Optimizing Information System Management in Micro, Small, and Medium Enterprises: A COBIT 5 Framework Approach for Enhanced Quality

Ramadhan Syaeful Bahri[1], Yeffry Handoko Putra[2]

[1, 2] Magister of Information System, Universitas Komputer Indonesia, Dipati Ukur Street No.112-116, Lebakgede, Coblong, Bandung City, Indonesia, 40132
Email: ramadhansyaefulbahri@gmail.com

A B S T R A C T

This study aims to establish a framework for governing information systems in Micro, Small, and Medium Enterprises (MSMEs), focusing on decision-making processes in advanced and emerging MSME clusters. COBIT 5 is employed to identify variables and guide the research stages. The research will specifically examine MSMEs located in Bandung District. The evaluation of governance quality for each target, which includes Nurtured MSMEs and Advanced MSMEs, involves utilizing the Process Assessment Model (PAM) derived from COBIT 5. In addition to gathering preliminary data through interviews and surveys conducted in Bandung District, this initial investigation also involved a comparative analysis of various methods employed in prior research about the study's subject matter. The findings from this study reveal that the data processing procedures for MSMEs in the Bandung Regency involve the use of computer/laptop devices. However, certain MSMEs face challenges in adequately managing the acquired data, emphasizing the necessity for more effective data management to ensure the produced data attains the quality required for constructing a model for advanced MSMEs. On the contrary, some other MSMEs in the Bandung Regency exhibit proficient data management practices, conducting regular evaluations of data and information, and basing their decisions on the analyzed data. These two scenarios serve as benchmarks for understanding the decision-making processes of both emerging and advanced MSMEs about data. The aspiration is that the outcomes of this study can serve as a benchmark, offering best practices for MSMEs to enhance the quality of their Decision-Making and achieve excellence in their business operations.

Keywords: Information System Management, Governance, MSMEs, COBIT 5, Decision-Making

Introduction

The era of globalization facilitates the rapid progress of information technology, a tool utilized by various business entities to expand their outreach and enhance efficiency by incorporating information systems into their daily activities. This integration extends their impact to virtually every corner of the global community [1]. Enhancing the performance and competitiveness of MSMEs relies heavily on the effective governance and management of information systems. Through effective governance, MSMEs can optimize resource utilization, while proficient management of information systems facilitates the collection, processing, and analysis of data, contributing to improved decision-making. In the current era of fourth-generation industry, success is no longer solely determined by a company's size but rather by its agility, which is a crucial factor for achieving rapid accomplishments [2]. The increasing need for business activities acts as a primary driver, encouraging the adoption of information technology, particularly in organizational settings [3]. Nevertheless, not every MSMEs that has transitioned to a digital framework and employs information systems demonstrates effective governance and management of these systems. In supported MSMEs, the quality of governance and information system management tends to be subpar, resulting in inadequate information output that is unsuitable for informed decision-making [4]. Technological progress influences changes in consumer behavior, impacting

businesses in the process. Special attention should be given to MSMEs, especially micro and small businesses since not all of them have a consistently strong organizational culture. Within an organization, the essential requirement for effective problem-solving lies in the collaborative interaction between managers/leaders and computer systems [5]. Management and information systems in assisted MSMEs are often inadequate, not producing adequate information for use in decision-making. This condition may arise because most of the MSMEs have only started using information systems during the coaching stage carried out by agencies such as the Department of Industry, Trade, Cooperatives, and MSMEs or other institutions. Another factor is that the quality of the information system built is not optimal in supporting decision-making and MSMEs business growth [6]. A system for accounting information consists of various tangible and intangible elements working together to convert financial data into valuable insights. This process supports managers and external stakeholders in making informed decisions [7]. To ensure the effective execution of the audit planning process, it is essential to have a framework that serves as a guiding reference for audits related to information system governance [8]. This situation arises predominantly due to the limited capacity of assisted MSMEs in terms of both human resources and information system management. It may also be influenced by the quality of the established information system. Hence, this research aims to assess the governance and management quality of information systems in supported MSMEs through the Control Objectives for Information and Related Technology (COBIT) 5 Framework. The goal is to compare these aspects with those of other MSMEs, seeking ways to enhance the quality and capabilities of assisted MSMEs to elevate them to the status of advanced MSMEs. This study aims to implement the COBIT 5 framework to derive optimal practices for governing and managing information systems, specifically tailored to enhance the quality of supported MSMEs and elevate them to the status of advanced MSMEs. Every organization, irrespective of its size or type of operations, is required to adhere to a growing demand for compliance with laws, regulations, standards, or best practices [9].

