

A Systematic Literature Review: The Role of Balanced Scorecard in Performance Measurement for Corporate Sustainability

Asri Usman^{1*}, Mediaty², Nadhilah Amaliah Liwan³, Oktavia Nindita⁴
Universitas Hasanuddin, Fakultas Ekonomi dan Bisnis, Makassar

Corresponding Author: Asri Usman asriusman@unhas.ac.id

ARTICLE INFO

Keywords: Balanced Scorecard, Performance, Systematic Literature Review

Received : 10, October

Revised : 12, November

Accepted: 14, December

©2023 Usman, Mediaty, Liwan, Nindita: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This research aims to improve sustainable business performance through Balanced Scorecard (BSC) with a systematic literature review method from 2018 to 2022, using Watase Uake, which resulted in 28 selected articles. BSC has proven to be strategic in improving the holistic performance of companies, covering 4 main perspectives: financial, customer, development and growth, and internal process. The internal process perspective was more influential in strategizing to measure company performance, followed by the training and development perspective, and then the customer and financial perspectives. The four perspectives of performance measurement using the balanced scorecard are interrelated so that the internal process makes improvements in the learning and development perspective, which in turn leads to finance by bringing benefits to customer satisfaction.

INTRODUCTION

In an increasingly complex and dynamic business era, organizations are required to have a holistic and adaptive strategic management approach. The rapidly changing global market requires companies to be able to effectively measure and improve their performance (Suárez-Gargallo & Zaragoza-Sáez, 2023). Knowledge is considered to be the ultimate power, and companies that understand the extent of their goal achievement have a significant advantage. These companies seek innovation to increase productivity through better performance, differentiation, creation of new products, and high quality in the products and services provided (Islam et al., 2018; Quesado et al., 2022). Innovative technologies and sophisticated production methods emerge as technology advances, competition increases, and customer demands intensify. The Balanced Scorecard (BSC) is emerging as one of the most widely adopted strategic performance management systems (Quesado et al., 2022). Initially, business management tended to focus attention on financial metrics (Sayed et al., 2021). However, BSC changes this paradigm by involving four additional perspectives: customer, internal business processes, learning and growth, and financial perspectives (Zand et al., 2018) This allows companies to track metrics in a broader and proactive dimension, so that management can take corrective measures before the full financial impact is felt (Goldstein, 2022).

BSC helps create a common and comprehensive reference point for all employees and business units of the organization (Mehralian et al., 2018). Its use in various sectors, including non-private and government units, has grown over time (Mio et al., 2022). Nonetheless, limited knowledge regarding how these organizations overcome challenges in the development and implementation of their BSC is still an obstacle (Handoko et al., 2021). The importance of BSC implementation in the context of strategic management continues to grow, especially in following the global trend towards sustainable development (Jami Pour & Asarian, 2019). Organizations are directed to demonstrate their efforts through instruments such as corporate governance, corporate social responsibility, and environmental management. BSC, as a comprehensive strategic performance management tool, helps educational institutions serve their mission with a focus on strategy through the provision of a balanced performance system. It includes operational measures such as customer satisfaction, innovation, learning, and internal process activities that are key drivers of future financial performance (Coskun & Nizaeva, 2023).

LITERATUR REVIEW

Balanced Scorecard

The Balanced Scorecard (BSC) is a performance management tool developed by Kaplan and Norton in the early 1990s (Taamneh et al., 2018). Its function is to help organizations translate vision and strategy into operational actions (Albuhisi & Abdallah, 2018). BSC uses interrelated financial and non- financial performance indicators, creating a comprehensive cause-and-effect relationship (Alsharari et al., 2019). There are four main perspectives in BSC, namely finance, customer, internal processes, and learning and growth. The finance perspective evaluates financial performance, the customer perspective identifies target markets and segments while measuring the success of these segments. Internal processes focuses on improving internal processes that help achieve organizational goals, while the learning and growth perspective focuses on improving internal processes that help achieve organizational goals, emphasizes adaptation, innovation, employee development, and mastery of technology (Sayed et al., 2021; Alsharari et al., 2019). The main purpose of BSC is to create a shared understanding of the organization's vision and strategy, ensuring consistent contributions from each level and function towards long-term goals (Anggitaningsih et al., 2022). By using indicators from these four perspectives, organizations can measure performance holistically, not only based on financial aspects, but also taking into account other critical aspects that contribute to sustainability and growth (Albuhisi & Abdallah, 2018).

Employee Performance

Employee performance is an assessment of how someone completes their work, referring to certain provisions that apply to a job. This includes adherence to regulations, performing tasks without errors or with a minimum number of errors, and accuracy in carrying out tasks (Albuhisi & Abdallah, 2018). Aspects of employee performance also involve work results, the ability to obtain the necessary information, timeliness in completing tasks, responsibility, and cooperation with others (Anggitaningsih et al., 2022). Employee performance is seen from the results of work in terms of quality and quantity in accordance with the responsibilities given. Performance also involves working time, cooperation, and achieving organizational goals. In conclusion, employee performance can be measured by comparing the results of their work with predetermined standards, both in terms of quality and quantity, in accordance with their responsibilities (Taamneh et al., 2018).

Strategic management

Strategic management is gaining more and more important attention in the face of competitive and dynamically changing markets. The new view emphasizes that profit is not the only goal of organizations. Today, profit should be the result of correct and sustainable actions. Awareness of common interests with society and the limits of economic growth to preserve resources are the determining factors in which managers must operate (Sayed et al., 2021).

The importance of monitoring and interpreting the organization's environment, both internal and external, creates the basis for the development of the company's strategic posture (Lucianetti et al., 2019). The value statement, vision, mission, and strategic objectives become the foundation for determining the overall business strategy (Córdova-Aguirre & Ramón-Jerónimo, 2021). The strategic management process not only includes planning, organizing, executing, and controlling business activities, but also highlights the implementation and strategic control phases (Janaki, 2019). This entire process is fundamental in achieving the goals that have been proposed by the company. Therefore, managers need to not only understand, but also actively engage in the process of developing, implementing, and controlling strategic plans, strategic control to ensure the long-term success of the company in this competitive and dynamic market (Mio et al., 2022). Strategic management is becoming increasingly important in the face of competitive and dynamically changing markets. New views and paradigms emphasize that profit is not the only goal of an organization. Today, profit should be the result of right and sustainable actions. The awareness of common interests with society as well as the limits of economic growth to preserve resources define the context in which managers must operate (Sayed et al., 2021).

