

JURNAL ILMIAH MANAJEMEN BISNIS DAN INOVASI  
UNIVERSITAS SAM RATULANGI (JMBI UNSRAT)

COMPETITIVE ADVANTAGE OF STEEL MANUFACTURING FIRM IN CENTRAL  
SULAWESI, INDONESIA: DSI STEEL INDONESIA

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ARTICLE INFO

**Keywords:**

steel manufacturing, joint venture, competitive advantage, case study

**Kata Kunci:**

manufaktur baja, usaha patungan, keunggulan kompetitif, studi kasus

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**Abstract.** Dexin Steel Indonesia (DSI) is a China-Indonesia joint venture steel company with its headquarter located in Jakarta and its manufacturing factory is located at Indonesia Morowali Industrial Park, Morowali Regency, Central Sulawesi. Steel market in Indonesia is as fierce as ever, and DSI needs to stand out among other competitors to thrive in the fierce market. In this qualitative study, the researchers inquired into the issues to explore DSI's competitive advantage, by employing a single instrumental case study with interviews, observations, and field notes. There are 10 informants who were approached for this study consisting of 5 internal stakeholders and 5 external stakeholders. The findings evinced a mini-model theory that guides DSI in Indonesia to enhance its competitive advantages to be able to survive in the marketplace. The mini-model theory consists of Experienced and Skillful Leadership, Language Barrier, Supportive Parent Company, Commitment to Alliance Agreement, Cultural Awareness, Cost Management, Learning Agility, Advanced Technology and lastly Equipment and Customer Engagement. Finally, the researchers also suggest other possible avenues for further research.

**Abstrak.** DSI Steel Indonesia (DSI) adalah perusahaan baja joint venture China-Indonesia yang berkantor pusat di Jakarta dan pabriknya berlokasi di Indonesia Morowali Industrial Park, Kabupaten Morowali, Sulawesi Tengah, Indonesia. Pasar baja di Indonesia sangat sengit, dan DSI harus menonjol di antara pesaing lainnya untuk berkembang di pasar yang sengit ini. Dalam studi kualitatif ini, peneliti menyelidiki masalah untuk mengeksplorasi keunggulan kompetitif DSI, dengan menggunakan studi kasus instrumental tunggal dengan cara wawancara, observasi, dan catatan lapangan. Informan yang didekati untuk penelitian ini berjumlah 10 orang yang terdiri dari 5 orang *stakeholder* internal dan 5 orang *stakeholder* eksternal. Temuan tersebut membuktikan teori model mini yang memandu DSI di Indonesia untuk meningkatkan keunggulan kompetitifnya agar dapat bertahan di pasar. Teori model mini terdiri dari *Experienced and Skillful Leadership, Language Barrier, Supportive Parent Company, Commitment to Alliance Agreement, Cultural Awareness, Cost Management, Learning Agility, Advanced Technology and Equipment, dan Customer Engagement*. Akhirnya, para peneliti juga menyarankan kemungkinan jalan lain untuk penelitian yang lebih lanjut.

## INTRODUCTION

The steel industry's demand in the world keeps increasing more from year to year. ASEAN (Association of Southeast Asian Nations) is the world's major steel import market, the consumption per year in 2020 reached 650 million tonnes, reflecting a big market availability in ASEAN and the Indonesian steel market. Market globalization and competition create a huge change (Ristovska and Ristovska, 2014). The right strategies to achieve success are through exploiting the opportunities that exist in a fast-moving and increasingly competitive business environment (Companys & McMullen, 2007). Many companies in the world have implemented these actions and chosen the right corporate strategy and got successful. This condition requires a company to develop its strategy so that it can survive, compete and continue to grow during an intense business competition, therefore the company needs to develop an appropriate strategy so that the company can maintain its existence and can improve company performance (Gluck et al., 2008).

Steel is an alloy made up of iron with typically a few tenths of a percent of carbon to improve its strength and fracture resistance compared to other forms of iron (Tuttle, 2018). Many other elements may be present or added. Except for Singapore, six countries in ASEAN have a steel consumption per capita index much lower than the global average, with Indonesia being the lowest (Figure 1). This low consumption per capita of steel in Indonesia indicates the potential room for DSI to grasp the increasing market for carbon steel. It is supported by the data from *Badan Pusat Statistik* (BPS, 2021) that shows the increase of import of carbon steel about 74,42% from USD 6,86 billion in 2020 to 11,96 billion in 2021.

