanced Scorecard performance was the worst in the history of the company. They applied a balanced assessment methodology to establish a new mission and strategy and linking rewards to strategic performance. Zeneca implemented benchmarking measures across the organization in early 1995. Since then, sales growth has doubled the industry average, and the annual margin has grown from the average competitor's profit. The results of the customer satisfaction survey were positive, and all the critical success factors continued to improve.

The University of California, San Diego: a balanced method of assessment in government agencies, nonprofit and educational institutions has also been successful. In 1994, University Vice President Relyea Steven introduced a balanced assessment method in 27 service units. Took The results were far from expected. At the Payroll Office, mistakes fell by about 80%. The finance reduced the time of payment from six weeks to three days. The innovation program received widespread attention so that the University in 1999 captured the quality of the Rochester Institute of Technology.

Drawing from Bandura’s (1997) description of the sources of self-efficacy [32], Tschannen-Moran et al. (1998) provided suggestions as to how teachers develop and maintain a sense of efficacy [33]. They proposed that the relationship between teaching self-efficacy and its sources is cyclical: one’s interpretation of efficacy-relevant information influences self-efficacy, which in turn affects the quality of instructional performance. The success or failure of given performance results in new ability-related information. Some scholars have noted. However, that high teaching self-efficacy may not always lead to better performance, particularly when some level of doubt may be necessary to improve [34-36]. On the other hand, Bandura (1997) maintained that self-assured individuals are better equipped to profit from their mistakes [32], whereas “the failures of those who suffer from self-doubts are unlikely to serve as a fertile source of promising strategies” [37].
Other scholars have described a similar cyclical process whereby the sources, self-efficacy, and teaching practices dynamically influence one another [38 - 39]. For example, in one two-wave longitudinal study of 274 teachers, higher teaching self-efficacy at Time 1 led to greater work engagement in Time 2 [40]. Greater work engagement at Time 1, in turn, led to more positive affective states (i.e., enthusiasm, satisfaction, and comfort) and higher teaching self-efficacy at Time 2; [32].

Allen et al. (2014); [41] find that about 22 % (about $25 billion) of subprime loans that were originated in Florida from 2004 to 2008 were in limbo as of December 2010.1 They attribute the cause of the “limbo loan” phenomenon (both the likelihood of being in limbo and the length of time spent in limbo) to documentation issues rather than foreclosure capacity bottlenecks or other constraints.

Regardless of the causes of the widespread delays in foreclosures in the wake of the housing market collapse, these delays may provide temporary income and liquidity benefits from lower housing expenditures.2 Jagtiani and Lang (2011) provide evidence from the period of the financial crisis that many borrowers who strategically defaulted on their first-lien mortgages had access to sufficient liquidity to keep current on auto loans and home equity lines of credit (HELOCs), [43]. Lee et al. (2013) argue that, because many borrowers with delinquent first-lien mortgages were remaining current on their HELOCs, HELOC defaults can be expected to rise as these households reach the end of the foreclosure process [44].

Zhu and Pace (2015) attempt to estimate the relationship between foreclosure delay and the decision to default on a mortgage, using loan-level data on securitized mortgages originated between 2005 and 2007 [45].3 The data track repayment performance of the loans through December 2009. They find that foreclosure delays have a substantial impact on borrowers’ decisions to default, whereby longer foreclosure timelines are associated with the greater likelihood of default.4 They find that default decisions are particularly sensitive to the expected foreclosure duration, particularly for mortgages with high loan-to-value (LTV) figures at origination. They suggest that the savings a household may accrue from the time spent in foreclosure affects the household’s financial decisions and, in particular, increased foreclosure timelines contributed to rising mortgage defaults due to an expectation of liquidity benefits [48].