METHODOLOGY

The method used in this research is the Systematic Literature Review (SLR) method with the help of Watase Uake to assist in the search. This method takes an approach that can identify, review, select, evaluate, and interpret research journal articles that are relevant to a particular research question, topic, or phenomenon. SLR aims to present an objective evaluation of a research theme using a reliable methodology. The stages in conducting a systematic literature review are as follows.

Research Question

The first step in carrying out SLR is to clearly formulate the research question to define the scope and avoid ambiguity. Research questions are formulated from the subject matter to be researched. In this study, we seek to provide a deeper understanding of the following two research questions:

- RQ 1: What are the indicators of each Balanced Scorecard (BSC) perspective in measuring performance in a company?
 RQ 2: What is the role of Balanced Scorecard (BSC) in measuring performance in a company?

Searching for the Literature

The collection of articles or journals is done by using a tool, Watase Uake, to assist in the search. Watase Uake is an online system designed to conduct research collaboration between researchers. This system was initiated in 2018 and began to be developed by involving researchers from several universities in 2020. Watase.web.id was created with the aim of facilitating researchers in conducting joint research (collaborative research). Searching for articles with related topics is done using the keywords "the role balanced scorecard, performance".

Selection Criteria

From the search using Watase Uake, 251 articles were obtained. There are 2 criteria for selecting articles: inclusion criteria are criteria that are adjusted, and exclusion criteria are criteria that are not included or excluded. The exclusion criteria of this study are articles published from 2018 to 2023 so that 251 articles are obtained. Furthermore, from the screening results there were 173 articles that did not enter the period and were not indexed Q1, Q2, Q3, Q4. After going through the identification and screening stages, 28 articles were included.

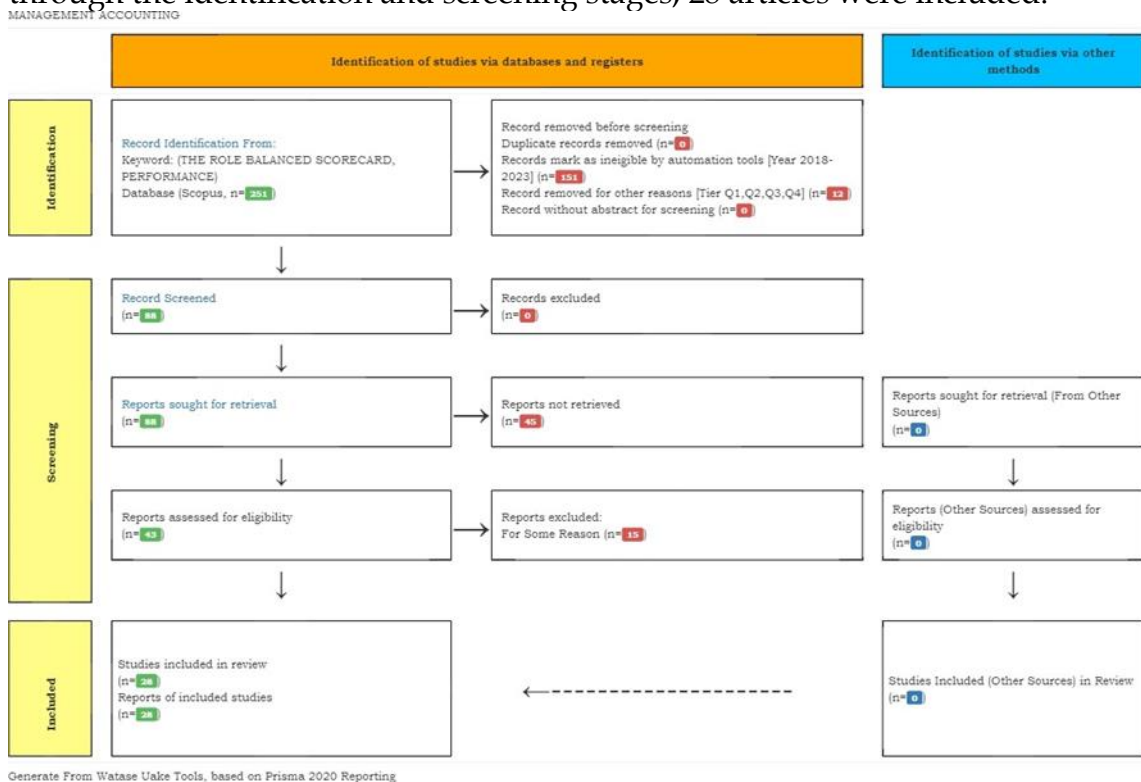


Figure 1. Diagram PRISMA

RESEARCH RESULT

This study examines several indicators in the use of the Balanced Scorecard which can be a measuring tool to analyze the mission of the organization by being realized in developing a good strategy to realize goals, actions and measure company performance (Alsharari et al., 2019). Huang (2009), developed a Balanced Scorecard (BSC) system to support strategic planning that selects management strategies for company operations based on four perspectives, namely learning and growth, internal business processes, customers, and finance. With the Balanced Scorecard (BSC) can help companies to carry out their business strategic plans more effectively and efficiently for sustainability company. The following data table 1 represents a more complete explanation of the literature used as material for analysis.

Table 1. Journal Classification

No.	Authors Name	Company Type/ Organization	Journal Publisher	Quartile
1.	Sanchez- Marquez et al., (2018)	Manufacturing Company	Elsevier	Q1
2.	(Zand et al., 2018)	Company Software	John Wiley and Sons Ltd	Q2
3.	(Sayed et al., 2021)	Environmental Consulting Firms	Emerald	Q2
4.	(Hudnurkar et al., 2018)	Manufacturing Company	Emerald	Q2
5.	(Albuhisi & Abdallah, 2018)	Manufacturing Company	Emerald	Q2
6.	(Taamneh et al., 2018)	Banking	Emerald	Q2
7.	(Alsharari et al., 2019)	Telecommunications, Manufacturing, Financial and Services Sectors	Emerald	Q2
8.	(Ndevu & Muller, 2018)	Public Sector	AOSIS	Q3
9.	(Islam et al., 2018)	Multinational Company	Emerald	Q1
10.	(Jami Pour & Asarian, 2019)	SMEs	Emerald	Q2
11.	(Bin Haji Rashid & Haji Said, 2018)	Public Sector	Inderscience Enterprises	Q4
12.	(Nicoletti Junior et al., 2018)	Manufacturing Company	Elsevier	Q1