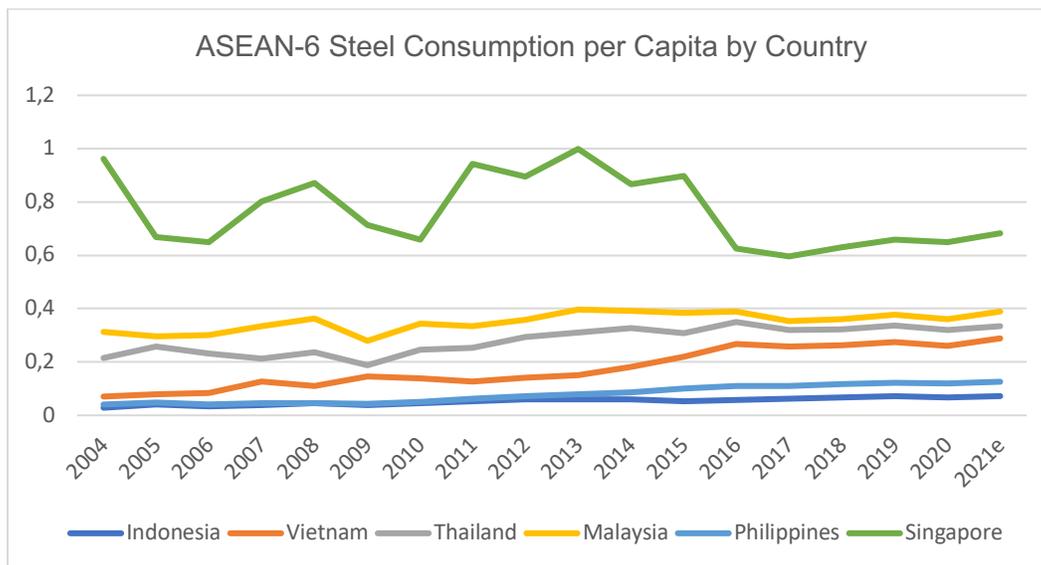


Figure 1. ASEAN-6 Steel Consumption per Capita by Country, Historical by Hatch, (tonne per capita)

Source: Internal reporting, World Steel Association

Dexin Steel Indonesia (DSI) is a China-Indonesia joint venture steel company that is owned by multinational enterprises as its parent. A multinational enterprise is a company that has business operations in at least one country other than its home country. They are an organization that owns and controls the production of goods or services in at least one country other than its home country (Phillip,1990). As mentioned by Daems (2012) about subsidiary, DSI is a subsidiary that is controlled by a parent company in China. In 2018, DSI commenced its Phase-1 project to construct a factory with a capacity of 4 million tonnes steel. After 2 years of construction, DSI commenced single-line production and started to generate profit during the year. And then, in 2021, DSI starts the construction of the Phase 1 Expansion Project. This construction is expected to boost its production capacity to 6 million tonnes per year. Currently, DSI has a production capacity of 4 million tonnes, and it is the largest steel producer in Indonesia. After the operation of Phase 1 Expansion with 2 million tonnes capacity, DSI will further increase its market share and voice in the Indonesian market and will also have a profound impact on the ASEAN market.

DSI is facing fierce competition in the steel market in Indonesia, with many factors from the external environment that might bring challenges to DSI. In view of the big growth potential in steel consumption, there are quite a several large integrated steel mills planned in Vietnam, Indonesia and the Philippines. Many of these new projects are invested by Chinese companies. Competition from other foreign steel companies forced steel companies in Indonesia to divert their market abroad rather than the domestic market. Moreover, the recent outbreak of the Covid-19 virus put the world into a pandemic state. The virus brings an impact not only on the steel market, but also on every sector of the world's economy. The steel market in the ASEAN also collapsed due to the pandemic, and DSI is massively affected with a drop in net profits by 68.4% between 2021 year and 2022 year. This is mainly due to the global economic downturn that caused lower market demand and increased restrictions on logistics. In addition, there was an increase in the prices of raw material such as iron ore and cokes.

