

# How to Manage Internal Control in Small and Medium Industries (Empirical Study in Magelang District, Central Java Province, Indonesia)

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**Abstract:** The objectives of the research are to determine that internal control and business strategy being the important things in small medium industries. Many SMI being collapse because of many factors, it can be from their internal control, business strategy, limitation of fund, and also human resources. This research is trying to identify what is the main problem happen in small and medium industries. What is the regulation of internal control system in the SMI. The method of the research are survey by using accidental sampling technique and also focus group discussion to 100 SMI in Magelang. There are 5 research indicators: control environment, risk assessment, control activity, information and communication, and monitoring activity. The finding of research are 1) The main problem of SMI is human resources, 2) Many factors also make a problem in SMI like target market and business strategy, 3) all of SMI have their own system to control them, 4) many SMI collaborate in order to achieve customer's want.

**Keywords:** Small Medium Industries (SMI), Internal Control, Control Environment, Risk Assessment, Control Activity, Information and Communication, Monitoring Activity

## 1. Introduction

Small medium industry is an important part of national economic system. It contributes equitable economic growth in providing employment supply and increasing society earning and strengthen national industries. The success of industry and trade sector has been encouraged to emerge national economic structure (Ridwan, 2006). SMI significantly contribute to economic growth in most developed and developing countries (Ahmad, 2017), (Agwu, 2014). The phenomena in Indonesia, SMI is one sector that plays important role in the domestic economic growth as provider of considerable employment for small and medium-size people. It shown by SMI that become a source of primary and secondary livelihoods for Indonesian society (Tambunan, 2008).

With their wealth of natural resources and human resources, SMI become important asset for economic development because easily adapt to market demand fluctuation. SMI is one of market players that has important existence in determine strategy in public policy. The role of SMI is not merely as support in contribution of the national economy, it has very central role indeed.

The most failure of SMI since financial crisis in 2007 to 2008 caused by ineffective of internal control system. This failure closely related to managers, it is an assumption of its development of internal management control system will expense costs without tangible result

(Syrjä, 2012). The most SMI leaders inconsiderate to develop internal control system because of lack of human and financial resource (Luyolo and Ukpere, 2014). SMI leaders are responsible to addressing the problem of corporate fraud and business failure by adopting strategies that improve the internal business activities. It is important for business sustainability that SMI leaders must encourage to strengthen the company internal control (Kumar, 2013); (Luyolo and Ukpere, 2014). This research has studied the strategies used by leaders to improve the company internal control.

Grollman and Colby, (1978) said that the most specific problems face by small companies in implementing internal control are: 1) procedures in company are informally designed. 2) the limited experience of financial in its management and incapable accountant, 3) Separation of functions is rare due to the limited number of employees. 4). Availability to access company property for clerical and administration employees. 5). Reporting system, analysis, planning and informal supervision system depend on its managers' leadership style.

According to (Ihsan and Sulastrri, 2005), there are problem during this time: internal control model designed for large companies are applied to small industries, where as the internal control criteria of large companies are different and when applied to small companies almost certainly have lack of controls, it will probably emerge problems and difficulties as: 1) refusal to audit small companies, 2) Giving opinions outside of reasonable opinions without conditions, and 3) It will increase very large examination fee.

The existence of its internal control expected to provide adequate confidence. Internal controls contain limitation that probably pose inherent risk in each element and consider as the principle of cost and purpose of internal control, not totally provide absolute confidence. Internal control is aimed at achieving three interrelated categories of objectives: the reliability of financial report, compliance with applicable laws and regulation, and operations effectiveness and efficiency (Ministry of Small and Medium Enterprises, 2003: 10-11).

Control, especially in its business processes, is very important. Mistakes and irregularities occurrence can be resolved immediately and the permanent goals can be achieved. The control function is one of the management functions and cannot be separated from other management functions (planning, organizing, and actuating). The extent of SMI's business activities results in top management not available to directly supervised or control in all of its business activities, it important for top management to design and build an adequate control system. The control that necessary built is internal control. Internal control related to improve the reliability of accounting information presented in financial statement and compliance of managers and personnel against the applicable provisions and encourage increase efficiency and effectiveness. Therefore, it is very important for top management to design and build adequate internal control and implement it properly and seriously (Ministry of Small and Medium Enterprises, 2003: 9-10).

This study is aimed to determine of internal control and business strategy in small and medium industry in facing recent business environments. The most collapsed SMI are mostly caused by internal control, business strategy, financial problem, and human resource. This study identifies main problem of SMI. It is important to identify internal control of SMI to improve quality of its SMI. The result of this study will later be input for SMIs in implementing internal controls and become basis for running and developing their business and performance.

