

SURVIVAL FROM CRISIS OF CEMENT INDUSTRY IN INDONESIA

Irwan Suarly, Business Universitas Pelita Harapan Jakarta
Rudy Pramono, Business Universitas Pelita Harapan Jakarta
John Purba, Business Universitas Pelita Harapan Jakarta
Gracia Ugut, Business Universitas Pelita Harapan Jakarta

ABSTRACT

Indonesian Cement Industry is experiencing excessive supply over its local demand. Meanwhile, the external players are still very eager to build more capacity in Indonesia. Their actions provoke local players to build more capacity in order not to lose out of the competition in the domestic market. Two major players, PT. Semen Indonesia Tbk. (SMGR) with 55% market share and PT. Indocement Tunggal Perkasa Tbk. (INTP) with 25% market share are mostly impacted by the industry turbulence. Various countermeasures have been taken; however, the result is still beyond expectation. The purpose of this paper is to investigate strategic management responses toward phenomena crisis of the cement industry in Indonesia during 2014-2020, period before Covid-19 in 2014-2019 and during Covid-19 in 2020. It will be done through comparison study between strategic actions taken by SMGR and INTP, as they suffered the most in times of crisis. By having a clear understanding about the differences and the similarities actions of the two, it is expected to produce a thematic alternative solution for the future of cement industry. The basic design of this study is using a Qualitative Research Methodology by adopting Case Study Research Method.

Keywords: Comparative Case Study, Crisis Management, Resource based View, Change, Innovation, Insanity.

INTRODUCTION

Indonesian cement industry is in a crisis. It started from 2014 till present, where Indonesian cement industry has been experiencing an oversupply capacity (Indocement Public Exposure Report, 2020Q1, p: 8-16), on the contrary capacity kept on increasing. By 2020, Domestic capacity is reaching 115 million ton while demand is estimated only 62 million ton per year as illustrated on Figure 1 below. This excess capacity of 53 million ton is equal to 85% above the current demand. With demand growth around 4% per year, it would take another 21 years for industry to absorb the excess capacity (providing there is no newer kiln is built in the near future).

Crisis is defined as the situation that is out of hand, potentially disruptive and threatens an organization's overall goals (Coombs & Holladay, 2002). This alarming situation causes industry players restless if they cannot be said to panic. Make it worse, in the middle of increasing production cost due to inflation, market price is decreasing. The Average Selling Price is down by 15% in the last 5 years. The impact is quite massive. With industry revenue approximately IDR 70 trillion per annum, 15% price cut is reducing industry profit by IDR 10,5 Trillion. Furthermore, oversupply conditions force the factories to operate on average 54% of utilization rate. The cumulative impact of the crisis has deteriorated the major players financial performance (Table 1).

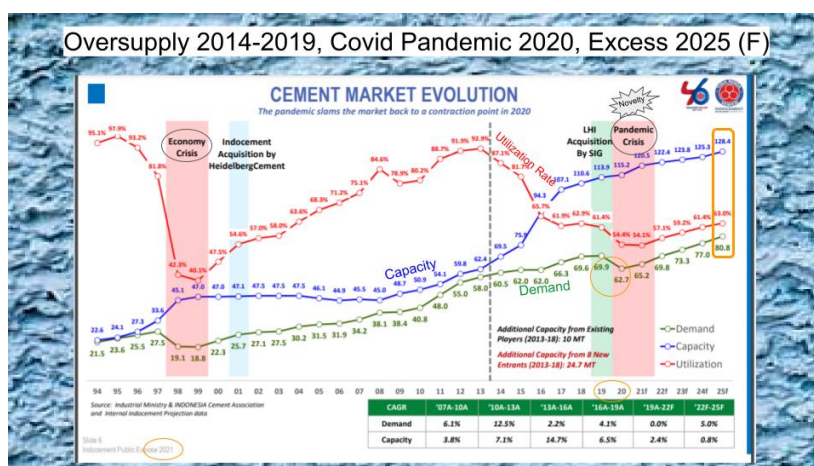


FIGURE 1
THE PANDEMIC SLAMS THE MARKET BACK TO A CONTRACTION POINT IN 2020

Table 1 FINANCIAL PERFORMANCE INTP AND SMGR									
PT. Indocement (INTP) - Highlighted Financial Report 2014 - 2019 + 2020 (Estimated)									
In Bio ldr	2012	2013	2014	2015	2016	2017	2018	2019	2020 (E)
Revenue	17290	18691	19996	17798	15361	14431	15190	15939	14224
Net Income	4763	5012	5293	4357	3870	1860	1146	1835	1600
N.I Margin %	27.50%	26.80%	26.50%	24.50%	25.20%	12.90%	7.50%	11.50%	11.26%
PT. Semen Indonesia (SMGR) - Highlighted Financial Report 2014 - 2019 + 2020 (Estimated)									
In Bio ldr	2012	2013	2014	2015	2016	2017	2018	2019	2020 (E)
Revenue	19588	24501	26987	26948	26134	27813	30687	40368	36595
Net Income	4847	5387	5560	4521	4418	2009	1674	2572	2228
N.I. Margin %	24,73%	21,91%	20,60%	16,78%	16,91%	7,23%	5,97%	8,17%	6,09%

Subsequently, the crisis deepened its cashm with the unexpected pandemic caused by the Covid-19. Entering the year 2020, the effect of COVID-19 outbreak is shockingly devastating where local demand negatively dropped 7%, and how long it will last is still a big question mark. Similarly, global demand for cement in 2020 is expected to drop by 7 to 8 percent, although these drops have been unevenly distributed across regions. In response, cement players around the world have decreased production significantly or even closed plants entirely. (Paul Roger, “Impact of COVID-19 on global cement markets,” Global Cement Markets, June 2020, cemnet.com).

