

Using Balanced Scorecard to Evaluate Overall Performance of Social Security Fund in Benghazi – Libya

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Abstract

Original Research Article

The study aims to evaluate overall performance of Social Security Fund in city of Benghazi – Libya. The study population included the employees at Social Security Fund at East Benghazi branch for the period from February 2024 to March 2024. The data for this study were collected by distributing a questionnaire form on a random sample of the study population. The study has only one variable balanced scorecard with its perspectives (Financial, Customer, Internal Processes and Learning and Innovation perspective). The Statistical Package for Social Sciences (SPSS) was also used to analyze the data obtained. Results showed that there is a high percentage using of all perspectives of the balanced scorecard in the Social Security Fund East Benghazi Branch, In addition, the results showed that there are no statistically significant differences between the averages of the respondents' responses regarding the degree of using the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch, due to personal data (gender, age, qualification, years of service and job title). The study suggested that supporting and adopting the balanced scorecard as a tool for evaluating the overall performance of the Social Security Fund East Benghazi Branch, and need to enhance interest in using the perspectives of the balanced scorecard as a tool for overall performance evaluation.

Keywords: Balanced Scorecard, Overall Performance, Social Security Fund, Benghazi, Libya.

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1. INTRODUCTION

Developed by Kaplan and Norton in 1992, the Balanced Scorecard is one of the most popular management tools available today (Kaplan and Norton, 1992). Numerous sizable companies have adopted it, including ABB, Halifax (Olve *et al.*, 1999), Cigna (Kaplan and Norton, 1996, 2001, 2004), Mobile, and Scandia. According to a study conducted on a number of organizations in North America using the Balanced Scorecard, it was found that the Balanced Scorecard is used by 44% of North American organizations (Rigby, 2001) and 35% of large US firms (Marr *et al.*, 2004). Research by Silk (1998) and Malmi (2001) reveals that the Balanced Scorecard is also widely used. Despite being widely used in large organizations, there is little research on the benefits and drawbacks of the Balanced Scorecard in small and medium-sized businesses (SMEs). In comparison to large organizations, the utilization rate of this technique is very low, and the majority of SMEs are unaware of it (Tennant and Tanoren, 2005). However, it is thought that SMEs can benefit from the Balanced Scorecard just as much as large organizations can (McAdam, 2000; Andersen *et al.*,

2001; Kaplan and Norton, 2001). There are some restrictions with the Balanced Scorecard. Numerous studies (e.g., Butler *et al.*, 1997; Dinesh and Palmer, 1998; Epstein and Manzoni, 1998; Schneiderman, 1999; Norreklit, 2000; Aidemark, 2001; Heinz, 2001; Kennerley and Neely, 2002; Olson and Slater, 2002) look into the concept's general limitations. The limited application of this method in small organizations compared to large ones may be the reason for the paucity of studies that highlight its limitations in SMEs.

The study's objective is to assess Social Security Fund overall performance. This is how the paper develops. The literature is reviewed in section 2, the Balanced Scorecard is briefly discussed in section 3, and then the research methodology, sample and data, variables, and hypotheses are covered in section 4. While section 5 discusses the findings and section 6 is the conclusion.

2. LITERATURE REVIEW

Malmi (2001): This study aimed to find out how BSCs are applied in Finland and why companies adopt

them. The study comprised a series of semi-structured interviews in 17 organizations. It appeared that BSCs are used basically in two different ways. The first approaches management by objectives. The second is to use BSCs merely as an information system. Moreover, the findings suggested that the idea of linking measures together based on assumed cause-and-effect relationships was not well understood by the early adopters of BSCs. In explaining the popularity of BSCs in Finland, supply-side forces seemed to have an important role. These results, as well as the definition of the BSC, were discussed and ideas for further research are presented.

Cohen, Thiraios and Kandilorou (2008): This paper aimed to evaluate whether improvements related to learning and growth, internal processes, and customers truly affect reported financial performance using the underlying hypotheses of BSc. Using a structured questionnaire, information was obtained over a three-year period from 90 top Greek companies about a range of activities that can be broadly categorized as components of the three qualitative perspectives of BSc (learning and growth perspective, internal business and production process perspective, and customer perspective). Several financial ratios for each of the sample firms for the same time period were computed using published financial data.

The empirical data supported the BSc's underlying theoretical hypothesis, which states that lead BSc perspectives are sequentially and statistically significantly positively correlated with one another. But not every measure behaves uniformly in terms of statistical significance within a given perspective. Corroborating data was also discovered, indicating that the businesses with higher return on equity (ROE) and return on assets (ROA) during the analysis period have focused more on elements that define the learning and growth perspective than have the businesses with lower ROE and ROA values.

