

## Levers of Control as an Integrated Control Systems: A Case of Cement Manufacturing Company

**Andi Gunawan** \*)

Faculty of Economics and Business, Hasanuddin University

Email: [gunzekpoltek@gmail.com](mailto:gunzekpoltek@gmail.com)

**Mediaty**

Faculty of Economics and Business, Hasanuddin University

Email: [mediaty\\_unhas@yahoo.co.id](mailto:mediaty_unhas@yahoo.co.id)

**Andi Kusumawati**

Faculty of Economics and Business, Hasanuddin University

Email: [andikusumawati@unhas.ac.id](mailto:andikusumawati@unhas.ac.id)

**Syamsuddin**

Faculty of Economics and Business, Hasanuddin University

Email: [syamsuddinfeb.uh@gmail.com](mailto:syamsuddinfeb.uh@gmail.com)

Author correspondence: [gunzekpoltek@gmail.com](mailto:gunzekpoltek@gmail.com)

### Abstract

The aim of the research is to analyze implementation of levers of control in Semen Indonesia Group (SIG) which are belief system, boundary system, diagnostic control system and interactive control system. The methodology employed is qualitative descriptive with case study approach. In belief system, the company communicates its core values with vision, mission statement, and corporate core values (AKHLAK). The company reduces risk by regulating employee's behavior in its agreement with employee in performance contract, code of conduct and by implementing integrated risk management system as part of its boundary system. For the interactive control system, the company monitors interactively certain indicators in the Kriteria Penilaian Kinerja Unggul (KPKU) or Criteria for Superior Performance Assessment. In the diagnostic control system, the company evaluate an implementation of its strategy by monitoring indicators not only in the Kriteria Penilaian Kinerja Unggul (KPKU) or Criteria for Superior Performance Assessment and but also evaluating variances in its management reports.

**Keywords:** levers of control; management control systems;

### BACKGROUND

The current business environment conditions are filled with very rapid changes in customer demand, technology and competition, resulting in companies need to continuously revitalize in order to survive and achieve success. In order to reach purpose

every company will formulate the right strategy and implement it to create competitive advantage. The firm's goal could be achieved if company own competitive advantage in the industry. Management control systems is a tool used by management to ensure that strategy can be implemented effectively to reach company objective (Anthony, 1965).

Simons (2000) defined MCS as the formal, information-based routines and procedures managers use to maintain or alter patterns in organisational activities. Simons argued that it is not the identification of control associated with particular strategies that are important, but the distribution of management attention among controls. Simons has developed a coherent model of control systems called the levers of control (LOC) framework (Simons 1995; 2000). This framework consists of four control systems: beliefs, boundary, diagnostic, and interactive. Beliefs systems are the explicit set of organisation definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organisation (Simons 1995; 2000). Boundary system communicates the actions that employees should avoid. Diagnostic control systems are the essential management tools for transforming intended strategies into realised strategies: they focus attention on goal achievement for business and for each individual within the business (Simons, 2000).

One of the advantages of this *LOC framework* is an interactive control system that allows managers to deal with strategic uncertainty. This interactive system allows managers to adjust strategies or adopt new strategies (*emergent strategies*) if unanticipated environmental changes occur (Simons, 1994). These changes can be in the form of changes in regulations, level of competition, industry/market structure, significant technological changes and others.

Semen Indonesia Group (SIG) is the market leader in Indonesia's cement sector, with a market share of more or less 50%. Basically, SIG is group of state-owned companies producing cement and related product. With the support of extensive production and distribution facilities and financial strength, allow SIG to serve all markets in Indonesia as well as regional markets efficiently. SIG production capacity is 52,6 million tones and employs 9.909 in the whole company.

According to SIG annual report (2021) that pandemic condition caused the national economy to only record growth of 3.69% in 2021, which has impacted domestic cement demand to only grow limitedly, by 4.3% to 65.2 million tons. The limited increase

in cement consumption in the domestic market coupled with the presence of new players has made oversupply conditions persist, with the total national cement production capacity increasing to 119.1 million tons by the end of 2021, with national consumption of 65.2 million tons and domestic utilization remaining at the level of 59.1%. Meanwhile, export volume increased to 11.6 million tons which helped increase industrial utilization in 2021 to 69.6% or experiencing an increase from last year's utilization rate of 65.6%. Basically, SIG and other cement manufacturer facing several problems such as: *Oversupply Condition*. The oversupply cement industry, the addition of national production capacity, and the lower growth of national cement demand due to the COVID-19 pandemic, have caused the industry's utilization rate to remain low in 2021. *Limited Supply and High Coal Prices*. The process of economic recovery caused a surge in demand beyond supply capacity, especially for commodity products which resulted in a shortage of supply and a sharp spike in prices, including coal, which is one of the energy sources in the cement production process. *Increased Attention to Sustainability and Climate Change Issues*. Currently, the world is increasingly focusing on managing sustainability aspects, whether carried out by governments of various countries, corporations or investors. In addition to the economic aspect, environmental management aspects, social aspects and governance aspects (Environment, Social, & Governance - ESG) are becoming increasingly important to ensure sustainability, especially for corporations or companies.