Reflecting the above data and financial report performance period of 2014-2020, it is clear that the crisis in the cement industry is quite acute. First and mainly, there is an issue of oversupply capacity where the management should respond to settle this issue by taking immediate and the right corrective action (Brockner & James, 2008). The Second problem, Indonesian consumption is quite low, 250 kg per capita (Publikasi Pemerintah, Juni 2018). This is among the lowest in Asean and Asia countries and much lower if compared to the average world consumption that is 500 kg per capita, with China standing alone consumption of 1700 kg per capita. The third problem is lacking of consolidated act during the crisis period. Major Players are busy with their own individual strategy to survive. SMGR and INTP with 80% of market share are supposed to lead and to drive the industry toward the right direction, particularly as the two suffered the most during the industry turbulence.

The purpose of this study is to understand about industry crisis faced by two major players and then hopefully to develop a thematic solution as part of Crisis Management Emergency Response (CM-ER). The applied method is a Comparative Case Study, through comparison of strategic actions between the 2 major players involving the analysis and synthesis of the similarities, differences and patterns across two or more cases that share a common objective. This type of case studies focuses on phenomena within the contemporary contexts and human real-life experiences (Yin, 2003).

In fact, Crisis Management Emergency Response of the two major players due to pandemic outbreak is never being the same as before. This Crisis due to Covid-19 is very unique as health-related issue has never sparked crisis to cement industry in Indonesia. Finally, Comparison of interviews across SMGR, INTP and Global Players' practices is expected to offer insights about factors influencing the sustainability of the two major players in coping with crisis.

LITERATURE REVIEW

Managing through a crisis: A Strategic Approach for Cement Industry

Crisis Survival strategies can be approached with Resource Based View (RBV) by optimizing organization internal resources to achieve competitive advantages (Wernerfelt, 1984). The theoretical framework in figure 2.1 guides the methodology and analysis in effort to better comprehend the role of RBV for crisis management emergency response through Change and Innovation concepts. The emphasize of Change is placed on the sense of crisis in the internal management and the Innovation is about exploring business process whether it is different from the old practices.

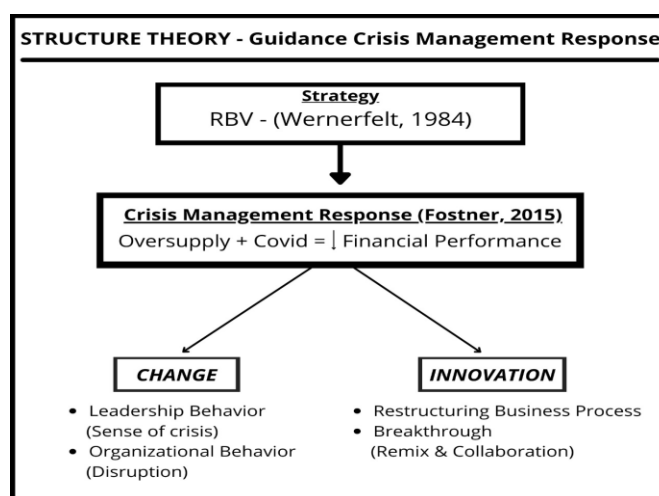


FIGURE 2
THEORETICAL APPROACH

Resource-Based View Strategy

The Resource-Based View (RBV) is a managerial framework applied to determine the strategic resources a firm can pursue to achieve sustainable competitive advantage (Barney's, 1991). The emphasize of RBV is on the internal resource as the tool to survive crisis and more than that it is as a weapon to win the market competition. It is about optimization internal resources to improve its efficiency and effectiveness. These internal resources can be grouped into human resources, organizational resources, and physical resources.

Strategic crisis response must adapt to fit a range of unknown future scenarios, a smart strategy must enable organization to be fluid and agile in crisis situation. In fact, all the internal management actions are within the control of the organization executives (Porter, 2006). Related to RBV application, the existence of VRIO could become important tools to achieve efficiency and effectivity in equipping management SMGR and INTP in dealing with crisis. VRIO Framework: (1) Valuable (2) Rare (3) Costly to Imitate (4) Organized to capture competitive potential.

How to sustain a competitive advantage position? According to RBV, a firm's competitive advantage must be guarded and optimized for long period of times. It can be achieved through out: 1. Better expectations about the future value of a firm's resources; 2. Have accumulated a resource advantage that can be imitated only over long periods of time; and 3. When the source of their competitive advantage is causally ambiguous or socially complex. The resources must be linked to capabilities, core competencies, and management strategic actions to achieve superior firm performance, called competitive advantage.

Crisis Management Responses

Crisis strategic management is a special system which is complex in character, and which can completely alleviate temporal difficulties for a corporation's work (Bacon, 2006) Strategic management during crisis is the method which makes it possible to recognize the crisis and to take actions to overcome its negative impacts (Groh, 2014). Following Coombs (2007), a narrow view of crisis in its simplest form has three phases: pre-crisis, crisis, and post-crisis. Today's phenomena in cement industry are reflecting the phase of crisis where the crisis is still on going as oversupply capacity will be persisting until 2025 and beyond. Framing crisis requires specifying who (actor) experiences what kind of crisis (content) at what speed (pace) (Wilke & Ritter, 2006). Actors in this research are directed toward organization SMGR and INTP as these two major players are very dominant in the market and simultaneously affected the most by the crisis.

Pace or speed of the crisis (Ritchie, 2004) is reflected by the crisis action of wary players who are easily triggered to initiate a price war. Responding to this turbulence, major players like SMGR and INTP seem to be drifting along into the price war instead of taking the role as the industry leader to command the direction of the industry. Survival strategies in hostile environment faced with existing threats often to include cost cutting, layoffs, restructuring, re-engineering, replacing the old systems. This strategic move is crucial to improve efficiency and effectiveness leading to sustainable competitive advantage.

