InFestasi
Vol. 17 No. 2 Desember 2021
Hal. 157-167

The Development of Performance Measurement Research over Three Decades: A Bibliometric Analysis

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A R T I C L E I N F O

Article History:
Received

Revised

Publish

Keywords:
Bibliometric analysis; literature; performance measurement; Scopus

DOI:
10.xxxx

A B S T R A C T

This paper provides a systematic literature review in light of performance measurement based on the Scopus database using bibliometric analysis. Performance measurement is a compelling research topic because of its imperativeness in entity success. There is no literature in regard to the analysis of the development of performance measurement research using a bibliometric analysis based on the Scopus database. This paper useful for researchers working in performance measurement research to understand the evolution of the literature and to capture future research opportunities. The core of this research is the development of performance measurement topics over several decades, from 1986-2020 using bibliometric analysis. This paper uses citation/co-citation analysis related to performance measurement to investigate the development of performance measurement research over the last three decades. 1,882 articles are investigated in this bibliometric analysis. This research figures out that performance measurement topics alter every period. The predominating performance measurement topic is benchmarking. This research also indicates that performance measurement-related research increases based on the number of publications and changes of research issues every period. This research has implications for academics and practitioners related to understanding the growth trends of performance measurement topics and future research on performance measurement. This research can be used as one of the theoretical bases to observe performance measurement-related topics.

1. INTRODUCTION

The performance measurement is an important aspect for achieving company goals. In the last few decades the performance measurement has changed. This research aims to examine the previous literature through keywords in relation to performance measurement issues and focuses on the orientation of performance measurement changes taking place over the course of some years, namely 1986-2020. This research matters as there is no literature review on the Scopus database-based analysis of performance measurement and its growth using bibliometric analysis based on Scopus database. The Scopus database is chosen because Scopus is one of the largest scholarly literature databases owned by Elsevier. Prior study by Neely (2005) investigates performance measurement using Web of Science database from 1981 – 2005 in total 1,352 articles. This research complements previous research by offering novelty by using different database, a longer period of articles and a greater number of articles analyzed. This research contributes to the growth of performance measurement literature based on the Scopus database using bibliometric analysis.

Performance measurement burgeons into a popular topic which draws many researchers and practitioners' attention (Neely and Bourne, 2000). Neely et al. (1995) define performance measurement as the process of quantifying the efficiency and effectiveness of performance-oriented actions. In the development of the literature and its practices, performance measurement refers to the use of a set of multidimensional performance measurements, which cover financial, non-financial, internal, and external (Bourne et al.,

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2003). Companies should be adaptive to an ever-changing business environment. Performance measurement is ascribed as an important element to improve business performance (Sharma et al., 2005). Kaplan and Norton (1992), as a solution to traditional financial measurement-based performance measurement inadaptability to an increasingly competitive business environment, introduce a performance measurement approach, i.e., Balanced Scorecard (BSC). This approach intrigues researchers and practitioners. Neely and Bourne (2000), in their research, contend that predicated on data from the Gartner Group, 40-60% of big companies in the United States had adopted BSC at the end of 2000. However, irrespective of BSC being renowned in performance measurement, it is claimed that 70% of companies which implement it suffer from failures. Since then, research on performance measurement grows, either theoretically or empirically, to analyze how companies design performance measurement and implement it, allowing them to acquire competitive advantages accordingly (Bourne et al., 2000; Neely and Bourne, 2000). This research contributes to filling the research gap related to literature review on performance management by using bibliometric analysis which is still rarely studied.

2. LITERATURE REVIEW

Performance measurement is a frequently discussed yet rarely defined topic (Neely et al., 1995). This is because performance measurement literature covers different disciplines, e.g., management, accounting, economy, human resources, and information system and hence it is almost impossible to elicit a cohesive definition (Deng et al., 2012). Although the definition of performance measurement is strictly limited, some researchers attempt to define it in the literature. Besides the definition of performance measurement by Bourne et al., (2003) and Neely et al. (1995), there are other definitions of performance measurement, one of which is contended by Ittner et al. (2003), that performance measurement constitutes a system which delivers the information to help companies align their management processes, such as target determination, decision making, and performance evaluation. Bassioni et al. (2005) describes performance measurement as a measuring system applied by companies for achieving company-related goals instead of evaluations made by either clients or stakeholders.

Performance measurement develops hand in hand with an increasingly competitive business environment. Performance measurement was initiated in the early 1900s when financial ratios and procedures for budget control were firstly developed in Dupont and General Motors (Neely and Bourne, 2000). Ghalayini and Noble (1996) posit that performance measurement has two phases. The first phase took place until the 1980s, in which performance measurement focused on financial criteria, e.g., return on investment and productivity. The second phase began in the 1980s and still lasts until today as a result of competitive business environment changes. Neely (1999) deems the second phase as the revolution of performance measurement.