13.	(Mehralian et al., 2018)	Manufacturing Company	Emerald	Q1
14.	(Alani et al., 2018)	University	Emerald	Q2
15.	(Essawy et al., 2019)	Manufacturing Company	Inderscience Enterprises	Q3
16.	(Kuiate & Noland, 2019)	Manufacturing Company	Emerald	Q2
17.	(Lucianetti et al., 2019)	Multinational Company	Emerald	Q1
18.	(Wu et al., 2019)	Multinational Company	Emerald	Q2
19.	(Amaladhasan et al., 2019)	Multinational Company	Inderscience Enterprises	Q2
20.	(Valmohammadi et al., 2019)	Manufacturing Company	MDPI	Q2
21.	(Ritchie et al., 2019)	Hospital	Taylor and Francis	Q3
22.	(Asiaei & Bontis, 2020)	Multinational Company	Emerald	Q2
23.	(Sanchez-Marquez et al., 2020b)	Manufacturing Company	Elsevier	Q1
24.	(Sakrabani & Teoh, 2021)	Retail Business	Emerald	Q1
25.	(Karasneh, 2020)	Manufacturing Company	John Wiley and Sons Ltd	Q3
26.	(Lim & Ok, 2021)	Tourism Companies and Hospitality	Elsevier	Q1
27.	(Amos et al., 2021)	Services Health	Elsevier	Q1
28.	(Anggitaningsih et al., 2022)	Banking	SRAC	Q4

Table 1 illustrates the final results of the search using the watase wake web application as a tool to search for literature that matches the topic of this research. The results of the literature search were used to answer the request question research. Articles were grouped according to company type, journal publisher, and journal quartile rank.

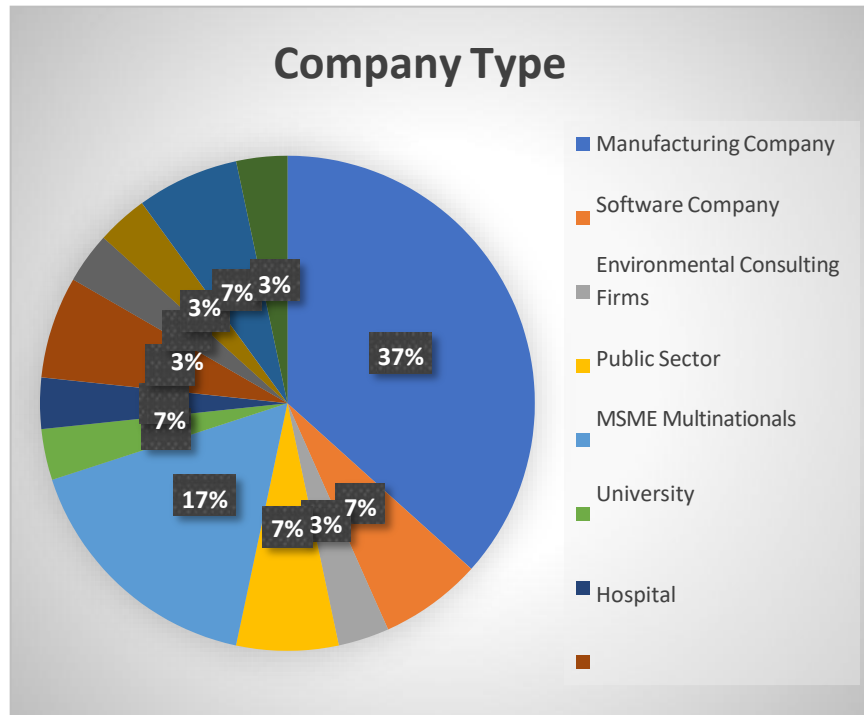


Figure 2. Company Type

Based on figure 2, it explains that the 28 articles that passed the most examining the Balanced scorecard measuring tool are manufacturing sector companies with 11 articles followed by multinational companies with 5 articles then software companies, public sector, hospitals and banking with 2 articles each and finally university level, retail business, service companies and tourism with 1 journal each.

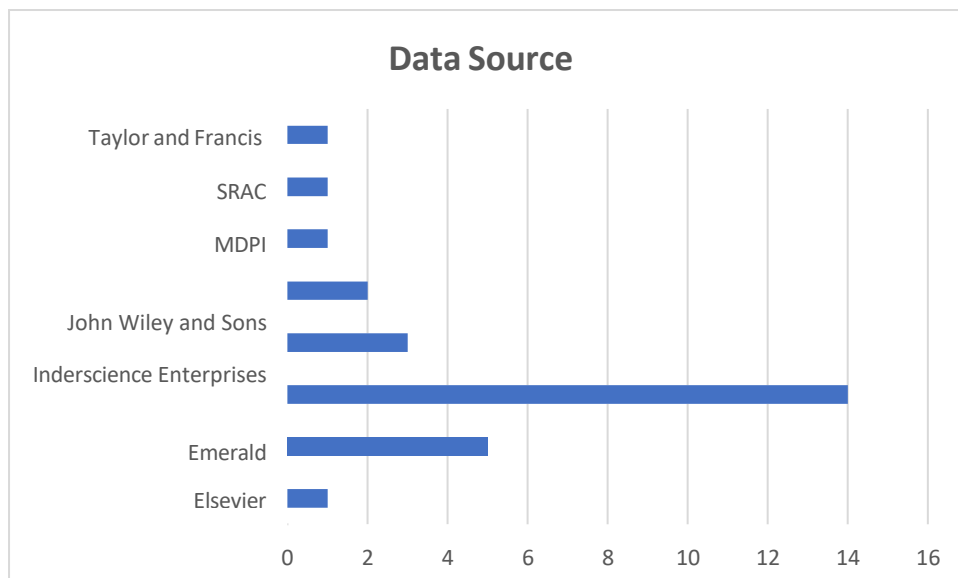


Figure 3. Data Source

Based on table 1 and clarified in figure 2 that the search results for articles relevant to this study mostly come from Emerald as many as 14 articles, 5 articles from Elsevier, 3 articles from Inderscience Enterprise, 2 articles from John Wiley and Sons ltd and 1 article each from SRAC, MDPI, and AOSIS.