Yongvanich and Guthrie (2009): its paper's objectives were to present a descriptive examination of the use of the Balanced Scorecard (BSC) by Thai stock market companies and evaluate how its use affects performance. A questionnaire was used to survey sample organizations. The data collected was used to investigate whether there is a significant correlation between the type and extent of BSC usage and financial performance satisfaction, as well as whether higher types of BSC usage led to higher financial performance satisfaction. Of the businesses that had adopted the BSC, about 33% did not use cause-and-effect relationships. The study found no conclusive link between BSC usage types and business size. The perceived benefits and levels of satisfaction with the various types of BSC were not significantly different. Furthermore, there are no appreciable differences in the level of BSC usage between the various types. Furthermore, not all

performance variables are significantly correlated with the degree and mode of BSC use.

Giannopoulos *et al.*, (2013): By presenting the findings of a comparative analysis of BSC awareness and use within small businesses situated in the UK and Cyprus, this study contributes to the body of existing literature. The study also looked at small businesses' reasons for not adopting it as well as whether or not they employ performance metrics that are comparable to those found in the BSC model. 500 businesses in the UK and Cyprus received self-completed questionnaires from which the research data was gathered. According to the survey's results, very few small businesses particularly those in the UK used the BSC because most of them are unaware of it. Some respondents thought that small businesses shouldn't use BSC as a tool because they did not have the resources to implement it. The results also imply that, despite the fact that very few small businesses truly employ the BSC, a large number of them seem to use performance metrics and indicators that are comparable to those that are usually found in BSC models.

Benkova (2021): The study's findings regarding the variables influencing the engineering industry's adoption of the Balanced Scorecard approach for evaluating corporate performance are presented in this paper. The main goals of the study were to confirm the value of non-financial factors in business management in relation to the application of the Balanced Scorecard methodology and the relationship between the application of the methodology and the deficiency of financial and human resources for its application. Over the course of six months, the issue-focused research was carried out. The research was founded on hypotheses that were supported by statistical techniques, specifically the Chi-square test methodology. The standard deviation method was applied to determine the factors preventing the addressed enterprises from implementing the Balanced Scorecard methodology. The primary outcome of the study indicates a statistically significant correlation between the enterprises' assessment of the non-financial indicators and their adoption of the Balanced Scorecard methodology. A test with $p = 0.0422$ is also used in the calculation to confirm this relationship. One of the primary research objectives, namely the significance of non-financial indicators in relation to the Balanced Scorecard concept (BSC), was confirmed by the study. The issue of a shortage of financial and human resources is the subject of additional theories. The study also discovered that there is a dependency between the use of the Balanced Scorecard methodology and the absence of these resources, using the Chi-square test once more in these cases. The barriers to implementing the BSC methodology into corporate practice are defined as being significant by the final values of $p = 0.0446$ for human resources and $p = 0.0377$ for financial sources. These figures support other study findings about the difficulties in applying BSC. The research findings that

support the value of non-financial indicators are evaluated in the paper that is being presented, along with the obstacles that prevent their use. The research supported the BSC concept's implementation in businesses so that they could function within the framework of sustainable development and added to our understanding of it, which is why we view it as a contemporary managerial tool that is future-oriented.

Sharma and Sharma (2021): They looked at the variables pertaining to private enterprises' use of the balanced scorecard (BSC). The authors specifically looked at the relationships between the usage of the BSC and foreign ownership, an emphasis on a worldwide market outside of the local company's geographic region, and other advanced management accounting practices (MAPs), such as activity-based costing, just-in-time, and total quality management. The information used in this study came from survey replies that were distributed to 300 Singaporean private, non-listed businesses. Significant correlations were discovered by the authors between the application of BSC and other advanced MAPs, foreign ownership, and a worldwide market focus. The results showed that there is a significant and constant relationship between foreign ownership and a focus on the global market and the degree to which the BSC is applied for each of the seven management control objectives. Additionally, the results showed that some indications of correlations between the degree to which the BSC is employed for management control objectives and other advanced MAPs.

This study is considered one of the first studies to examine the issue of Balanced Scorecard in Social Security Fund. Previous studies were benefited from in forming a general idea about the study and enriching it, in addition to identifying the research gap between this study and previous studies. Previous studies were also used to design the study tool and help in interpreting and comparing the current results of the study. Previous studies did not evaluate overall performance in Social Security Fund in Benghazi – Libya.