The essence of collaboration should be emphasized, necessitating a collaborative framework between the Leading MSMEs and the Fostered MSMEs. The fostering process by Leading MSMEs would not reach its full potential without the transfer of knowledge, instilling a positive culture, and fostering a sense of unity between the Superior MSMEs and the MSMEs they support [10]. Naturally, the government plays a pivotal role as the mediator and motivator in this dynamic. Nevertheless, to facilitate collaboration without encountering undue challenges, it is essential to collectively address obstacles by maintaining an appropriate coaching and coordination model among the government, MSMEs, Buyers, and Suppliers. Engaging in social media advertising management can yield intangible benefits when actively participating in the market [11]. In this contemporary era, particularly post-COVID-19, Information Technology has emerged as a cornerstone in expediting the enhancement of supported MSMEs quality [12]. However, the challenge lies in determining the most effective and optimal utilization of Information Technology to make it a pivotal tool. One of the recognized Governance Frameworks, COBIT 5, offers guidance on becoming the primary tool in advancing supported MSMEs and transferring valuable practices from Leading MSMEs in a practical, straightforward manner [13]. A proficient leading tool should adhere to the SMART criteria, encompassing Specific, Measurable, Achievable, Realistic, and effective Time Management.

Initiated in 2012, the IT management framework COBIT, created by the ISACA, serves as a tool to support the development, organization, and implementation of strategies related to information management and governance within businesses. It is designed to aid in the management and assessment of risks associated with an organization's information assets stored in the cloud and to evaluate the impact of these risks on the organization. Governance processes aim to guarantee the optimal achievement of enterprise objectives by assessing stakeholder needs, conditions, and options [14]. This involves establishing direction through prioritization and

monitoring performance against agreed-upon goals. On the other hand, management processes focus on executing plans, overseeing operations, and monitoring performance. Their role is to ensure that the processes defined by the governance body align with the organization's objectives [14].

The data collected from supported MSMEs and advanced MSMEs will undergo evaluation according to the principles of COBIT 5. COBIT 5 outlines a comprehensive set of processes grouped into two main categories: 1) IT Governance and 2) IT Management. These categories are further divided into five domains and 40 processes. COBIT is utilized for the strategic planning, execution, monitoring, and assessment of IT governance. This incorporates the integration of control objectives, audits, policies, procedures, and maturity models, addressing diverse areas, domains, and processes delineated in COBIT [15]. This evaluation will encompass an examination of the integration of all features within the information system and the cohesion of the information system framework in both supported and advanced MSMEs. Utilizing COBIT 5, the measurement will adopt a comprehensive approach by taking into account the various interrelated components. Subsequently, an analysis will be conducted on the governance and management quality of both supported and advanced MSMEs.

In earlier studies, the COBIT 5 framework has been utilized as an evaluative instrument, encompassing activities such as assessing IT Governance Maturity, creating a competency model for IT personnel in Enterprise Architecture, and conducting risk analysis employing COBIT 5 [16]. According to Lediwara et al.'s research, it is asserted that the COBIT 5 framework proves to be a reasonably effective approach for companies to assess IT governance [17]. The significance of IT Governance is paramount, and the COBIT serves as a valuable instrument for streamlining the implementation of IT Governance. Specifically, COBIT 5 can be utilized as a management guide by incorporating all the domains it encompasses [18]. COBIT 5 is frequently employed in the context of IT Governance as it offers metrics, indicators, processes, and a compilation of best practices. These resources aid organizations in optimizing information technology management and establishing suitable controls for IT management [19]. The Information Technology Governance Institute (ITGI) within the COBIT 5 framework proposes that the COBIT framework comprises 37 processes categorized into 5 domains [20]. The main strategy for achieving high service quality, characterized by speed and adherence to service standards, along with enhanced accountability and transparency, is through the effective implementation of ITGI [21]. The COBIT 5 Framework offers an evaluation instrument known as the PAM, which Tiza and Handoko employed to assess the management practices within globally oriented educational foundations [22]. Numerous other research endeavors have utilized the COBIT 5 Framework as a tool for conducting audits and overseeing project management [23], [24]. COBIT encompasses seven enablers elaborated upon in the following sections [25]:

1. Enabler 1: To implement the principle, policies, and framework methodology that serves as the foundation for translating desired behavior into tangible guidance for day-to-day management activities.
2. Enabler 2: This involves the organization outlining a series of steps and activities to achieve both objectives and targets. Processes and workflows encompass a set of practices and actions designed to attain specific goals, yielding outputs that contribute to overarching IT objectives.
3. Enabler 3: The organizational structure, recognized as the primary decision-making entity, will be identified by the organization. Organizational structures, delineated by rules and relevant legislation, constitute the major decision-making entities in a business. The effective and responsible organizational structure emphasizes the division of roles, authority, and departments.
4. Enabler 4: The success of management activities relies on establishing and delineating culture, ethics, and behavior. Productivity in governance and management actions necessitates active

participation, adherence to corporate principles, and a commitment to professional attitudes. The development of corporate culture is contingent upon the establishment of codes of behavior and ethics. Achieving synergy, organizational learning, and cooperation requires alignment between corporate ethics and culture with local and regional partners.

5. Enabler 5: The survey emphasizes information, a pivotal element in our study. In this approach, the enterprise must address all information generated by the organization, as it is crucial for sustaining business operations. While information is vital for the organization's functionality and effective governance, at the operational level, knowledge, information, and strategic business insight constitute the enterprise's primary outputs. The success of management and awareness of control, including risk mitigation, hinge on the effective utilization of information and communication activities. Consequently, the seamless flow of necessary information between departments and stakeholders, along with the regeneration and management of organizational knowledge, is imperative for the implementation of COBIT 5.

6. Enabler 6: Recognize all the services, infrastructures, and applications responsible for processing and transmitting the organization's information. IT systems that provide the company with IT services, infrastructure, and applications need to align with business needs and be connected to the organizational strategy.

7. Enabler 7: Ultimately, the competencies of individuals play a pivotal role in the success of activities. They are crucial for the successful execution of all tasks, including the capacity to make informed decisions and implement corrective, detective, and preventive measures. In competitive markets and dynamic environments, effective human capital planning and HR management geared towards skilled personnel are indispensable for business survival. Human resources serve as prerequisites for all functionalities and objectives.
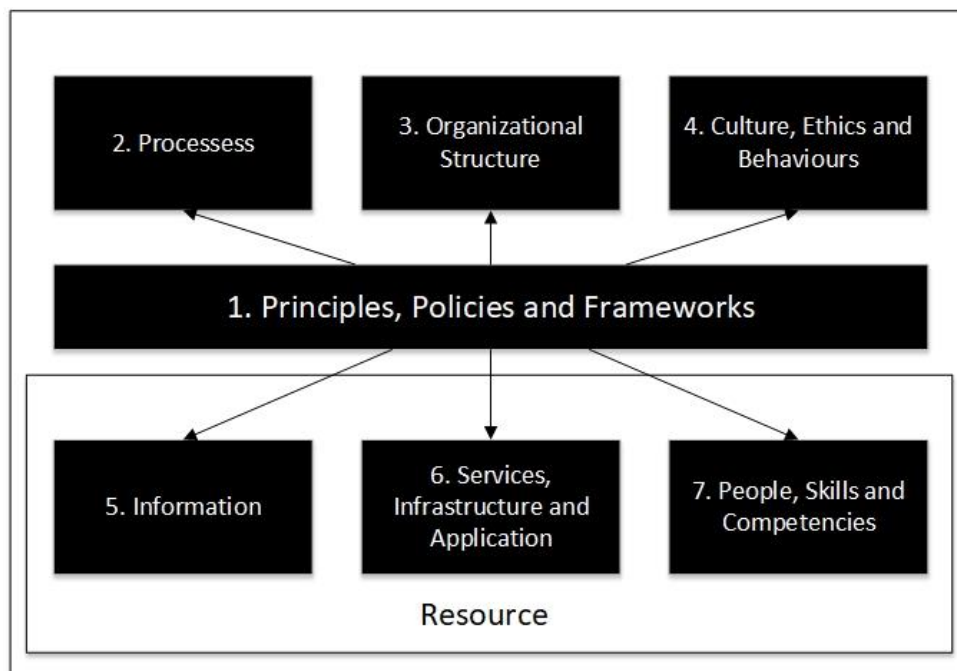

