

Gaining Future Competitive Advantage Through Corporate Foresight: Role of Local Affiliate Company in Automotive Industry

Jaka Purwanto*, Reza Ashari, Yudo Anggoro

School of Business and Management, Institut Teknologi Bandung, Indonesia

Emails: jaka.purwanto@sbm-itb.ac.id

Abstract - Nowadays, competition in the automotive industry is very tight. Carmakers to increase market share, and the challenge is getting more demanding due to rapid environmental change. Based on Porter's Five Forces, the challenges are high from threats of new entrants, customers, suppliers, product substitutes, and existing rival competitors. To win the future competition, carmakers must have a future competitive advantage. Referring to Ansoff's framework, the preferable approach is product development since this is effective and lowers risk [5]. In the manufacturing industry, headquarter takes a role in product development. At the same time, local affiliate companies play an essential part in grasping the movement of environmental change since they understand the local market. Corporate foresight is an essential practice to understand environmental dynamics [18]. This study investigates the practice of corporate foresight to deal with the external environment changes in local affiliate companies in the automotive industry. This study employs qualitative study in the form of interviews with key stakeholders in the car manufacturing industry. The study attempt to answer the research question on how corporate foresight influences organizational capability creating the value to build the firm's future competitive advantage. The study provides insight into anticipating changes in the environment in the car manufacturing industry. This is ongoing research; nevertheless, some early findings and observations will be presented.

Keywords: corporate foresight, environment dynamics, future competitive advantage, local affiliate company.

I. INTRODUCTION.

A. Background

In manufacturing industries, the automotive sector has an essential role in stimulating national economic growth. The automotive industry has a multiplier effect from the whole supply chain from upstream to downstream, as shown in Figure I.1. Based on the Indonesian Ministry of Industry, the entire supply chain of the automotive sector contributes significantly to the national GDP growth of about 10.16%. The automotive sector's contribution is expected to increase in line with the growth of the automotive market time by time. Even though there is an up and down in the short term, the automotive market continues to grow in the long run.

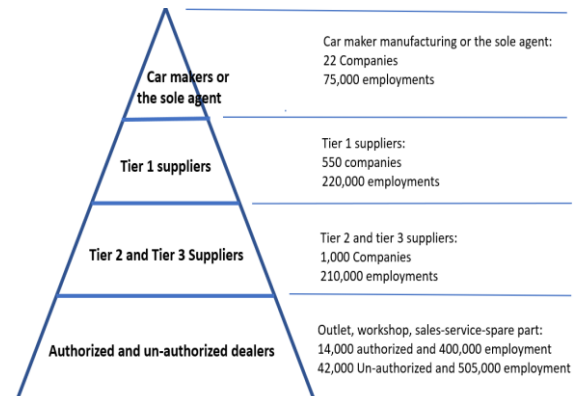


Figure I.1. The employment of the whole supply chain in the automotive industry [based on Gaikindo data, October 2020]



Figure I.2. Indonesia automotive market outlook year 2000 – 2019. this figure is drafted based on the internal data of Gaikindo [update October 2020]

Indonesia's automotive market has a considerable potential to increase since Indonesia's car ownership ratio is still low.

To consider future potential automotive market growth in Indonesia, industry newcomers from several countries enter the Indonesian market to gain market share from the existing market. As a result, the market competition becomes tighter, as shown in Figure I.2. Based on the Ansoff Growth Matrix framework, product development strategy becomes the most preferable because this strategy is compelling enough and less risky than two other strategies: market development strategy or diversification strategy. Product development strategy is the strategy to develop a new product and sold in the existing market.

To execute the product development strategy, carmakers face main challenges: long-lead-time development and dynamic environmental changes.

Dynamic environmental changes are generally related to external key drivers that will mainly impact the business. Long-lead-time development is related to the time frame needed to develop a new product from the initial stage to the final product readiness.