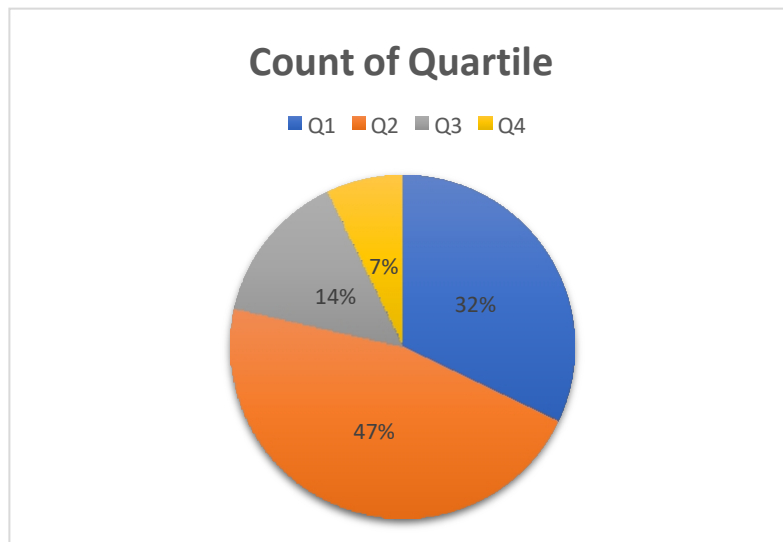


Figure 4. Quartile Types

Based on figure 4, we can see that the type of quartile that contributes the most to the systematic literature review of this research is Q2 is in the first position with 13 articles, followed by Q1 with 9 articles and Q3 with 4 articles and Q4 with 2 articles.

DISCUSSION

RQ1: What are the indicators of each Balanced Scorecard (BSC) perspective in measuring performance in a company?

Tabel.2 The Indicators of Each Balanced Scorecard (BSC)

No.	Indicator	Description
1.	Finance	<ul style="list-style-type: none"> • Sufficient Funds (Alani et al., 2018) • Save costs (Amaladhasan et al., 2019; Sanchez-Marquez et al., 2018) • Operating income growth (Amaladhasan et al., 2019; Essawy et al., 2019; Sayed et al., 2021) • Product price (Jami Pour & Asarian, 2019)(Hudnurkar et al., 2018; Jami Pour & Asarian, 2019) • Determining payment (Hudnurkar et al., 2018) • Audit (Hudnurkar et al., 2018)

		<ul style="list-style-type: none"> • Increased sales (Albuhisi & Abdallah, 2018; Jami Pour & Asarian, 2019) • Increase market share (Albuhisi & Abdallah, 2018; Lucianetti et al., 2019; Nicoletti Junior et al., 2018) • Human resource management (Taamneh et al., 2018) • Increase in profit (Taamneh et al., 2018) • Investment (ROI, ROA, dan Cash Flow) (Jami Pour & Asarian, 2019; Taamneh et al., 2018) • Long-term and short-term financial performance (Alsharari et al., 2019) • Tax rate (Ndevu & Muller, 2018) • Government Funding (Ndevu & Muller, 2018) • Socio-economic planning and development (Ndevu & Muller, 2018) • Profitability (Nicoletti Junior et al., 2018) • Social Investment (Nicoletti Junior et al., 2018) • Environmental Investment (Nicoletti Junior et al., 2018) • Investment (Alani et al., 2018) • Grant (Alani et al., 2018) • Budget approval (Alani et al., 2018) • Risk management (Kuiate & Noland, 2019) • Operating costs (Amaladhasan et al., 2019) • Operational efficiency (Amaladhasan et al., 2019)
2.	Customer	<ul style="list-style-type: none"> • Customer satisfaction (Alani et al., 2018; Albuhisi & Abdallah, 2018; Alsharari et al., 2019; Amaladhasan et al., 2019; Karasneh, 2020; Lim & Ok, 2021; Lucianetti et al., 2019; Mehralian et al., 2018; Sakrabani & Teoh, 2021; Sanchez-Marquez et al., 2020; Ritchie et al., 2019; Wu et al., 2019; Zand et al., 2018) • Retaining customers or loyalty (Essawy et al., 2019; Jami Pour & Asarian, 2019; Sayed et al., 2021; Wu et al., 2019) • Product quality and quantity (Hudnurkar et al., 2018; Jami Pour & Asarian, 2019; Lim & Ok, 2021; Sanchez-Marquez et al., 2020; Taamneh et al., 2018) • Commitment in delivering goods (Hudnurkar et al., 2018; Taamneh et al., 2018) • Services Quality (Hudnurkar et al., 2018)

		<ul style="list-style-type: none"> • Customer reviewers (Albuhisi & Abdallah, 2018; Hudnurkar et al., 2018; Sanchez-Marquez et al., 2020) • Costumer loyalty (Albuhisi & Abdallah, 2018; Lucianetti et al., 2019) • Feedback (Alsharari et al., 2019) • Safe and healthy environment (Ndevu & Muller, 2018; Sakrabani & Teoh, 2021) • Community (Ndevu & Muller, 2018) • New costumer acquisition (Amaladhasan et al., 2019; Jami Pour & Asarian, 2019) • Meet needs customers (Jami Pour & Asarian, 2019) • Target market share (Amaladhasan et al., 2019) • Adopting technology for customers (Sakrabani & Teoh, 2021)
3.	Internal Processes	<ul style="list-style-type: none"> • Knowledge management (Asiaei & Bontis, 2020; Karasneh, 2020) • Intellectual capital (Karasneh, 2020) • Work efficiency (Amaladhasan et al., 2019) (Sanchez-Marquez et al., 2020) • On Time (Alsharari et al., 2019; Hudnurkar et al., 2018; Jami Pour & Asarian, 2019; Sanchez-Marquez et al., 2020a) • Measuring production time (Lucianetti et al., 2019; Taamneh et al., 2018) • Infrastructure upgrades (Zand et al., 2018) • Solutions and promotions for new products (Sayed et al., 2021; Valmohammadi et al., 2019) (Sayed et al., 2021) • Changes (Alsharari et al., 2019; Sayed et al., 2021) • Long-term business commitment (Hudnurkar et al., 2018). • Top management support (Alani et al., 2018; Albuhisi & Abdallah, 2018; Alsharari et al., 2019; Bin Haji Rashid & Haji Said, 2018; Hudnurkar et al., 2018; Karasneh, 2020; Lucianetti et al., 2019; Ritchie et al., 2019; Valmohammadi et al., 2019) • Improved employee performance (Albuhisi & Abdallah, 2018; Lim & Ok, 2021) • Involving employees in various fields of work (Albuhisi & Abdallah, 2018; Taamneh et al., 2018)