In order to solve the problem SIG, launch strategic initiatives to keep the firm remains competitive. In addition, to realize the vision and implement the Company's Long-Term Plan, top management of SIG has formulated and executed strategic initiatives, including: 1) Driving and increasing the intensity of cost efficiency programs through changing business models, improving business processes, collaborating with strategic partners, and by accommodating the latest technological solutions for process efficiency and effectiveness, 2) Strengthening the position of SIG and its products as the first and foremost choice for customers and stakeholders through various marketing communication activities, creation of new products, and added value that differentiate them from competitors, 3) Strengthening production base and distribution network to acquire opportunities in new market centers, 4) Developing new innovative products, solution products, and process approaches outside of business as usual with a focus on

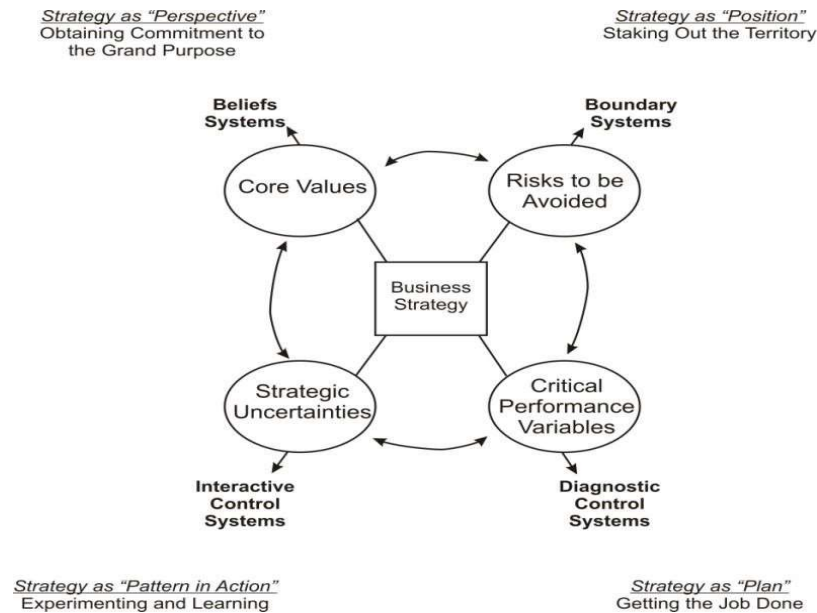
cost efficiency and added value in winning the competition, 5) Improving coordination and proactive communication with all stakeholders (SIG Annual Report, 2021).

The aim of the research is to analyze implementation of levers of control in Semen Indonesia Group (SIG) which are belief system, boundary system, diagnostic control system and interactive control system. It is expected that levers of control framework could enhance company's strategy implementation.

## **THEORITICAL REVIEW**

Simons (1987) defines SPM as set formalized procedures and systems that use them information for forward or change pattern activity organization . Simons developed a coherent management control system model known as the *levers of control (LOC) framework* (Simons, 1995; 2000). *The LOC framework* consists of 4 *control systems* , namely: belief systems, boundary systems, diagnostic control systems, and interactive control systems . the LOC framework try find balance in management what 's called as *tensions*. According to Simons (1995) in organization happen what is known as *organizational dynamics* that occur in various dimensions organization namely : (1) dynamics in creating value; (2) dynamics in strategy making; (3) dynamics in human behavior. According to Simons (1995) each dynamics this will raises *internal* tension within the organization so that must reconciled and balanced in order to business strategy could controlled in effectively. Tensions can happen among need for chase opportunities business that doesn't limited and limited attention of management. Tensions also arise when happen change environment that resulted in the strategy that has been planned ( *intended strategy* ) must customized so that a new strategy ( *emergent strategy* ) is possible different . From aspect behavior man tension can happen when happen conflict Among interest personality ( *self-interest* ) and desires for contribute ( *desire to contribute* ). *Levers of control (LOC)* is a designed framework for balancing or manage various tension organization the so that possible conducted effective control of business strategy. LOC framework makes it possible organization play the four control systems , called lever, continuously for manage tension to create a dynamic tension between goal achievement and creative innovations in organization.