Companies adapt to competitive business environmental changes by implementing a new production management philosophy and technology. The implementation gives traditional performance measurement many limitations and a new performance measurement system is called for to achieve success (Ghalayini and Noble, 1996). At the end of the 1980s, performance measurement was driven to complete financial performance measurements, such as using a shareholder value, economic benefits, customer satisfaction, internal operating performance, intellectual capital, and intangible asset (Neely and Bourne, 2000). In the early 1990s, a balanced scorecard and performance pyramid, two more extensive conceptual frameworks in terms of performance measurement, appeared. These new frameworks were designed to decrease the gap between financial and non-financial performance assessment and to prompt a proactive rather than reactive management style (Bititci, 1994). A conceptual framework is followed by a management process specially designed for managers, allowing them to develop or design another performance measurement system (Bourne et al., 2000).

Performance measurement is a complex matter (Singh et al., 2000). As such, research on performance measurement is flourishing, either theoretically or empirically. The latest research on performance measurement from the theoretical aspect was conducted by Hristov et al. (2021), who investigated the conceptual framework and systematic review of the roles of sustainable environment and performance measurement dimensions. Meanwhile, from the empirical aspect, the latest performance measurement-related research was carried out by Firk et al. (2021) and Knauer et al. (2018), who observed the effect of Value-based Management (VBM) as a performance measure in decision making. Frederico et al. (2021) and Mamabolo and Myres (2020) studied BSC as a performance measurement, whereas Kamble et al. (2020) analyzed the

impact of smart manufacturing systems (SMS) on the performance measurement system.

3. RESEARCH METHOD

This research provides an explication of significant changes in the development of performance measurement-related keywords from 1986-2020 based on the availability of Scopus database. The Scopus database provide quality and reliability article. The methodology used is synthesis to connect the context of performance measurement research with the bibliometric analysis. A bibliometric analysis makes up a quantitative analysis of diverse literature published (Ellegaard and Wallin, 2015). The bibliometric analysis is performed using the Scopus database and demands articles with the term "performance measurement" in the title, abstract and keywords of the exclusive field of management, accounting, and economy. 1,882 articles are gained and become analysis materials. The analysis is done by dividing into four periods, namely 1986 – 1997, 1998 – 2007, and 2008 – 2017, 2018 – 2020. The dividing of four periods to find out the details of changes or trend in performance measurement topics per period.

Keywords from performance measurement-related articles are analyzed using VOSViewer. This research uses VOSViewer to analyze the phenomenon of performance measurement-related keywords in the Scopus database statistically. Since, VOSViewer is a free downloadable software tool which can analyze bibliographic data and visualize the analysis result through a bibliometric network. This research uses the citation/co-citation analysis to analyze the keyword contained by varied articles published. VOSViewer is able to evaluate the information and differentiate it by group and presents the analysis result in a graphic form. This can help analyze the Scopus database efficiently. This research examines performance measurement-related keywords from 1986-2020. A long-term analysis enables us to investigate changes in the performance measurement topic.

4. RESULT AND DISCUSSION

The citation data analysis is conducted by observing the citation frequency of an article. Table 1 demonstrates articles with a significant contribution to the development performance measurement-related research based on the highest number of citations from the Scopus database.

Table 1. Breakthroughs in performance measurement research

Author	Year	Description	Total citation
Chiesa et al.	1996	Research measurement and technical innovation audit	396
Chenhall and Langfield-Smith	1998	Research measurement and activity-based costing (ABC)	223
McLaughlin and Jordan	1999	Research measurement using logic model	331
Lee and Whang	1999	Research measurement and decentralized control	312
Bourne et al.	2000	Conceptual framework of performance measurement system	602
Holmberg	2000	Performance measurement in supply chain management	326
Wilson and Collier	2000	Performance measurement and management quality	263
Gunasekaran et al.	2001	Performance measurement in supply chain management	1204
Ittner and Larcker	2001	Conceptual framework of value-based management	507
Lambert	2001	Performance measurement and contract theory	417
Lambert and Pohlen	2001	Performance measurement in supply chain management	399
Neely et al.	2001	Prism of performance in practice	307
Dangayach and Deshmukh	2001	Performance measurement and manufacturing strategy	299
De Toni and Tonchia	2001	Performance measurement and performance indicators	255
Modell	2001	Performance measurement and institutional theory	217
Simatupang and Sridharan	2002	Performance measurement in supply chain management	574