Figure 1. COBIT 5 Enablers [25]

In the context of MSMEs, the effectiveness of information system governance and management is observable through the successful support of business activities and the simplification of complex systems. The evaluation of governance can be quantified using the maturity model approach within the COBIT Framework. Setiawan and Andry [14] employing the

COBIT 5 Framework, an assessment of governance performance was conducted at the National Library. The objective of utilizing the COBIT framework is to facilitate the measurement of the attainment of information system implementation goals for MSMEs. This framework serves as a guide for enhancing the efficiency and effectiveness of information systems, enabling MSMEs to excel [26]. The objective of this study is to develop a governance model for information systems in MSMEs, specifically focusing on the decision-making processes of both advanced MSMEs and those in the developmental phase. The COBIT 5 framework is utilized in this research to identify variables and guide the various stages of the study.

Method

Before delving into the findings, it's important to reiterate the research objective. This study seeks to enhance the application of the COBIT 5 framework to establish best practices in governance and information system management. The goal is to elevate the quality of mentored MSMEs, enabling them to attain the status of superior MSMEs. The utilization of the COBIT 5 Framework serves as a primary tool to efficiently transfer valuable practices from advanced MSMEs [27]. The assessment of governance quality for each focus, namely Supported MSMEs and Advanced MSMEs, involves employing the PAM derived from COBIT 5. This maturity testing stage aligns with the principles of COBIT 5. The preliminary phase of this research will involve conducting interviews and surveys with the Bandung Regency MSMEs Group Integrated Business Service Center, also referred to as PLUT KUMKM, as well as MSMEs in the Bandung Regency Area. In the preliminary stage of this study, a comparative analysis was conducted by examining various approaches employed in prior research relevant to the study topic. The execution of this research adheres to a procedural flow depicted in Figure 2.
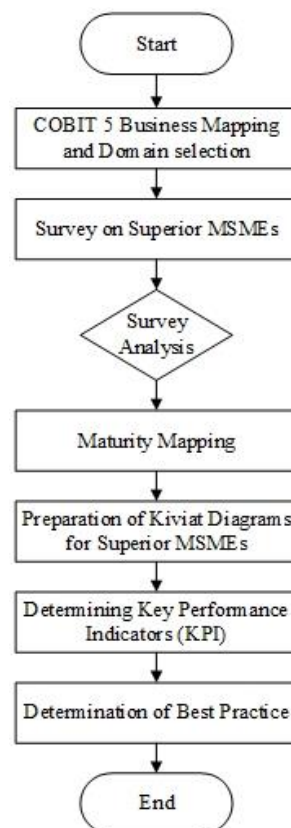

Figure 2. Research Flowchart or research stages (Source: Created by authors)

Results and Discussion

Bandung Regency comprises 31 sub-districts, each hosting diverse industrial clusters encompassing processed food, crafts, culinary items, and export production materials. This study specifically took place in two sub-districts: Soreang, and Margaasih.

Amid the challenges posed by the COVID-19 pandemic in 2020, MSMEs in Bandung Regency encountered significant difficulties in marketing their products. Despite these hurdles, many MSMEs not only managed to endure but also demonstrated growth post the COVID-19 pandemic. As of the latest available data, MSMEs activities in Bandung Regency, particularly in the culinary sector, indicate ongoing development. The literature data from open data Jabar, reveals that the culinary sector, including food and beverages, has been the predominant field for MSMEs in Bandung Regency from 2019 to 2021, respectively amounting to 134,235-142,541-151,360-160,725-170,669.

In the year 2021, there was a surge in the quantity of MSMEs in Bandung Regency, witnessing an increase of 27,341 business entities. The Bandung Regency Cooperatives and MSMEs Service, under the auspices of the government, categorizes the business sector into various segments, encompassing accessories, batik, embroidery, crafts, fashion, convection, culinary, food and beverages, services, and other sectors.