## 2. Literature Review

Internal control is a process caused by board of directors' policy and structure level of its organization in a company. It is designed to provide reasonable guarantees to achieve the company's goals, plans and strategy for laws, rules, policies and regulations (Puttikunsakon, 2015). Internal control is a combination of standard and theory to promote best business practice in certain organization (Frazer, 2012). Business practitioners use terms of internal control and internal audit alternately and has many definitions (Kinney, Martin, & Shepardson, 2013). As said by (McNally, 2013), explained about internal control, that is a procedure supervised by business leaders, management, and other employees to offer responsible guarantee to achieve target with efficient and effective in doing business, credible financial reporting, and fulfilment of relevant laws and regulations.

Internal control has undergone change in accordance with the development of business world. The control system is divided into administrative controls and accounting controls. Internal control regulates operating activities, starting from planning, budgeting, establishing operating system and procedures. Operations is directed to comply with the plans, budgets, system and procedures that are set. Compliance with the internal control system means obeying plans, budgets, systems and procedures to achieve effectiveness and efficiency (Ministry of Small and Medium Enterprises, 2003: 12). Internal control is process to achieve certain goals and persuasive actions and integral part of the infrastructure of the organization, not just a complement to the organization. Internal control is run by people through policy and form and run from supervisor, top management to implementing personnel at every level of organization.

Internal control is a very important part of an entity's management system and their ability to manage risk. Internal control is a basic factor to support and realize the achievement of unit goals in the creation, formation and protection of the values of its owners. An entity to obtain and collect as many opportunities as possible and avoid market pressures that create opportunities to save money and time, to encourage the creation and preservation of entity values, requires the development of an internal control system. A strong internal control system provides an opportunity for the entity to take more risks, making it more competitive in the markets where it operates. Effective risk management and an effective Internal Control System must be an important part of good governance at every level of the organization and throughout its operations (IFAC, 2011).

According to (Campbell and Hartcher, 2010), control in an organization can assist in supporting corporate goals, protecting assets, and identifying and stopping fraud and errors. Control leads to good administrative promotion, provides space for poor performance, penalties, approves transactions, assists in authenticating transactions, and minimize exposure to unexpected events. Other benefit of internal control is helping business leader to ensure the existence of assets and liabilities: identification and handling of errors, separate functions, and ensure time preparation, presentations and disclosure of appropriate financial statements (Campbell and Hartcher, 2010).

The internal control is expected to provide adequate confidence. Internal controls and its limitations can pose inherent risk in each element and consider the principle of cost and purpose of internal control, not totally provide absolute confidence. Internal control is aimed at achieving three interrelated categories of objectives: the reliability of financial reporting, compliance with applicable laws and regulations and operations effectiveness and efficiency (Ministry of Small and Medium Enterprises, 2003:10-11). The internal control framework has five components: (a) Control environment, (b) risk assessment, (c) control activities, (d) information and communication, and (e) monitoring (Pang and Li, 2013), (Whitehouse, 2013). The first four components relate to the design and generation of internal control system while the fifth component ensures that internal control operate unimpeded (Missioura, 2014).

Internal Control Components according to (COSO, 2013):

#### *1. Control environment*

The control environment is a series of standards, processes and structures that are basis for implementing internal control throughout the organization. Control environment is an important foundation for the internal control of whole process. Covering corporate governance structure, management organizational structure and other aspects; risk warning and assessment is an important part of risk management, including process of the establishment of objectives, identify risks, assessment, control arrangements and so on.

There are five principles related to this component, that are:

- a. Organizations demonstrate commitment to integrity and ethical values
- b. The Board of directors shows the independence of management and carries out supervision of the development and implementation of internal controls.
- c. With the supervision of the Board, management determines the structure, form of reporting, responsibility and authority needed to achieve the objectives.
- d. How risks will be treated. The organization considers the potential for fraud in risk assessment.
- e. Organizations identify organization establishes a commitment to attract, develop, and retain competent individuals in order to achieve goals. Organizations hold individuals who are responsible for internal control in order to achieve goals.

#### *2. Risk assessment*

Risk assessment involves a dynamic and iterative process to identify and analyze risks to achieve goals, as well as to form the basis for how risks must be managed. There are two principles related to this component :

- a. The organization determines specific objectives so that it is possible to identify and assess risks associated with the objectives.
- b. The organization identifies risks associated with achieving objectives across entities and analyzes risks to be and assess changes that will significantly affect the internal control system.