DSI also faced several problems internally like a high volume of inventory in the warehouse due to lower demand and higher cost of production. In addition, the company also incurred higher expenditures for maintaining Chinese workforce as DSI needs their expertise. During the global economic downturn, it is very crucial for DSI to focus on the strategic factors that may contribute to its competitive advantage. Thus, DSI must have a clear understanding of their strategies to overcome the fierce competition both in domestic and foreign markets and actively explore the factors that can maintain and even gain its competitive advantage. To achieve this, the research inquiries are as follows:

### **Research Questions**

1. What strategic factors allow DSI to have a competitive advantage over their competitors?
2. How does DSI implement these strategic factors to have a competitive advantage over their competitors?

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## LITERATURE REVIEW

### **Multinational Enterprise**

A multinational or transnational enterprise is an enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country (Dunning & Lundan, 2012). Control is considered an important aspect of a multinational enterprise, to distinguish it from international portfolio investment organizations, such as some international mutual funds that invest in corporations abroad simply to diversify financial risks. Limited companies may be limited by shares or by guarantee.

Meanwhile, a parent company is one that has a controlling or majority interest in another company, which gives it the right to control the subsidiary's operations. Parent companies can be directly involved in the management of their subsidiaries, or they can have a more hands-off approach. Parent companies work by controlling over 51% of another company's stock, giving it majority control over the subsidiary's operations. A subsidiary company means a company owned or controlled by another company, which is called the parent company or holding company. The subsidiary can be a company (usually with limited liability) and may be a government- or state-owned enterprise. They are a common feature of modern business life, and most multinational corporations organize their operations in this way. DSI's shareholders consist of Delong Steel Singapore Projects Pte. Ltd. (40,5%), Ningbo Jianghong Trading Co. Ltd. (24,50%), Shanghai Decent Investment Co. Ltd. (14,20%), PT. Indonesia Morowali Industrial Park (10,8%), and Hanwa Singapore Private Ltd. (10%). In this case, DSI's parent company is Delong Steel Singapore Projects Pte. Ltd.

### **Leadership**

Johnstal (2013) examines the importance of successful leadership development in creating a competitive advantage and coping with the challenges of global competition, advancing technology and the growing pace of change. There are several characteristics required such as thinking critically, breakthrough thinking, creating innovative solutions, inspiring others and taking complex and ambiguous challenges (Western, 2019).

Leadership styles are classifications of how a person behaves while leading a group. In 1939, psychologist Kurt Lewin and a team of researchers determined that there were three basic leadership styles: Authoritarian (Autocratic), Participative (Democratic) and Delegative (Laissez-Faire). Authoritarian leaders, also known as autocratic leaders, provide clear expectations for what needs to be done when it should be done, and how it should be done. Participative leadership, also known as democratic leadership, is typically the most effective leadership style. Democratic leaders offer guidance to group members, but they also participate in the group and allow input from other group members. Delegative leadership, also known as laissez-faire leadership, offer little or no guidance to group members and leaves the decision-making up to group members. The skillful and experienced leader can sensibly choose on which leadership style they have to apply so that they can adapt to the certain situation.

### **Competitive Advantage**

Competitive advantage is the business concept describing attributes that allow an organization to outperform its competitors. Competitive advantage is what a business has over its competitors. Competitive advantage grows fundamentally out of valuing a firm is able to create for its buyers that exceed the firm's cost of creating it. Value is what buyers are willing to pay, and superior value stems from offering lower prices than competitors for equivalent benefits or providing unique benefits that more than offset a higher price. Porter (1985) defined the two types of competitive advantage an organization can achieve relating to its rivals: cost leadership or differentiation. DSI has to have its own competitive advantages to distinguish itself from other steel companies in Indonesia. By developing its competitive advantages, DSI will thrive in the steel market.

### **The VRIO Framework**

The VRIO Framework is a framework to develop a set of tools for analyzing all the different resources and capabilities a firm might possess and the potential of each of these to generate competitive advantages (Barney & Hesterly, 2010). VRIO framework stands for four questions one must ask about a resource or capability to determine its competitive potential: the question of Value, the question of Rarity, the question of Imitability, and the question of Organization.

### **Porter's Generic Strategies**

Though a firm can have a myriad of strengths and weaknesses compared to its competitors, there are two basic types of competitive advantage a firm can possess: low cost or differentiation. The two basic types need to be combined with the scope of activities and lead the firm to have three generic strategies: cost leadership, differentiation, cost focus, and differentiation focus. The significance of any strength or weakness a firm possesses is ultimately a function of its impact on relative cost or differentiation. Cost advantage and differentiation in turn stem from industry structure. They are result from a firm's ability to cope with the five forces better than its rivals.