	<ul style="list-style-type: none">• Employee rewards (Alsharari et al., 2019; Taamneh et al., 2018)• Productivity (Jami Pour & Asarian, 2019; Lucianetti et al., 2019; Nicoletti Junior et al., 2018; Taamneh et al., 2018)• Strong planning (Alsharari et al., 2019)• Application of Ms Office (Alsharari et al., 2019)• The right informations (Alsharari et al., 2019)• Finding and solving problems (Alsharari et al., 2019; Lim & Ok, 2021; Ritchie et al., 2019; Valmohammadi et al., 2019)• Decision making (Alsharari et al., 2019)• Working in teams (Alsharari et al., 2019; Lucianetti et al., 2019; Valmohammadi et al., 2019)• Regular reporting (Alsharari et al., 2019)• Effective communications (Alsharari et al., 2019)• Transparency (Ndevu & Muller, 2018)• Fair (Ndevu & Muller, 2018)• Administration (Ndevu & Muller, 2018)• Expanding new products (Jami Pour & Asarian, 2019)• Legal action (Bin Haji Rashid & Haji Said, 2018)• Corporate Social Responsibility (Kuiate & Noland, 2019; Nicoletti Junior et al., 2018)• Employee cultural values (Mehralian et al., 2018)• Teaching and learning strategies (Alani et al., 2018)• Reducing product damage (Essawy et al., 2019)• Reduced re-work (Essawy et al., 2019)• Welfare employees (pensioners) (Kuiate & Noland, 2019)• Improving quality (Lucianetti et al., 2019)• Organizational support (Wu et al., 2019)• Product and services development (Amaladhasan et al., 2019)• Technology (Amaladhasan et al., 2019; Sakrabani & Teoh, 2021; Valmohammadi et al., 2019)• Implement standardized procedures (Ritchie et al., 2019)• Product efficiency (Sakrabani & Teoh, 2021)• Praktik human resource practices (Lim & Ok, 2021)• Organizational capability (Lim & Ok, 2021)
--	--

4.	Learning and Growth	<ul style="list-style-type: none"> • Organizational improvement (Sanchez-Marquez et al., 2018) • Employee customer-related knowledge (Asiaei & Bontis, 2020; Mehralian et al., 2018; Sanchez-Marquez et al., 2020b; Zand et al., 2018) • Organizational commitment (Lim & Ok, 2021) • Customer orientation (Zand et al., 2018) • The development of skills, techniques and also new products or innovations (Amaladhasan et al., 2019; Asiaei & Bontis, 2019; Jami Pour & Asarian, 2019; Lim & Ok, 2021; Ndevu & Muller, 2018; Sakrabani & Teoh, 2021; Sayed et al., 2021; Valmohammadi et al., 2019; Wu et al., 2019) • Collaborations with suppliers and organizations (Hudnurkar et al., 2018) • Employee training (Alani et al., 2018; Albuhihi & Abdallah, 2018; Alsharari et al., 2019; Amaladhasan et al., 2019; Jami Pour & Asarian, 2019; Lucianetti et al., 2019; Mehralian et al., 2018; Sakrabani & Teoh, 2021; Taamneh et al., 2018) • Target expansion (Alsharari et al., 2019) • Giving seminars (Alsharari et al., 2019) • Facilitate employees (Karasneh, 2020) • Developing performance standards (Alsharari et al., 2019) • External knowledge (Lim & Ok, 2021) • Employee satisfaction (Amaladhasan et al., 2019; Jami Pour & Asarian, 2019; Lim & Ok, 2021) • Use of new technology (Alani et al., 2018; Jami Pour & Asarian, 2019) • Using experts (Jami Pour & Asarian, 2019) • Salary and benefits (Nicoletti Junior et al., 2018) • Ethics and transparency (Nicoletti Junior et al., 2018) • Professionalism (Alani et al., 2018; Mehralian et al., 2018; Wu et al., 2019) • Achievement award (Alani et al., 2018) • Staff promotion (Alani et al., 2018; Wu et al., 2019)
----	---------------------	---

		<ul style="list-style-type: none"> • Regulating competition between organizations (Essawy et al., 2019; Karasneh, 2020; Valmohammadi et al., 2019) (Essawy et al., 2019) • Reducing production waste (Amaladhasan et al., 2019; Essawy et al., 2019) (Essawy et al., 2019) • Responding to environmental and social changes (Karasneh, 2020; Wu et al., 2019) • Knowledge sharing (Amaladhasan et al., 2019; Asiaei & Bontis, 2019; Valmohammadi et al., 2019)
--	--	--

Based on the results of the analysis of several articles above, we can know that companies that use the Balanced Scorecard to measure performance by developing corporate strategies are most widely used in the field of internal processes. This is supported by research conducted by (Lim & Ok, 2021; Sakrabani & Teoh, 2021) which states that the internal process perspective has more influence on company performance and the training field and development is in the second position then the customer field and the last is the learning and growth field. Internal business processes are most influential because they focus on helping the company to support the achievement of the company's strategic goals in the long term by ensuring that its performance is in line with the organization's vision and mission (Albuhisi & Abdallah, 2018; Taamneh et al., 2018). The use of BSC can enable management to measure the extent to which each organizational process supports strategic goals. In addition, companies need to provide training to develop employee knowledge in order to improve employee performance and gain a competitive advantage. With the training provided to employees, they are more enthusiastic in working so that it can produce more conducive, efficient and positive company performance (Lim & Ok, 2021)

The four perspectives of performance measurement using the Balanced Scorecard have a causal relationship such that internal processes make improvements in the learning and development perspective, which in turn leads to financial benefits for customer satisfaction (Ndevu & Muller, 2018).

RQ 2: What is the role of Balanced Scorecard (BSC) in measuring performance in a company?

As the business world continues to evolve, it is important for a company to use a tool to evaluate performance to improve it and understand its contribution in the long term. Performance assessment using Balanced Scorecard perspectives can enable a company to make more strategic and operational policies to lead to a better understanding of decision-making and long-term business sustainability. We can know the role of each perspective based on the results of the analysis in the financial perspective seen from the adequacy of funds (Alani et al., 2018) to ensure that the organization has ensured sufficient funds in its operations by using BSC to monitor and manage its financial resources (Amaladhasan et al., 2019; Essawy et al., 2019; Sayed et al., 2021) and also financial performance for the long and short term (Alsharari et al., 2019). BSC can also be used to identify areas of cost savings (Amaladhasan et al., 2019; Sanchez-Marquez et al., 2020b) so as to measure financial performance to improve margins profit and profitability of the organization (Nicoletti Junior et al., 2018; Taamneh et al., 2018). But it is necessary for organizations to determine product prices (Hudnurkar et al., 2018; Jami Pour & Asarian, 2019) by using BSC so that it can increase sales (Albuhisi & Abdallah, 2018; Jami Pour & Asarian, 2019) and can also increase market share (Lucianetti et al., 2019; Nicoletti Junior et al., 2018). In addition, BSC can help organizations to manage organizational risk (Kuiate & Noland, 2019).