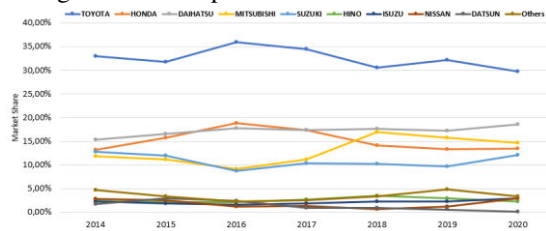


Figure I.3., Share of Indonesia automotive market 2014 – 2020.
.[Based on data from Gaikindo, Nov 2020]

The first challenge is the long-lead time of development. Carmakers must consider total lead time, including the lead time of development and its lifetime in the market. Ruff [20] and Rohrbeck et al. [15] mention that the lead time required for new vehicle development varies. Passenger car requires five to seven years, and seven up to ten years for commercial vehicle. Vehicle lifetime is an average of ten to twenty years in the market, depending on the size of the car. The second challenge is dynamic environment change. Due to the long-lead-time of development, carmakers must carefully consider the dynamic external environment, either macro or micro-environment, that will potentially impact their new vehicle development in the future. The changes in the macro-environment may strongly affect the micro-environment in the long run that appears in the industry structure and its attractiveness.

The challenges become more complex when the carmakers consider developing vehicles for the overseas market as their overseas sales are significantly higher than their domestic in the country origin. Some data examples of car sales for several famous brands globally, such as Toyota, Volkswagen, Hyundai, Renault, and Mercedes can be seen below Figure I.5.

Concerning these issues, Belay et al. [3] argue that there are three main dimensions of competition in the automotive sector: cost, time, and quality. They further confirm that speedy to the market requires strategy on vehicle development to input all required in the early stage of vehicle development. Ruff [19] argues that the targeted global presence of the firm requires an analysis of future regional or local market developments in short, medium, and long-term temporal horizons. Furthermore, regional or local vehicle markets are in different development stages

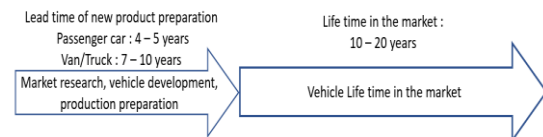


Figure I.4. Image of the total lead time of development and vehicle lifetime.[16].

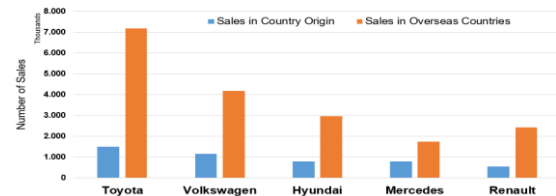


Figure I.5. The comparison of car sales between origin country and overseas. This Figure refers to the data from the website of Car Sales Statistics [https://www.best-selling-cars.com/]

Therefore, internationally oriented business environment research has to explore the regional or locally diverging business environments and market developments.

Due to such requirements, the principal, in this case, , must grasp the environmental movement in the overseas market. Unfortunately, that situation becomes the barrier to getting the latest updated environment movement because the principal company cannot directly detect the signal of environmental change on a daily basis. To tackle such issues, local affiliate companies have a vital role in grasping and analysing the external environment movement because they are closer to the real market than the principal company.

Concerning the above issue, this study focuses on the role of local affiliate companies that generally function as overseas manufacturers. Typically, local affiliate companies understand better the movement of the local external environment due to local affiliate companies are nearer to the local market. In that sense, local affiliate company has a strategic role in grasping the external environment movement.