### **Cost Leadership**

Cost leadership means that a firm produces at an equivalent or lower price than its rival and translates into higher returns. Suppose a firm can achieve and sustain overall cost leadership. In that case, it will be an above-average performer in its industry provided it can command prices at or near the industry average. Meanwhile, differentiation means how a firm can differentiate itself by satisfying buyer needs better than its competitors (Porter, 1985).

## **RESEARCH METHODOLOGY**

In order to explore this single instrumental case study, qualitative approach is chosen. Qualitative research is a research method to explore and understand the meaning that some individuals or groups of people think come from social or human problems (Creswell, 2013). Qualitative research begins in the field which is based on natural environments, not theory. The data and information that have been obtained from the field are taken for the meaning and concept, presented in descriptive analytic and generally without using numbers, because they prioritize the processes that occur in the field.

According to Creswell (2013), qualitative methods can be interpreted as research methods based on interpretivism. The goal of the research is to rely as much as possible on the participants'

views of the situation being studied. The questions become broad and general so that the participants can construct the meaning of a situation, typically forged in discussions or interactions with other persons.

The method used in this study were interviews, indirect observation and field notes data collection method in a qualitative design. There are a variety of methods of data collection in qualitative research, including observations, interviews (individual or group) (Silverman, 2000). Collecting data might involve visiting a research site and observing the behavior of individuals without predetermined questions or conducting an interview in which the individual is allowed to talk openly about a topic, largely without the use of specific questions. In this case, the researchers observed the daily operations of DSI and conducted interviews for DSI's higher management as the sample. After data is collected, they are analyzed using theming data for each informant's interview transcript and pattern analysis across the informants' underlying meanings and themes.

**Table 1. Informants' Profile**

Informant	Name	Position	Gender	Age
Informant 1	Mr.C	CFO-DSI	Male	41-45
Informant 2	Mr.L	Purchasing Manager-DSI	Male	36-40
Informant 3	Mr.N	Tax Supervisor-DSI	Male	26-30
Informant 4	Mr.H	Marketing Head –DSI	Male	31-35
Informant 5	Mr.A	Financing Director-DSI	Male	36-40
Informant 6	Mr.R	Operation Management Manager-ITG	Male	36-40
Informant 7	Mr.W	Purchasing Manager-PT RI	Male	36-40
Informant 8	Mr.Y	Logistic Manager -PT DLI	Male	41-45
Informant 9	Mr.G	Operation manager- HQM Co., Ltd	Male	46-50
Informant 10	Mr.X	Vice President of Marketing-X Co., Ltd	Male	46-50

## FINDINGS AND DISCUSSIONS

The researchers extracted the categories based on the patterns related to the research problems and subsequently moved on to creating the latent variables (concepts) based on the categories; in other words, moving on from the reality of the formulation of latent variables, after which every latent variable must be defined or explained.

### **Proposition 1 (P1): Experienced and Skillful Leadership (V1) contributes positively to Competitive Advantage (V10)**

The top management in DSI consists of senior leaders that already have a lot of experience in the steel industry. Leadership is one's process of influencing others to achieve common goals and direct the organization in ways that make it more coherent and cohesive (Northouse, 2007). Since they have a lot of experience in the business, the leaders have the capabilities to decide the company's strategy going forward and to lead the company's employees in their desired direction.

*"Of course, my prior working experience have some advantages to my current job"*  
– Mr. N, internal stakeholder (Informant 3).

*"Because I also worked in the steel industry before, therefore I'm already used to this industry"*  
– Mr. H, internal stakeholder (Informant 4).

*"In my opinion, the quality of senior leaders sent from the parent company to DSI is firstly pragmatic, secondly efficient, thirdly professional, and fourthly the ability to learn new product technologies."* – Mr.C, internal stakeholder (Informant 1).

*"I think DSI's leaders have the characteristics of leading by example, providing positive energy, being pragmatic and progressive, and maintaining patience and rationality. At the same time, good leaders provide opportunities for growth and development for everyone in the team, pay attention to the progress and promotion of each person, and regard the growth of the team as their own work goal. They show appreciation and gratitude for the efforts others make for them. They know that without their team, they would not be great leaders."* – Mr.L, internal stakeholder (Informant 2).