Phenomena	Strategic Objectives	Measurement
1. Oversupply in domestic market	Major players to control supply	Stop new domestic plants
	Discourage New capacity from Foreign Investor	Stop new foreign plants
	Government intervention to support	Stop industry new plants
2. Low demand in domestic market	Increase consumption Promote new project	Sales growth More new & jo int projects
3. Cost Efficiency	Cost Improvement	Acceptable minimum level of performance
4. Marketing Effort	Sales increase	Customer loyalty

Change - Leadership Sense of Crisis and Organizational Disruption

Crisis is a set of events that can potentially cause business destruction if not managed cautiously (Pedersen, 2020). The magnitude, speed, unpredictability and impacts of change has become bigger and faster than ever before (Hin, 2011) In respond to crisis management, executives in management SMGR and INTP need to alert their senses of crisis. Change is name of the game. To achieve a different result, a firm executive must do different ways. Change also means disrupting the status quo in the organization way of doing things, it needs a bold crisis leader supported by agile and responsive organizational behaviour.

However, crisis is often responded with Unplanned Change as crisis is inherently unpredictable. “The Unplanned Change – Organizational changes that are not foreseen prior to the need to change, often made necessary by shifts in the organizational environment, internally and externally” (Lewin, 1951). Unplanned events are often tricks of nature in the form of forest fires, land sliding, and in particular pandemic covid-19 which escalated crisis in cement industry. However, the human factor is often to be found not far away from it. Thus, Leadership Style and Organizational Behavior must be urged to adapt fast and precise to this change of the situation.

Leadership Behavior - Sense of Crisis

Leadership with great sense of crisis are crucial to turn around the company. Leader continuously aim for efficiency and effectiveness strategic action to win the competition. This is also to include Paranoia concept. Paranoia is a key trait in entrepreneurial success (Histrich, 2013). Only the paranoid survives the crisis (Grove, 1996). To survive the crisis, managers need to be resilient and agile in order to drive, preserve and recover value. Paranoia means to keep on disrupting and feeling uneasy toward the stability. Cement crisis requires a paranoia leadership behavior, one-of-a-kind executives with insane minded to accept the challenge to try the abnormal idea. Their action must be bold to execute the uncommon strategies in this ‘uncommon situation’.

In addition to it, Harvard Business Review published a journal about 4 Behaviors That Help Leaders Manage a Crisis (Nichols, 2020): “They must decide with speed over precision, Adapt to changing environments boldly, Reliably deliver despite circumstances factors, and Engage deeply with their teams. Managers should remember that moments of crisis can reveal a great deal about the true leadership. Identify who rose to the occasion, who struggled, and why. Evaluate how roles will change in the postcrisis stage and consider whether these key leaders are positioned for success”. Today, many of those same leaders must make fast decisions about controlling costs and maintaining financial liquidity. They may encounter unforeseen roadblocks about supply chain issues, team allignments, and operational challenges that drastically alter the scope of their roles and priorities. This is a rocky transition with point of no return. Those in charge will be tested in areas where they have not fully developed their leadership muscles, and the process of learning curve will be steep and treacherous. The present of strong mentor is a plus. Coaching from experienced and experts is not a shameful matter.

Leadership Behavior - Chaos Theory and the Butterfly Effect in Crisis Management

Researchers have applied both chaos theory and the butterfly effect in the event of crisis management (Newman, 2021). Chaos theory says small differences in starting conditions can stimulate them act very differently and unpredictably. The Chaos theory comes from mathematics and holds that some systems are so complex. This characteristic inspired the concept of the butterfly effect, in which a butterfly flapping its wings in Brazil can theoretically cause a tornado in Texas. This potential (for small changes to have unpredicted effects) can make these systems appear completely random, even when they may

not be (Lorenz (1963). Take for instance, the so-called insanity idea which is less than 5% of accepted, appear completely random, on the other hand, should it is modified and twisted intelligently this small percentage idea is possible creating a big impact in alleviating the crisis.

Abnormal event like cement crisis is not happening in everyday of life. Crisis causes chaos and this stressful condition will easily drive people to become insane. While an abnormal situation can cause insanity, managers can turn the situation to be advantageous should they know how to manipulate it. It is not uncommon that insane idea is rejected, placed under the rug, thrown into the garbage, prematurely discontinued. On the contrary, the current accepted strategies which are implemented by managers are not proven to be effective as crisis remedy, either. Therefore, what is left for the crisis solutions? Those rejected and outcasted idea deserves to be revisited and revived.

Inspired from Chaos Theory, the idea of 'Insanity - Think the Unthinkable' is defended from the faith that those rejected and outcasted idea should be given a second chance. This insane idea should be retrieved, reconsidered tactfully, refined, retuned, and remodified to make them work successfully under abnormal circumstances. In time of crisis, pressure is mounted, and people are easily blindsided by bounded rationality, their immediate response to insane idea is rejection. As a matter of fact, this insane idea itself could be good through readjustment the implementation process, doing it differently, with a new team in innovative way to produce some positive results.

The so called insanity is an outlier idea, just like butterflies flapping effect, it is small portion and counted as 5% of the total accepted idea. Despite it is uncommon, crisis managers must focus on what is working, now. So, if the current methods are driving the positive result, stay sane and stay on course. But do not underestimate what Einstein's saying "by continuing down the course with blinders on. Ultimately your ability to drive a different result is going to be your key to business survival".