3. OVERVIEW OF BALANCED SCORE CARD:

The Nolen Norton Institute commissioned a study titled "Performance Measurement Facility in the Future" in the early 1990s, which involved 12 organizations from various fields and gave rise to the idea of the balanced scorecard. The study's main driving force was the Institute, which persuaded the participants that the historical and financial control systems' traditional data performance measurement method could no longer be used to help managers make decisions (Kaplan and Norton, 1993).

According to Kaplan and Norton (2000), the Balanced Scorecard is a comprehensive system that translates business organizing strategy into strategic

objectives, measures, targets, and explicit, preliminary procedural steps. It is used to measure performance from a strategic perspective. The balanced scorecard was described as "one of the most successful, enduring management concepts in recent years" by Kaplan and Norton in 1992 (Olve *et al.*, 2004). Frigo (2002) states that the Balanced Scorecard is a management tool that assesses an organization's performance using both non-financial and financial metrics. Thus, an all-around control tool is the balanced scorecard. The foundation of the Balanced Scorecard is the notion that managers should assess their organization's performance by considering it from four angles: learning and growth, internal business processes, customers, and finances (Philip, 2008). The balanced scorecard (Fig 1) is framed by these four perspectives. Four scorecards with similar names—the financial card, the customer card, the internal processes card, and the learning and innovation card—contain the perspectives depicted in Fig 1 (Kaplan and Norton, 1996):

- **Financial perspective:** The only financial goals on this card are return on investment, cost of goods sold, profitability, and cash flow. These goals are used to calculate various financial figures and financial ratios. Selecting the figures that best represent the financial and operational performance of an organization is crucial. For instance, if we were to limit our attention to the net profit figure, we might not have enough information because, even in cases where the net profit is sizable, the return on investment might be minimal. It's also possible that some financial data, like cash flow during difficult times, accurately represents the situation at hand. Non-profit organizations face different challenges, but ultimately, they must continue to have enough resources.
- **Customer perspective:** Goals for customer satisfaction are listed on this card, including fulfilling customer requests for new services or goods, attending to customer grievances, enhancing customer service or sales techniques, and enhancing product expertise. If a company does not keep track of its customers' requests and complaints, there's a chance that those customers will find another company to fulfill their needs.
- **The internal processes perspective:** The development of an internal organization to sustain high performance levels in operations is the focus of this card. These objectives could include things like high-quality production, how quickly a product is changed from one to another in production, management system development, information technology use, departmental collaboration, and other internal process-related objectives. The performance of many organizations is declining rather than increasing as a result of the widespread neglect of many internal process performance metrics.

- Learning and innovation perspective:** This card emphasizes an organization's capacity to learn, produce new goods, and design cutting-edge, contemporary management practices. An organization cannot survive without innovation and learning since rivals will grow and the organization

will lag behind them. By establishing benchmarks for each perspective that comprises the balanced scorecard—perspective that must be measured in order to accomplish an organization's strategic objectives—the balanced scorecard serves as a tool for assessing overall performance.