### **Proposition 2 (P2): Language Barrier (V2) contributes negatively to Competitive Advantage (V10)**

The language barrier is an issue for the employees of DSI who do not speak optimal English or Chinese. Nevertheless, this issue is still manageable, as the employees hired have the willingness to learn the Chinese language. Emotional intelligence in the teams or perspective taking can alleviate negative emotions that comes from negative barriers among the employees

(Tenzer & Pudelko, 2015), thus hiring the best employees has become the focus in DSI's recruitment, that focuses on individuals that utilize emotional intelligence.

*"At the same time, as a Chinese funded enterprise, its disadvantages are mainly reflected in language, cultural differences" – Mr. C, internal stakeholder (Informant 1).*

*"There is a language barrier with the local staff. My solution is to actively learn foreign languages, communicate more with local employees" – Mr. L, internal stakeholder (Informant 2).*

### **Proposition 3 (P3): Supportive Parent Company (V3) contributes positively to Competitive Advantage (V10)**

DSI are backed by big companies as their parent companies. A parent company is one that has a controlling or majority interest in another company, which gives it the right to control the subsidiary's operations. The strong support such as big fund support, technology sharing, and potential buyer and vendor from its parent companies makes DSI can maneuver in the steel market with reasonable price compared to its competitors.

Since DSI's parent companies is already established big companies, they introduced DSI to some of big potential customer. Therefore, this condition opens new market opportunities to DSI compared its competitor. In economics, a market is defined as a coordinating mechanism that uses prices to convey information among economic entities (such as firms, households and individuals) to regulate production and distribution (Ruiz, 2012). Meanwhile, in Indonesia market, since DSI's price is so competitive, it brings opportunity to DSI to grab Indonesia steel market that are still wide open.

*"Because our parents are fully established, we adapt a lot of their technology and expertise" – Mr. N, internal stakeholder (Informant 3).*

*"From the capital aspect, the investment from the shareholder is very good. All the shareholder gave their pledge to improve DSI by investing in here." – Mr. H, internal stakeholder (Informant 4).*

*"..... right now the technology we are using is the most advance. For example, we can improve our capacity because we adapt our parent technology. Our technology is the most cost efficient. From the financing side, when I communicated with the bank, when the bank wanted to survey our factory, they were very impressed with our technology. Even compared to Indonesian steel companies." – Mr. A, internal stakeholder (Informant 5).*

*"In addition, DSI is the first full-process plain carbon steel enterprise in Indonesia's steel industry, with a variety of advantages in equipment, production technology, costs, talent and operation, including: the full-process equipment is the introduction of China's more advanced metallurgical*

*industry equipment, along with the equipment is the advanced first-class production technology.....”– Mr. L, internal stakeholder (Informant 2).*

*“In addition, because DSI is a China-Indonesia joint venture model, it will be more convenient to communicate with domestic customers in China and smoother with Xiamen International Trade.”*  
– Mr. R, external stakeholder (Informant 6).

**Proposition 4 (P4): Commitment to Alliance Agreement (V4) contributes positively to Competitive Advantage (V10)**

DSI is a joint venture owned by big companies from big groups. Therefore, in the decision-making, there will be a disagreement between each of the shareholders since each of the shareholders. A conflict of interest is a situation in which a person or organization is involved in multiple interests, financial or otherwise, and serving one interest could involve working against another (Thompson, 1993). This could happen possibly because of different vision between each shareholder, and this can disrupt and bring damage to the company if it is not managed properly. However, the shareholder of DSI are strictly showed their commitment to the alliance agreement, and not let their own interest disrupt DSI business.

*“There are also conflicts between the shareholders, but the shareholders need to strictly follow the joint venture agreement, the company’s articles of association and the corporate system.”*  
– Mr. C, internal stakeholder (Informant 1).

*“In terms of disadvantages, compared with the local shareholders’ joint ventures and wholly-owned enterprises, the majority shareholders will have less control: for example, some important decisions will also be interfered with by the joint venture party, and some products, including business data, may also be subject to the joint venture party’s review and supervision. Then, in terms of internal management concepts, there may be conflicts caused by the inconsistent concepts of Chinese and foreign enterprises, which will affect the decision-making.”* – Mr. R, external stakeholder (Informant 6).