Organizational Behavior – Disruption

The two major players Indonesian Cement Industry may have taken some changes through corporate actions during crisis, to cure the imbalance between an enterprise's revenue (profit) and the cost of resources in facing the crisis (Fink 1986). However, the impact of their strategic changes is still in question. Crisis remedy needs change and disruption in the organizational behavior. This is to include exercising Contingency Strategy. Contingency theory asserts that decisions should be made contingent on circumstances of the event, there is no single best method to organize or lead a company. This applies equally in crisis response as crises are complex and unpredictable. Crisis organizations must adapt their response to make it contingent upon the situation. And, also about situation of internal factors include characteristics of the organization and other threats (Wernerfelt, 1984).

Therefore, survival mode means to be ready with contingency situation at all time, stay alert, and keep on disrupting the stability as anticipation prior to new crisis. "Disrupt yourself. Do not wait for others to disrupt you (Rothmael, 2019). Dynamic and fast changing in the external environment have forced the organization to outdated inner looking attitude, isolation is revived with outward looking and openness. To survive means to be fluid and responsive to new things at all time. Status-quo must be challenged to ensure its practicality and sustainability to survive the organization from turbulence.

Learning organizational culture must be institutionalized through new policy and role model of high performers. Staffs must understand there is no safe place in the business world, disruption means to adopt change and reshape behavior. Acquiring a new skill is mandatory, coping up with new technology is a must, and upgrading existing skill is a way of the new

corporate behavior. Reward and punishment system are to be installed at par with industry performance. Globalization inevitable alter industrial practices, fresh new organizational culture, reshaping behavior, the introduction of new methods of managerial control and the substitution of labor by more up-to-date technology and equipment may need to be instituted (Danson, 1986) as a way to survive in the new open competition era.

Dynamic Business Model - Restructuring Business Process

The source of the next competition may not even be within imagination. As the global economy entered the new century, changes were taking place on various stages at a very fast pace. Many of these changes had outdated if not obsoleted many traditional business models and tools, altering the rules for existing competitors and challenging the assumptions of others, both new and old (McKinsey, June 2020). Therefore, SMGR and INTP are to consider those perspectives and to adapt accordingly for the future business's sustainability. Restructuring is one of the corporate strategies to (1) reorganizing and divesting business units and activities (2) helps refocus a company (3) helps leverage core competencies more fully (Rothmael, 2019). The innovative efforts are to include streamlining, consolidation, merging, and dissolving businesses. In addition to it, Cost Cutting strategy through production forward integration, establishing many trading houses to get closer to buyers, outsourcing programs, sourcing from most efficient producer, and from nearest geographic location due to high logistics cost of cement product.

Process restructuring business process also covers marketing, product development, production purchasing, finance, and services. The main objective is to bring the company to an acceptable minimum level of performance. Cost improvement can be achieved through out-sourcing and buying directly from the producer. There is more evidence to suggest that the larger firms are outsourcing more of their activities to specialist and efficient partners (Mckensey, 2020).

Resilience Theory and Business Continuity Planning

Resilience theory, which has its roots in child psychology, states that having one or more protective factors can help individuals survive adversity with less harm. In business, resilience theory assisted to business continuity planning, which seeks to make companies more resistant to failure.

A business continuity plan is in line with crisis management plan in that it anticipates emergencies and disruptions that could occur and defines actions to regain normalcy in the firm. Many researchers view resilience as (1) organizational responses to external threats, (2) reliability of organization, (3) employee special strengths, (4) business models ability to adapt or (5) business model design that minimize supply chain vulnerabilities and disruptions (Linnenluecke, 2015).

In navigating disruption, it is clear that embrace digitization and green environment or sustainability is the path forward for the industry. Putting these two trends at the core of planning for the future will help cement players catch up to those in other heavy industries and achieve considerable productivity gains. In an industry where regaining lost revenues can take years, it is crucial to kick off now to both recover from the impact of COVID-19 and make cement players more resilient to future disruptions (MacKinsey, 2020).

Indeed, as part of survival mode, adopting the all above aspects can be done by disrupting the existing operations. This means the leaders must refocus on efficiency from big-ticket items for businesses to cultivate their competitive position for survival. Big ticket items in cement industry (figure 3) consist cost of Energy, Raw Material, Logistic - Outbound. Energy (coal

and diesel) 25-30%, Direct material (including packaging) 20-25%. In addition to it, since cement is a heavy bulk product with low value, the Outbound Logistic accounts for 20-25%.

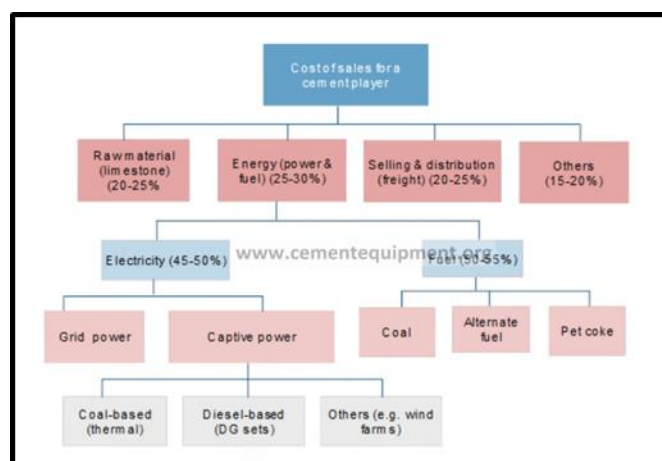


FIGURE 3
THE MAJOR COSTS ASSOCIATED WITH CEMENT PRODUCTION

Cross-case analyses Crisis Business Model - Learning from strategic responses Top Global Cements: Cemex, Lafarge Holcim, Heidelberg to survive cement crisis 1998 - Present.