#### *3. Control activities*

Control activities are actions that are determined by procedures and policies to ensure that management has led to mitigate risks in order to achieve objectives. There are three principles in this component :

- a. Organizations choose and develop control activities that contribute to the risk mitigation in order to achieve goals.
- b. Organizations choose and develop control activities in general related to technology in order to achieve goals.
- c. The organization disseminates control activities through policies and procedures in its implementation.

#### *4. Information and Communication*

Information is needed in order to carry out its internal control responsibilities in order to achieve goals. While communication occurs both internally and externally by providing information needed in the course of implementing daily internal controls. There are three principles in this component :

- a. The organization obtains and uses quality and relevant information in order to support the functions of other components in internal control.

- b. The organization internally communicates information, including internal control objectives and responsibilities in order to support the functions of other components of internal control.
- c. Organizations communicate with external parties regarding matters that affect the functions of other components in internal control.

5. *Monitoring*

Continuous, separate, or a combination of both to ensure that all components of internal control exist and function. There are two principles in this component :

- a. The organization chooses, develops, and carries out ongoing and separate evaluations to ensure that all components of internal control is functioning.
- b. The organization evaluates and communicates deficiencies in internal control to those responsible for correction.

The previous study conducted by Ihsan and Sulastri, (2005), proves that the Internal control system SMI in Padang is still ineffective. Hadi, (2008) explains that improving internal control system and the performance of cooperative performance involves business strategy. Business strategies influence the internal control system. The study (Aladejebi, 2017) said that improving internal control helps SMI leader to minimize risk of losing assets and increase profitability which increasing company responsibility to society.

### 3. Research Method

The population of this study is SMI in Magelang regency. The sampling technique of this study is non-probability sampling, that is the method of taking samples taken does not have to be proportional of whole number population (Sekaran, 2000). The number of samples obtained in this study were 100 SMIs in Magelang Regency which which had been operating at least 1 years and had at least 10 employees.

The method of this study is qualitative and quantitative. This method was conducted by interview in Focus Group Discuss and use a questionnaire instrument. Interviews were conducted to determine the internal controls used by SMIs. The questionnaire developed and used as the basis for conducting interviews adopted an internal control assessment questionnaire form the Department of Economics of Florida, USA (2016).

### 4. Findings And Discussion

a. **Findings**

The pre-test is validity and reliability testing. The result of the validity of the instrument show that all indicator item that measure each indicator variable produce a number of validity coefficients of more than 0.5(r.0.5). It interprets the variable instrument of this study is valid. The reliable test results show that the Cronbach Alpha value is greater than 0,70. It shows the variable of instruments of this study are reliable. The description of the people in terms of gender, age, and education in the SMI can be seen in table 1 as follows:

**Table 1.** Description of SMI respondents

Parameter	Categories	Amount
Sex	Male	82
	Female	18
Ages	< 25 years	5

	25 - 35 years	16
	36 - 45 years	18
	> 45 years	64
		0
Education	High School	67
	Diploma 3	2
	Bachelor	31
		0
Work experience	< 5 years	3
	5-10years	22
	11-15years	22
	> 15 years	53

Source: Data processed, 2018

Confirmatory testing is a technique to test the truth of the theory. In this analysis look for a number of indicator variables that form the indirect measurable variable base on the existing theoretical basis and in this study to determine the factors that make up the internal control of SMIs in Magelang. The four indicators used to determine the factors that influence the implementation of internal control used by SMIs in Magelang as follow:

**Table 2.** Result of Confirmatory Test

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.774
Bartlett's Test of Sphericity	Approx. Chi-Square	3645.0
	Df	70
		435.00
		0
	Sig.	.000

From the results of the confirmatory test shows that there is a correlation between variables (table 2). Then the model test is done using path analysis (using PLS). The results of the test can be seen in table 3.

**Tabel 3.** Path analysis of Internal Control

	Estimat	S.E	CR	P.
	e			Label
Ce → Control	.267	.120	2.153	***
Ra → Control	.300	.078	3.846	***
Ic → Control	.267	.056	4.767	***
Con → Control	.231	.033	7.000	***

From the table above, the result show that the four constructs have a positive and significant effect. This means that the four constructs are indeed variables that affects to internal control of SMIs.

## **b. Discussion**

In internal control, there are several factors that influence, such as accounting control and administrative control. It is appropriate implemented only for large companies. The implementation of internal control will require additional cost and human resources, two aspects whose existence is very limited in small companies. In fact, judging from the objective of internal control, one of which is to secure company assets, then both small companies and large companies still need internal control. Small business is expected to pay attention to internal control to protect their assets and reduce risk of fraud. In addition, increasing awareness of fraud has led investors and other companies to focus on stronger internal controls in smaller private company (Jiang and Santoro, 2010). Understanding internal control and how to protect small business is important.