3. Methodology

In this research, a questionnaire has been used that includes 28 questions. For each case, a balanced score card is considered, which consists of four options (very low, low, high and very high), with the score of the options 9, 7, 5, 3 and surveyed from 60 people. In this study, Mini-Tab software has been used to calculate the value of z and p-value, and we conclude with a significant level of 0.05 28 questions. So that if it is more than 0.05. The assumption at the significant level is 0.05 = we accept otherwise, and strategic goals are projected by the insurance organization between 10-30 years. An average of 6 is considered for testing hypotheses.

3.1. Financial point

An example of a question in questionnaire is represented in Table 1.

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1 Limbo loans are defined as mortgage loans that have been delinquent for extended periods of time but have not progressed to any form of resolution, such as property sale, refinancing, modification, or foreclosure.

2 There are also potential substantial costs associated with foreclosure delay. For example, Gerardi, Rosenblatt, Willen, and Yao (2015) find that lengthening foreclosure timelines have exacerbated the negative impact of mortgage distress and adversely impacted neighborhood home prices [42].

3 They used loan-level data from Blackbox Logic’s BBx database, which covers 90 % of non-Agency residential securitized deals, including prime, Alt-A, and subprime.

4 The impact of post-default experience on the decision to default has been examined along several other dimensions. Ghent and Kudlyak (2011) find that mortgage borrowers are less likely to default in recourse states (where mortgage lenders have the right to pursue a borrower’s other assets if the property collateral is not sufficient to cover the mortgage amount), controlling for degree of negative equity. In addition, mortgage lenders were more likely to pursue alternatives to foreclosure in the recourse states [46]. Mayer et al. (2014) and Jagtiani and Lang (2011) find that access to loan modification programs impact the costs and benefits associated with mortgage delinquency and thereby influence default behavior [47].
Table 1

An example of a question in question area

<table>
<thead>
<tr>
<th>Very much</th>
<th>A lot</th>
<th>little</th>
<th>Very little</th>
<th>Question</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>14</td>
<td>17</td>
<td>19</td>
<td>How do you know the effect of the combination on the net and gross insurance premiums (net premium plus reinsurance premiums received)?</td>
<td>1</td>
</tr>
</tbody>
</table>

\[
\mu_h = \frac{10 \times 9 + 14 \times 7 + 17 \times 5 + 19 \times 3}{60} = 5.5 \quad (1)
\]

\[\bar{x} = \frac{5.5 + 5.8 + \ldots + 6.1}{28} = 5.5 \quad (2)\]

H0: It cannot be said that the combination of income is effective in net and gross insurance premiums.
H1: It can be said that the combination of income is effective in net and gross insurance premiums.

In the following, calculations are presented to the questions.

As we mentioned before BSC has four main criteria and in the following Table 2 you can see the questions related to the financial criteria. Table 3 shows the p-value for each question as well as the result of H1 and H2 for questions related to this criterion.

Table 4 indicates the result of statistical analysis related to each question in this criterion.

Table 2

Financial issues

<table>
<thead>
<tr>
<th>Financial questions</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of the combination of taxes on the net and gross insurance premiums</td>
<td>1</td>
</tr>
<tr>
<td>Combination of income, the percentage change in net premium compared to the previous year</td>
<td>2</td>
</tr>
<tr>
<td>What is the effect of the combination of revenues on the ratio of risk sharing (reinsurance premium to total premium)?</td>
<td>3</td>
</tr>
<tr>
<td>What is the effect of the cost reduction on the average annual cost of each employee?</td>
<td>4</td>
</tr>
<tr>
<td>The effect of cost reduction on the amount on the total technical reserves and the specific value divided by the net premium</td>
<td>5</td>
</tr>
<tr>
<td>How much is the effect of asset utilization on the profit margin</td>
<td>6</td>
</tr>
<tr>
<td>The impact of asset productivity on the benefits of investing</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3

The value of the p-value of the financial item

<table>
<thead>
<tr>
<th>Question number</th>
<th>The mean ((H_0))</th>
<th>Standard deviation (s)</th>
<th>Variance ((S^2))</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.5</td>
<td>2.6</td>
<td>6.8</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>5.8</td>
<td>2.9</td>
<td>8.6</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>5.6</td>
<td>2.5</td>
<td>6.7</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5.6</td>
<td>2.7</td>
<td>7.6</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5.6</td>
<td>2.8</td>
<td>7.9</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>5.3</td>
<td>3.1</td>
<td>10.01</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>5.4</td>
<td>3.2</td>
<td>10.4</td>
<td>7</td>
</tr>
</tbody>
</table>

Following Table 5 you can see the questions related to the customer's criteria. Table 6 shows the p-value for each question as well as the result of H1 and H2 for questions related to this criterion.