Author	Year	Description	Total citation
Yahya and Goh	2002	Performance measurement and human resources	279
Kennerley and Neely	2002	Evolution of performance measurement systems	279
Lai et al.	2002	Performance measurement in supply chain management	238
Bourne et al.	2002	Performance measurement using incentives	231
Bourne et al.	2003	Implementation of performance measurement system	238
Kleijnen and Smits	2003	Performance measurement success and failure	228
Figge and Hahn	2004	Performance measurement and sustainable value added	333
Power	2004	Reflection on measurement and management	265
Melnyk et al.	2004	Performance metrics and operations management	258
Lockamy and McCormack	2004	Performance measurement in supply chain management	256
Chan et al.	2005	Performance measurement and total productive maintenance	225
Schaltegger and Wagner	2006	Performance measurement and balanced scorecard (BSC)	218
Muchiri and Pintelon	2008	Performance measurement and overall equipment effectiveness (OEE)	241
Adams and Frost	2008	Performance measurement on corporate social responsibility	236
Hult et al.	2008	Performance measurement in international business (IB)	235
Hassini et al.	2012	Performance measurement in supply chain management	626
Leuschner et al.	2013	Meta-analysis of SCM integration and enterprise performance	265
Harrison and Wicks	2013	Performance measurement and stakeholder theory	254
Ahvenniemi et al.	2017	Performance measurement and framework of city appraisal	375

Source: Scopus Database (2021)

Figure 1 exhibits the annual publication trend of measurement performance-related articles predicated on the Scopus database.

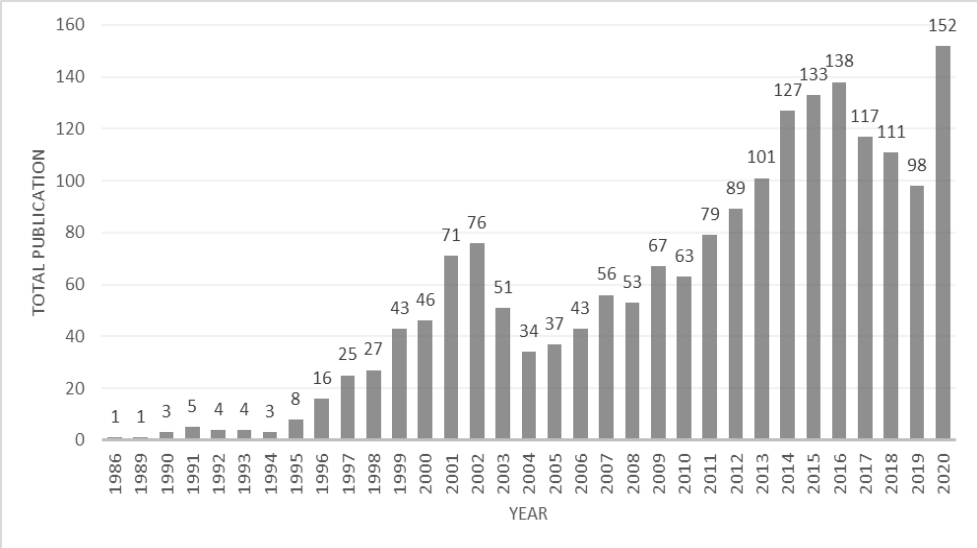

Figure 1. Total performance measurement-related publications in Scopus

It is found an increase in the number of performance measurement-related publications registered in the Scopus database. This can happen due to researchers' growing interests in the topic. One of the factors fueling the growth is the thriving competitive business environment which influences performance measurement practices.

The first group is composed of articles published in 1986-1997 and contains 325 keywords. The threshold of the occurrence of keywords requires the keywords to appear in five articles at least. Several groups of performance measurement-related keywords, namely performance, productivity, industrial management, resource allocation, data envelopment analysis, management, and strategic planning, are found. Performance is the keyword most frequently correlated to performance measurement. It is on account of researchers' high interest in the relationship between performance measurement and company performance. Keywords which meet the criteria come in few numbers on the grounds of low-performance measurement-related publication rates in this period.