Internal controls may be used effectively to keep track of the costs incurred in the course of operating a small company. Knowledge of these costs is generally useful in planning and decision making with the aim of reducing or eliminating some of the costs (Epstein and Myers, 2009). Through internal control, transactions are authenticated and recorded properly, which assists in the proper preparation and maintenance of financial statements. Overall, small companies use one of two categories of internal controls: preventive and detective controls (Galloway, 2003).

Most SMIs have no strong enough of internal control mechanism, as one of the factors that is a major cause of business failure. Whereas, "internal control" is conducted by board of directors, management and other personnel, which is designed to provide reasonable guarantees regarding achievement of objectives in the operations effectiveness and efficiency. The reliability of financial report, and compliance with applicable laws and regulation. This is necessary for SMIs to improve their business grow faster and not easy collapse. Lack of attention to internal matters, no ethics, less respect for employees, a bit of an audit trail, excessive spending and carelessness in managing the business. In conclusion, they do everything just to gain profit.

The first constructs is control environment, that affects to internal control of SMIs. The major aspect of managing an organization is Control Environment, because it influences the control consciousness of its people and the foundation for all other components of internal control. Control Environment is the foundation for the other components of internal control and providing structure (Sudsomboon and Ussahawanitchakit, 2009). Control environment assist toward reducing the level fraudulent activities within organizational operation and also the quality of an entity's internal controls system depend on the function and quality of their control environment (Amudo and Inanga, 2009). Therefore, providing a proper control environment for small businesses is very essential to the effectiveness of their operation

The second constructs is control activity, that affects to internal control of SMIs. Within the SMIs, internal control activities must be conducted on policies and procedures, which are implemented by management in covering risk have not been optimally done properly.

For instance, all activities have been conducted by authorization and appropriate decisions by management or employees; adequate design and use; securing all assets; and independent checks conducted on certain transactions or actions (McNally, 2013). In the SMIs, all internal control processes are conducted by the same person who probably potentially fraud or other errors. Strengthening the opinion of Grollman and Colby (1978), control of owners and also important as part of internal control over the performance of SMIs. In small businesses, owners and managers are better position to exercise control for organizational activities. The owners and managers can learn various activities, however cannot evaluate and correct all transactions. Related to parties, still must try to do, identify the type of transaction, number of transactions, credit practices and preparation policies.

The third constructs is information and communication, that affects to internal control of SMIs. Most studies on internal control system frameworks gave concerned on information and communication as one of the internal control system components, because of their importance in influencing the working relationship within the organization at all levels (Amudo and Inanga, 2009). The analysis of information and communication in monitoring SMI were conducted well. It was support from government involving activities of SMIs content, exhibition and training activities. Communication is conducted to joint activity forum between SMIs.

The last constructs is monitoring activities. Monitoring of operations ensures effective functioning of internal controls system (Amudo and Inanga, 2009). (Karagiorgos and Drogalas, 2011) emphasized that internal control systems need to be adequately monitored in order to assess the quality and the effectiveness of the system's performance over time. Hence, monitoring determines whether or not policies and procedures designed and implemented by management are being carried out effectively by employees. Monitoring activities are carried out because the owner is as employee and can self-manage but will not transparent.

The based of research from Monday (2014) showed that each of risk assessment, information and communication and monitoring was statistically significant to the efficiency of operations (such as protection of assets, segregation of duties, and verification of transactions) of the selected small businesses. On the other hand, control environment and control activities were not significant to the operating performance of the small businesses. This was reinforced by the results of the FGD with the SMI throughout the Magelang.

## 5. Conclusion

Statistical test results prove that the internal control of SMIs in Magelang is still not optimal. It is the main cause of business failure. SMI leader can maintenance their business by its improvement of internal control activities from business through aspects of internal control.