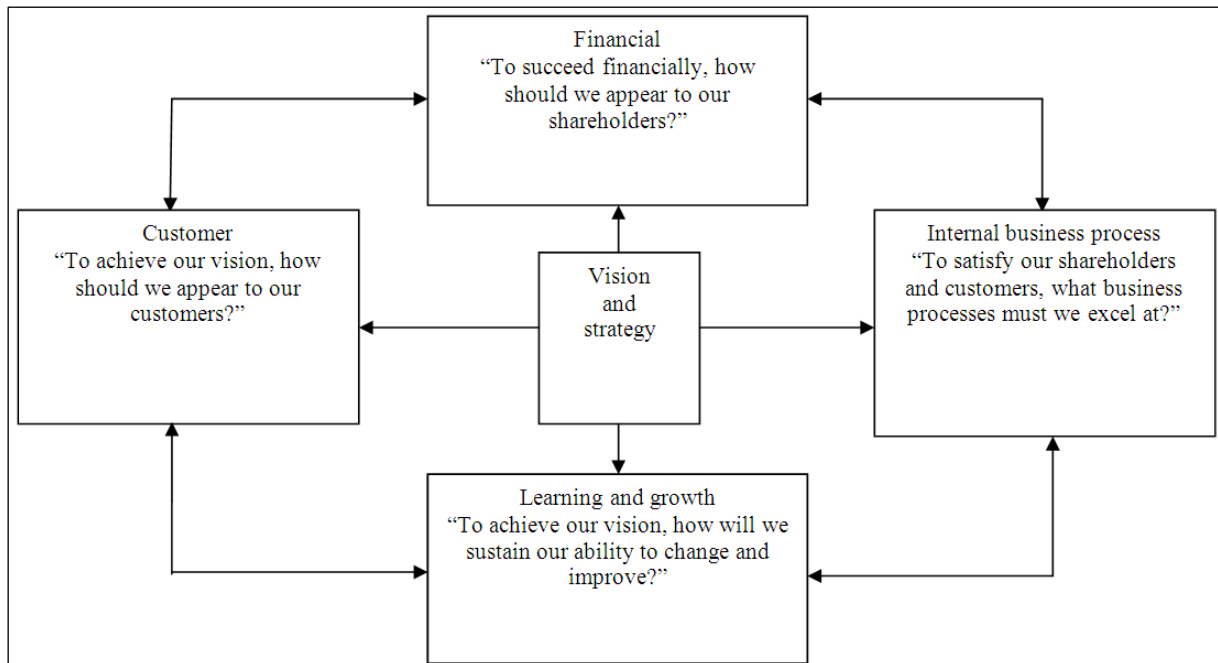


Fig 1: The Balanced Scorecard Frame

Source: Robert S. Kaplan and David P. Norton, “Using the Balanced Scorecard as a strategic Management system”, Harvard Business Review (Jan- Feb- 1996): 76

Benefits of the balanced scorecard:

The balanced scorecard has three main benefits. Firstly, it focuses on the whole organization as a one unit by using a few basic items that are needed by the organization to innovate. Secondly, it helps to integrate the various programmers of the organization such as quality, reengineering and customer service initiatives. Thirdly, it sets out the standards of the strategy for lower levels of the organization, such as unit managers and employees. The employees can determine the special demands to achieve excellent overall performance History of Balanced Scorecard (Marr, 2021).

Problems of the balanced scorecard method:

While there are benefits to using Balanced Scorecard, there are a few problems associated with the method as well.

Firstly, the Balanced Scorecard cannot solve all problems; it is not a tool to improve an organization, rather, it helps to achieve an organization’s strategy. Secondly, the financial, customer, internal business process and learning and growth cards are tools to determine balanced goals only. So, if there is no follow-up, that is, no implementation of management policies to make the necessary improvements, then the balanced scorecard will fail. Thirdly and importantly, many

organizations use metrics that are not applicable to their own situation. It is important when using the Balanced Scorecard to ensure that the information being tracked is applicable. Otherwise, the metrics will be meaningless (Jones, 2020).

4. RESEARCH METHODOLOGY

The study relied on the descriptive approach, as it is the appropriate approach for the variables of the study, its objectives and hypotheses, in order to evaluate overall performance for the study community.

a. Sample and Data: 60 managers and employees at various management levels from the Social Security Fund East Benghazi branch were included in the study sample. A questionnaire form was used to gather study data.

b. Study variables: There is only one variable is used in this study (BSC) in its four perspectives (Financial perspective, Customer perspective, Internal Business perspective and Innovation and Learning perspective).

c. Study Hypotheses: This study has two main hypotheses as following:

The first main hypothesis: There is no use of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch.

The following sub-hypotheses emerge from it:

The first sub-hypothesis: There is no use of the financial perspective of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch.

The second sub-hypothesis: There is no use of the customer perspective of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch.

The third sub-hypothesis: There is no use of the internal processes' perspective of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch.

The fourth sub-hypothesis: There is no use of the learning and innovation perspective of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch

The second main hypothesis: There are no statistically significant differences between the averages of the respondents' responses regarding the degree of using the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund, East Benghazi Branch, due to personal data (gender, age, qualification, years of service and job title).

5. EMPIRICAL RESULTS

a. Data Analysis:

In order to fulfill the requirements of the study methodology and to test its main hypotheses, this part presented an analytical description of the study variable and an explanation of the descriptive statistics using the Statistical Package for Social Sciences (SPSS) software.

The questionnaire forms that were collected from the study sample were unloaded, and they were analyzed statistically based on the mean, standard deviation, and relative importance according to the questionnaire items as follows:

The study sample was chosen randomly, and the number of questionnaires distributed was 60 questionnaires. 48 questionnaires were received and valid for analysis, with a rate of 80%.

b. The test of validity and reliability of the study tool:

Reliability means obtaining the same results or close to them in the case of repeating the study in similar circumstances and using the same study tool. Cronbach's alpha equation was relied upon to calculate the stability of the scale, and the stability coefficient were 0.911, 0.910, 0.920 and 0.911 for balanced scorecard perspectives, while the validity coefficient for the same perspectives were 0.954, 0.954, 0.959 and 0.954 respectively. These results are positive and can be relied upon, as shown in Table (1).

