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THE IMPACT OF APPLYING THE BALANCED SCORECARD IN STRATEGIC PERFORMANCE EVALUATION: EVIDENCE FROM YEMENI INDUSTRIAL COMPANIES

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ABSTRACT
Balanced Scorecard (BSC) is an important strategic tool for achieving the strategic performance evaluation of industrial companies and increasing local and global competition. So, this study aims to investigate the impact of applying the (BSC) with its dimensions (financial dimension, customer dimension, internal operations dimension, learning and growth dimension, environment and society dimension, risk dimension) in strategic performance evaluation. The study used the descriptive analytical approach and based on a questionnaire as the primary data collection method. The study sample consisted of 314 employees working in the industrial companies in Yemen. Then the data were statistically processed using SPSS 27; multiple and simple regression was employed to evaluate the hypotheses. The hypothesis revealed that (BSC) positively impact the strategic performance evaluation ($R2 = 0.820$; $P < 0.05$). Additionally, the individual dimensions of internal operations, environment and society, and risk have a major influence in the strategic performance evaluation (PSE) ($\beta = 0.209; 0.339; 0.384$; $P < 0.05$), while financial, customer, learning and growth dimensions showed no significant impact ($\beta = -0.090; 0.019; 0.063$; $P > 0.05$). The results showed a high level of both the (BSC) and strategic performance evaluation in the industrial companies. Consequently, the study contributed to enhancing the theoretical and practical aspect of knowing the management methods that affect the strategic performance evaluation in Yemen.

Keywords: Balanced Scorecard, Strategic Performance Evaluation, Industrial Companies.

INTRODUCTION

Global industrial companies are racing to implement the BSC which has enabled them to achieve remarkable success. This has transformed them from a mere management tool to an integrated strategic management system enabling them to measure and evaluate their operations from a holistic perspective based on its six dimensions: (financial dimension, customer dimension, internal operations dimension, learning and growth dimension, environment and society dimension, risk dimension), enabling them to achieve competitive advantages across global industries.

BSC is one of the most effective methodic concepts of strategic business management of contemporary companies. The Balanced Scorecard is primarily focused on providing the information needs of strategic management in large and extra-large companies (Rafiq, 2020). While Madsen (2025) defined the (BSC) as an integrated strategic system that aims to manage an organization's performance internally and externally from all aspects, starting with the development of the strategy to integraing financial and non-financial performance measures across four perspectives (financial, customer, internal processes, and learning and growth). Over three decades, the BSC has evolved into a comprehensive strategic tool adopted across industries and sectors worldwide. While its adaptability and integrative approach are strengths, criticisms

include challenges in implementation, assumed cause effect relationships, and relevance in decentralized organizations.

Strategic performance evaluation is the creation of performance measures and quantitative indicators that demonstrate how an organization is achieving its objectives (Marwa & Al-Ibrahimi (2023). Madsen et al., (2025) developed approach and described that BSC can be used to SPE and aligning manufacturing companies to remain competitive in the long-term. The BSC is a broad and deep performance measurement tool that is meant to link controllable operational decisions and actions to strategic goals (Tawse & Tabesh, 2023).

Agarwal et al. (2022) reported that BSC technique is employed to strategic performance measures into five performance perspectives such as; financial perspective, internal process perspective, learning and innovation perspective, beneficiaries and donors' perspective and social and environmental perspective.

In addition, Huber et al., (2025) explored the the dynamics between management control anchor practices and subsidiary practices and showed that integrating BSC measurement is believed to enrich managerial understanding of an organization's overall risk exposure and performance, resulting in more informed and effective managerial decision making.

With regard to Yemeni context, the Yemeni industrial companies are fundamental pillars of the economy. According to the Central Agency for Public Mobilization and Statistics (CAPMAS) for 2018, the year 2015, Yemen has witnessed the largest contraction in the industrial sector's performance output and developed at around 74.2% in the manufacturing sector due to the major shock that the industrial sector was exposed to. The industrial sector's performance then declined year after year as various industrial establishments and adopted multiple adaptation strategies to continue operating and overcome the challenges they faced. Survey results indicated a decline in the annual contraction rate in the industrial sector's performance output to less than 1% in 2020. Furthermore, the Yemeni Economic Observatory noted that the economic losses and damages incurred by the Yemeni industrial companies exceeded and still face many difficulties and challenges that hinder their growth and development, which have increased in intensity in light of the conflict and war, inflicting significant damage, both directly and indirectly, and their impact has been reflected in their strategic performance. All of this drive them to search for modern systems that keep pace with rapid technological developments, ensure the provision of information related to the internal and external environment, enable and enable them to achieve their strategic goals. They also seek to adopt modern methods and measurement methods to measure and evaluate performance through the application of the balanced scorecard, which has been recommended by many local studies (e.g., Saeed, 2019; Karshom et al., 2024). Thus, more studies are needed on BSC and its impact on strategic performance evaluation, especially in the Yemeni environment.