Likewise, in the customer perspective, customer satisfaction (Alani et al., 2018; Albuhisi & Abdallah, 2018; Alsharari et al., 2019; Amaladhasan et al., 2019; Karasneh, 2020; Lim & Ok, 2021; Lucianetti et al., 2019; Mehralian et al., 2018; Ritchie et al., 2019; Sakrabani & Teoh, 2021; Sanchez-Marquez et al., 2020a; Zand et al., 2018) is the most important indicator as a benchmark for using BSC because employees become loyal to customers (Albuhisi & Abdallah, 2018; Lucianetti et al., 2019) by paying attention to customer needs and desires of customers (Jami Pour & Asarian, 2019) and also the commitment to deliver goods to consumers and ensuring product quality and quantity (Hudnurkar et al., 2018; Jami Pour & Asarian, 2019; Lim & Ok, 2021; Sanchez-Marquez et al., 2020; Taamneh et al., 2018) so as to make customers feel satisfied because they have paid attention to customer feedback (Alsharari et al., 2019) and understand customer complaints and suggestions so that the company takes corrective action and also the right solution (Albuhisi & Abdallah, 2018) to be able to retain customers (Essawy et al., 2019; Jami Pour & Asarian, 2019; Sayed et al., 2021; Wu et al., 2019).

As for the internal process perspective, knowledge management (Asiaei & Bontis, 2020; Karasneh, 2020) is very important in using BSC because it can direct employees in supporting the effectiveness and success of BSC implementation using technology (Amaladhasan et al., 2019; Sakrabani & Teoh, 2021; Valmohammadi et al., 2019). It is very necessary to be supported by top management (Alani et al., 2018; Albuhihi & Abdallah, 2018; Alsharari et al., 2019; Bin Haji Rashid & Haji Said, 2018; Hudnurkar et al., 2018; Karasneh, 2020; Lucianetti et al., 2019; Valmohammadi et al., 2019) because as the holder of the key elements of an organization (Ritchie et al., 2019). To improve employee performance, managers need to provide training (Alani et al., 2018; Albuhihi & Abdallah, 2018; Alsharari et al., 2019; Amaladhasan et al., 2019; Jami Pour & Asarian, 2019; Lucianetti et al., 2019; Mehralian et al., 2018; Sakrabani & Teoh, 2021; Taamneh et al., 2018) and also involving employees in various areas of work (Albuhihi & Abdallah, 2018; Taamneh et al., 2018) and providing rewards (Alsharari et al., 2019; Taamneh et al., 2018). And providing support for employees to encourage innovation so that employees can be involved in improvements (Albuhihi & Abdallah, 2018) in product damage and re-work (Essawy et al., 2019) so that employees can solve problems (Alsharari et al., 2019; Lim & Ok, 2021; Ritchie et al., 2019; Valmohammadi et al., 2019)

Management also needs to have strong planning in strategizing the organization so that it can find the right information for decision making (Alsharari et al., 2019). Working in teams (Alsharari et al., 2019; Lucianetti et al., 2019; Valmohammadi et al., 2019) is the key to effective communication (Alsharari et al., 2019) in good strategic preparation so as to ensure transparency and fairness in decision making (Ndevu & Muller, 2018). Top management is believed to make a major contribution that can improve the quality of employees (Alsharari et al., 2019) and employee welfare by providing future plans for retirees, both in terms of severance pay and the cost of recruiting new workers, as well as managing risks for the sustainability of the company because retirees associate all indicators in the implementation of BSC in a company (Kuiate & Noland, 2019). But there are also top management who are still reluctant to use BSC so that their organizations still use traditional methods and do not reform because there is no legal action or coercion that can make them implement the BSC system (Bin Haji Rashid & Haji Said, 2018). So the role of managers is very important and most important in making the vision, mission and strategy of the company that involves all stakeholders in order to produce good performance in the company. By focusing on communication between all staff in the company so that it can help staff in achieving the company's vision, goals and strategies (Alsharari et al., 2019).

Meanwhile, from the perspective of learning and processes, managers need to facilitate employees (Karasneh, 2020) by developing skills, techniques and products (Amaladhasan et al., 2019; Asiaei & Bontis, 2020; Islam et al., 2018; Jami Pour & Asarian, 2019; Lim & Ok, 2021; Ndevu & Muller, 2018; Sakrabani & Teoh, 2021; Sayed et al., 2021; Taamneh et al., 2018; Valmohammadi et al., 2019; Wu et al., 2019) by providing training to employees (Alani et al., 2018; Albuhihi & Abdallah, 2018; Alsharari et al., 2019; Amaladhasan et al., 2019; Jami Pour & Asarian, 2019; Lucianetti et al., 2019; Mehralian et al., 2018; Sakrabani & Teoh, 2021; Taamneh et al., 2018) and seminars (Alshararis et al., 2019) including in the use of new technology (Alani et al., 2018; Jami Pour & Asarian, 2019) because technology can make companies more developed especially in business targets and update environmental conditions (Valmohammadi et al., 2019) can also encourage employees to participate in decision-making and continuous improvement by providing suggestions and solutions that can make the company's production and operational processes more effective.

Increased employee knowledge of customers (Asiaei & Bontis, 2020; Mehralian et al., 2018; Ritchie et al., 2019; Sanchez-Marquez et al., 2020b; Zand et al., 2018) collaboration with suppliers and organizations (Hudnurkar et al., 2018), target expansion (Alsharari et al., 2019) and other external knowledge (Lim & Ok, 2021) through the use of experts (Jami Pour & Asarian, 2019) so as to compete between organizations (Essawy et al., 2019; Karasneh, 2020; Valmohammadi et al., 2019). In addition to the use of experts, sharing knowledge between employees (Amaladhasan et al., 2019; Asiaei & Bontis, 2019; Valmohammadi et al., 2019) can respond to environmental and social changes (Karasneh, 2020; Wu et al., 2019) so that organizations can reduce production waste (Amaladhasan et al., 2019; Essawy et al., 2019). This supports the organization's commitment (Lim & Ok, 2021) to remain customer-oriented and makes the organization to better understand and utilize the knowledge possessed by employees about their customers by analyzing the form of customer behavior and needs so as to make the company design more appropriate strategies for customer satisfaction (Zand et al., 2018). Additionally, organizational improvement (Sanchez-Marquez et al., 2020a) (Sanchez-Marquez et al., 2020a) is supported by the development of performance standards (Alsharari et al., 2019) and employee satisfaction (Amaladhasan et al., 2019; Jami Pour & Asarian, 2019; Lim & Ok, 2021) through salary and benefits (Nicoletti Junior et al., 2018), achievement awards (Alani et al., 2018) for professionalism (Alani et al., 2018; Mehralian et al., 2018; Wu et al., 2019) and staff promotion (Alani et al., 2018; Wu et al., 2019).

