

Design of Sustainable Production Performance Systems for MSMEs Creative Industry Sub Sector

by M Riza Radyanto

Submission date: 08-Jun-2020 12:19PM (UTC+0700)

Submission ID: 1339871741

File name: Radyanto_and_E_N_Hayati_2020_J._Phys._Conf._Ser._1517_012016.pdf (951.73K)

Word count: 1806

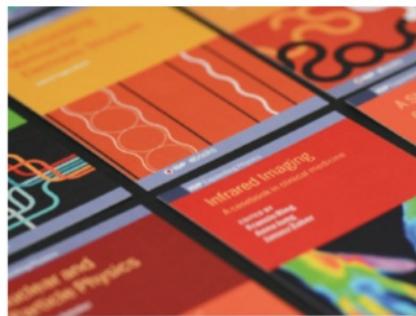
Character count: 10160

PAPER · OPEN ACCESS

Design of sustainable production performance systems for MSMEs creative industry sub sector

To cite this article: M R Radyanto and E N Hayati ⁴2020 *J. Phys.: Conf. Ser.* **1517** 012016

View the [article online](#) for updates and enhancements.

**IOP ebooks™**

Bringing together innovative digital publishing with leading authors from the global scientific community.

Start exploring the collection—download the first chapter of every title for free.

Design of sustainable production performance systems for MSMEs creative industry sub sector

M R Radyanto* and E N Hayati

Department of Industrial Engineering, Faculty of Engineering, Stikubank, Semarang, Indonesia

*Email: rizaradyanto@edu.unisbank.ac.id

Abstract. Business resilience for Micro, Small and Medium Enterprises (MSME) of Indonesia creative industry sub-sector is evident when it was able to survive when the economic crisis hit the world a few decades ago. Currently this sub-sector as one of the largest foreign exchange earners for the country. These, MSMEs have some weaknesses due to the limited ability of Human Resources (HR) in managing their business. From the available data, it is known that around 65% MSMEs in Central Java have several workers around 1 to 3 people, they only focus their work on production aspects so that they are less focus on other aspects such as financial, legality, marketing, and even product quality. This study aims to create a new model to help MSME run their business by involving 6 elements named HexaCyclus Spiral. This Performance Management System-based model would be facilitating business owners in taking action to improve their business on a sustainable basis if a decline in business performance is found. So that the model that consists of seven key performance indicators was expected to increase the performance of business products with a reporting system based on weekly to annual supplemented with a business early warning system.

1. Introduction

The resilience of businesses for MSME in Indonesia is evident when it was able to survive when the economic crisis that hit the world several decades ago. MSME creative industry is a creative economy actor as part of a new economic concept that relies on the idea of creativity, culture, and technology that can be a source of new growth for the national economy going forward [1]. The creative economy is a catalyst for Indonesia's economic growth amid the current slowing economic growth. In the creative economy, there is an ecosystem in which to form a Creative Industry in which 3 of the 16 sub-sectors of the Creative Economy, namely the culinary, fashion and craft sub-sectors contribute 3 large Gross Domestic Product. Problems faced by the creative industry MSMEs from the HR side obtained data that from 1427 MSME around 64.7% or 923 MSME had 1 to 3 employees consisting of family members, husbands, wives and children or siblings. As many as 409 MSME (28.7%) had 4 until 10 employees and the remaining 0.7% had more than 30 employees [2].

The limited number of the human resource of MSME actors causes limited capability in improving business performance; most of them have not implemented the Performance Management System in running their business. Various daily activities and routines faced by these business actors have taken up their time so that business actors have not implemented the system. Hudson & Smith [3] states that MSME has limited resources to implement performance management when compared to large



Content from this work may be used under the terms of the [Creative Commons Attribution 3.0 licence](https://creativecommons.org/licenses/by/3.0/). Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

companies because of the different levels of competitiveness, organizational structure and type of management practices applied.

Neely [4] states that the functions of performance measurement are: to find out the latest conditions by comparing past progress as a comparison, to communicate to stakeholders including customers, employees through routine reports, to determine priority steps to be carried out based on data business performance and to help the organization focus on taking action to improve performance by involving existing human resources.

According to Neely [5], the level of business performance was determined by how effective and efficient the businesses, used to determine what types of actions are taken to achieve it. Performance management can be interpreted as a process of quantifying the level of efficiency and effectiveness of an action. From the data of the MSME problems described above and the importance of applying the Performance Management System to the Creative Industries MSME by developing a new model.

2. Performance Measurement Model

The method used in this research is to develop a performance measurement model with the following concepts:

2.1. Aligning MSME Strategy

Hudson & Smith [3] argue that the structure and culture of small industries are different from large companies. The company's strategy must be made clear before measurements are designed and measurements must reflect the company's strategy.

2.2 Identifying the Measurement Area

Situation diagnosis identifies areas of measurement that might be potential for improvement; Therefore, better identification leads to the more effective utilization of SME resources [6].