Statement of the Problem

The fourth industrial revolution has witnessed recently rapid developments in the revolution in information technology, technologies and artificial intelligence in various fields, and radical changes have occurred in the business environment, such as increasing competition and liberalization of global trade, tremendous technical development, the emergence of alliances and giant blocs, increased corporate mergers and acquisition of facilities through ownership and strategic alliances, and in contrast, there are many institutions and companies that failed to survive, as a result of the successive losses that were affected and the decline in their positions in the market and not because they do not have strategies for their work, but because of the failure to evaluate and implement those strategies, and their focus on traditional performance measures focused on achieving short-term goals at the expense of long-term goals, which pushed those institutions to searching for a mechanism that enables it to imbalance in assessing its operational, financial and strategic performance (Saleh & and Juma, 2022, p. 470).

All this made the evaluation of strategic performance of great importance to these organizations, as the measures of financial and traditional performance, such as the return on property rights due to assets and added economic value, are not appropriate to assess the performance and the overall strategic of the facility under modern development. Despite the development of many performance measurement systems to avoid the deficiencies of traditional systems, however, some studies confirm that only (5%) of the workforce understands the strategy of the organization and 25% of them are related to their financial incentives to the extent of achieving the strategy and (60%) of the organizations do not link the financial budgets to the strategy, and (85%) of the executives spend less than an hour to discuss the strategy, which prompted these organizations to go towards developing methods and tools for measuring performance through thinking of a new methodology and dimensions through which they seek to provide the necessary information to measure

performance and a set of modern trends and achieve compatibility between all employees of the organization by making the strategy and the organization the main drivers for all workers (Tawse & Tabesh, 2019).
Therefore, this study aims to search for modern systems that keep pace with rapid technological developments, including providing information related to the internal and external environment that enables organizations to achieve their strategic goals and evaluate their strategic performance through the application of BSC which is recommended by Saeed (2019) and (Karshom2024).

LITERATURE REVIEW

BSC , originally introduced by Kaplan and Norton in 1992, has evolved into a widely recognized strategic management framework that facilitates the translation of an organization's vision and strategy into measurable objectives and actionable initiatives across four integrated perspectives: financial, customer, internal business processes, and learning and growth. It serves as a comprehensive tool for performance measurement, strategy formulation, and the continuous achievement of organizational goals (Sibarani, 2023).
Similarly, Tawse and Tabesh (2023) argued that BSC is a robust performance evaluation and strategic management system designed to provide a holistic view of organizational performance by integrating both financial and non-financial measures. It enables organizations to clarify their strategic objectives, communicate them effectively throughout the enterprise, and align departmental and individual efforts towards common goals, thereby fostering long-term value creation and sustainable competitive advantage.
BSC is one of the contemporary administrative methods presented by both Kaplan and Norton in the year 1992 AD, after conducting a research project on (12) major companies (in the United States of America regarding determining the requirements of managers for performance efficiency measures and the result was the balanced performance card. Professor Kaplan stated that relying on financial results in evaluating performance is like someone and driving a ship while looking at its rear instead of looking at its introduction (Norton & Norton,1996).

Balanced Scorecard Dimensions

The following are the six dimensions of (BCS):

Financial Dimension: This dimension deal with ensuring shareholders' value, increasing shareholder income, and achieving financial and profitability objectives, which are measured by the return on investment or economic value added (Abueid et al, 2022).