Table 1: The coefficients of validity and reliability of the study scale

| Dimension | Stability coefficient | Validity coefficient |
|-------------------------------------|-----------------------|----------------------|
| Financial perspective | 0.911 | 0.954 |
| Customer perspective | 0.910 | 0.954 |
| The internal processes perspective | 0.920 | 0.959 |
| Learning and innovation perspective | 0.911 | 0.954 |

c. Cell length in scale and degree of availability

After completing the process of compiling and coding the questionnaires based on the five-point Likert

scale, the cell length of the scale was determined as shown in Table (2).

Table 2: The length of the cell period in the scale and the degree of availability

| Period Length | Study scale | Availability |
|------------------------|------------------|--------------|
| From 1 to less 1.80 | Totally Disagree | Very Weak |
| From 1.80 to less 2.60 | Disagree | Weak |
| From 2.60 to less 3.40 | Neutral | Middle |
| From 3.40 to less 4.20 | Agree | Strong |
| From 4.20 to 5.00 | Totally Agree | Very Strong |

d. General information

Table (3) showed that most of the study population consists of females at a rate of 52.1%, while the most age group is the two age groups (From 35 to less than 45) with a rate of 58.3%, and that the largest percentage of the study population carries Bachelor's

degree by (68.8%), while 54.2% of the respondents had a period of service from 11 to 15 years, and 79.2% of the respondents are consultants, supervisors and employees.

The results from table (3) indicate that the Social Security Fund, East Benghazi Branch, depends on

both genders to perform its functions, and also depends in performing its functions on the middle age group (the youth group), in addition to its reliance heavily on those with academic qualifications. The results also indicate

that most of the respondents have Extensive professional years and familiarity with the work systems of the Social Security Fund, which positively affects the credibility of their answers to the questionnaire

Table 3: Characteristics of the study population

| Variable | Variable Level | The Number | Percentage |
|-------------------------|-----------------------------------|------------|------------|
| Sex | Male | 23 | 47.9 |
| | Female | 25 | 52.1 |
| | Total | 48 | 100 |
| Age | Less than 25 years | 2 | 4.2 |
| | From 25 to less than 35 years | 10 | 20.8 |
| | From 35 to less than 45 years | 28 | 58.3 |
| | From 45 to less than 55 years | 8 | 16.7 |
| | From 55 years and above | 0 | 0 |
| | Total | 48 | 100 |
| Qualification | High school or equivalent | 2 | 4.2 |
| | Higher Diploma | 9 | 18.8 |
| | Bachelor's | 33 | 68.8 |
| | Master and PhD | 4 | 8.3 |
| | Total | 48 | 100 |
| Years of Service | Less than 5 years | 2 | 4.2 |
| | From 5 to 10 years | 7 | 14.6 |
| | From 11 to 15 years | 26 | 54.2 |
| | From 16 to 20 years | 9 | 18.8 |
| | More than 20 years | 4 | 8.3 |
| | Total | 48 | 100 |
| Job Title | Member of the Board of Management | 0 | 0 |
| | Management Manager | 0 | 0 |
| | Head of Department | 5 | 10.4 |
| | Office Manager | 1 | 2.1 |
| | Head of Unit | 4 | 8.3 |
| | Others | 38 | 79.2 |
| | Total | 48 | 100 |

e. Balanced Score Card

• Testing the second main hypothesis

Table (4) shows the mean and standard deviation of the study sample's answers to the phrases that make up the perspectives of the study, which shows that the averages are strong, as the means were 3.753 for

learning and innovation perspective, 3.740 for internal processes perspective, 3.684 for customer perspective and 3.488 for financial perspective. The t-test showed that there is a significant difference in the averages of the study variables from the hypothetical mean at a significant level of 1%.

Table 4: The responses of the members of the study community towards the perspectives of balanced scorecard

| Dimensions | Mean | Standard deviation | T Test | | Test's result | Availability |
|-------------------------------------|-------|--------------------|---------|---------|---------------|--------------|
| | | | T value | P Value | | |
| Financial perspective | 3.488 | 0.924 | 3.714 | 0.01 | Sig. | Strong |
| Customer perspective | 3.684 | 0.964 | 4.946 | 0.00 | Sig. | Strong |
| The internal processes perspective | 3.740 | 1.069 | 4.983 | 0.01 | Sig. | Strong |
| Learning and innovation perspective | 3.753 | 1.153 | 4.548 | 0.00 | Sig. | Strong |

After it became clear that there are significant differences for the variables of the study, and that the levels of practice are strong, we need to conduct a deeper analysis by reviewing the mean, standard deviation,

relative weight, arrangement, and general direction of the phrases that make up each perspective of the study, as shown in tables (5).