Cross-case analyses will likely involve some type of pattern matching logic. Pattern matching involves comparing two or more patterns between the cases to see if they are similar or dissimilar as a step in explaining observed processes or behaviors (Yin, 2003). Comparison spurs a range of new questions about the nature of the similarities and differences between different cases. The study result in the global cement industry showed that there have been various changes in the industry including rise/drop in demand and entry of other players. The strategic responses that were significant in the industry include outsourcings of non-core services as well as customer service programs have been introduced. Controlling plant and equipment expenditure through leasing, outsourcing maintenance, safety, and automation have been exercised. Companies involved in the study used packaging of bulk products and cheaper packaging materials. These companies also carried out competitive bidding by involving open and online procurement systems. The study also found out that cement manufacturing companies had achieved rationalization of staff through job realignment and digitalization. More efficient inventory management had been achieved through strategy and innovative policy formulation on procurement process. Diversification in form of overseas investments/divestment and downstream cement production.

The implementation of these changes had been successful executed by 3 global cement companies: Cemex, Lafarge Holcim, and Heidelberg. This is shown in Table 3.

Strategic Response - Global Top Cement Players		Cemex	LHC	Heidelberg
1	Production Outsourcing			
2	Open Trading House to get close to market			
3	Source from Cheaper & Nearer Plant			
4	Selling Non-profit/Non-potential operation plant *)			
5	Keep profitable and strategic operation plant			
6	Merger the global operation	---		---
7	Selling excess capacity to own Trading House			
8	R&D new technology for Efficiency Energy & Raw Material			
9	Continuous R&D for New product development			
10	Transport and Warehouse outsourcing			
11	Pursuing to enhance Information Technology & IoT			
*) Cemex sold Indonesian Operation to SMGR in 2005				
*) LHC sold Indonesian Operation to SMGR in 2019				

FIGURE 4
SUMMARY CROSS-CASE ANALYSES CRISIS BUSINESS MODELS

Dynamic Business Model - Breakthrough Strategies

Breakthrough is (1) a significant or sudden advance, development, etc., as in crisis response (2) an act of overcoming or penetrating an obstacle or crisis (3) an act or instance of removing or surpassing an obstruction or restriction (4) a major achievement or success that permits further progress (Rothmael, 2019). Breakthrough initiative for survival SMGR and INTP should be done by considering new ways of doing business. These are including Remix and Collaboration concepts, as well as revisiting the current Marketing Strategy and participating in the era of digitalization with IoT.

Remix Strategy (Benjamin Gomez-Casseres, 2015)

In contrast to Competitive Strategy, Remix Strategy is capitalizing the uprising business opportunity by joining with others. Remix principal understands very well from the beginning that the output yield is to be shared. The yield in Remix is almost certain because it is mutually agreed upon by participants, instead of being competed. On the contrary, in competition, the potential gain could be bigger however it is uncertain.

Benjamin Gomez stated Three Laws of Business Combinations:

Identify Potential Joint Value: Searching for a compatible partner for synergy which cannot be done by one company alone. It is better to lower one ego and be rational holding hands with other partner to seize that opportunity. The result is then shared between participants.

Govern the Collaboration: The combination must be designed together and managed to realize the joint value. Policy and Rule of Game must be agreed at the initial stage.

Share the Value Created: The business value earned by the joint parties must be attractive enough to motivate them to contribute to the collaboration and enter the Remix Strategy.

Collaboration is simpler than and not as expensive as Merger & Acquisition (M&A) (Pieter de Man & Duysters, 2005). The process is less formal because the parties involved are

aiming for the same goal and the goal is mutually beneficial. According to the Economic Intelligence Unit and supported by Ernst & Young, in response to business pressure and rapid changes, companies are increasingly gravitating toward more fluid and agile alliances. Airbnb is capitalizing it by partnering with property hosts. OVO, Gopay, Dana, Shoppe Pay grow their business exponentially by collaborating with thousands of external partners.

Is Collaboration the New Innovation?

Competition Theory is to achieve a Competitive Advantage as praised by Porter, however, lately some practitioners started to be more realistic in approaching the market opportunity with certain potential for adding value to the organization. After an endless battle and exhaustive guessing games about the intention of competitors in the market (Game Theory by Gondolfo Dominici, Elixir Marketing 36, 2011), and yet the outcome is still uncertain, these practitioners begin to turn around and to seek different answers for what is missing with the current competition practice.

Synthesizing the above compelling questions, the new and extreme end of competition theory is borne, it is called Collaboration. Is collaboration an innovation? (Liu & Brody, 2016). It is well said that in this fast-changing era, it will be very hard for a company to keep up with the new things. Further, the fact that doing things alone occasionally leaves some idle capacity. The office space is only utilized at 30% of time, and many idle assets are underutilized due to fluctuating demand. To survive in this fast changing and uncertain era, companies need to be agile and be flexible to work with others, called collaboration (Liu & Brody, 2016).

Nowadays, the idea of innovation is by doing collaboration and sharing the result. Open Innovation theory is the main supporter of this idea. "The use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively." (Chesbrough et al. 2006). It is more informal, faster, and no negotiation since the result is only achieved by combining the expertise. To summarize it, "In a rapidly changing environment like that created IoT, there is a lot of uncertainty, and where there's uncertainty, companies need an option on the future. These partnerships create those options". Mashups offer a 21st century approach to deal making - a fast track to innovation and acceleration of growth.

Strategic Marketing - Emotional Branding, Cultural and IoT

Emotional branding is supporting strategic response SMGR and INTP to increase domestic cement demand. Emotional Branding means customers stay loyal over a long haul (Marc Gobe, 2001). In similar way, Emotional branding clearly differentiates companies from their competitors and assists to develop deep intrinsic relationships between brands and consumers. Relationships with an emotional dimension are more likely to resist the temptation to defect than superficially price or convenience-based aspects (Marc Gobe, 2001). With this much emotional engagement in decision making, it is easy to relate how an emotional bond with customers makes a direct contribution to improve sales and profitability for SMGR and INTP.