Customer Dimension: The customer dimension represents the answer to the question: How do customers view an organization? Thus, it encompasses all issues related to the quality of customer service and satisfaction, the fulfillment of customers' desires through new products or services, and the degree of responsiveness to their needs or complaints (Abueid et al., 2022). In addition, customers' relationship management is a set of practices, tactics, and technological tools that companies employ to monitor and evaluate customers' data and interactions over the course of the customers' lifecycle (Errassafi et al., 2019).
Internal Processes Dimension: It is the capacity of an organization to integrate processes and coordinate actions across departments and functions, removing functional barriers and collaborating across departments which are necessary to meet customers' requirements (Errassafi et al., 2019). According to Odongo (2017), internal process management is a set of activities meant to make it easier for related processes to be connected within and between organizations. It also aims to remove unnecessary processes from the supply chain and create an effective and efficient one. Uwamahoro (2018) asserted that internal process, rather than working within functional departments, traditionally encourage collaboration between various departments, resulting in meeting customer requirements.
Learning and Growth Dimension: Through this dimension, the organization works to develop new products and services, and also works to learn and innovate advanced technology, and implement modern administrative policies, in addition to providing sufficient incentives to employees in order to support the spirit of creativity, development and innovation (Uwamahoro, 2018).
Society Dimension: It is an extended balanced scorecard refers to an organization's performance concerning its social responsibilities, ethical conduct, and contributions to societal well-being. This includes aspects such as employees' well-being, diversity and inclusion, fair labor practices, customers' satisfaction (beyond purely financial loyalty), community development, and respect for human rights across the value chain (Sands et al., 2022)

Risk Dimension: Akman and Turan (2022) proposed a new BSC structure that explicitly includes "risk" as a separate dimension , alongside "agile," in addition to the original four ones. They argued that the traditional BSC structure needs to be expanded to meet current business needs, especially regarding agility and risk management. While the original BSC did not explicitly name a "risk dimension", modern interpretations and adaptations increasingly incorporate risk management as a critical component, either through integration

within existing perspectives or by adding a dedicated risk perspective to ensure comprehensive strategic performance evaluation.

Strategic Performance Evaluation

Strategic performance evaluation (SPE) is a broad and critical concept in organizational management, evolving alongside frameworks like the balanced scorecard. It goes beyond simply measuring past results to actively assessing an organization's progress in achieving its long-term strategic goals and adapting to its environment. Aguinis (2013) stated that "strategic performance evaluation is a systematic and ongoing process by which organizations assess the effectiveness of their chosen strategies in achieving desired long-term objectives. It involves not only the measurement of outcomes but also the analysis of the underlying processes, capabilities, and environmental factors that contribute to, or hinder, strategic success. The core purpose is to ensure that all organizational activities are aligned with and actively contribute to the overarching strategic direction, enabling timely adjustments and continuous improvement."

Bryson and George (2020) stated that "Strategic performance evaluation serves as a critical control mechanism, providing feedback on the efficacy of strategic choices and their implementation. It involves the systematic collection and analysis of performance data across multiple dimensions to determine whether the organization is on track to achieve its strategic objectives, learn from deviations, and adapt its strategies and operations in response to internal and external changes. This evaluative process is integral to strategic learning and organizational agility."

Kaplan and Norton (1996) defined strategic performance evaluation as the executive function concerned with critically appraising the outcomes of strategic decisions and the overall effectiveness of the strategic management process. It provides the necessary intelligence to make informed decisions regarding resource allocation, strategic adjustments, and future strategic planning. This evaluation process assesses both the efficiency and effectiveness of how an organization leverages its resources and capabilities to realize its strategic vision.

Strategic Planning Dimension

Strategic planning is the overall planning that facilitates the good management of a process and takes you outside the day- to-day activities of an organisation or project. It provides big picture of what is to be done and achieved. It requires careful planning to set it up so that the process is thorough and comprehensive (Bryson & George, 2020).

Performance Management Dimension

Performance management is the systematic process by which an agency involves its employees, as individuals and members of a group, in improving organizational effectiveness in the accomplishment of agency mission and goals. Employee performance management includes: planning work and setting expectations, monitoring performance regularly, developing the capacity to perform, rating performance in a summary fashion periodically, and rewarding good performance (Aguinis, 2013)..

Related Previous Studies

Rafiq et al. (2020) investigates a crucial link between the implementation of the BSC as a strategic management system and an organization's pursuit of sustainable development. The results showed that the BSC, when used strategically, could lead to improved sustainable development. The study suggests that integrating the BSC into an organization's strategic management can be a valuable approach for organizations aiming to improve both their financial and non-financial performance, including their commitment to sustainable practices. It highlights the BSC's role as a holistic framework for linking strategy to tangible outcomes, including broader societal and environmental goals.

Alshammari (2023) investigates the impact of the BSC on strategic performance, specifically within the context of small and medium enterprises. The study suggests that BSC implementation can lead to improvements of both employees and overall organizational performance. This typically involves looking at a broader set of performance indicators than just financial ones.