Table 5: Perspectives of balanced scorecard

| | | Mean | Standard deviation | Relative weight | Arrangement | General directions |
|--|---|-------|--------------------|-----------------|-------------|--------------------|
| First: Financial perspective | | | | | | |
| 1 | Financial resources are used in a way that improves and develops the management of the Social Security Fund | 3.479 | 0.875 | 69.60 | 4 | Strong |
| 2 | The Social Security Fund's management reviews the approved budget from time to time to detect and correct deviations | 3.604 | 0.869 | 72.08 | 2 | Strong |
| 3 | The Fund's management provides various sources of financing to help develop the Fund | 3.688 | 0.903 | 73.76 | 1 | Strong |
| 4 | Financial budgets are clear and achieve the implementation plans. | 3.458 | 0.824 | 069.16 | 5 | Strong |
| 5 | The fund management follows systems to control expenses that are characterized by accuracy and transparency | 3.404 | 0.851 | 68.08 | 7 | Strong |
| 6 | The Fund's management provides the necessary financial resources to confront any emergency matter | 3.604 | 0.962 | 72.08 | 3 | Strong |
| 7 | The fund management follows transparent systems to control expenses | 3.438 | 1.070 | 68.76 | 6 | Strong |
| 8 | The Fund's management allows employees to participate in writing and reviewing financial reports | 3.230 | 1.036 | 64.60 | 8 | Middle |
| Second: Customer perspective | | | | | | |
| 9 | The degree of customer satisfaction with the services provided is studied and determined by the fund | 3.500 | 1.031 | 70.00 | 7 | Strong |
| 10 | The Fund seeks to provide service to the customer as quickly as possible | 3.813 | 0.891 | 76.26 | 3 | Strong |
| 11 | The Fund's management responds to complaints from those who are customers | 3.604 | 0.917 | 72.08 | 5 | Strong |
| 12 | The quality of services provided to customers is studied and determined by Quality department | 3.625 | 0.937 | 72.50 | 4 | Strong |
| 13 | The Fund's management seeks to achieve the satisfaction of those who are customers through the service provided to them | 3.583 | 0.964 | 71.66 | 6 | Strong |
| 14 | The computer is used to document customers' files for reference when necessary | 3.833 | 1.078 | 76.66 | 2 | Strong |
| 15 | The Fund's management develops the quality of services provided to those who customer | 3.833 | 0.930 | 76.66 | 1 | Strong |
| Third: The internal processes perspective | | | | | | |
| 16 | The Fund's management works to provide the needs and requirements of employees | 3.604 | 1.198 | 72.08 | 7 | Strong |
| 17 | Administrative work systems are constantly being developed | 3.792 | 0.922 | 75.84 | 4 | Strong |
| 18 | The Fund's management supports the creative activities of employees | 3.292 | 1.254 | 65.84 | 8 | Middle |
| 19 | There is continuous cooperation between all the various departments and divisions of the Fund | 3.854 | 1.010 | 77.08 | 3 | Strong |
| 20 | The Fund uses modern technologies for information systems | 3.979 | 0.911 | 79.58 | 1 | Strong |

| | | Mean | Standard deviation | Relative weight | Arrangement | General directions |
|--|--|--------------|--------------------|-----------------|-------------|--------------------|
| 21 | Employees have the ability to complete work efficiently | 3.979 | 1.021 | 79.58 | 2 | Strong |
| 22 | Available resources are used efficiently and effectively | 3.771 | 1.057 | 75.42 | 5 | Strong |
| 23 | The Fund's management provides an advanced communications network between all branches and departments | 3.646 | 1.176 | 72.92 | 6 | Strong |
| Fourth: Learning and innovation perspective | | | | | | |
| 24 | The Fund's management organizes courses to qualify new employees | 3.917 | 1.217 | 78.34 | 2 | Strong |
| 25 | The Fund's management allocates an annual budget to train employees | 4.063 | 1.156 | 81.26 | 1 | Strong |
| 26 | The Fund provides adequate and appropriate training programs for employees | 3.792 | 1.237 | 75.84 | 5 | Strong |
| 27 | The training courses provided to employees are characterized by professionalism | 3.896 | 1.057 | 77.92 | 3 | Strong |
| 28 | The Fund's management is interested in developing employee performance | 3.854 | 1.072 | 77.08 | 4 | Strong |
| 29 | The Fund's management conducts workshops to develop the capabilities and skills of employees | 3.646 | 1.139 | 72.92 | 6 | Strong |
| 30 | The Fund's management uses the employee satisfaction index | 3.437 | 1.165 | 68.74 | 7 | Strong |
| 31 | The Fund's management is interested in qualified and highly skilled employees | 3.417 | 1.182 | 68.34 | 8 | Strong |
| The mean of all items for all dimensions | | 3.666 | 1.029 | 73.32 | | Strong |

Table (5) shows the results of balanced scorecard perspectives. The results of the first perspective of balanced scorecard, which is financial, show that the response level for this perspective is from middle to strong, with a mean ranging between 3.230 and 3.688, with standard deviations ranging between 0.824 and 1.070, while the relative weight of the financial perspective is within the strong.