Table 7 indicates the result of statistical analysis related to each question in this criterion.
Table 5

<table>
<thead>
<tr>
<th>Customer's questions</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of the market position on the portfolio share of the company from the</td>
<td>1</td>
</tr>
<tr>
<td>total portfolio of the market</td>
<td></td>
</tr>
<tr>
<td>The effect of the status of the company on the growth of insurance policies against</td>
<td>2</td>
</tr>
<tr>
<td>the year</td>
<td></td>
</tr>
<tr>
<td>The effect of the status of the company in the market on the income earned on</td>
<td>3</td>
</tr>
<tr>
<td>marketing costs</td>
<td></td>
</tr>
<tr>
<td>What effect does the sales network have on the growth of the number of branches and</td>
<td>4</td>
</tr>
<tr>
<td>agents</td>
<td></td>
</tr>
<tr>
<td>The effect of the sales network on the rate of recruitment of new workers</td>
<td>5</td>
</tr>
<tr>
<td>The extent to which the customers' status is influenced by the current customers of</td>
<td>6</td>
</tr>
<tr>
<td>the company (customer loyalty index)</td>
<td></td>
</tr>
<tr>
<td>The effect of customer status on attracting new customers in addition to current</td>
<td>7</td>
</tr>
<tr>
<td>customers</td>
<td></td>
</tr>
</tbody>
</table>

Table 6

<table>
<thead>
<tr>
<th>Customer's p-value</th>
<th>Question number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>H1</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Table 7

<table>
<thead>
<tr>
<th>Standard deviation and average customer's</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mean ($\bar{x}$)</td>
<td>Standard deviation (s)</td>
</tr>
<tr>
<td>5.6</td>
<td>2.5</td>
</tr>
<tr>
<td>5.8</td>
<td>2.8</td>
</tr>
<tr>
<td>5.6</td>
<td>2.7</td>
</tr>
<tr>
<td>5.5</td>
<td>2.8</td>
</tr>
<tr>
<td>6.3</td>
<td>2.5</td>
</tr>
<tr>
<td>6.2</td>
<td>2.7</td>
</tr>
<tr>
<td>5.7</td>
<td>3.01</td>
</tr>
</tbody>
</table>

Table 8

<table>
<thead>
<tr>
<th>Internal process questions</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of production and after-sales services on the speed of the process of processing the offers (insurance questionnaires) and the issuance of insurance policies</td>
<td>1</td>
</tr>
<tr>
<td>The effect of production and after-sales services on the average administrative / personnel costs to the number of insurance policies</td>
<td>2</td>
</tr>
<tr>
<td>The effect of production and after-sales services on the average recovery time (speed of damage treatment)</td>
<td>3</td>
</tr>
<tr>
<td>Effect of productivity in staff morale (staff convergence with organizational goals)</td>
<td>4</td>
</tr>
<tr>
<td>Effect of the ratio of changes in administrative and private costs on insurance operations</td>
<td>5</td>
</tr>
<tr>
<td>The Effect of Productivity on the Effectiveness of Rewards and Incentives</td>
<td>6</td>
</tr>
<tr>
<td>Effect of the percentage of awarded contracts without making mistakes in insurance</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 9

<table>
<thead>
<tr>
<th>Internal process p-value</th>
<th>Question number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>H1</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Table 10