Marwa and Ramzi (2024) found a statistically important relationship between BSC implementation and Strategic performance evaluation SPE in Algeria. Salim and Yazid (2024) showed a statistically important and good influence of BSC implementation on Strategic performance evaluation SPE in the Algerian

manufacturing companies. Zarafili and Al-Bashabsheh (2023) explores the impact of implementing BSC with its four dimensions (the financial dimension, the internal operations dimension, the customer dimension, and the learning and growth dimension). The results showed a statistically important effect at the significance level ($\alpha \leq 0.05$) in obtaining good performance of small and medium-sized enterprises (SMEs) in Saudi Arabia. good

Al-Atwi (2024) proved the impact of SBC in obtaining strategic performance evaluation SPE in Saudi industrial companies on a sample of 210 employees. Theeb and Dadan (2021) revealed a highly significant effect of dimensions of BSC on strategic performance evaluation of Algiers food industry companies.

Furthermore, Ezebor el at. (2024) showed a significant positive effect of BSC practices on the Strategic performance evaluation of Nigeria firms companies. Similarly, Al-Ain and Abdullah (2015) highlighted an impact between applying the various dimensions of the balanced scorecard and strategic performance evaluation of Saudi Joint Stock Industrial Companies. Jarrah (2014) showed that the performance evaluation using the BSC dimensions (financial dimension, customer dimension, internal operations dimension, innovation and learning dimension) in public shareholding food industries companies in Jordan has become necessary in order to integrate into an integrated strategic planning to maintain the current global competitiveness .In the same regard, AL-Azzam el at. (2023) revealed that information technology mediates the relationship between BSC practices and evaluating the strategic performance. Finally, Al-Bashari el at. (2018) demonstrated a statistically important positive effect of each dimension of BSC and strategic performance evaluation in the Yemeni business sector.

To sum up, the literature review shows that BSC is critical in strategic performance evaluation through its practices such as the financial dimension, the customer dimension, the internal operations dimension, the learning and growth dimension, the environment and society dimension, and the risk dimension. BSC practices are essential in achieving PSE and developing solutions and are one of the best ways to improve the performance of enterprise.

Study Hypothesis

This study aims to identify the impact of applying the BSC on strategic performance evaluation in the Yemeni Industrial Companies. Based on the review of previous theoretical literature, this study formulates the following hypotheses:

Main hypotheses:

There is a statistically significant positive impact of BSC practices on PSE at $\alpha \leq 0.05$ in the industrial companies.

Sub-hypotheses

H1: There is a statistically significant positive impact of financial dimension on PSE at $\alpha \leq 0.05$ in the industrial companies.

H2: There is a statistically significant positive impact of customer dimension on PSE at $\alpha \leq 0.05$ in the industrial companies operating in Yemen.

H3: There is a statistically significant positive impact of internal operations on PSE at $\alpha \leq 0.05$ in the industrial companies operating in Yemen.

H4: There is a statistically significant positive impact of learning and growth dimension on PSE at $\alpha \leq 0.05$ in the industrial companies operating in Yemen.

H5: There is a statistically significant positive impact of the environment and society dimension on PCM at $\alpha \leq 0.05$ in the industrial companies operating in Yemen.

H6: There is a statistically significant positive impact of the risk dimension on PSE at $\alpha \leq 0.05$ in the industrial companies operating in Yemen.