Figure 1. Levers of Control Framework



Source: Simons (2000)

Research by Henri (2006) and Widener (2007) provides foundation for researchers to conduct further empirical study. A number of research as Tekavcic et al. (2008) and Mundy (2010) found use of the LOC framework to increase capability of organization. Martyn et al. (2016) wrote a review article about various research examining the levers of control for last 25 years. Martyn et al. (2016) analyzed 45 publications article scientific from various journal reputable company that uses the levers of control as a framework. It is found that more LOC framework extensively used in the research area of qualitative compared to quantitative. Study qualitative has developed application of LOC to more issues in organization level such as sustainability, accounting environment and inter-organizational control. Meanwhile the quantitative researchers generally tend to develop understanding about antecedents and *outcomes* from the interactive control system .

In Indonesia research about obtaining SPM based LOC framework enough many attention as well as could grouped in quantitative research and research qualitative / studies case . A number of quantitative research including Hermawan et al. (2021) researched about the role of the belief system on performance managerial , research by Lekatompessy (2011) examines levers of control interaction as well culture organization to company performance. Interesting findings from Hatane et al. (2019) provides description that the most *levers of control* used in revival stages of life cycle of organization compared to other stages. From perspective *resource-based view*, Lekatompessy (2011) and Ratmono (2019) researched *the influence of the levers of control* to capability of company, as a part or as a whole, which is predicted increase performance of the firm. Widyaningdyah and Aryani (2016) position the management control system ( incl levers of *control* ) as one dynamic capability of companies that will produce superiority competitive especially when face uncertainty environment.

## **RESEARCH METHOD**

This research was conducted through a descriptive qualitative method with a case study approach. Data collection was carried out including reviewing both written and electronic documents. In addition, field research was also carried out by conducting direct observations at the company, conducting interviews with relevant employees and obtaining data related to the research topic.

## **RESULTS AND DISCUSSION**

In this section the results discussed based on application of levers of control framework to the situation in the organization.

### **a. Belief System**

The company's belief system is reflected in its vision, mission and core values. The vision, mission and core values statements have been made in a formal form and communicated through various media to all parties related to the company. Evaluation of the company's belief system shows that the company already has a formal system that states the company's direction and goals as well as values which are expressed through the vision, mission and values that describe the company's belief system. This belief

system statement has been communicated through a wide variety of communication media to all parties related to the company, not only to its employees but also to shareholders and the government. SIG still followed the vision and mission formalized on 13 May 2019. Upon review by the management, the vision and mission were still considered relevant to the business development, the stakeholders needs and the competition among business players. In addition, The Company has established AKHLAK (stands for Amanah, Kompeten, Harmonis, Loyal, Adaptif, Kolaboratif) as the core values to form the corporate culture and the foundation for the Company's operations. AKHLAK is a set of core values set up by Ministry of State-Owned Enterprise and become mandatory for all state-owned enterprise. In 2020, The Company adjusted its Corporate Culture by incorporating the Core Values of AKHLAK, in line with the direction of the Ministry of SoE through the Circular Letter of the Minister of SoE No. SE-7/MBU/07/2020 dated 1 July 2020 in regards to the Core Values of SoE Human Resources, followed by the Board of Directors' decree No. 047/ Kpts/Dir/2020 about SIG's AKHLAK Core Values Guidelines, as the core values to form the corporate culture and the foundation for building talent character in the SIG. As such the Company internalizes and strengthens AKHLAK in SIG. By implementing AKHLAK, it is hoped that the Company could achieve more synergy and aligned in working towards achieving common vision. AKHLAK was implemented in stages, from socialization, internalization, implementation, monitoring and evaluation, and continuous reinforcement to every SIG working units and employees to ensure that AKHLAK culture is consistently embedded in each individual.

#### **b. Boundary System**

The company's boundary system includes 2 (two) things, namely business code of conduct boundary as well as strategic boundaries. Evaluation of the boundary system shows that the company already has and implements business conduct boundaries through the existence of a code of conduct and a Collective Labor Agreement (PKB). The code of conduct made by the company contains clear and comprehensive rules that are expressly stated regarding things that are unwanted or prohibited by the company and also equipped with an affirmation of sanctions that will be given in the event of a violation

of the code of conduct. The application of the code of conduct in this company is not only limited to disclosing regulations, but the company also asks for a real commitment from all of its employees with the obligation to sign an integrity pact as a form of commitment to implementing the code of conduct for all employees, including the company's management.