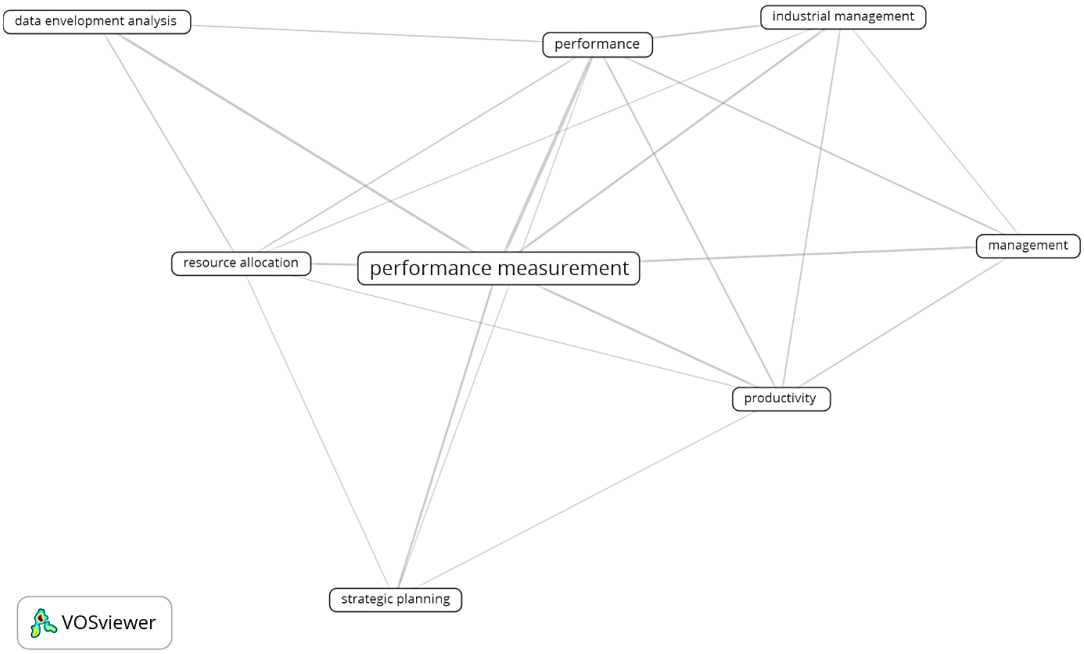

Figure 2. Bibliometric analysis from 1986-1997

The second group consists of articles published in 1998-2007 and contains 1,384 keywords. The keywords opted are those which appear in 13 articles at least. Two keywords with the strongest relationship with performance measurement are performance and decision making. A similar trend of research issues appears in the first and second groups. However, the second one contains a substantial number of new topics, which are performance, decision making, industrial management, operation research, data envelopment analysis, benchmarking, mathematical models, strategic planning, productivity, societies and institution, customer satisfaction, balanced scorecard, product development, costs, and performance assessment. During this period, more keywords are found owing to a rising number of performance measurement-related publications in the Scopus database.

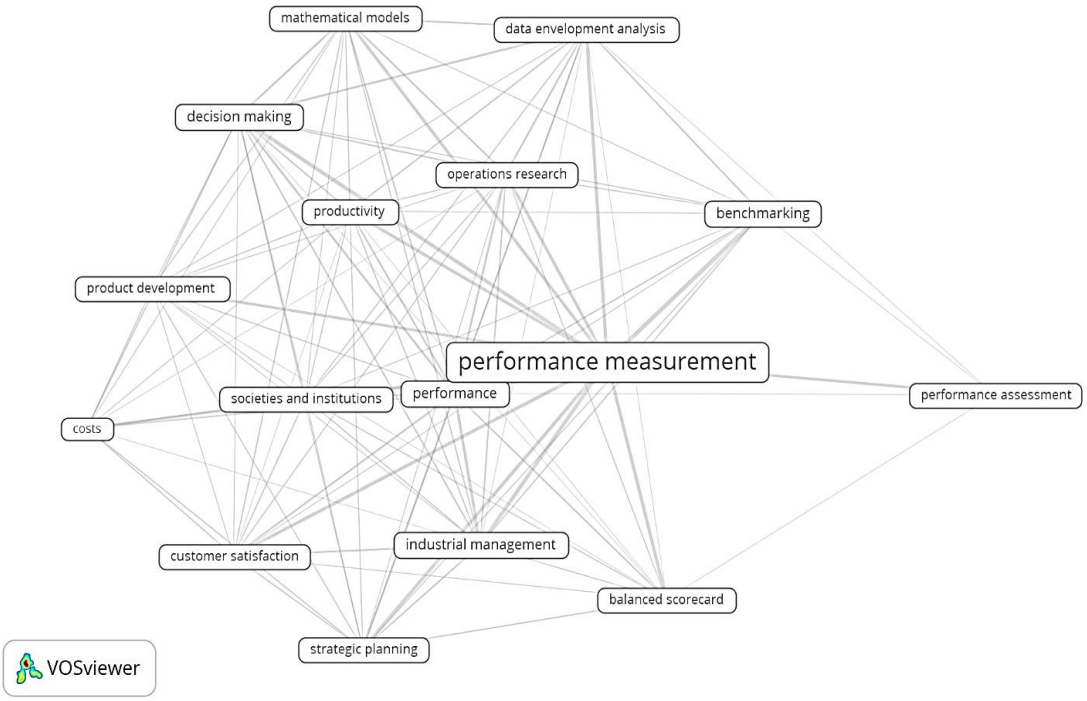

Figure 3. Bibliometric analysis from 1998-2007

The third group comprises articles published in 2008-2017 and contains 3,634 keywords. The selected keywords are those appearing in at least 15 articles. In this group, the keyword with the strongest relationship with performance measurement is only benchmarking. It is because many companies use the benchmarking approach as performance measurement. Various keywords are found in this group. They are benchmarking, performance assessment, performance management, supply chain management, data envelopment analysis, decision making, balanced scorecard, construction industry, efficiency, management, project management, sustainable development, surveys, human, innovation, managers, sustainability, performance measurement system, dea, key performance indicators, performance evaluation, management control, case study, accountability, and performance.