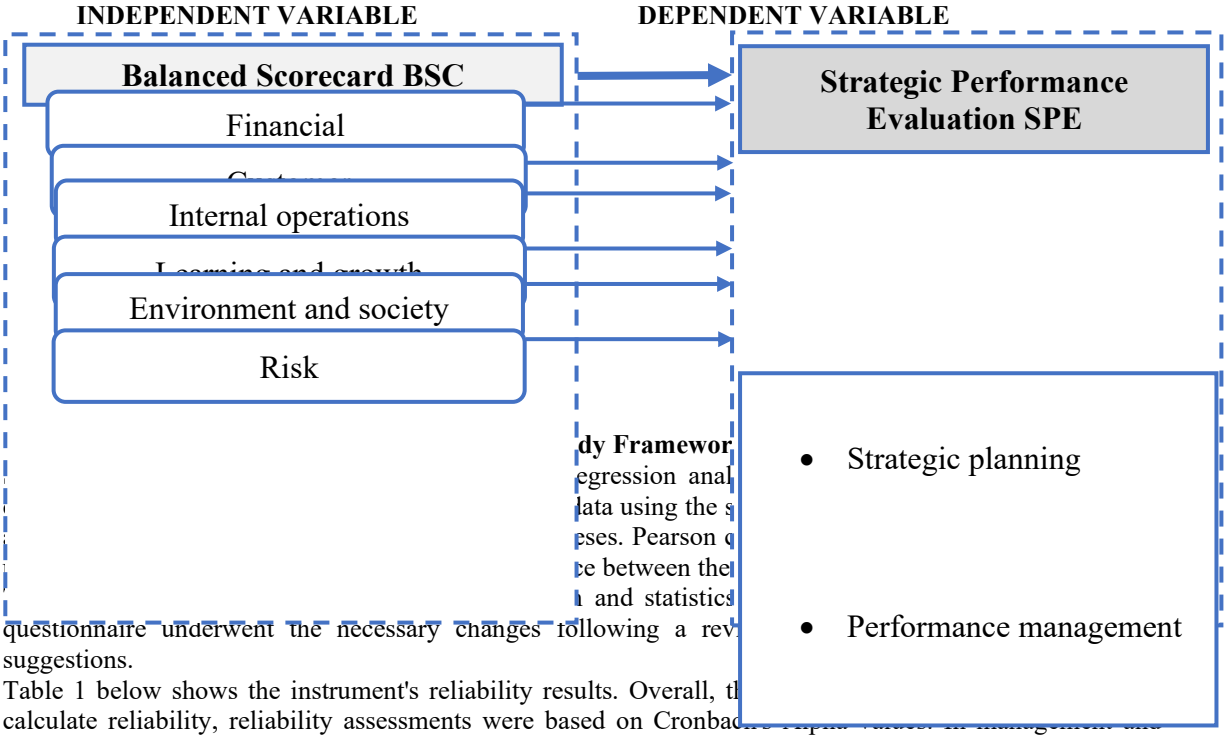
METHODOLOGY

Based on the current objectives, this study used the descriptive analytical approach as it is among the most appropriate methods employed in the administrative and social sciences. The study population included 26 companies operating in Yemen. These targeted industrial companies are affiliated with the Hayel Saeed Anam Group, with a total of 314 employees holding positions such as general manager, deputy general manager, department manager, section head, supervisor, and specialist because they are the ones with the authority to make decisions related to BSC and SPE. They also have sufficient experience that can be used in the field of this study. According to the small size of the study population, all members of the study population were selected as a sample using the comprehensive enumeration method. This approach ensures that the data collected is comprehensive and reflective of the perspectives of all relevant stakeholders. Therefore, 314

questionnaires were distributed to the members of the study sample, and 281 questionnaires were valid for analysis, representing 89% of the distributed ones. The questionnaire consisted of two main parts. The first part included questions that measured the dependent variable (PSE) and was based on Kahit el at. (2024), Saleh & Plaska (2021), and Al-Saadi & Al-Dumai (2023). The second part measured the independent variable (BSC) with its dimensions (financial, customer, internal operations, learning and growth, environment and society, risk) and it was based on Marwa and Ramzi (2024). The questionnaire consisted of a seven-point Likert scale.

STUDY FRAMEWORK

Figure 1 below explains the framework of this study. The independent variable includes balanced scorecard BSC across six dimensions: financial, customer, internal operations, learning and growth, environment and society, risk. The dependent variable includes strategic performance evaluation SPE across two dimensions: Strategic planning and performance management.



questionnaire underwent the necessary changes following a rev
suggestions.

Table 1 below shows the instrument's reliability results. Overall, t
calculate reliability, reliability assessments were based on Cronba
humanities studies (Sekaran & Bougie, 2016), acceptable values of alpha ≥ 0.60 are essentially reasonable.

Table 1. Cronbach's Alpha for Study Dimensions

Dimensions	Number of cases	No. of items	Alpha
Overall dimensions	281	52	888.0
Balanced Scorecard BSC	281	34	98.0
Financial	281	6	945.0
Customer	281	4	0.920
Internal operations	281	7	0.952
Learning and growth	281	6	0.969
Environment and society	281	6	0.957
Risk	281	5	0.952
Strategic Performance Evaluation SPE	281	6	0.953
Strategic planning	281	3	0.948

Dimensions	Number of cases	No. of items	Alpha
Performance management	281	3	0.958

According to Cronbach's Alpha Coefficient range of 0.920 to 0.969, the research tool is able to achieve its objectives and typically has a high stability coefficient.