A. Selection of Measuring Variables using COBIT 5

The cascade of COBIT's objectives signifies the process of translating stakeholder needs into a viable strategy within the organization [28]. The research variables were derived from COBIT 5, taking the shape of Control Targets and the PAM stages corresponding to each business capacity and activity within MSMEs. The implementation of PAM occurs incrementally, addressing each observed Business Process.

Within PAM COBIT, the determination of capability levels relies on nine process attributes (initiated with PA) specified in ISO/IEC 15504-2, as illustrated in Figure 3.

Level 0 (incomplete) : The process is not implemented, as there is minimal or no evidence of systematically attaining the process objectives.

Level 1 (performed) : The implemented process accomplishes its goals.

Level 2 (managed) : The implemented process has been effectively overseen, involving planning, monitoring, and adjustments.

Level 3 (established) : The ongoing implementation of the process follows a defined procedure and is capable of achieving the intended results.

Level 4 (predictable) : The defined process operates within set parameters to consistently achieve its intended results.

Level 5 (optimizing) : Processes that are predictable and continually enhanced to align with the organization's current business objectives.

Adaptation of activities is tailored to the design factors inherent in MSMEs. Not every MSMEs necessitates a comprehensive integrated information system; elements such as Standard Operating Procedures (SOPs) and record-keeping already function as components of an information system, fulfilling customer service and documentation needs. Through a literature review, various measuring variables were identified, termed as control variables in this study for MSMEs. However, since there is no established basis distinguishing control variables as Key Performance Indicators (KPIs) for advanced MSMEs and those for mentored MSMEs [29], a survey was initiated to a) delineate the boundaries of supported MSMEs, and b) ascertain the potential for these supported MSMEs to advance to superior status in the following scenario:
1. Supported MSMEs are defined as MSMEs with a Fostered Control Variable (FCV) level surpassing the average value.

2. Supported MSMEs with the potential to advance to superior status are those with an Innovation Control Variable (ICV) level exceeding the average.
3. The assessment of FCV and ICV levels is based on the findings obtained from surveys.
When the capacity and business activities fall short of the evaluation criteria, the management capacity will be positioned at that specific level, as illustrated in Figure 3.
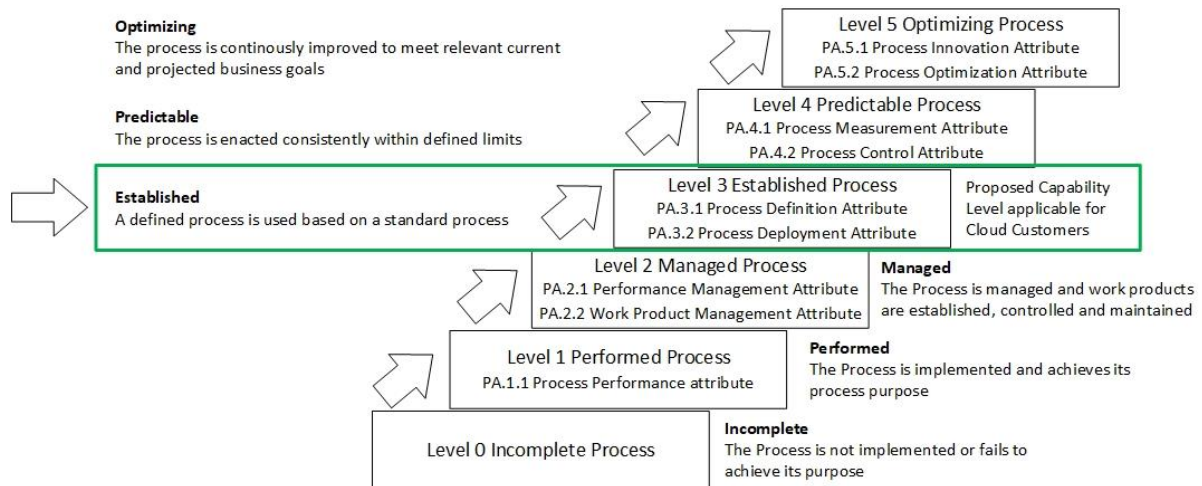

Figure 3. The Capability Level of the Business Management Process
Source: Recreated by author

The COBIT 5 domain used in this research is the Domain of Deliver, Service, and Support (DSS). DSS is part of the quintet of domains in COBIT 5, situated within the overarching scope of Management of Enterprise IT. This domain builds upon the earlier Deliver and Support (DS) domain present in the prior COBIT iteration, COBIT 4.1. DSS primarily focuses on IT services and technical support processes, covering aspects like security systems, continuity services, training, and ongoing data management [30]. The DSS domain concentrates on elements of information technology delivery, encompassing the execution of applications in IT delivery and services. It also involves support for ongoing business processes, including problem management, to ensure the continuity of business processes. Additionally, it addresses the control, assessment, and long-term planning of business processes [31].