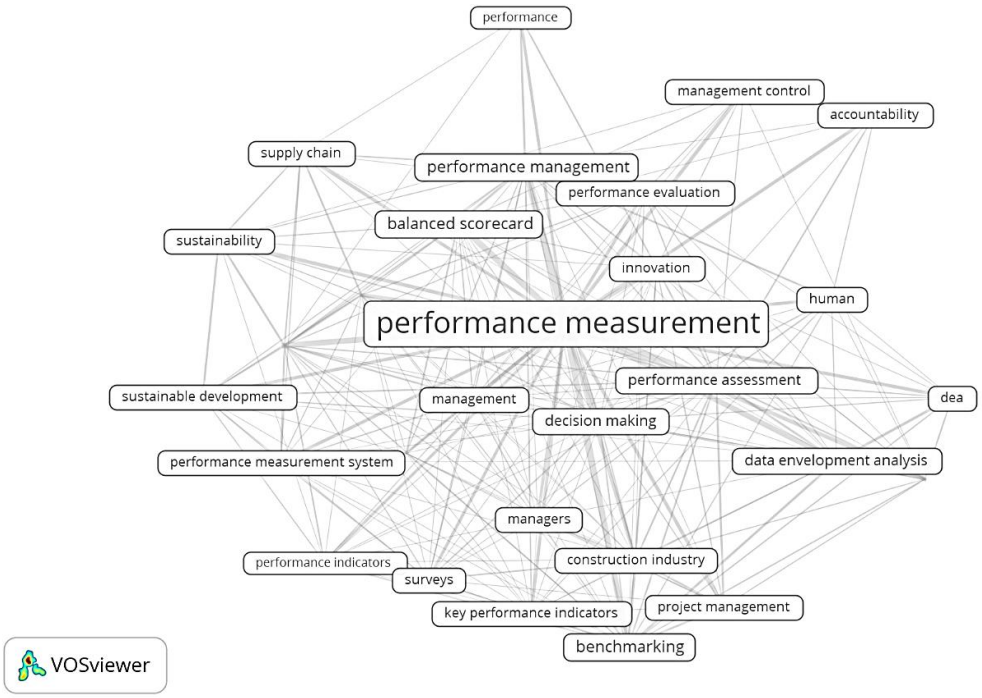

Figure 4. Bibliometric analysis from 2008-2017

The last analysis period is 2018-2020. The fourth group comes with a smaller size than the previous ones. However, this period is noteworthy to be analyzed since there are a high number of publications occurring in the period. There are 1,554 keywords found in articles published in 2018-2020. For this group, the threshold of the occurrence of keywords requires the keywords to appear in five articles at least. This determination aims to examine the most growing performance measurement-related research topics. In this period, new performance measurement-related keywords, e.g., total quality management, investment, decision support system, public sector, stakeholders, and risk management, are found. Performance measurement-related research in this period is still dominated by the benchmarking approach issue.