<table>
<thead>
<tr>
<th>Standard deviation and average internal process</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mean ($\bar{x}$)</td>
<td>Standard deviation (s)</td>
</tr>
<tr>
<td>5.7</td>
<td>2.5</td>
</tr>
<tr>
<td>5.7</td>
<td>3.2</td>
</tr>
<tr>
<td>5.6</td>
<td>2.5</td>
</tr>
<tr>
<td>5.7</td>
<td>3.01</td>
</tr>
<tr>
<td>5.8</td>
<td>3.03</td>
</tr>
<tr>
<td>5.3</td>
<td>2.8</td>
</tr>
<tr>
<td>5.3</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Table 11

Following Table 8 you can see the questions related to the internal process. Table 9 shows the p-value for each question as well as the result of H1 and H2 for questions related to this criterion.

Table 10 indicates the result of statistical analysis related to each question in this criterion.

Following Table 11 you can see the questions related to the growth and learning criteria. Table 12 shows the p-value for each question as well as the
result of H1 and H2 for questions related to this criterion.

Table 13 indicates the result of statistical analysis related to each question in this criterion.

Table 11

<table>
<thead>
<tr>
<th>Growth and learning question</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>The impact of the market on the percentage of insurance policies produced in the insurance industry throughout the year</td>
<td>1</td>
</tr>
<tr>
<td>Market Effects on Designing New Insurance Policies for Growing Industries</td>
<td>2</td>
</tr>
<tr>
<td>Influence of market role on investment in the development of new markets</td>
<td>3</td>
</tr>
<tr>
<td>The Effect of Investing in Customer Education (Numbers)</td>
<td>4</td>
</tr>
<tr>
<td>Influence of IT on research and development costs</td>
<td>5</td>
</tr>
<tr>
<td>Effect of the percentage of staff with a bachelor's degree in the organizational performance</td>
<td>6</td>
</tr>
<tr>
<td>Number of hours employees training in using advanced software and information systems in an insurance organization</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 12

<table>
<thead>
<tr>
<th>Result</th>
<th>p-value</th>
<th>Amount of z</th>
<th>Question number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>H2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
<td>0.01</td>
<td>-2.89</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
<td>0.009</td>
<td>-2.39</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
<td>0.018</td>
<td>2.09</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
<td>0.000</td>
<td>-3.58</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
<td>0.275</td>
<td>-0.60</td>
</tr>
<tr>
<td>Reject</td>
<td>Accept</td>
<td>0.117</td>
<td>-1.19</td>
</tr>
<tr>
<td>Accept</td>
<td>Reject</td>
<td>0.000</td>
<td>-3.88</td>
</tr>
</tbody>
</table>

Table 13

<table>
<thead>
<tr>
<th>The mean (μ)</th>
<th>Standard deviation (σ)</th>
<th>Variance (σ²)</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.7</td>
<td>2.5</td>
<td>6.6</td>
<td>1</td>
</tr>
<tr>
<td>5.7</td>
<td>3.2</td>
<td>10.3</td>
<td>2</td>
</tr>
<tr>
<td>5.6</td>
<td>2.5</td>
<td>6.4</td>
<td>3</td>
</tr>
<tr>
<td>5.7</td>
<td>3.01</td>
<td>9.1</td>
<td>4</td>
</tr>
<tr>
<td>5.8</td>
<td>3.03</td>
<td>9.2</td>
<td>5</td>
</tr>
<tr>
<td>5.3</td>
<td>2.8</td>
<td>8.4</td>
<td>6</td>
</tr>
<tr>
<td>5.3</td>
<td>2.7</td>
<td>7.3</td>
<td>7</td>
</tr>
</tbody>
</table>

4. Data analysis

4.1. Financial perspective

Statistical values for the first hypothesis are represented in Table 14.

Table 14

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>St Dev</th>
<th>SE</th>
<th>95% CI</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6.000</td>
<td>2.6</td>
<td>0.130</td>
<td>(5.286; 6.114)</td>
<td>1.54</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Since the value of p-value is less than 0.05, then the assumption of H1 is acceptable, that is, it can be said that the financial means will achieve the goals of the strategy of the organization.