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## Reference

- [1] Agwu, M. O. (2014) 'Issues , Challenges and Prospect of Small and Medium Scale Enterprises ( SMEs ) in Port-Harcourt City ', *European Journal of Sustainable Development*, 3, pp. 101–114. doi: 10.14207/ejsd.2014.v3n1p101.
- [2] Ahmad, K. (2017) 'The Implementation of Management Accounting Practices and its Relationship with Performance in Small and Medium Enterprises', 7(1), pp. 342–353.
- [3] Aladejebi, O. A. (2017) *Strategies for Improving Internal Control in Small and Medium Enterprises in Nigeria*.
- [4] Amudo, A., & Inanga, E. (2009) 'Evaluation of Internal Control Systems: A Case Study from Uganda.', *International Research Journal of Finance & Economics*, 27, p. 124–144.
- [5] Campbell, S., & Hartcher, J. (2010) 'Internal control for small business.', *CPA Australia*, 1, pp. 5–32.
- [6] Epstein, L., & Myers, E. (2009) 'Small business accounting. River Street, NJ: John Wiley & Sons'.

- [7] Frazer, L. (2012) 'The Effect Of Internal Control On The Operating Activities Of Small Restaurants', *Journal of Business & Economics Research*, 10(6), pp. 361–374.
- [8] Galloway, D. (2003) 'Control models in perspective', *Internal Auditor Journal*, 51, p. 46–52.
- [9] Grollman, WK and Colby, R. (1978) 'Internal Control for Small Businesses', *The Journal of Accountancy*, pp. 64–67.
- [10] Hadi, M. P. (2008) 'Integration of the Ipa Model and Pgcv's Index as a Simple Analysis Tool for Assessing the Performance of Traditional Dangke Small Food Industry Products (Case Study of Dangke Cattle and Buffalo in Enrekang District, South Sulawesi)', *Jurnal Ilmu Ekonomi dan Manajemen*, 5(1). IFAC (2011) 'Annual Report'.
- [11] Ihsan, H. and Sulastri, R. E. S. (2005) 'The Effectiveness of the Implementation of the Internal Control System (SPI) on Small Medium Enterprises (SMEs) in the City of Padang', *Jurnal Akuntansi*, 1(1), pp. 1–12.
- [12] Jiang, R. J. O. Y., Tao, Q. T. O. M. and Santoro, M. D. (2010) 'Research Notes And Commentaries Alliance Portofolio Diversity And And Firm Performance', 1144(February 2007), pp. 1136–1144. doi: 10.1002/smj.
- [13] Karagiorgos, T. and Drogalas, G. (2011) 'Evaluation of the Effectiveness of Internal Audit in Greek Hotel Business', *International Journal of Economic Sciences and Applied Research*.
- [14] Kumar, N. J. P. S. (2013) 'Global Financial Crisis : Corporate Governance Failures and Lessons', *Journal of Finance, Accounting and Management*, 1, pp. 21–34.
- [15] Luyolo, S. and Ukpere, W. I. (2014) 'The Status of Internal Controls in Fast Moving Small Medium and Micro Consumer Goods Enterprises within the Cape Peninsula', *Mediterranean Journal of Social Sciences*, 5(10), pp. 163–175. doi: 10.5901/mjss.2014.v5n10p163.
- [16] McNally, B. J. S. (2013) 'The 2013 COSO Framework & SOX Compliance The 2013 COSO Framework & SOX Compliance'.
- [17] Pang, Y. and Li, Q. (2013) 'Game Analysis of Internal Control and Risk Management', *International Journal of Business and Management*, 8(17), pp. 103–111. doi: 10.5539/ijbm.v8n17p103.
- [18] Puttikunsakon, A. (2015) 'Best internal audit practices and achieving organizational success : an empirical examination of ISO 9000 manufacturing firm in Thailand', in *6th International Trade and Academic Research Conference (ITARC)*, pp. 9–10.
- [19] Ridwan, M. (2006) 'Integration of the Ipa Model and Pgcv's Index as a Simple Analysis Tool for Assessing the Performance of Traditional Dangke Small Food Industry Products (Case Study of Dangke Cattle and Buffalo in Enrekang District, South Sulawesi)', 13(2).
- [20] Sekaran, U. (2000) 'Research Methods for Business: A Skill Business Approach. John Wiley & Sons, New York.'
- [21] Sudsomboon, S. & Ussahawanitchakit, P. (2009) 'Professional audit competencies: The effect on THAI S CPAs audit quality, reputation, and success.', *Review of Business Research*, 9(3), p. 66–85.
- [22] Syrjä, J. S. K. P. H. S. P. (2012) 'The impact of global economic crisis on SMEs', *Managerial Research Review*. doi: 10.1108/01409171211272660.
- [23] Tambunan, T. (2008) 'SME development, economic growth, and government intervention in a developing country: The Indonesian story', *Journal of International Entrepreneurship*, 6(4), pp. 47–167.

- [24] Whitehouse, T. (2013) 'COSO framework to spark internal controls review.', *Compliance Week*, 10(114), p.28–29