2.3 Comparing Internal and External Factors

Comparing internal and external factors is an important way for continuous improvement. Especially for SMEs, can produce efficient and reliable information about the strengths and weaknesses of performance [6].

2.4 Multi Dimension Measurement

Hudson et al [7] state the importance of multi-dimensional measurement: six main dimensions can cover all aspects of a business: quality, time, customer satisfaction, finance, flexibility, and human resources. The dimensions must be chosen appropriately to reflect the company's strategy.

2.5 Continuous Improvement

According to the concept of endless improvement, measurement and analysis of measurement results is to provide direction for improvement [8],[9].

2.6 Sustainable Business Assistance

Sustainable business assistance for MSME is the right method for realizing this scale of business actors can move up the class [2].

3. Development of Production Performance Measurement Systems

Measurement of production performance identifies the status of a production process and works based on corrective actions according to the results of performance measurements. According to Neely [5], companies use different tools based on their shortcomings to improve their performance. In developing a performance measurement system using the Key Performance Indicator, which is developed namely:

1. Total Production, the number of products produced by MSME for a certain period in monthly, weekly or annual.

2. Production Equipment Capacity, installed production capacity owned by MSME.
3. Product Quality, product quality is produced based on quality grading and the number of customer complaints.
4. Levels of Business Innovation, product innovation produced and the number of product variants.
5. Sales Volume, the value of sales of products produced and circulated within a certain period
6. Quality Standards, the existence of product quality standards that are used as a reference for MSME in ensuring customer satisfaction.
7. SOP, the existence of Standard Operating Procedures owned by MSME.

If the production performance measurement system has been developed, it has to be implemented by MSME. It will have to interact with two environments are: organization and market [10].

4. Development of Sustainable Production Performance System Model

The next stage is to develop a model that is used by aligning the MSME strategy and production objectives in which it contains production performance with 7 Key Performance Indicators. For this model to be sustainable, it is necessary to apply the concept of continuous improvement using the HexaCyclus Spiral Model conducted by Business Assistance to MSMEs to advance their business as in Figure 1.