*“..... compared with Chinese shareholders, local shareholders will have more say in the industrial park.”* – Mr. W, external stakeholder (Informant 7).

*“The disadvantage is the difference in business philosophy between China and foreign countries. Because the parent company of DSI is in China, if it operates according to the Chinese business model, it may not be able to continue in Indonesia. After all, the legal systems of China and Indonesia are different. If they must be implemented according to Indonesian laws, some models cannot be operated in Indonesia. In addition, the integrity of the government will also affect our operating costs.”* – Mr. Y, external stakeholder (Informant 8).

*“When the interests of shareholders are inconsistent, it will lead to increased contradictions, which is not conducive to the stable development of the enterprise.” – Mr. G, external stakeholder (Informant 9).*

**Proposition 5 (P5): Cultural Awareness (Lack of) (V5) contributes negatively to Competitive Advantage (V10)**

Since DSI is mainly supported by China companies, cultural differences are one of the main challenges DSI met in Indonesia. Because DSI adopts Chinese culture of working, and employees in DSI are mostly Indonesian, these cultural differences are unavoidable. It is expected that people in different countries would differ in their concrete (behavior) instantiations of values, because we assumed that personal experiences and the socio-cultural environment exert a strong influence at the concrete level (Hanel, 2016). The cultural differences can bring problem if DSI is not adapt properly.

*“The disadvantages, is that sometimes, the upper management don’t really understand the culture here in Indonesia.” – Mr. H, internal stakeholder (Informant 4).*

*“However, there are some disadvantages. The main one is the culture difference. China employees like to work every day and overtime.” – Mr. N, internal stakeholder (Informant 3).*

*“Different cultural backgrounds and ways of thinking lead to different problem solving perspectives.....” – Mr. L, internal stakeholder (Informant 2).*

*“The biggest challenge should be cultural differences. Specifically, in terms of work philosophy, the Chinese and Indonesians have different work styles. The Chinese generally put economic benefits first, and the on-site workers even work overtime 24 hours when necessary. However, Indonesians, due to their religious beliefs, hold religious ceremonies during their work, which leads to different work efficiency. All these differences require a period of time for Chinese people to adapt and adapt.” – Mr. Y, external stakeholder (Informant 8).*

**Proposition 6 (P6): Cost Management (V6) contributes positively to Competitive Advantage (V10)**

Before purchasing, DSI’s cost management personnel will research about the price of raw materials in the market and the quality of raw materials at different prices, and conduct systematic analysis according to the price and quality changes of materials to select the materials with the best quality and the lowest price for purchasing. Cost control is mainly aimed at the cost management objectives set in advance in the project operation and management of the enterprise, and in the process of actual project development and operation, all departments should implement management according to their cost objectives, manage and control the problems between various

departments during the production and processing period and various factors affecting cost changes (Hansen and Mowen, 2017).

*“The monthly cost analysis will also be performed to analyze each process one by one. At the same time, it will compare and analyze the data with the benchmarking units inside and outside the Delong group to find out the reasons.” – Mr. C, internal stakeholder (Informant 1).*

*“Meanwhile, we also always double check our production performance and compared them to the data in our shareholder in China, to see if there is any problem or slowing down for our production.” – Mr. A, internal stakeholder (Informant 5).*

*“At present, in this market, I think cost control and process management of steel plants are very important.” – Mr. R, external stakeholder (Informant 6).*

*“.....DSI can use the experience and technology of the parent company to reduce costs and increase efficiency, and at the same time continue to expand production capacity and make products bigger and stronger according to supply and demand.” – Mr. W, external stakeholder (Informant 7).*

*“For iron and steel enterprises, I think the most important thing is to control the cost of main raw materials, expand the sales market, and improve product quality and brand awareness.” – Mr. Y, external stakeholder (Informant 8).*

*“DSI Company should have room for progress in cost control. Such as raw material cost, manufacturing cost, etc. Further develop cost-effective raw material resources and optimize coal blending and ore blending schemes.....” – Mr. X, external stakeholder (Informant 10).*

**Proposition 7 (P7): Learning Agility (V7) contributes positively to Competitive Advantage (V10)**

Constantly learning from the leading peers in the steel industry and learn its shortfall from its customer and vendor enables DSI to always improve so that it can be the leader in Indonesia steel market. People learn by considering, researching, analyzing, evaluating, organizing, testing, deciding, and applying ideas. Learner absorb knowledge, where the learner is physically passive but mentally active (Horton, 2011).