Meanwhile, an evaluation of the strategic boundaries of Semen Indonesia Group (SIG) shows that the company already has strategic boundaries that are clearly stated and communicated in the company's Long Term Plan (Rencana Jangka Panjang/RJP). In the RJP, the company states that SIG as the “Building Material Solution Provider”. SIG is always prepared to demonstrate the greatest services across all aspects, from sustainable technological innovation, high-quality construction materials and solutions, to end-to-end professional services. Various types of bulk cement are available to meet every construction need, such as housing, roads, ports, high-story buildings, power plants, mines, bridges, dams, hollow blocks, pre-cast concrete, and more. SIG is committed to promote sustainability management as a means of achieving sustainable performance. We continue to conduct improvements in creating economic and sustainability value and benefit for the SIG stakeholders.

Another strategic boundary is the implementation of *integrated risk management system* at corporate level. SIG consistently implements and develops an integrated risk management in the entire business processes, while also making it as part of the strategic or operational decision-making. Risk management is carried out to optimize opportunities, anticipate the dynamics of changes in business climate, building investor trusts, as well as enhance good corporate governance. These are done in compliance with the SOEs Ministry regulation No. PER-01/MBU/2011 regarding the Implementation of Good Corporate Governance (GCG) article 25 on Risk Management, as well as the latest amendment through the issuance of the SOEs Minister Regulation No. PER-09/MBU/2012. Risk management application is an integral part of all business processes and elements of the Company, to that end the Board of Directors stipulates the integrated Risk Management Policies, Guidelines and Procedures referring to the international standard of ISO 31000:2018 as a commitment and guidance of risk management practices in the SI Group. In the decision-making for operational and investment, the Board of Directors places risks as a consideration. The implementation of risk management is



consistently reviewed and developed in order to ensure effective and efficient application by all stakeholders. The Company's Audit Committee has conducted an in-depth study on the adequacy of the Company's Risk Management implementation.

### c. Diagnostic Control System

Evaluation of the diagnostic control system of shows that the company already has several tools that are used as the diagnostic control system is:

1. *RKAP (Company Work Plan and Budget)*. The RKAP contains work programs that will be carried out for the next year. This RKAP is monitored every quarter to see the progress of the work program. In addition, the RKAP also contains a budget plan covering financing and investment. So that by using this RKAP, an evaluation can be carried out every quarter to see a comparison between the plan and the realization of the budget of each division.
2. *Kriteria Penilaian Kinerja Unggul (KPKU)* or Criteria for Superior Performance Assessment. KPKU is a guideline for measuring the performance and management of state owned enterprise which was adopted and adapted from the Malcolm Baldrige Criteria for Performance Excellence. KPKU is a method for measuring and assessing the performance of an organization and serves as a guide for developing, managing and empowering company systems and resources to achieve superior performance. KPKU is a number of questions about various fundamental aspects of organizational management consisting of seven categories, namely 1) Leadership, 2) Strategic planning, 3) Customer focused, 4) Measurement, Analysis, and Knowledge Management, 5) Focus on Labor, 6) Focus on Operations, 7) Results. KPKU is designed to be used as a holistic assessment and tool to measure the company's position and determine what the company needs to evaluate in the future to improve performance in the long term, so that companies know internal and external problems on a steady basis compared to competing companies regarding the condition of their own company.
3. *Management Reports*. In brief management report consist of both Board of Commissioners Report and Board of Directors Report. In details management report contains a summary of the reporting from the RKAP of each unit and KPI achievement reports that management reports to the Commissioners.

#### **d. Interactive Control System**

Interactive control systems are carried out by companies using the same media/tools used in their diagnostic systems, namely using the Kriteria Penilaian Kinerja Unggul (KPKU) or Criteria for Superior Performance Assessment. The company chooses several KPIs that contain strategic uncertainties that are strategically perceived to have an impact on the company's performance. If there is poor performance in these KPIs, the company will formulate strategic initiatives to overcome them. For example, when a company feels tremendous competitive pressure due to a price war. This can be monitored from declining EBITDA and eroding market share. To prevent this from continuing, the company has launched a *multi-brand strategy*, namely releasing products for the second-tier market that are cheaper. Besides that, SIG consolidates distribution channel to become *Mega Distributor* in order to optimize supply chain. Although it is not clearly stated, it can be concluded that this change in strategy stems from intensive discussions between the first line management together with the middle and top management. Even so, the company has not formally facilitated an interactive pattern by mediating employees at various levels to jointly discuss the strategic uncertainty that has occurred.