4.2. Customer perspective

Statistical values for the second hypothesis are represented in Table 15.

Table 15

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>St Dev</th>
<th>SE</th>
<th>95% CI</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6.000</td>
<td>2.6</td>
<td>0.130</td>
<td>(5.286; 6.114)</td>
<td>2.30</td>
<td>0.035</td>
</tr>
</tbody>
</table>

Since the value of p-value is less than 0.05, then the assumption of H1 is acceptable, that is, it can be said that the customer perspective means will achieve the goals of the strategy of the organization.

4.3. Internal processes perspective

Statistical values for the third hypothesis are represented in Table 16.

Table 16

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>St Dev</th>
<th>SE</th>
<th>95% CI</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6.000</td>
<td>3.2</td>
<td>0.130</td>
<td>(5.286; 6.114)</td>
<td>0.77</td>
<td>0.043</td>
</tr>
</tbody>
</table>

Since the value of p-value is less than 0.05, then the assumption of H1 is acceptable, that is, it can be said that the Internal Processes Perspective means will achieve the goals of the strategy of the organization.

4.4. Growth and learning perspective

Statistical values for the growth and learning are represented in Table 17.
Table 17

<table>
<thead>
<tr>
<th>Growth and learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

Since the value of p-value is less than 0.05, then the assumption of H1 is acceptable, that is, it can be said that the growth and learning perspective means will achieve the goals of the strategy of the organization. The results of the four-parallax assumptions are represented in Table 18.

Table 18

<table>
<thead>
<tr>
<th>The results of the four-parallax assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>H₁ Accept</td>
</tr>
<tr>
<td>H₂ Accept</td>
</tr>
<tr>
<td>H₃ Accept</td>
</tr>
<tr>
<td>H₄ Accept</td>
</tr>
</tbody>
</table>

The above table summarizes the result of our hypotheses. As you can see in Table 18 all of our hypotheses in four aspects of BSC were accepted.

5. Discussion and conclusion

The results of the test of customer indices show that the company has been able to improve the customer-oriented indicators through strategic planning and implementation of the balanced assessment, and, according to the strategy map, can improve both the characteristics of its products and create value for customers as their leader and employees.

The results of the test of growth-learning indices indicate that staff satisfaction is increasing, appropriate staff training, staff productivity, recruitment of new and expert staff in universities, and ultimately increase employee income.

The results of the internal process indices test also show that with the implementation of a balanced scorecard, the variety and quality of service increase, which can be effective as an agent in achieving the goals of the organization.

Moreover, also, in the financial assumption test, it shows that by controlling costs and improving the strategy, this section helped the organization's strategic goals.

Regarding the mentioned cases, it can be said that the insurance company has achieved its goals and the four-way alignment function is appropriate.

By examining the performance evaluation methods and considering the following reasons, BSC:

1. A strategy-driven and operational-oriented approach mean learning how to work and work properly.
2. It is a system for managing both a strategy and a system for measuring organizational performance.
3. You will benefit from other concepts and practices of financial appraisal and self-assessment and balancing.
4. Its use is understandable to all individuals in the organization; they have mastered them, and help them improve their performance.
5. Assess all performance evaluation areas of the entire organization, operational units, employees, work teams, project, process, program, and product and service of an organization (by exploring and identifying identity cards and balanced scorecards)
6. BSC is effective in executing management orders because:
   - the organization is changing and evolving;
   - a continuous process for evaluating performance;
   - its principles are based on employee orientation and cooperation;
   - its techniques are valid and understandable for all employees;
   - correct implementation of it will reduce the operating distance in the current and desired state;
   - an efficient, effective and adaptive approach to the processes of the organization;
   - it emphasizes customer and customer orientation and takes it as one of the main aspects of its model;
   - the techniques employed are appropriate and effective;
   - its implementation is a systematic and systematic process.