STUDY RESULTS

Table 2. Standard Deviations and Means of BSC Practices and PSE

Dimension	Mean	SD	Degree. of Consent	Availability Level
Financial	5.27	1.36	75%	Fairly high
Customer	5.39	1.37	77%	High
Internal operations	5.41	1.34	77%	High
Learning and growth	5.32	1.45	76%	High
Environment and society	5.30	1.41	76%	High
Risk	5.34	1.44	76%	High
Balanced Scorecard BSC	5.34	1.32	76%	High
Strategic Performance Evaluation SPE	5.36	1.50	76%	High
Strategic planning	5.40	1.49	77%	High
Performance management	5.33	1.52	76%	High

As can be seen from Table 2 above, the level of application of BSC in the industrial companies is high, with a mean of 5.34 and a standard deviation of 1.32. This indicates that respondents' answers regarding BSC practices are relatively convergent. Put differently, there is general agreement on how to apply these practices.

Moreover, Table 2 shows that the level of PSE in the industrial companies under study is high, with a mean of 5.36 and a standard deviation of 1.50, indicating that the participants' responses regarding PSE were similar. In addition, the mean scores for the dimensions of BSC practices ranged from 5.27 to 5.41. The internal operations dimension had the highest score, with a high level of application, an average of 5.41, and a standard deviation of 1.34. The customer dimension, which had a high degree of application and a mean of 5.39, with a standard deviation of 1.37, came next. Then the risk dimension came with a high degree of application with a mean of 5.34 and a standard deviation of 0.536, came next. Then the learning and growth dimension came with a high degree of application with a mean of 5.32 and a standard deviation of 1.45, came next. Then the environment and society dimension came with a high degree of application with a mean of 5.30 and a standard deviation of 1.41. Finally, the financial dimension received the lowest score, with a mean of 5.27, a standard deviation of 1.36, and a fairly degree of application.

Furthermore, the mean scores for the dimensions of SPE ranged from 5.33 to 5.40. The strategic planning dimension had the highest score, with a high level of application, an average of 5.40, and a standard deviation of 1.49. Finally, the Performance management dimension received the lowest score, with a mean of 5.33, a standard deviation of 1.52, and a high degree of application.

The study used simple linear regression to test the first hypothesis as illustrated in Table 3 below.

Table 3. Simple Linear Regression for the First Hypotheses

Model	R	R^2	F. Test	Sig.	Beta	T. Test	Sig.	Hypotheses result
Simple linear regression	.905	.820	860.020	0.000	.935	29.326	0.000	Accepted

The correlation coefficient is R (0.905), while the coefficient of determination R^2 explains (0. 820) the variations in PSE. This indicates that 82% of the level of realization of PSE is due to the interest in the application of information technology in industrial enterprises (the subject of the study). The value of the regression coefficient beta was (0. 935), which means that, assuming the neutralization of the rest of the variables that were not studied, a one-degree increase in the application of BSC practices will lead to an increase of (93.5%) in the achievement of PSE. The significance of this effect is confirmed by the F-value of (860.020), which is statistically significant at the (0.05) level of significance. This indicates that BSC practices have a statistically significant impact on PSE in the industrial companies in Yemen; therefore, the first hypothesis is acceptable.

As indicated in Table 4, multiple linear regressions were utilized to test the presence of a statistically significant effect in order to evaluate the second, third, fourth, and fifth, sixth and seventh hypotheses.

Table 4. Multiple Linear Regression for the Second, Third, Fourth, and Fifth Hypotheses

Model	R	R^2	F. Test	Sig.	Beta	T. Test	P-Value	VIF	Tolerance	Hypotheses result
Financial	.929	.863	192.88	.000	-.090	-1.219	.224	7.414	.135	Rejected
Customer					.019	.283	.777	6.019	.166	Rejected
Internal operations					.206	2.440	.000	9.370	.107	Accepted
Learning and growth					.063	.748	.455	9.329	.108	Rejected
Environment and society					.329	3.751	.000	9. 265	.109	Accepted
Risk					.398	6.220	.000	6.193	.161	Accepted

Furthermore, looking at Table 4 above, there is a statistically significant impact of BSC practices with their combined dimensions (financial, customer, internal operations, learning and growth, environment and society, risk) on SPE. The multiple correlation coefficient R is (0.929), and the multiple determination coefficient R^2 is (0.863), which indicates that BSC practices with their combined dimensions (financial, customer, internal operations, learning and growth, environment and society, risk) reached (86%) of the variance or changes in SPE. The significance of this result is confirmed by an F-value of (192.88), which is statistically significant at the (0.05) level of significance.