The DSS domain comprises six control objectives, outlined as follows [30]:
DSS01 - Managing Operations
DSS02 - Managing Service Requests and Incidents
DSS03 - Managing Issues
DSS04 - Managing Sustainability
DSS05 - Managing Service Security
DSS06 - Managing Business Process Controls

Of the 6 domains above, this research focuses on DSS01 related to managing operations, and DSS03 about managing issues. This specific domain centers on the effective and efficient delivery of data, services, and support for information systems [32].

The maturity level within the DSS01 Domain, as indicated by Amali et al.'s research, suggests a growing requirement for a work environment conducive to IT in the management of organizational processes. This is manifested in the provision of IT equipment to enhance academic performance and support other systems within the organization, such as the deployment of blade

servers to optimize system performance. At this level, the organization effectively manages the requirements for computer operations internally. Additionally, the organization has allocated resources for IT and provided training for personnel involved in IT-related tasks. Moreover, the organization has aptly addressed the necessity for IT asset maintenance, implementing a restricted access policy to limit access to IT facilities to designated IT personnel [33].

The same study elucidates the DSS03 (problem management) process domain, achieving a maturity level score of 3.26, indicating that the process is at level 3, Established (well-defined). This maturity level signifies that the IT service process has been implemented following established process standards, enabling the process to yield positive outcomes. Evident in this level is the heightened awareness of the significance of problem management, along with efforts to pinpoint the root causes of issues in IT services. Additionally, the escalation process for addressing IT service problems is standardized. The problem-solving steps involve documentation and problem identification carried out by the response team using centralized tools [33].

The FCV and ICV of this research were developed from the Control Objectives of COBIT 5, in Table 1 and Table 2 the definitions of these Control Variables are shown.

Table 1. Determination of ICV

No.	ICV	COBIT 5 Control Goal	Explanation
1.	I1	DSS01.01 performs operational procedures	This control variable focuses on the management of operational procedures according to established schedules, ensuring that the recording of business processes adheres to established policies and procedures. Additionally, it involves the observation of security procedures, including data backup measures.
2.	I2	DSS01.02 manages outsourced IT services	This control variable focuses on the management of operational procedures according to established schedules, ensuring that the recording of business processes adheres to established policies and procedures. Additionally, it involves the observation of security procedures, including data backup measures.
3.	I3	DSS01.03 monitor infrastructure	These control variables focus on determining the extent of information to be documented considering risk and performance factors, overseeing infrastructure lists, setting up protocols for monitoring event logs, and conducting periodic reviews. Documentation is maintained for the company-owned infrastructure.
4.	I4	DSS01.04 manages the environment	This control variable addresses the management of the company's surroundings, encompassing the arrangement of IT equipment, policies governing access to or entry into the IT environment, identification of potential issues like human error or natural disasters, and the company's approach to supervising and regulating devices for monitoring the IT environment.

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No.	ICV	COBIT 5 Control Goal	Explanation
5.	I5	DSS01.05 manage facilities	This control variable pertains to the management of facilities, encompassing electrical equipment, advanced communication media, and the administration of social media platforms to drive innovation for quality improvement.

This Capability Level corresponds to information system management for advanced MSMEs or enterprises that have transitioned into medium-sized businesses. Assessing the level of capability is not directly comparable to the control variables held by newly established MSMEs or supported MSMEs (refer to Table 1). However, the potential for mentored MSMEs to advance to advanced MSME status can be determined by mapping the control variables specific to mentored MSMEs. Through calculations, these variables can be correlated with the capability level of advanced MSMEs.