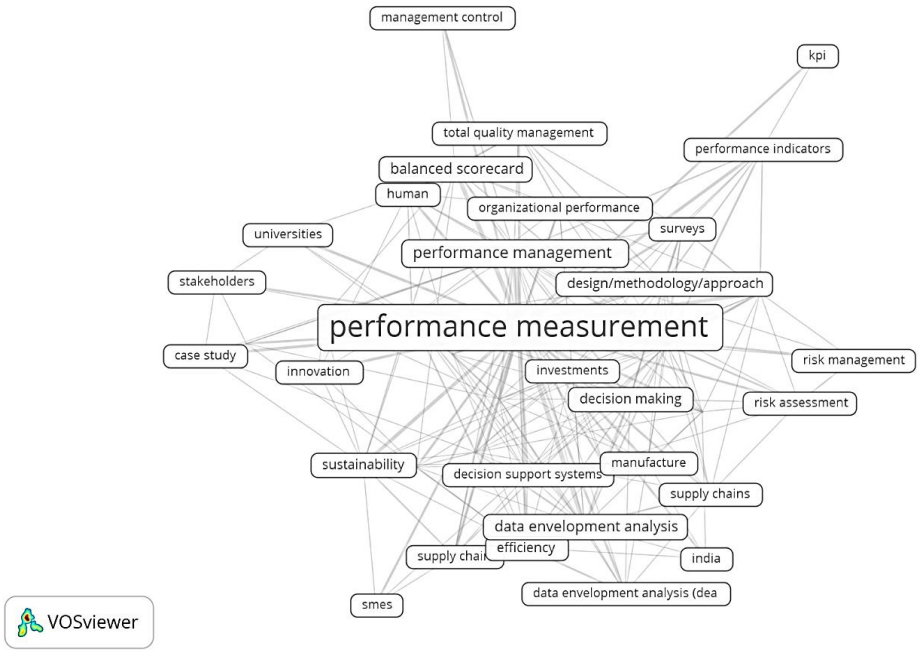

Figure 5. Bibliometric analysis from 2018-2020

5. CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

This research generates a systematic performance measurement-related literature review in 1986-2020 based on the Scopus database using bibliometric analysis. The bibliometric analysis is used to investigate the development of performance measurement-related research over the last three decades. This research indicates that performance measurement-related research increases based on the number of publications and changes of research issues every period. The predominating performance measurement-related research issue is the benchmarking approach. This research contributes to performance measurement-related literature by identifying research issues which are the most frequently analyzed within the last three decades. The implication of this research is to helps academicians and practitioners apprehend the growth trend of performance measurement-related topics. Also, academicians and practitioners will find this research as a reliant theoretical base to observe performance measurement-related issues.

Nevertheless, this research only focuses on performance measurement-related articles retrieved from the Scopus database. Besides, articles analyzed are only those directly related to performance measurement and certain fields, which are management, accounting, and economy. Hence, the next research may engage with another discipline and relevant literature, such as management control and performance management, to produce more comprehensive research coverage. Future research can also explore trend topics of performance measurement for empirical research.

REFERENCES

Adams, C. A., & Frost, G. R. (2008). Integrating sustainability reporting into management practices. *Accounting Forum*, *32*(4), 288–302. https://doi.org/10.1016/j.accfor.2008.05.002

Ahvenniemi, H., Huovila, A., Pinto-Seppä, I., & Airaksinen, M. (2017). What are the differences between sustainable and smart cities? *Cities*, *60*, 234–245. https://doi.org/10.1016/j.cities.2016.09.009

Bassioni H. A., Price, A. D. F., & Hassan, T. M. (2005). Building a conceptual framework for measuring business performance in construction: an empirical evaluation. *Construction Management and Economics*, *23*(5), 495–507. https://doi.org/10.1080/0144619042000301401

Bititci, U. S. (1994). Measuring Your Way to Profit. *Management Decision*, *32*(6), 16–24. https://doi.org/10.1108/00251749410065088

Bourne, M., Mills, J., Wilcox, M., Neely, A., & Platts, K. (2000a). Designing, implementing and updating performance measurement systems. *International Journal of Operations and Production Management*, *20*(7), 754–771. https://doi.org/10.1108/01443570010330739

Bourne, M., Mills, J., Wilcox, M., Neely, A., & Platts, K. (2000b). Designing , Implementing and Updating Performance Measurement Systems. *International Journal of Operations & Production Management*, *20*(7), 754–771. https://doi.org/10.1108/01443570010330739

Bourne, M., Neely, A., Mills, J., & Platts, K. (2003). Implementing Performance Measurement Systems: A Literature Review. *International Journal Business Performance Management*, *5*(1), 1–24. https://doi.org/10.1504/IJBPM.2003.002097

Bourne, M., Neely, A., Platts, K., & Mills, J. (2002). The success and failure of performance measurement initiatives: Perceptions of participating managers. *International Journal of Operations and Production Management*, *22*(11), 1288–1310. https://doi.org/10.1108/01443570210450329

Chan, F. T. S., Lau, H. C. W., Ip, R. W. L., Chan, H. K., & Kong, S. (2005). Implementation of total productive maintenance: A case study. *International Journal of Production Economics*, *95*(1), 71–94. https://doi.org/10.1016/j.ijpe.2003.10.021

Chenhall, R. H., & Langfield-Smith, K. (1998). Adoption and benefits of management accounting practices: An Australian study. *Management Accounting Research*, *9*(1), 1–19. https://doi.org/10.1006/mare.1997.0060

Chiesa, V., Coughlan, P., & Voss, C. A. (1996). Development of a Technical Innovation Audit. *Journal Production Management*, *13*, 105–136. https://doi.org/10.1016/0737-6782(95)00109-3

De Toni, A., & Tonchia, S. (2001). Performance measurement systems Models, characteristics and measures. *International Journal of Operations and Production Management*, *21*(1–2), 46–70. https://doi.org/10.1108/01443570110358459

Deng, F., Smyth, H., & Anvuur, A. M. (2012). A critical review of PMS in construction: towards a research agenda. *Procs 28th Annual ARCOM Conference*, 2(September), 807–816.