*“I think DSI leaders are very happy to learn new knowledge and advanced management concepts, they also have the characteristics of leading.....” – Mr. L, internal stakeholder (Informant 2).*

*“and fourthly the ability to learn new product technologies.” – Mr. C, internal stakeholder (Informant 1).*

*“I think the first is to exchange information with leading peers in the steel industry and exchange on what issues they have met. Second, we should communicate more with leading upstream and downstream enterprises in the market, so that DSI can make better judgments about the market.”*  
– Mr. R, external stakeholder (Informant 6).

**Proposition 8 (P8): Advanced Technology and Equipment (V8) contributes positively to Competitive Advantage (V10)**

Compared to another steel industry, DSI applies more advanced technology and equipment to produce its goods. It is resulting the production goods to be much better than its competitor with competitive price. Production is the process of combining various material inputs and immaterial inputs (plans, knowledge) in order to make something for consumption (Sickels and Zelenyuk, 2019). DSI adopts the advanced technology from its parent, and from the fund support of its parents as well, DSI could afford to apply advanced equipment in its production process.

*“In addition, the product quality of DSI Iron and Steel will be better than that of other small steel plants.”* – Mr. R, external stakeholder (Informant 6).

*“DSI has excellent equipment, technology and talents exported from China, which is its biggest competitive advantage as a steel company in Indonesia.”* – Mr. X, external stakeholder (Informant 10).

*“.....DSI is the first full-process plain carbon steel enterprise in Indonesia’s steel industry, with a variety of advantages in equipment, production technology, costs, talent and operation, including: the full-process equipment is the introduction of China’s more advanced metallurgical industry equipment, along with the equipment is the advanced first-class production technology.....”* – Mr. L, internal stakeholder (Informant 2).

*“DSI is the largest long process steel enterprise in Indonesia, and its advantages are mainly reflected in advanced equipment.....and advanced technology and management experience of the parent company can be copied into the DSI project.”* – Mr. C, internal stakeholder (Informant 1).

**Proposition 9 (P9): Customer Engagement (V10) contributes positively to Competitive Advantage (V13)**

Marketing division in DSI has become an integral part for the company. Customer satisfaction is always the number one most important thing that DSI always look to improve. By maintaining good communication with the customer, always listen to their needs, and also doing in-depth market research, DSI hope that it can maintain customer loyalty. Marketing is the process of exploring, creating, and delivering value to meet the needs of a target market in terms of goods and services (Kotler, 2017).

“I think the first is to communicate with customers more, get useful information based on customer feedback, and then make internal improvements or improvements.” – Mr. R, external stakeholder (Informant 6).

“It should pay more attention to direct communication with customers and more in-depth market research” – Mr. W, external stakeholder (Informant 7).

“DSI should improve customer satisfaction and customer loyalty through good product reputation and corporate image.” – Mr. Y, external stakeholder (Informant 8).

“It can communicate directly with customers, bypass indirect feedback from both sides of supply and marketing, understand customer needs more accurately, establish a better relationship with customers, and maintain customer loyalty” – Mr. G, external stakeholder (Informant 9).