Table 2. Determination of FCV

No.	FCV	COBIT 5 Control Goal	Explanation
1.	B1	DSS03.01 identifies and classifies problems	These control variables will be applied in supported MSMEs, initiating the establishment and implementation of criteria and procedures for reporting issues, which involve classification, categorization, and prioritization of problems. Priority levels are determined through consultation with the business, and the prompt identification and analysis of root causes are managed by agreed Service Level Agreements (SLAs). Subsequently, problems are categorized based on their priority level in terms of business impact and urgency.
	B3	DSS03.02 investigates and diagnoses problems	This control variable is employed to conduct a thorough examination of the underlying causes and diagnose issues within the management domain of Assisted MSMEs. Identifying problems involves comparing incident data with information in the database and reporting progress in addressing the occurring issues.
	B3	DSS03.03 raises a known error	Once the root cause is determined, a record of identified errors is created, and the most optimal solution is applied. Assessing process solutions for known errors is carried out by considering factors such as benefit, business impact, and urgency. The company will retain records of issues resolved, ensuring that if a similar problem arises, an appropriate solution can be implemented.
	B4	DSS03.04 resolves and closes problems	These control variables will propose enduring solutions to tackle the core of current issues by engaging stakeholders in discussions regarding the successful elimination of problems and enhancing the problem-solving schedule. Additionally, they ensure consistent progress reports in addressing issues and errors.

No.	FCV	COBIT 5 Control Goal	Explanation
	B5	DSS03.05 to perform proactive problem management	These control variables involve gathering and analyzing operational data, with a particular focus on incidents, to detect trends that could signal potential issues. They also include logging issue records to facilitate assessment.

B. Preparation of Questionnaires

Questionnaires were distributed to participants possessing a level of knowledge about the business processes and operational systems in consideration, concerning the COBIT framework. Therefore, these participants belonged to type A (Accountability) or C (Consultant) among the four categories proposed by the COBIT framework: R (Responsibility), A (Accountability), C (Consultant), and I (Informed). The research involved a total of 2 respondents. The questionnaire comprised 5 response levels: 5 (Very good), 4 (Good), 3 (Fair), 2 (Less), and 1 (Very little), as detailed in Table 3.

Table 3. Questions and Levels of Answers

Variables	Questions	1	2	3	4	5
I1	The organization has established operational procedures or information systems that are comprehensible to its employees.	☐	☐	☐	☐	☐
I2	Organizations enlist external parties to assist with various business operations, including delivery fleets, outsourcing for cleaning services, and other functions.	☐	☐	☐	☐	☐
I3	The organization possesses computer equipment or information systems dedicated to documenting processes.	☐	☐	☐	☐	☐
I4	The process of recording data is facilitated by a workspace that is furnished with air conditioning.	☐	☐	☐	☐	☐
I5	The organization saves its corporate data on a computer and routinely creates backup copies.	☐	☐	☐	☐	☐
B1	The organization observed challenges associated with inaccuracies in the data.	☐	☐	☐	☐	☐
B2	The organization promptly addresses data inaccuracies without waiting for the subsequent meeting.	☐	☐	☐	☐	☐
B3	The resolution to the issue involves reapplying the solution previously implemented.	☐	☐	☐	☐	☐
B4	The issue of inaccuracies in the recording is revisited in a meeting involving all relevant stakeholders to discuss potential solutions.	☐	☐	☐	☐	☐

Variables	Questions	1	2	3	4	5
B5	The organization has proactively considered the risk of potential errors, even in situations where such incidents have not occurred previously, such as data loss or data encryption.	☐	☐	☐	☐	☐

The results of the average ICP and average FCV can be plotted in the form of a radar diagram (Figure 4). The ICP value has a relatively low value for MSMEs in Bandung Regency, however, the value of the Fostered Control Variable has an average value above 3. This shows that regardless of the amount of turnover, in terms of knowledge utilization of MSMEs in Bandung Regency. This includes fostered MSMEs that have the potential to develop into superior MSMEs.
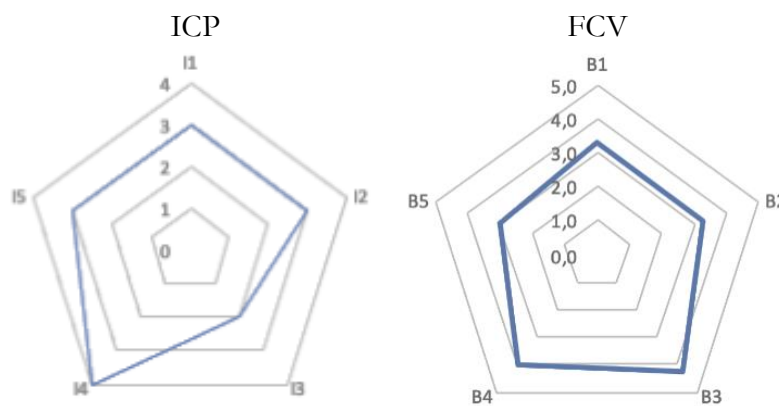