Based on the ranking of the direct effects of the independent variables on PSE, it is found that the risk dimension has the highest impact, followed by the environment and society and internal operations dimension, while the customer and financial dimensions are unaffected.

As the lowest value of the variance ratio is equal to (0.107), which is greater than (0.1), there is no problem with covariance as shown in Table 4 above. It is clear that the highest value of the variance inflation factor

(VIF) is equal to 9.3, which is less than the default value due to the problem of multiple covariances (10). This result indicates that there is no overlap between the dimensions of BSC practices in their impact on PSE. Consequently, the multiple linear regression test can be used to test the second, third, fourth, and fifth hypotheses, which were tested as follows:

H1: There is no statistically significant effect of financial on PSE, where the value of the regression coefficient Beta is (-0.090), and the T-value is (-1.219), which is not statistically significant, as its corresponding significance level is (0.224), which is greater than the significance level of (0.05). Consequently, the second hypothesis is disproved.

H2 There is no statistically significant effect of customer on PSE, where the value of the regression coefficient Beta is (0.019), and the T-value is (0.283), which is not statistically significant, as its corresponding significance level is (0.224), which is greater than the significance level of (0.05). Consequently, the third hypothesis is disproved.

H3 There is a positive and statistically significant effect of Internal operations on SPE, where the value of the regression coefficient Beta is (0.206). This means that, assuming that the rest of the variables not studied remain constant, a one-degree increase in Internal operations practices will lead to an increase of 19.5% in the achievement of SPE. Since the T-value of (2.440) is statistically significant at the (0.05) level of significance, the significance of this finding is confirmed, and the fourth hypothesis is accepted.

H4 There is no statistically significant effect of learning and growth on PSE, where the value of the regression coefficient Beta is (0.063), and the T-value is (0.748), which is not statistically significant, as its corresponding significance level is (0.455), which is greater than the significance level of (0.05). Consequently, the fifth hypothesis is disproved.

H5 There is a positive and statistically significant effect of environment and society on SPE, where the value of the regression coefficient Beta is (0.329). This means that, assuming that the rest of the variables not studied remain constant, a one-degree increase in environment and society practices will lead to an increase of 32.9% in the achievement of SPE. Since the T-value of (3.751) is statistically significant at the (0.05) level of significance, the significance of this finding is confirmed, and the sixth hypothesis is accepted.

H6 There is a statistically significant impact of risk on SPE, when the value of the regression coefficient Beta reached (0.398). This means that, assuming that the rest of the variables not studied remain constant, a one-degree increase in the practice of risk will lead to an increase of 39.8% in the achievement of SPE. This result's significance is verified by the T-value of (6.220), which is statistically significant at the (0.05) level of significance. Thus, the seventh hypothesis is accepted.

DISCUSSION

Based on the results of the current study, it is clear that the level of BSC in the Yemeni industrial companies was high with a mean of 5.34 and a standard deviation of 1.32. Based on the results, the surveyed industrial companies are highly committed to implementing balanced scorecard BSC. Consequently, it is clear according to the views of respondents that the industrial companies are working in an unstable environment due to the ongoing war in the country. As a result, the industrial companies strive to adapt to the challenges they face because of the war, such as shortages of raw materials, fluctuations in exchange rates, and transport difficulties. Perhaps these practices provide a safety net, helping the surveyed industrial companies continue operating. Further, the implementation of BSC practices becomes more important than ever, as it helps the surveyed industrial companies anticipate changes, manage risks, improve efficiency, and thereby achieve SPE.

Additionally, the level of in strategic performance evaluation in in the Yemeni industrial companies is high, where the mean was 5.36 and the standard deviation was 1.50. This result is supported by Muhammad and Fanous (2021), and Theeb and Dadan (2020). Based on the results, the surveyed industrial companies make great efforts to apply BSC and this requires a set of practices and procedures to achieve competitive superiority in the market. Therefore, this result is reasonable due to participants' comments and need to survive, compete, and rapidly respond to changes, which has become an urgent necessity to ensure the survival of industrial companies in the market and the ability to compete with other companies in the same area or region.

Concerning BSC, industrial companies are encouraged to invest in making their operations more efficient and productive, developing new products and services, and exploring new markets. This helps improve the competitive strength of industrial companies.

Furthermore, the results of this study show that a significant positive impact of BSC practices on SPE reached 86% of the variation in BSC. Marwa and Ramzi (2024), and Alim and Yazid (2023) support this result. Based on the results, SPE of the industrial companies improve in terms of strategic planning, and performance management by BSC practices.