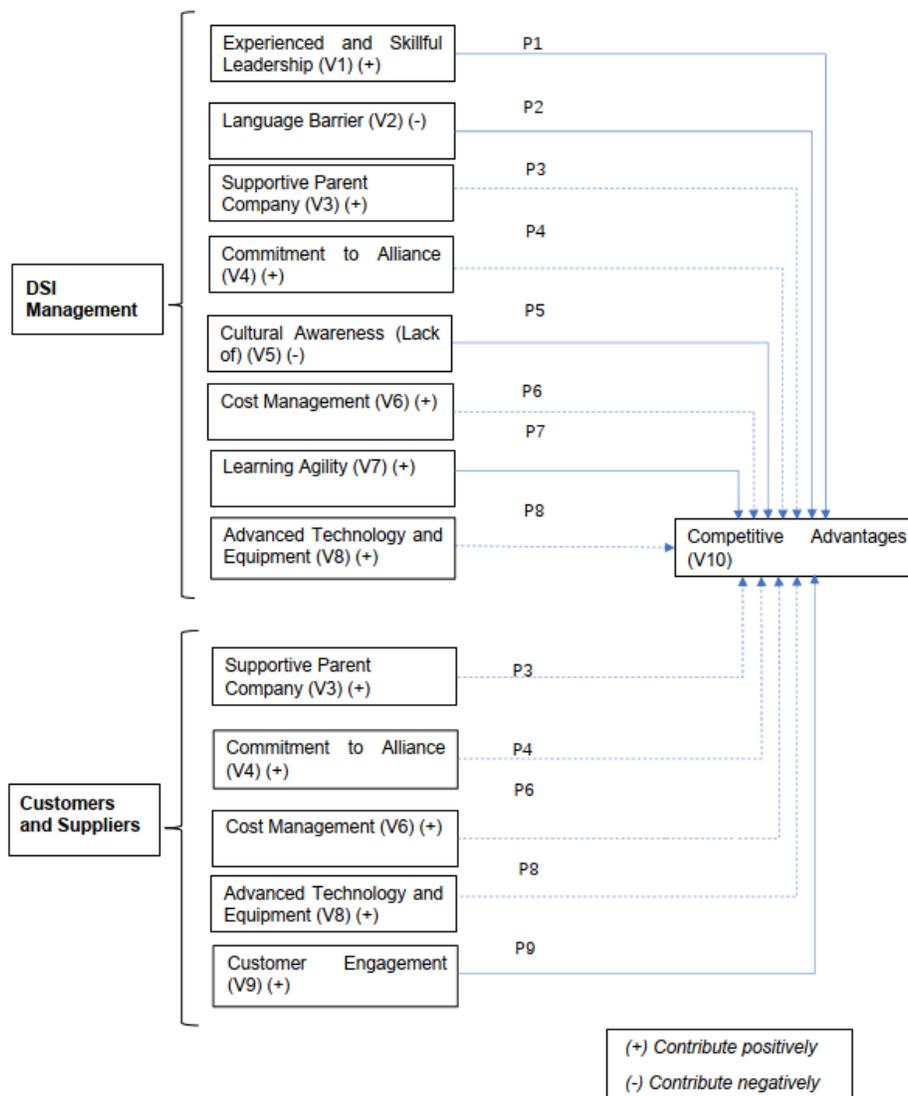


Figure 2. Mini-model theory of factors contributing to DSI's Competitive Advantage

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## CONCLUSION

This research focuses on the steel company's business sustainability through the competitive advantage of the business rather than just the company's business performance in the short term. The conceptual framework (Figure 2) provides insight into the attributes of sustaining the company's business.

In carrying out this research process, there were several limitations. First, the location of this research is in a manufacturing company, so revisitation for some additional interview data is limited. It is recommended to interview more onsite employees in the future research. Second, the existence of the Covid-19 virus pandemic made it challenging for further observation on the fields. Thus, the researcher recommends that future research be able to implement further direct and indirect observations, to be able to obtain more detailed and complete information and data, after the pandemic subsides. Third, some of the informants are Chinese speakers and responded in Chinese. Their interviewed data has to be translated to English, which might cause missing essential themes due to the lost in translation. Fourth, this research is a single case study, and thus the mini-model theory may not be generalizable to other firms or manufacturing industries. Further research can be applied to the same case or other cases in the same industry.

For academics, this research is expected to be a reference for future quantitative research. Then for researchers who conduct similar research in the future, they can also use the mini-model theory in this study to be used as a comparison with other research in the retail sector that focuses on jewelry which has also been affected by the Covid-19 pandemic. This research is also expected to be a replication of research that continues in the future so that it can build a grand theory. Grand theory is a theoretical construction that discusses broader and larger phenomena or events that discuss more than one study or research (Yin, 2018).

This study would contribute to DSI top management who are keen in figuring out the factors that formulate sustainability of a business. In summary, some of the strategic factors especially Supportive Parent Company, Commitment to Alliance, Cost Management, Advanced Technology and Equipments must be focused and improved as they positively contribute to the competitive advantage of DSI. And finally, customer and supplier engagement also play important roles to establish customer and supplier loyalty respectively. Other steel manufacturing companies can also learn from the mini model theory to apply to their own specific cases.

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