#### **CONCLUSION**

The aim of the research is to analyze implementation of levers of control in Semen Indonesia Group (SIG) which are belief system, boundary system, diagnostic control system and interactive control system. The methodology employed is qualitative descriptive with case study approach. In belief system, the company communicates its core values with vision, mission statement, and corporate core values (AKHLAK). The company reduces risk by regulating employee's behavior in its agreement with employee in performance contract, code of conduct and by implementing integrated risk management system as part of its boundary system. For the interactive control system, the company monitors interactively certain indicators in the Kriteria Penilaian Kinerja Unggul (KPKU) or Criteria for Superior Performance Assessment. In the diagnostic control system, the company evaluate an implementation of its strategy by monitoring indicators not only in the Kriteria Penilaian Kinerja Unggul (KPKU) or Criteria for

Superior Performance Assessment and but also evaluating variances in its management reports.

The limitation of this research lies in the context of time which is only at a certain moment. In addition, the information contained in both written and electronic documents requires deeper study.

## REFERENCES

- Anthony, R. N. (1965). *Planning and control systems: a framework for analysis* (Graduate School of Business Administration, Harvard University ed.). Boston: Graduate School of Business Administration, Harvard University
- Bisbe, J., and Otley, D. 2004. The Effects of the Interactive Use of Management Control Systems on Product Innovation. *Accounting, Organizations and Society*, Vol. 29, No. 6, pp. 709-737.
- Hatane, Saarce & Gabrielle, L & Angelina, S. (2019). The Levers of Management Control System in Organizational Life Cycle. *KnE Social Sciences*. 3. 188. 10.18502/kss.v3i11.4007.
- Henri, JF.. 2006. Management Control Systems and Strategy: A Resource-based Perspective. *Accounting, Organizations and Society*. Vol. 31, No. 4, pp. 529-558.
- Langfield-Smith, K. 1997. Management Control Systems and Strategy: A Critical Review. *Accounting, Organizations and Society*, Vol. 22, No. 2, pp. 207-232.
- Lekatompessy, Jantje E. 2012. Peran Sistem Pengendalian Manajemen Dalam Meningkatkan Kinerja Perusahaan: Analisis Kontinjensi Dan Resource-Based View. Disertasi Doktor Ilmu Ekonomi, Universitas Diponegoro Semarang.
- Martyn, P, Sweeny, B & Curtis, E. (2016). Strategy and control: 25 years of empirical use of Simons' Levers of Control framework, *Journal of Accounting & Organisational Change*, Vol. 12 No. 3, 2016 pp. 281-324
- Mundy, J. (2010). Creating dynamic tensions through a balanced use of management control systems. *Accounting, Organisations, and Society*, 35: 499-523
- Otley, D. 1980. The Contingency Theory of Management Accounting: Achievements and Prognosis. *Accounting, Organizations and Society*, Vol 5, No. 3, pp. 413-428.
- Ratmono, D. 2019. The Role of Levers of Control to Manage Strategic Uncertainty and to Enhance Innovation and Performance. *International Journal of Innovation, Creativity and Change*. Volume 14, Issue 9, 2020
- Semen Indonesia Group. 2021. Annual Report 2021. PT. Semen Indonesia Tbk (Persero). Jakarta Indonesia.
- Simons, R. (1987). Accounting control system and business strategy: an empirical analysis. *Accounting, Organisations, and Society*, 12: 357-374.
- Simons, R. 1995. *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategy Renewal*. Boston. Harvard Business School Press.
- Simons, R. 2000. *Performance Measurement and Control Systems for Implementing Strategy*. Upper Saddle River, NJ: Prentice Hall.

- Tekavcic, M., Peljhan, D. and Sevic, Z. (2008), "Levers of control: analysis of management control systems in a Slovenian company", *The Journal of Applied Business Research*, Vol. 24 No. 4, pp. 97-112.
- Toumela, T. 2005. The Interplay of Different Levels of Control: A Case Study of Introducing a New Performance Measurement System. *Management Accounting Research*, Vol. 16, pp. 293-320.
- Widener, Sally, K. 2007. An Empirical Analysis of the Levers of Control Framework. *Accounting, Organizations and Society*, Vol. 32, No. 6, pp. 757-788
- Widyaningdyah, A. U., & Aryani, Y. A. (2016). Perceived Environmental Uncertainty, Performance Measurement Systems, and Competitive Advantage. *Review of Integrative Business and Economics Research*, Vol. 5, no. 3, pp.117-134