Ellegaard, O., & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics*, *105*(3), 1809–1831. https://doi.org/10.1007/s11192-015-1645-z

Figge, F., & Hahn, T. (2004). Sustainable Value Added - Measuring corporate contributions to sustainability beyond eco-efficiency. *Ecological Economics*, *48*(2), 173–187. https://doi.org/10.1016/j.ecolecon.2003.08.005

Firk, S., Richter, S., & Wolff, M. (2021). Does value-based management facilitate managerial decision-making? An analysis of divestiture decisions. *Management Accounting Research*, *51*(March), 100736. https://doi.org/10.1016/j.mar.2021.100736

Frederico, G. F., Garza-Reyes, J. A., Kumar, A., & Kumar, V. (2021). Performance measurement for supply chains in the Industry 4.0 era: a balanced scorecard approach. *International Journal of Productivity and Performance Management*, *70*(4), 789–807. https://doi.org/10.1108/IJPPM-08-2019-0400

Ghalayini, A. M., & Noble, J. S. (1996). The changing basis of performance measurement. *International Journal of Operations and Production Management*, *16*(8), 63–80.

Harrison, J. S., & Wicks, A. C. (2013). Stakeholder Theory, Value, and Firm Performance. *Business Ethics Quarterly*, *23*(1), 97–124. https://doi.org/10.5840/beq20132314

Hassini, E., Surti, C., & Searcy, C. (2012). A literature review and a case study of sustainable supply chains with a focus on metrics. *International Journal of Production Economics*, *140*(1), 69–82. https://doi.org/10.1016/j.ijpe.2012.01.042

Holmberg, S. (2000). A systems perspective on supply chain measurements. *International Journal of Physical Distribution & Logistics Management*, *30*(10), 847–868. https://doi.org/10.1108/09600030010351246

Hristov, I., Appolloni, A., Chirico, A., & Cheng, W. (2021). The role of the environmental dimension in the performance management system: A systematic review and conceptual framework. *Journal of Cleaner Production*, *293*, 126075. https://doi.org/10.1016/j.jclepro.2021.126075

Hult, G. T. M., Ketchen, D. J., Griffith, D. A., Chabowski, B. R., Hamman, M. K., Dykes, B. J., Pollitte, W. A., & Cavusgil, S. T. (2008). An assessment of the measurement of performance in international business research. *Journal of International Business Studies*, *39*(6), 1064–1080. https://doi.org/10.1057/palgrave.jibs.8400398

Ittner, C. D., & Larcker, D. F. (2001). 241. Ittner and David F. Larcker (2001) Assessing empirical research in managerial accounting a value-based management perspective.pdf. *Journal of Accounting and Economics*, *32*, 349–410.

Ittner, C. D., Larcker, D. F., & Randall, T. (2003). Performance Implications of Strategic Performance Measurement in Financial Services Firms. *Accounting, Organizations and Society*, *28*, 715–741. https://doi.org/10.1016/S0361-3682(03)00033-3

Kamble, S. S., Gunasekaran, A., Ghadge, A., & Raut, R. (2020). A performance measurement system for industry 4.0 enabled smart manufacturing system in SMMEs- A review and empirical investigation. *International Journal of Production Economics*, *229*, 107853. https://doi.org/10.1016/j.ijpe.2020.107853

Kanji, G. K. (2012). Measuring business excellence. *Measuring Business Excellence*, 1–240. https://doi.org/10.4324/9780203996737

Kaplan, R. S., & Norton, D. P. (1992). The Balanced Scorecard – Measures that Drive Performance. *Harvard Business Review*, 71–79.

Kennerley, M., & Neely, A. (2002). A framework of the factors affecting the evolution of performance measurement systems. *International Journal of Operations and Production Management*, *22*(11), 1222–1245. https://doi.org/10.1108/01443570210450293

Kleijnen, J. P. C., & Smits, M. T. (2003). Performance metrics in supply chain management. *Journal of the Operational Research Society*, *54*(5), 507–514. https://doi.org/10.1057/palgrave.jors.2601539

Knauer, T., Silge, L., & Sommer, F. (2018). The shareholder value effects of using value-based performance measures: Evidence from acquisitions and divestments. *Management Accounting Research*, *41*(September 2015), 43–61. https://doi.org/10.1016/j.mar.2018.02.001

Lai, K., Ngai, E. W. T., & Cheng, T. C. E. (2002). Measures for evaluating supply chain performance in transport logistics. *Transportation Research*, *38*, 439–456. https://doi.org/10.1016/S1366-5545(02)00019-4

Lambert, D. M., & Pohlen, T. L. (2001). Supply Chain Metrics. In *The International Journal of Logistics Management* (Vol. 12, Issue 1, pp. 1–19). https://doi.org/10.1108/09574090110806190

Le, T. T. (2020). Performance measures and metrics in a supply chain environment. In *Uncertain Supply*