Emotional Branding is also to include Cultural Aspects, The Relationship Value, Internet of Things (IoT). Cultural Aspects in consumer behavior delves to the value, attitude, and behavior of the consumers (Browaeyns & Price, 2015). SMGR has developed a labor community for the East Java region and INTP has done the same for the West Java side. The cultural program is quite effective in creating emotional bonds to the point of becoming fanatic loyalists to the East (Semen Gresik) and West (Semen Tiga Roda) region factory

brand. The community testimonial brings positive impact to maintain loyalty and to increase purchase intention to regional cement brands.

Relationship Value is another Strategy to develop Emotional bonding. SMGR seems to be conscious about the importance of this Relationship Value. A routine action has been taken, for example the annual event 'SG Customer Gathering' with the objective to maintain SG customers' loyalty. A similar program is also held by INTP in the West Java region. Activation of IoT is also crucial, nowadays. Not only to streamline the customer transaction, but also to gain deeper engagement, and personalized customer bonding. IoT is proposed to enhance marketing capability and customer engagement to achieve a Sustainable Competitive Advantage (We Are Social, 2020). Due to Covid-19, everything is changing; a new system is coming. IoT has become a 'healthy' choice for social distancing protocol during Covid-19 pandemic. Cement players cannot be 'not' participating in it. Ignoring the role of IoT is a dangerous matter.

Puzzle of Theories (PoT)

A theme identifies a meaning patterned across the dataset and interview result, which is important for ... through the lens of preexisting theories and concepts (Boyatzis, 1998). A theme "captures something important and meaningful about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006).

A theme 'Puzzle of Theories' is a combined concept, responding to the crisis phenomena through comparative case study by exploring the differences and similarities crisis responses of management SMGR and INTP, then synthesizing it with multiple relevant theories. Furthermore, PoT is also trying to patch up some the phenomena gaps and research gaps in effort to develop the alternative solution for crisis in cement industry. Puzzle of Theories (PoT) focuses on 'result' by capitalizing the available internal resources (RBV) to cope with external environmental changes and challenges. It aims to minimize the destruction and to seize the opportunity. This Puzzle of Theories (PoT) is devised from extracting subjects' lived experience. This lived experience related to the strategic actions delved during the interview. In addition to it, some new concepts including remix and insanity are also synthesized into this PoT as part of problem solving.

Summary

Reflecting all the above issues with multiple strategic approaches, including studying secondary data from public information; despite various strategic responses are taken by SMGR and INTP to survive this crisis, yet their financial performances continue to be sluggish. For this reason, researcher is interested to pursue a qualitative research by doing in depth field interviews with key executives and relevant stake holders in effort to gain deeper and comprehensive understanding about the crisis phenomena. It is hoped the end result would be able to offer Puzzle of Theories as alternative solutions for crisis in cement industry in Indonesia.

RESEARCH METHODOLOGY

Research Design

The Paradigm or basic approach of this paper is Interpretivism by exploring the complexity of the phenomena through comparative case study of management crisis response SMGR and INTP. The epistemology of interpretivism, as mentioned by Farquhar (2012),

comprises subjective meanings in the social interaction and leads toward the construction of the ecosystem through ideas and knowledge precipitated by the engaging researcher. Methodology research of this paper is a Qualitative Research, developed around the questions of Why and How (Creswell, 2015) in order to gain in depth information about the crisis. A qualitative approach to gain insights through discovering the meanings by improving grasp of the whole phenomenon (Strauss and Corbin, 1990). And, a way to gain insights is through discovering, delving the richness, depth, and complexity of phenomena (Wahyuni, 2015).

Methods - Specific steps of action for this qualitative research are adopting Comparative Case Study Research Method. The researcher is selecting multiple (comparative) cases to understand the differences and the similarities between the cases being studied (Baxter & Jack, 2008; Stake, 1995). “Multiple case studies can be used to either augur contrasting results for expected reasons or augur similar results in the studies” (Yin, 2003). Techniques - Using the question Why and How in process to understand the complexity of crisis, the research is then using inductive techniques through observation, pattern, tentative hypothesis, until proposing a new theory or a new concept (Easterby-Smith et al., 2008)). This theory that developed through pattern analysis deriving from the inductive process, can be useful as a recommendation for alternative solutions to the crisis management faced by SMGR and INTIP. The theme is called Puzzle of Theories (PoT).

Comprehensive Research Design - Comparative Case Study

The comprehensive research design is shown in Figure 3.1 through preparation Research Setting and Research Questions. Research setting is conducted via questionnaires, online interview, face to face interview and field observation. Research questions will follow setting research protocol where the interview will be done in structured and semi structured fashions.

Research Questions are to be divided into two phases: First, structured-written questionnaires to the executives SMGR and INTIP. To confirm whether the crisis is a real event to the subjects, this is also supported with data and information. The second step is a semi structured style through in depth interview about how the subjects respond toward the crisis as well as finding the solutions. After a Data Collection completed from an interview about participants describing direct experiences, the process is continued with Data Analysis, Interpretation of the data, and Presentation of the Finding.