In addition to financial, the results for customer perspective are strong, with a mean ranging between 3.500 and 3.833, with standard deviations of 0.891 and 1.078. The relative weight of this perspective is strong.

The results related to internal processes perspective also showed that this dimension is also from middle to strong, with means ranging between 3.292 and 3.979, with standard deviations between 0.911 and 1.176. Also, the relative weight is also strong.

Also, the results related to last perspective of balanced scorecard, which is learning and innovation perspective also showed that this perspective is strong,

with means ranging between 3.417 and 4.063, with standard deviations between 1.057 and 1.237, and the relative weight is also strong.

In general, the mean for all balanced scorecard perspectives is considered relatively strong, with a value of 3.666, a standard deviation of 1.029, and a relative weight of 73.32%. This means that interest in balanced scorecard perspectives is generally strong for the study sample.

Through the tables (4) and (5), we find that there is a high percentage using of all perspectives of the balanced scorecard in the Social Security Fund East Benghazi Branch, so we reject the first main hypothesis, which states "There is no use of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch".

• Testing the second main hypothesis

Table (6) shows T test results according sex.

Table 6: T test results according to Sex variable

| | Balanced Scorecard dimensions | Mean | | t value | sig |
|---|-------------------------------|-------|--------|---------|-------|
| | | Male | Female | | |
| 1 | Financial | 3.682 | 3.310 | 1.602 | 0.116 |
| 2 | Customer | 3.877 | 3.509 | 1.569 | 0.123 |
| 3 | The internal processes | 3.995 | 3.505 | 2.582 | 0.013 |

| | | | | | |
|---|-------------------------|-------|-------|-------|-------|
| 4 | Learning and innovation | 4.109 | 3.425 | 1.980 | 0.054 |
|---|-------------------------|-------|-------|-------|-------|

The results of the statistical analysis of table (6) indicate that the probability value corresponding to the T-test for two independent samples is greater than the significance level (0.05) for all perspectives, which leads to accepting the second hypothesis attributed to the type variable (sex). We attribute this result to the same work environment, which has the same effect on male and

female employees at the Social Security Fund, East Benghazi branch.

Table (7) shows the results of the one-way analysis of variance (ANOVA) according to the age variable.

Table 7: ANOVA results according to age variable

| | Balanced Scorecard dimensions | Mean | | | | F value | Sig |
|---|-------------------------------|--------------------|-------------------------------|-------------------------------|-------------------------------|---------|-------|
| | | Less than 25 years | From 25 to less than 35 years | From 35 to less than 45 years | From 45 to less than 55 years | | |
| 1 | Financial | 3.000 | 3.663 | 3.511 | 3.313 | 0.592 | 0.624 |
| 2 | Customer | 3.000 | 3.643 | 3.765 | 3.625 | 0.558 | 0.645 |
| 3 | The internal processes | 4.063 | 4.163 | 3.688 | 3.313 | 2.868 | 0.047 |
| 4 | Learning and innovation | 5.000 | 4.038 | 3.746 | 3.109 | 1.569 | 0.624 |

The results of the statistical analysis in table (7) indicate that the probability value corresponding to the F – test in the one-way analysis of variance is greater than the significance level (0.05) for all perspectives except the internal processes perspective. This leads to accepting the second hypothesis for all perspectives except the internal processes attributed to age variable. The results led to significant differences between the averages of the responses of employees at the Social

Security Fund, East Benghazi branch, due to the internal processes perspective. We attribute this to the fact that the majority of the study sample is familiar with the administrative and technical matters of the Social Security Fund.

Table (8) shows the results of the one-way analysis of variance (ANOVA) according to the qualification variable.

Table 8: ANOVA results according to qualification

| | Balanced Scorecard dimensions | Mean | | | | F value | Sig |
|---|-------------------------------|---------------------------|----------------|------------|--------|---------|-------|
| | | High school or equivalent | Higher Diploma | Bachelor's | Master | | |
| 1 | Financial | 3.5 | 3.250 | 3.548 | 3.531 | 0.311 | 0.817 |
| 2 | Customer | 3.857 | 3.460 | 3.701 | 3.964 | 0.395 | 0.757 |
| 3 | The internal processes | 4.938 | 3.588 | 3.777 | 3.094 | 1.620 | 0.198 |
| 4 | Learning and innovation | 4.938 | 3.875 | 3.720 | 3.156 | 2.165 | 0.106 |

The results of the statistical analysis in table (8) indicate that the probability value corresponding to the F – test in the one-way analysis of variance is greater than the significance level (0.05) for all perspectives. This leads to accepting the second hypothesis for all perspectives attributed to qualification. We attribute this to the consensus of academic qualifications regarding the application of the balanced scorecard as a tool for

evaluating overall performance, due to the convergence in educational level among the members of the study sample.