The first hypothesis showed a non-significant positive impact of financial on SPE in industrial companies under study.

Although financial are a crucial dimension of BSC, the lack of influence that financial had on SPE in industrial companies can be explained by the existence of organizational-regulatory and environmental variables as well as external factors like market or competition changes. This result can also be interpreted as these companies may need to reassess their strategies, focusing on financial, and seek new ways to improve their performance to achieve their SPE.

In the same regard, the second hypothesis showed a non-significant positive impact of customers on SPE in industrial companies under study.

Although customers are a crucial dimension of BSC, the lack of influence that customers had on PSE in industrial companies can be attributed to the existence of organizational-regulatory and environmental variables as well as external factors like market or competition changes. This result can also be interpreted as these companies may need to reassess their strategies, focusing on customers, and seek new ways to enhance customer and improve their performance to achieve their SPE.

The second hypothesis's findings presented a significant positive impact of internal operations on SPE in industrial companies under study. This result is backed up by Muhammad and Fanous (2021) and Theeb and Dadan (2021).

Thus, these results show that these companies are keen to manage their production processes effectively by facilitating and exchanging information among departments to solve issues and create suitable solutions for the elimination of pointless procedures and activities. This could be achieved through controlling activities and processes to ensure the quality of products and customer satisfaction, thereby achieving their SPE to a high degree.

According to the findings, the fourth hypothesis showed a non-significant positive impact of learning and growth SPE in industrial companies under study.

Although learning and growth are a crucial dimension of balanced scorecard BSC, the lack of influence that learning and growth had on SPE in industrial companies SPE and can be attributed to the existence of organizational-regulatory and environmental variables as well as external factors like market or competition changes. This result can also be interpreted as these companies may need to reassess their strategies, focusing on learning and growth, and seek new ways to improve their performance to achieve their SPE.

The fifth hypothesis's findings presented a significant positive impact of environment and society on SPE in industrial companies under study.

Thus, the results display that these companies are keen to manage their environment and society effectively by facilitating and exchanging information among society to solve issues of environment and society and create suitable solutions for the elimination of pointless procedures and activities. This is achieved through controlling activities and processes of environment and society to ensure the quality of products and customer satisfaction.

The sixth hypothesis's findings presented a significant positive impact of risk on PSE in industrial companies under study.

Thus, the results display that these companies are keen to manage their risks effectively by facilitating and exchanging information among departments to solve issues and create suitable solutions for the elimination of pointless procedures and activities. This is achieved through controlling activities and processes to ensure there is no any risks in their companies, and preparing for those risks and developing appropriate solutions to them and transforming them from a threat into an opportunity.

To sum up, the current study deals with Yemeni industrial companies. Future studies may deal with different industrial sectors such as pharmaceuticals, food, and petrochemicals. In addition, future studies may look at the effect of the use of modern technology, such as enterprise resource planning systems of a firm on strategic performance evaluation. Comparing Yemeni industrial companies with companies from other countries, which are at par economically and politically with Yemen, for example, GCC or North African countries, will help in the identification of gaps in SPE and highlight the best practices in the global balanced scorecard (BSC) that could be adopted.

CONCLUSION

The purpose of the study was to investigate the level of BSC practices and SPE as well as to determine the effect of BSC practices across their dimensions (financial, customer, internal operations, learning and growth, environment and society, risk) on strategic performance evaluation SPE at the industrial companies in Yemen.

Besides, the results pointed out that the level of application of BSC is very high, with the risk ranked first, and followed by environment and society, internal operations, learning and growth, customer, and lastly, financial, which remain below the significant level in spite of their importance. The priorities of strategic performance evaluation were high , where the quality dimension ranked first, followed by strategic planning dimension and Performance management dimension highlighting the requirements to improve creativity and rapid response.

The study also revealed a statistically significant impact of BSC practices on SPE at the industrial companies in Yemen. Likewise, risk, environment and society and internal operations affect SPE. In contrast, financial, customer and learning and growth do not influence SPE.

Finally, it recommends achieving integration among all dimensions of BSC, as they are interconnected, and each dimension depends on the others to ensure a direct and effective impact for all these dimensions in achieving SPE for the industrial companies in Yemen. The study also recommends improving and developing relationships with suppliers through enhancing collaboration and building long-term strategic partnerships to improve and elevate the level of strategic performance.

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