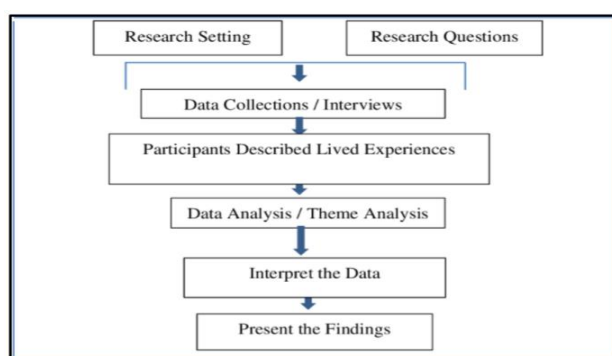


FIGURE 5
COMPREHENSIVE RESEARCH DESIGN - COMPARATIVE CASE STUDY

Research Object: Indonesian Cement Industry

The research object is serving from the phenomena crisis in the Indonesian Cement Industry. Comparative case studies are executed to understand these crisis phenomena prior to developing a thematic solution. Indonesia cement industry is in crisis as a result of overcapacity supply, low consumption per capita, and incoherent act of major players by taking individual strategic actions despite they are proven not successful in curing the crisis. This troublesome condition is aggravated by the impact of COVID-19 in early 2020. The current result, everyone is suffering, financial performance has plunged.

Research Subject: Comparison Strategic Actions of Two Major Players to Survive the Crisis

Research Subject is about strategic responses of two major players. It is done by comparing similarities, differences, and patterns discovered from SMGR and INTP Crisis Management Emergency Response (CM-ER). Their executives as decision makers in crisis can have significant dissimilarities in their view and the effects they experience (Wilke & Ritter, 2006). Meanwhile, the implication of their action can radically change the industry landscape.

Sourcing and Data Collection Techniques

For this research, most data collections derived from interviews with key executives, observation, plus some documentation from internal and external of company exposure as well as public reports. Some participant's observation is also conducted during the process of interview as well as field observation in order to gain in deeper understanding. From an internal management perspective, the questions will adopt questions from Change of Leadership Behavior, Organizational Behavior, Change, and Innovation. Related to market views, the questions will apply the Strategic Marketing related to emotional branding including cultural aspects, relationship value, and IoT application in maintaining the loyalty, customer engagement, in effort to increase demand for SMGR and INTP.

Documentation (including data from public expose)

Data generation is processed through in-depth, unstructured lengthy interviews which are more similar setting to a conversation rather than a typical interview talking the interviewee and listening to the researcher (Leedy & Ormrod, 2005). For this research, majority of data collections derived from Interview of important personnel and Documentation from internal and external company exposures, as well public reports. All of this information is documented as it is beneficial to understand the real crisis, the issue faced by the major player, and the strategic action taken to solve the crisis.

Technical Data Analysis

Reading a large amount of transcripts and information, looking for similarities or differences is required in Analyzing qualitative data. And, subsequently finding themes and doing categories (Wong, 2008). The heart of the comparative approach is comparison within the case and between cases through a pattern found. A pattern matching logic is explored in cross-case analyses. This pattern matching arrives by comparing two or more patterns between the cases to see if they are the same or else as a step in explaining observed crisis response of SMGR and INTP. Comparative result probes a range of new questions about the nature of the similarities and differences between cases. These may include: 1. what are the key patterns that occur over time in each of the cases? 2. What might be responsible for these

patterns? 3. What is surprising discover about these patterns? 4. How can these comparative patterns of crisis response be explained?

The framework data analysis is described in figure 6 First, Data Path Analysis is done for SMGR and INTP up to in the box Draw within research conclusion. After CM-ER Research conclusions of SMGR and INTP are completed, the next step is to do Cross Case analysis of SMGR, INTP, and Global Players' practices in surviving the crisis (Box: Draw cross research conclusion). The objective is to discover matching pattern as a foundation to develop the thematic solution (Box: Summary in schematic diagram).

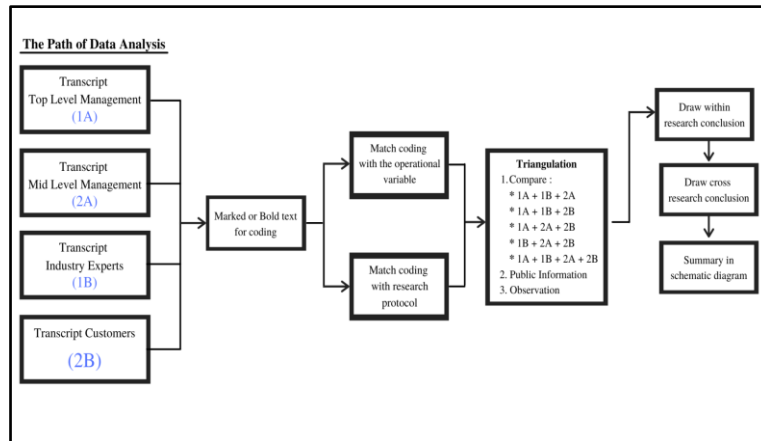


FIGURE 6
DATA PATH ANALYSIS

Finally, in Figure 7 about Framework output data analysis and the resulting concept/proposition is prepared before producing the report and presenting the proposition called Puzzle of Theories.

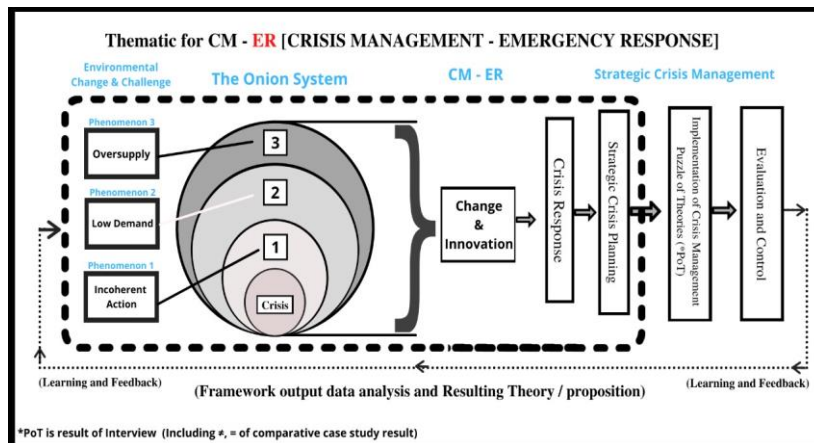


FIGURE 7
FRAMEWORK OUTPUT DATA ANALYSIS AND THE RESULTING CONCEPT/PROPOSITION

Validity and Reliability Test

All data collected in regard to the crisis in the cement industry needs to go through Validity and Reliability tests. Validity and Reliability tests increase transparency and reduce bias in this qualitative research. Validity concerns the study's success at measuring what it is