CONCLUSIONS AND RECOMMENDATIONS

The use of Balanced Scorecard (BSC) in measuring performance in a company can be seen from four main perspectives, namely financial, customer, internal processes, and learning & growth, companies can quickly identify areas that require more attention or improvement and can minimize risks and also save time. In addition, the Balance Scorecard can also pay more attention to internal processes because it is the core of all processes that occur in the company so that it allows companies to identify and overcome the possibility of errors that can slow down the performance of a company. Thus, the use of Balance Scorecard (BSC) can be an effective tool in increasing the efficiency of the company's time and leading to strategic goals more efficiently. The most important thing in implementing BSC according to its four perspectives is the need for the role of top management and professionals because their commitment and involvement affect all business processes in a company. As well as the need for companies to pay attention to the indicators of each perspective in implementing BSC in the company so that the application of BSC can be carefully considered and handled appropriately to ensure success in its application. The contribution of this research provides empirical evidence from previous studies regarding indicators in the application of BSC, and provides theoretical insights that are useful for academics, managers, and practitioners. Therefore, the results of this study are expected to serve as a foundation for exploring accounting changes in companies to improve business processes and provide optimal benefits for those planning to implement BSC.

This research provides valuable understanding of the role of the Balanced Scorecard (BSC) in improving sustainable business performance. However, there are some limitations in conducting this research. Namely, the article selection process and criteria are the perspective of the researcher, and interpretation of certain articles may result in bias, even though Watsue Uake was used as a tool. These limitations could potentially affect the overall representation of the literature. Although the research focused on the items in the four perspectives of the balanced scorecard and their role to measure business performance, they may not be discussed in depth. In addition, this research only covers literature from 2018-2022 so further research is needed to use literature from 2023 so as to get even more up-to-date information. Recognizing these limitations may help future research to expand coverage and detail certain aspects to provide a more comprehensive understanding.

ADVANCED RESEARCH

Future research suggestions could involve further exploration of the relationship between the Balanced Scorecard (BSC) and Corporate Social Responsibility (CSR). It is important to understand how the implementation of BSC can contribute to the company's efforts to fulfill its social responsibilities, in line with the wishes of stakeholders. This research can explore the positive impact of BSC on Corporate Social Responsibility practices, providing a more comprehensive insight into the role of companies in the social and environmental context. In addition, researchers can also explore the barriers or obstacles that companies may face in implementing BSC, as well as provide a deeper understanding of the factors that influence the success of BSC implementation in various business contexts.

REFERENCES

- Alani, F. S., Khan, M. F. R., & Manuel, D. F. (2018). University performance evaluation and strategic mapping using balanced scorecard (BSC): Case study - Sohar University, Oman. *International Journal of Educational Management*, 32(4), 689-700. <https://doi.org/10.1108/IJEM-05-2017-0107>
- Albuhisi, A. M., & Abdallah, A. B. (2018). The Impact of Soft TQM on Financial Performance: The Mediating Roles of Non Financial Balanced corecard Perspectives. *International Journal of Quality & Reliability Management*, 35(7), 1360-1379. <https://doi.org/10.1108/ijqrm-03-2017-0036>
- Alsharari, N. M., Eid, R., & Assiri, A. (2019). Institutional contradiction and BSC implementation: comparative organizational analysis. *International Journal of Organizational Analysis*, 27(3), 414-440. <https://doi.org/10.1108/IJOA-08-2017-1219>
- Amaladhasan, S., Parthiban, P., & Dhanalakshmi, R. (2019). Green supply chain performance evaluation model for automotive manufacturing industries by using eco-balanced scorecard. *International Journal of Services and Operations Management*, 33(4), 442-467. <https://doi.org/10.1504/IJSOM.2019.101579>
- Amos, D., Au-Yong, C. P., & Musa, Z. N. (2021). The mediating effects of finance on the performance of hospital facilities management services. *Journal of Building Engineering*, 34(October), 101899. <https://doi.org/10.1016/j.jobbe.2020.101899>
- Anggitaningsih, R., Irawan, B., Prihatini, D., & Barokah, I. (2022). The Effect of Balanced Scorecard Understanding on Employee Performance with Career System and Compensation System as Moderating Variable. *Quality - Access to Success*, 24(192), 306-316. <https://doi.org/10.47750/QAS/24.192.36>
- Asiaei, K., & Bontis, N. (2019). Using a balanced scorecard to manage corporate social responsibility. *Knowledge and Process Management*, 26(4), 371-379. <https://doi.org/10.1002/kpm.1616>

- Asiaei, K., & Bontis, N. (2020). Translating knowledge management into performance: The role of performance measurement systems. *Management Research Review*, 43(1), 113–132. <https://doi.org/10.1108/MRR-10-2018-0395>
- Bin Haji Rashid, F. R., & Haji Said, T. F. (2018). Strategic responses towards a performance management and measurement system in the public sector of a developing country. *International Journal of Public Sector Performance Management*, 4(4), 393–410. <https://doi.org/10.1504/IJPSPM.2018.095233>
- Córdova-Aguirre, L. J., & Ramón-Jerónimo, J. M. (2021). Exploring the inclusion of sustainability into strategy and management control systems in peruvian manufacturing enterprises. *Sustainability (Switzerland)*, 13(9). <https://doi.org/10.3390/su13095127>
- Coskun, A., & Nizaeva, M. (2023). Strategic Performance Management Using the Balanced Scorecard in Educational Institutions. *Open Education Studies*, 5(1). <https://doi.org/10.1515/edu-2022-0198>
- Essawy, M. H., Attia, E. A., & El-Assal, A. M. (2019). An integrated model for achieving business strategic objectives with a case study. *International Journal of Six Sigma and Competitive Advantage*, 11(4), 253–276. <https://doi.org/10.1504/IJSSCA.2019.103557>
- Goldstein, J. C. (2022). Strategy maps: the middle management perspective. *Journal of Business Strategy*, 43(1), 3–9. <https://doi.org/10.1108/JBS-09-2020-0191>
- Handoko, J., Narsa, I. M., & Basuki, B. (2021). Role difference and negativity bias relevance in strategy review: An experiment. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2021.1938928>
- Huang, H. C. (2009). Designing a knowledge-based system for strategic planning: A balanced scorecard perspective. *Expert Systems with Applications*, 36(1), 209–218. <https://doi.org/10.1016/j.eswa.2007.09.046>
- Hudnurkar, M., Rathod, U., Jakhar, S. K., & Vaidya, O. S. (2018). Development Of A Balanced Scorecard Supplier Collaborative Performance Index. *International Journal of Productivity and Performance Management*, 67(2), 401–425. <https://doi.org/https://doi.org/10.1108/IJPPM-05-2016-0084>
- Islam, M., Hossain, A. T., & Mia, L. (2018). Role of strategic alliance and innovation on organizational sustainability. *Benchmarking*, 25(5), 1581–1596. <https://doi.org/10.1108/BIJ-12-2016-0188>
- Jami Pour, M., & Asarian, M. (2019). Strategic orientations, knowledge management (KM) and business performance: An exploratory study in SMEs using clustering analysis. *Kybernetes*, 48(9), 1942–1964. <https://doi.org/10.1108/K-05-2018-0277>
- Janaki, D. M. (2019). Adapting the SCOR model for supply chain network assessment and improvement in oil industry. *International Journal of Data and Network Science*, 3(4), 331–338. <https://doi.org/10.5267/j.ijdns.2019.4.003>