6. Offers

Given the positive relationship between each of the components in the balanced assessment, it is suggested:

1. By increasing the quality of the services offered, while increasing customer satisfaction, a suitable platform for attracting new customers is provided.
2. We are providing training courses tailored to the needs and expertise of the staff, conditions for increased productivity and reduced costs.
3. With the participation of staff in the decision-making process, it is possible to increase job satisfaction.

References


Постановка проблеми: стаття доповнює попередні дослідження і фокусується на методах оцінки ефективності. Крім того, слід зазначити, що в цьому дослідженні розглядається збалансована система показників. Модель збалансованої системи показників з чотирма вимірами життєво важливих фінансових, внутрішніх процесів, клієнтів, навчання і зростання намагається контролювати короткострокові операції організації з її довгостроковим баченням і стратегіями. Тому організація фокусується на ключових показниках ефективності в рамках цілей. Мета: в статті робиться спроба визначити детермінанти для пошуку оцінки ефективності впливу організації з допомогою методу збалансованих показників в результаті діяльності організації. Вхідні дані: в дослідженні використовувалося анкетування, яке включає в себе 28 питань, і для кожного вимірюється 7 балів. Також слід вказати, що данні є результатом опитування 60 осіб. Методи: в дослідженні використовувалося програмне забезпечення Mini-Tab для обчислення значень z і р-значення зі значним рівнем 0,05 для 28 питань. Якщо припущення на значущому рівні становить 0,05, то приймаємо інакше, і страхова організація між 10-30 роками проектує стратегічні цілі. В середньому 6 вважається за перевірку гіпотези. Результати: результати дослідження гіпотези показують, що допущення H1 є прийнятним. Іншими словами, ми можемо сказати, що всі чотири аспекти збалансованої оціночної карти: фінансові, клієнтські, внутрішні процеси та перспективи зростання і навчання призводять до досягнення цілей стратегії організації. Висновки: у відношенні згаданих випадків можна сказати, що страхова компанія досягла своїх цілей, і доречна функція вирівнювання по чотирьох напрямках.

Ключові слова: оцінка ефективності; збалансована система показників; страхування; чотиривимірне вимірювання

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Постановка проблеми: стаття доповнює попередні дослідження і фокусується на методах оцінки ефективності. Крім того, слід зазначити, що в цьому дослідженні розглядається збалансована система показників. Модель збалансованої системи показників з чотирма вимірами життєво важливих фінансових, внутрішніх процесів, клієнтів, навчання і зростання намагається контролювати короткострокові операції організації з її довгостроковим баченням і стратегіями. Тому організація фокусується на ключових показниках ефективності в рамках цілей. Цель: в статті робиться спроба визначити детермінанти для пошуку оцінки ефективності впливу організації з допомогою методу збалансованих показників в результаті діяльності організації. Исходные данные: в исследовании использовалось анкетирование, которое включает в себя 28 вопросов, и для каждой карточки баланса рассматривается 7 баллов. Также следует указать, что данные являются результатом опроса 60 человек. Методы: в исследовании использовалось программное обеспечение Mini-Tab для вычисления значений z и р-значения со значимым уровнем 0,05 для 28 вопросов. Если предположение на значимом уровне составляет 0,05 = мы принимаем иное, и страховая организация между 10-30 годами проектует стратегические цели. В среднем 6 счиается за проверку гипотезы. Результаты: результаты исследования гипотез показывают, что допущение H1 является приемлемым. Другими словами, мы можем сказать, что все четыре аспекта сбалансированной оценочной карты: финансовые, клиентские, внутренние процессы и перспективы роста и обучения приводят к достижению целей стратегии организации. Вывод: в отношении
упомянутых случаев можно сказать, что страховая компания достигла своих целей, и уместна функция выравнивания по четырем направлениям.

Ключевые слова: оценка эффективности; сбалансированная система показателей; страхование; четырехмерные измерения

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