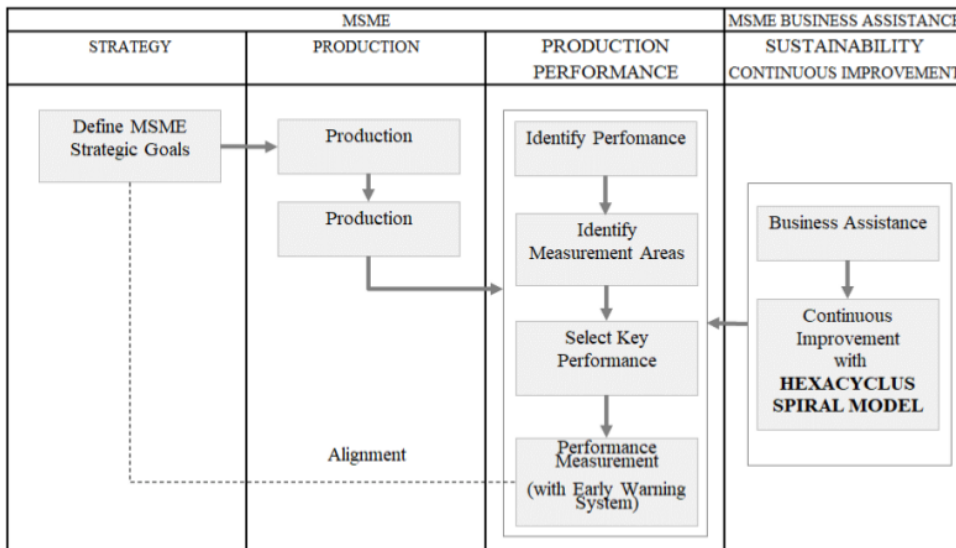


Figure 1. Design of sustainable production performance system

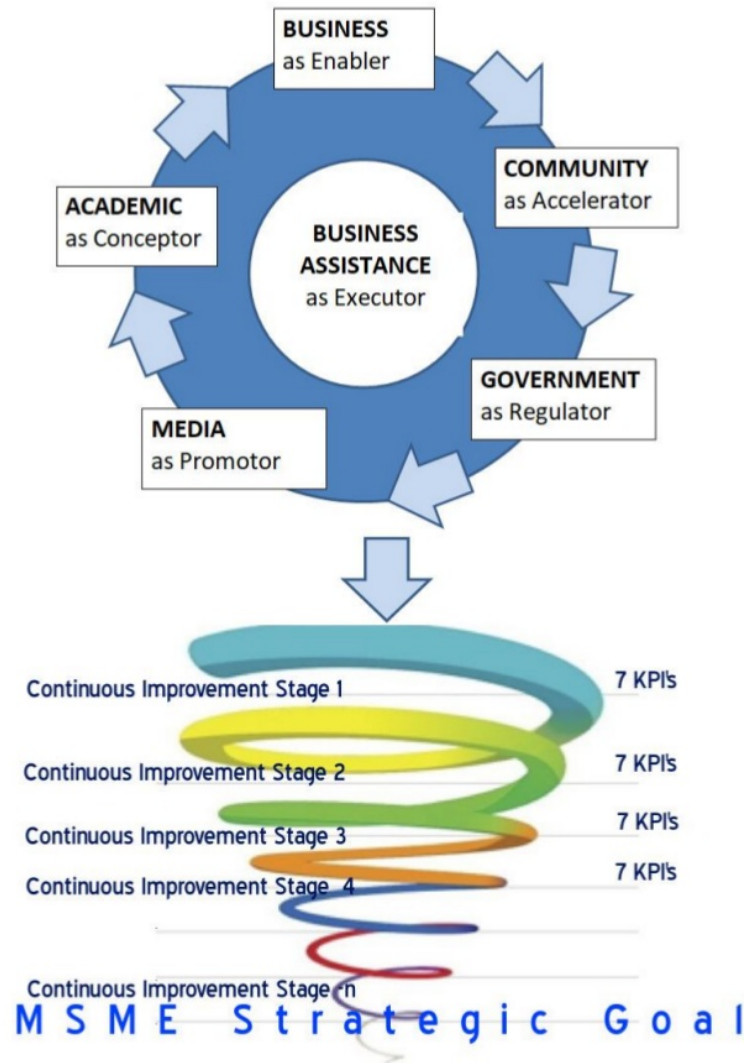


Figure 2. Hexa cyclus spiral model

In Figure 2, the HexaCyclus Spiral Model is a model used for the Sustainable Production Performance System which involves 6 elements in assisting MSME, namely: ABCGM + B (Academic, Business, Community, Government, Media + Business Assistance). will help MSME businesses with 7 Key Performance Indicators (KPI) through as many as 1 to 4 stages of Continuous Improvement with stage -n until its strategic objectives are achieved. Each stage has a specific time duration based on the KPI targets that have been set. In the previous studies, only discuss a few KPI's used to performance monitoring but none have discussed an ideal business assistance model to improve MSME business resilience. Using this model it is hoped that their business performance can be achieved as intended.

5. Conclusion

In this paper, it is concluded that MSME in the Creative Industry Sub-Sector requires a system that is used to measure production performance within a certain period using a performance management system. A new model, namely HexaCyclus Spiral that is predicted to be very effective and efficient in improving MSME performance based on continuous improvement actions. The role of the 6 actors in assisting their businesses is very effective and efficient for the MSME through the results of this study had a positive impact on business development and grow significantly.

References

- [1] Pangestu ME 2008 Pengembangan Industri Kreatif Menuju Visi Ekonomi Kreatif Indonesia 2025” Departemen Perdagangan Republik Indonesia
- [2] Radyanto Mohammad Riza 2018 Pemetaan Permasalahan UMKM – Mewujudkan UMKM Naik Kelas Berkelanjutan” Dinas Koperasi dan UKM Provinsi Jawa Tengah
- [3] Hudson M Smith D 2007 Implementing Strategically Aligned Performance Measurement in Small Firms. *International Journal of Production Economics* 106(2), pp. 393-408
- [4] Neely A 1999 The performance measurement revolution: why now and what next? *International journal of operation & production management*, 19(2), pp. 205-228
- [5] Neely A Bourne M Kennerley, M 2000. Performance Measurement System Design: Developing and Testing a Process-based Approach. *International Journal of Operations & Production Management*, 20(10), pp. 1119-1145
- [6] Gomes C F. Yasin M M 2011 A systematic benchmarking perspective on performance management of global small to medium-sized organizations: An implementation-based approach. *Benchmarking: An international journal* 18(4), pp. 543–562
- [7] Hudson M. Smart A Bourne M 2001 Theory and Practice in SME Performance Measurement Systems. *International Journal of Operations & Production Management* 21(8) pp. 1096-1115
- [8] Al-Najjar B. Kans M 2006 A Model to Identify Relevant Data for Problem Tracing and Maintenance Cost-Effective Decisions: A case study *International Journal of productivity* 55(8) pp. 616-637
- [9] Oakland JS 2003. *Total quality management: text with cases*. 3rd ed, Amsterdam: Elsevier Butterworth-Heinemann
- [10] 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), pp. 80-116

Design of Sustainable Production Performance Systems for MSMEs Creative Industry Sub Sector

ORIGINALITY REPORT

19%

SIMILARITY INDEX

18%

INTERNET SOURCES

4%

PUBLICATIONS

13%

STUDENT PAPERS

PRIMARY SOURCES

1	Inu.diva-portal.org Internet Source	6%
2	Submitted to University of Basrah - College of Science Student Paper	5%
3	hdl.handle.net Internet Source	3%
4	dir.iub.edu.bd:8080 Internet Source	2%
5	Submitted to Akdeniz Karpaz Üniversitesi Student Paper	1%
6	manualzz.com Internet Source	1%
7	kth.diva-portal.org Internet Source	1%
8	Submitted to School of Business and Management ITB Student Paper	1%



Exclude quotes On

Exclude matches < 1%

Exclude bibliography On