Table (9) shows the results of the one-way analysis of variance (ANOVA) according to the years of service variable.

Table 9: ANOVA results according years of service

| | Balanced Scorecard dimensions | Mean | | | | | F value | Sig |
|---|-------------------------------|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------|---------|-------|
| | | Less than 5 years | From 5 to less than 10 years | From 10 to less than 15 years | From 15 to less than 20 years | More than 20 years | | |
| 1 | Financial | 3.063 | 3.875 | 3.457 | 3.319 | 3.594 | 0.947 | 0.446 |
| 2 | Customer | 2.929 | 3.816 | 3.753 | 3.476 | 3.857 | 0.681 | 0.609 |
| 3 | The internal processes | 3.313 | 4.214 | 3.812 | 3.209 | 3.844 | 3.605 | 0.130 |
| 4 | Learning and innovation | 3.563 | 4.464 | 3.894 | 2.875 | 3.656 | 1.572 | 0.199 |

The results of the statistical analysis in table (9) indicate that the probability value corresponding to the F – test in the one-way analysis of variance is greater than the significance level (0.05) for all perspectives. This leads to accepting the second hypothesis for all perspectives attributed to years of service. we attribute the lack of differences to the fact that the number of years

of service is not a measure of administrative work within the Social Security Fund, because those who obtain these positions in their early years at work are subject to intensive management courses for the development. Table (10) shows the results of the one-way analysis of variance (ANOVA) according to the job title variable.

Table 10: ANOVA results according job title

| | Balanced Scorecard dimensions | Mean | | | | F value | Sig |
|---|-------------------------------|--------------------|----------------|--------------|--------|---------|-------|
| | | Head of Department | Office Manager | Head of Unit | Others | | |
| 1 | Financial | 3.325 | 4.25 | 3.719 | 3.465 | 0.577 | 0.634 |
| 2 | Customer | 3.543 | 4.429 | 3.857 | 3.666 | 0.372 | 0.773 |
| 3 | The internal processes | 2.975 | 3.875 | 3.75 | 3.836 | 0.166 | 0.919 |
| 4 | Learning and innovation | 3.475 | 3.875 | 3.719 | 3.786 | 1.451 | 0.241 |

The results of the statistical analysis in table (10) indicate that the probability value corresponding to the F – test in the one-way analysis of variance is greater than the significance level (0.05) for all perspectives. This leads to accepting the second hypothesis for all perspectives attributed to job title. This indicates that all employees believe that there is a use of the perspectives of the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund. We attribute this to the fact that all of these groups participate in implementing the objectives of the Social Security Fund and thus they are aware of the standards and plans that develop the Social Security Fund.

The results of this study disagree with Malmi (2001), Cohen, Thiraios and Kandilorou (2008), Yongvanich and Guthrie (2009), Giannopoulos *et al.*, (2013), Benkova (2021) and Sharma and Sharma (2021). The reason for the difference may be due to different environments and different populations in which these studies were conducted with the environment and populations which conducted in our study.

6. CONCLUSION

The study aims to assess Social Security Fund overall performance at the East Benghazi Branch. The study sample included 60 employees in the Social Security Fund East Benghazi Branch. The data of the study were collected using a questionnaire form on a random sample of the study population.

Results showed that there is a high percentage using of all perspectives of the balanced scorecard in the Social Security Fund East Benghazi Branch, so we reject the first main hypothesis. In addition, the results showed that there are no statistically significant differences between the averages of the respondents' responses regarding the degree of using the balanced scorecard as a tool to evaluate the overall performance of the Social Security Fund East Benghazi Branch, due to personal data (gender, age, qualification, years of service and job

title). Therefore, the second main hypothesis was accepted.

The study suggested that supporting and adopting the balanced scorecard as a tool for evaluating the overall performance of the Social Security Fund East Benghazi Branch, and need to enhance interest in using the perspectives of the balanced scorecard as a tool for overall performance evaluation by providing training programs to develop the performance of employees in a way that is compatible with the nature of their work, and motivating employees of all categories to develop their performance to maintain a high level of using the balanced scorecard perspectives.

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