Figure 4. ICP and FCV

C. Determination of KPIs to become superior MSMEs

Presently, various KPIs can be strategically formulated to serve as Best Practices for enhancing MSMEs to attain the status of Superior MSMEs. The KPIs suggested in this study were derived from consultations with the Bandung Regency Cooperatives and MSMEs Service, as outlined in Table 4.

Table 4. KPI for becoming a superior MSMEs

No	KPI	Supporting Control Variables	Max. Level
1	A precise recording procedure is in place to facilitate business operations.	I3, B1, B2	4,17
2	A process for safeguarding data is in operation.	I5, B4	3,5
3	A study on potential solutions is currently being distributed.	B2, B3, B4	4,00
4	Certain amenities contribute to the comfort of the work environment.	I4	3

Source: Personal Data Processing

D. Determination of Best Practices and Recommendations

Identification of Best Practices takes the form of recommended guidelines for initiating and expediting the progression toward superior MSMEs, as indicated by the outcomes from the initial research questionnaire presented in Table 5.

Table 5. Determination of Best Practices and Recommendations

No.	KPI	Variables	Best Practices and Recommendations
1	A precise recording procedure is in place to facilitate business operations.	I3, B1, B2	1. MSMEs are required to possess computer equipment or information systems for documenting transaction processes, reports, and various business activities. This facilitates the preparation of robust data, serving as a foundation for informed decision-making. 2. MSMEs need to consistently record any data inaccuracy problems, such as history and company data in resolving similar problems in the future. 3. MSMEs need to correct data inaccuracies as soon as possible, to avoid greater risks that could cause errors to be difficult to find or difficult to resolve.
2	A process for safeguarding data is in operation.	I5, B4	1. MSMEs must save corporate data on a computer and perform regular backups. This is intended to maintain data security and minimize the risk of data loss. 2. Solutions for inaccurate recordings are to be discussed at a meeting with all concerned. This is intended so that every problem that occurs can be evaluated, a preventative solution can be identified, and incidents that have occurred can be shared with other departments to ensure equitable distribution of information.
3	A study on potential solutions is currently being distributed.	B2, B3, B4	1. MSMEs should promptly address data inaccuracies without delaying the next meeting, ensuring swift problem detection and rapid problem-solving. 2. The solution involves reapplying the previous resolution and utilizing stored data to address any future problems that may arise. 3. Resolution: Instances of inaccuracies in recording should be revisited in a

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No.	KPI	Variables	Best Practices and Recommendations
			meeting involving all stakeholders to collaboratively devise an improved solution.
4	Certain amenities contribute to the comfort of the work environment.	I4	The data recording process does not require assistance from a workspace furnished with air conditioning.

Source: Personal Data Processing

Conclusion

MSMEs should leverage computers or information systems to monitor their transactions, reports, and various business activities, facilitating the compilation of reliable data for decision-making. It is crucial for MSMEs to consistently document any data discrepancies, as this historical data proves beneficial in resolving similar issues in the future. Swift correction of data errors is essential to prevent more significant challenges that may be challenging to detect or rectify. Ensuring the secure storage and regular backup of company data on computers is vital for data security and mitigating the risk of data loss. Conducting meetings with all relevant stakeholders should be prioritized to discuss solutions for rectifying inaccurate records. This approach ensures that problems are assessed, solutions are devised, and information is shared throughout the organization. MSMEs should efficiently address data inaccuracies, even outside of scheduled meetings, to expedite issue discovery and resolution. Employing the same solution for similar problems, utilizing stored data, proves advantageous in future scenarios. In summary, engaging in discussions about data inaccuracies with all concerned parties during meetings can lead to more effective collaborative solutions. Additionally, there is no necessity for air-conditioned workspaces in the data recording process.

Acknowledgment

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