- Karasneh, A. A. F. (2020). Revitalizing the BSC through knowledge management: The mediating role of intellectual capital. *Journal of Public Affairs*, 22(1). <https://doi.org/10.1002/pa.2359>
- Kuiate, C., & Noland, T. R. (2019). Attracting and retaining core competency: a focus on cost stickiness. *Journal of Accounting and Organizational Change*, 15(4), 678-700. <https://doi.org/10.1108/JAOC-04-2018-0038>
- Lim, S. G. (Edward), & Ok, C. M. (2021). A meta-analytic review of antecedents of hospitality and tourism firms' performance: A cross-cultural comparison. *Tourism Management*, 86(November 2020), 104325. <https://doi.org/10.1016/j.tourman.2021.104325>
- Lucianetti, L., Battista, V., & Koufteros, X. (2019). Comprehensive performance measurement systems design and organizational effectiveness. *International Journal of Operations and Production Management*, 39(2), 326-356. <https://doi.org/10.1108/IJOPM-07-2017-0412>
- Mehralian, G., Nazari, J. A., & Ghasemzadeh, P. (2018). The effects of knowledge creation process on organizational performance using the BSC approach: the mediating role of intellectual capital. *Journal of Knowledge Management*, 22(4), 802-823. <https://doi.org/10.1108/JKM-10-2016-0457>
- Mio, C., Costantini, A., & Panfilo, S. (2022). Performance measurement tools for sustainable business: A systematic literature review on the sustainability balanced scorecard use. *Corporate Social Responsibility and Environmental Management*, 29(2), 367-384. <https://doi.org/10.1002/csr.2206>
- Ndevu, Z. J., & Muller, K. (2018). Operationalising performance management in local government: The use of the balanced scorecard. *SA Journal of Human Resource Management*, 16, 1-11. <https://doi.org/10.4102/sajhrm.v16i0.977>
- Nicoletti Junior, A., de Oliveira, M. C., & Helleno, A. L. (2018). Sustainability evaluation model for manufacturing systems based on the correlation between triple bottom line dimensions and balanced scorecard perspectives. *Journal of Cleaner Production*, 190, 84-93. <https://doi.org/10.1016/j.jclepro.2018.04.136>
- Quesado, P., Marques, S., Silva, R., & Ribeiro, A. (2022). The Balanced Scorecard as a Strategic Management Tool in the Textile Sector. *Administrative Sciences*, 12(1). <https://doi.org/10.3390/admsci12010038>
- Ritchie, W. J., Ni, J., Stark, E. M., & Melnyk, S. A. (2019). The effectiveness of ISO 9001-based healthcare accreditation surveyors and standards on hospital performance outcomes: A balanced scorecard perspective. *Quality Management Journal*, 26(4), 162-173. <https://doi.org/10.1080/10686967.2019.1647770>
- Sakrabani, P., & Teoh, A. P. (2021). Retail 4.0 adoption and firm performance among Malaysian retailers: the role of enterprise risk management as moderator. *International Journal of Retail and Distribution Management*, 49(3), 359-376. <https://doi.org/10.1108/IJRDM-09-2020-0344>

- Sanchez-Marquez, R., Albarracín Guillem, J. M., Vicens-Salort, E., & Jabaloyes Vivas, J. (2018). A statistical system management method to tackle data uncertainty when using key performance indicators of the balanced scorecard. *Journal of Manufacturing Systems*, 48(July), 166–179. <https://doi.org/10.1016/j.jmsy.2018.07.010>
- Sanchez-Marquez, R., Albarracín Guillem, J. M., Vicens-Salort, E., & Jabaloyes Vivas, J. (2020a). A systemic methodology for the reduction of complexity of the balanced scorecard in the manufacturing environment. *Cogent Business and Management*, 7(1). <https://doi.org/10.1080/23311975.2020.1720944>
- Sanchez-Marquez, R., Albarracín Guillem, J. M., Vicens-Salort, E., & Jabaloyes Vivas, J. (2020b). Diagnosis of quality management systems using data analytics - A case study in the manufacturing sector. *Computers in Industry*, 115. <https://doi.org/10.1016/j.compind.2019.103183>
- Sayed, N., Lento, C., & Henderson, M. (2021). Application of the Balanced Scorecard for strategy reformulation: Perspectives from a Canadian municipality. *Canadian Journal of Administrative Sciences*, 39(3), 328–346. <https://doi.org/10.1002/cjas.1644>
- Suárez-Gargallo, C., & Zaragoza-Sáez, P. (2023). Port Authority of Cartagena: Evidence of a Sustainability Balanced Scorecard. *Sustainable Development*, 31(5), 3761–3785. <https://doi.org/10.1002/sd.2624>
- Taamneh, A., Alsaad, A. K., & Elrehail, H. (2018). HRM practices and the multifaceted nature of organization performance: The mediation effect of organizational citizenship behavior. *EuroMed Journal of Business*, 13(3), 315–334. <https://doi.org/10.1108/EMJB-02-2018-0010>
- Valmohammadi, C., Sofiyabadi, J., & Kolahi, B. (2019). How do knowledge management practices affect sustainable balanced performance? Mediating role of innovation practices. *Sustainability (Switzerland)*, 11(18). <https://doi.org/10.3390/su11185129>
- Wu, W. Y., Lee, L. Y., & Pham, T. T. (2019). Examining the influence of expatriates' social capital and knowledge-sharing behavior on financial performance. *International Journal of Organizational Analysis*, 28(3), 557–577. <https://doi.org/10.1108/IJOA-07-2019-1822>
- Zand, J. D., Keramati, A., Shakouri, F., & Noori, H. (2018). Assessing the impact of customer knowledge management on organizational performance. *Knowledge and Process Management*, 25(4), 268–278. <https://doi.org/10.1002/kpm.1585>