Chain Management (Vol. 8, Issue 1). https://doi.org/10.5267/j.uscm.2019.8.003

Lee, H., & Whang, S. (1999). Decentralized multi-echelon supply chains: incentives and information. *Management Science*, *45*(5), 633–640. https://doi.org/10.1287/mnsc.45.5.633

Leuschner, R., Rogers, D. S., & Charvet, F. F. (2013). A meta-analysis of supply chain integration and firm performance. *Journal of Supply Chain Management*, *49*(2), 34–57. https://doi.org/10.1111/jscm.12013

Lockamy, A., & McCormack, K. (2004). Linking SCOR planning practices to supply chain performance: An exploratory study. *International Journal of Operations and Production Management*, *24*(12), 1192–1218. https://doi.org/10.1108/01443570410569010

Magee, R. P. (2001). Discussion of "Contracting theory and accounting." *Journal of Accounting and Economics*, *32*(1–3), 89–96. https://doi.org/10.1016/S0165-4101(01)00020-9

Mamabolo, A., & Myres, K. (2020). Performance Measurement in Emerging Market Social Enterprises using a Balanced Scorecard. *Journal of Social Entrepreneurship*, *11*(1), 65–87. https://doi.org/10.1080/19420676.2018.1561499

McLaughlin, J. A., & Jordan, G. B. (1999). Logic models: A tool for telling your program's performance story. *Evaluation and Program Planning*, *22*(1), 65–72. https://doi.org/10.1016/S0149-7189(98)00042-1

Melnyk, S. A., Stewart, D. M., & Swink, M. (2004). Metrics and performance measurement in operations management: Dealing with the metrics maze. *Journal of Operations Management*, *22*(3), 209–218. https://doi.org/10.1016/j.jom.2004.01.004

Mills, J., Platts, K., & Gregory, M. (1995). Manufacturing strategy: Literature review and some issues. *International Journal of Operations & Production Management*, *15*(4), 17–49. https://doi.org/10.1108/01443570110393414

Modell, S. (2001). Performance measurement and institutional processes: A study of managerial responses to public sector reform. *Management Accounting Research*, *12*(4), 437–464. https://doi.org/10.1006/mare.2001.0164

Muchiri, P., & Pintelon, L. (2008). Performance measurement using overall equipment effectiveness (OEE): Literature review and practical application discussion. *International Journal of Production Research*, *46*(13), 3517–3535. https://doi.org/10.1080/00207540601142645

Neely, A. (1999). The performance measurement revolution : why now and what next ? *International Journal of Operations & Production Management*, *19*(2), 205–228. https://doi.org/10.1108/01443579910247437

Neely, A. (2005). The evolution of performance measurement research: Developments in the last decade and a research agenda for the next. *International Journal of Operations and Production Management,* 25(12), 1264–1277. https://doi.org/10.1108/01443570510633648

Neely, A., & Bourne, M. (2000). Why Measurement Initiatives Fail. *Measuring Business Excellence*, *4*(4), 3–7. https://doi.org/10.1108/13683040010362283

Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design A literature review and research agenda. *International Journal of Operations & Production Management*, *15*(4), 80–116. https://doi.org/10.1108/01443579510083622

Power, M. (2004). Counting, control and calculation: Reflections on measuring and management. *Human Relations*, *57*(6), 765–783. https://doi.org/10.1177/0018726704044955

Rogers, D. S., Lambert, D. M., Croxton, K. L., & García-Dastugue, S. J. (2005). The International Journal of Logistics Management Emerald Article : Supply Chain Metrics. *The International Journal of Logistics Management*, *13*(2001). https://doi.org/10.1108/09574090110806190

Schaltegger, S., & Wagner, M. (2006). Integrative management of sustainability performance, measurement and reporting. *International Journal of Accounting, Auditing and Performance Evaluation*, *3*(1), 1–19. https://doi.org/10.1504/IJAAPE.2006.010098

Sharma, M. K., Bhagwat, R., & Dangayach, G. S. (2005). Practice of performance measurement: experience from Indian SMEs. *International Journal of Globalisation and Small Business*, *1*(2), 183–213. https://doi.org/10.1504/IJGSB.2005.008014

Singh, H., Motwani, J., & Kumar, A. (2000). A review and analysis of the state-of-the-art research on productivity measurement. *Industrial Management and Data Systems*, *100*(5), 234–241. https://doi.org/10.1108/02635570010335271

Wilson, D. D., & Collier, D. A. (2000). An empirical investigation of the Malcolm Baldrige National Quality Award causal model. *Decision Sciences*, *31*(2), 361–383. https://doi.org/10.1111/j.1540-5915.2000.tb01627.x

Yahya, S., & Goh, W. K. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, *6*(5), 457–468. https://doi.org/10.1108/13673270210450414