set out to measure. Internal validity is believed to be more credible via triangulation method, and External Validity is related to transferability, application in other areas with a similar setting (Leung, 2015). Meanwhile, a reliability test will be done with the aim of consistency in yielding the same results, where it can be replicated. Data validation will follow 4 steps (Creswell, 2015): 1. Fraud: Infer to whether the interview is executed to all? 2. Screening: To ensure whether the participants is in accord to the research criteria 3. Procedure: To ensure research protocol is obeyed 4. Completeness: To ensure the comprehensiveness of the questionnaires being asked.

Triangular Test

Triangulation data in qualitative research means using more than one method to collect data on the similar topic which involves different types of samples and methods of data collection. For example, data from the interview, observation, internal and external documentation are compared to see the consistency aspects (Creswell, 2015)

This research will explore theories or perspective triangulation refers to the ways in which researchers might compare participants' strategic actions with "alternative theoretical schemes" in order to use multiple, rather than single perspectives to examine a crisis topic. Triangulation will be divided into 2 categories. Internal Sources include Top Level Management (1A) at strategic decision maker and Middle Level Management (2A) at operational execution. The other category is External Sources to include Industry Expert (1B) such as President Indonesian Cement Association and Customers (2B) such as distributor and retailer. Subsequently all information collected from 1A, 2A, 1B, 2B are then triangulated with combinations 1A-2A-1B, 1A-2A-2B, 1A-1B-2B, 2A-1B-2B, and 1A-2A-1B-2B. The objectives of these combinations are:

1. To screen the most reliable and valid answers
2. To extract the similarities in the strategic response to Crisis
3. To discover the similarity themes and combined with relevance strategies/concepts for the Alternatives Solutions (Puzzle of Theories).

Summary

According to H. Simons "Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, phenomena, policy, institution, program or system in a real life" (Simons, 2009). The qualitative methods presented in this chapter aim to understand about phenomena crisis in cement industry, in particular about crisis management responses SMGR and INTP. The process is done by exploring and by comparing their strategic responses with a cross-case analysis among two major players and global players, utilizing document analysis and interviews to capture the spectrum of participants' perspectives in response to cement crisis. Researcher will then extract the meaning from the interviews and develop a pattern for crisis solution. All of these processes are crucial prior to developing a thematic solution, Puzzle of Theories, for crisis of cement industry in Indonesia.

REFERENCES

- An Interdisciplinary Research-program (2020). <https://image1.slideserve.com/1664620/an-interdisciplinary-research-program-n.jpg>.
- Ciotti, G. (2016). Relationship marketing: The value of marketing to current customers. Retrieved from <https://www.helpscout.com/blog/relationship-marketing/>
- Galvagno, M., & Dalli, D. (2014). Theory of value co-creation: A systematic literature review. *Managing Service Quality*, 24(6), 643-683.

- Hebert, D. (2011). The 3 stage theory of branding. Retrieved from <https://danielghebert.wordpress.com/2011/12/14/my-theory-about-branding/>.
- Hsu, M.Y.T., & Cheng, J.M.S. (2018). fMRI neuromarketing and consumer learning theory: Word-of-mouth effectiveness after product harm crisis. *European Journal of Marketing*, 52(1-2), 199-223.
- Hunt, S.D. (2012). The evolution of resource-advantage theory: Six events, six realizations, six contributions. *Journal of Historical Research in Marketing*, 4(1), 7-29.
- Indocement (2020). PT indocement tunggal prakarsa Tbk. Q1 2020, Financial Results.
- Market Business Review (2020). What is a marketing strategy? Definition and examples. Retrieved from <https://marketbusinessnews.com/financial-glossary/marketing-strategy/>.
- Porter, M.E., & van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *Economic Costs and Consequences of Environmental Regulation*, 9(4), 413-434.
- Poteet, J. (2017). The next evolution of marketing mix: Growing our company in the me generation. Retrieved from <https://medium.com/tradecraft-traction/the-next-evolution-of-marketing-mix-growing-our-company-in-the-me-generation-d3e98779a21d>.
- Schiffman, L.G., & Wisenblit, J. (2020). Consumer Behavior (11th ed.). Pearson.
- Sharabati, A.A.A., Jawad, S.N., & Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management Decision*, 48(1), 105-131.
- University, O. (2020). Consumer behavior theories marketers should know Ohio University. Retrieved from <https://onlinemasters.ohio.edu/blog/four-consumer-behavior-theories-every-marketer-should-know/>.
- Ward, B. (2018). Fred R. David and Forest R. David. Strategic management: A competitive advantage approach, concepts and cases. Malaysia: Pearson, 2016, 696 pages, \$282.20 hardback. *Personnel Psychology*, 71(4), 638-641.
- We Are Social (2020). Digital 2020: Indonesia. Retrieved from <https://datareportal.com/reports/digital-2020-indonesia>.
- Wilkinson, J. (2013). Complementors (Sixth force of porter's five forces), The Strategic CFO. Retrieved from <https://strategiccfo.com/complementors-sixth-force-of-porters-five-forces/>.