Regarding external environmental movement, Ruff [20] argues that political and macro-economic demand generally would impact the changing of the long-term environmental change. Corporate foresight covers a long-term need within ten to fifteen years ahead to point out the issue. Rohrbeck [13] emphasizes the importance of corporate foresight. Corporate foresight as a practice permits creating the important value-added that become the

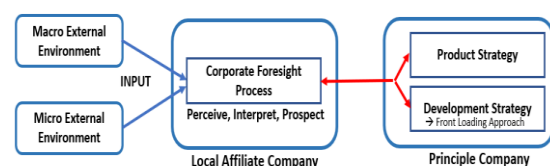


Figure I.6. Image of the relationship between local affiliate companies with headquarters companies.

fundamental sources to form a future competitive advantage. By implementing strategic foresight as a practice, the organization can demonstrate forward-looking techniques and provide critical insight that includes an opportunity and a risk into the strategic decisions. Iden et al. [10] add that the practice of corporate foresight is crucial to contribute to the critical activities at the corporate level, namely: decision-making support, level-up of long-term planning, early detection of external movements, improve creative activities, and able to quickly responding to external environment changing.

Nowadays, the external business environment changes rapidly due to the movement of several key drivers, which consist of emerging technologies, socio-cultural shifts, political and legislative environments, or alternative business models, [13]. In that context, local affiliate companies who deal with the external environment directly in daily operation need to have the appropriate capability to grasp, analyze, summarize, and give feedback to principal companies' vehicle development centers.

Based on [20], [13] and [10], we summarize that corporate foresight has an essential role in enhancing the strategic analysis of a company to lay the foundation for future competitive advantage. In addition, Ruff [19] argues that a few car manufacturers established non-technical research groups as part of automotive research: Toyota Gendai, Daimlers' Society Technology Research Group, Volkswagen Future Research, and BMW Institute for Mobility and Audi Trend and Market Research.

There is an essential insight that the long-term success of automotive companies requires long-term development in a business environment, and future study by utilizing corporate foresight tools is critical. Concerning the future study, Iden et al.[10] argue that future studies apply the foresight method to capture and perceive drivers of future change.

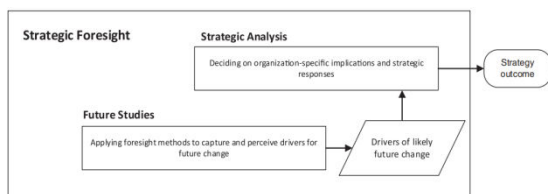


Figure I.7. Strategic Foresight – conceptualization,[10].

The result of future studies is the driver of likely future changes. Therefore, we need to identify the drivers of likely future change for the intake of vehicle development in the early stage.

Concerning those issues, Ruff [21] emphasizes the importance of early detection. He mentions that the generic problem in the automotive industry is early

detection of business external environment change that slowly influences a long-term time scale, thus not focusing on current management attention. He further confirms that early detection of drivers of likely future change is essential for new vehicle development since it requires a long-term view.

By delivering the input to the vehicle development center in the early stage, the vehicle development team can maximize value creation in the early stage.

That approach becomes the fundamental thinking way of front-loading approach to vehicle development currently applied by most successful carmakers [3]. They define the front-loading approach as a strategy to improve development performance by shifting the identification and solving of problems to earlier product development processes. Belay et al. [3] argue that front-loading approach attempts to maximize value, increase quality, shorten lead time, and decrease costs in vehicle development processes.

Most potential problems or issues are pull-forwarded and solved by implementing the front-loading approach in the early stage of development.

The front-loading approach will be practically effective whenever all related information, concern and potential driver of future change are gathered in the early stage and reflect them in the concept planning and design. Corporate foresight plays an important role in capturing the potential driver of change; as Iden et al. [10] argued, future studies apply the foresight method to capture and perceive drivers of future change.

Ruff [19] argues that a corporate foresight unit delivers continuously updated knowledge about environmental change and future customer needs adapting to the needs of the internal clients. In this context, the principal companies are one of the internal clients of a local affiliate company that will collaborate to proceed with vehicle development. Therefore, it makes up the role of the local affiliates' companies become very important to deal with the external environment by implementing corporate foresight.

Based on the previous research or study, we recognize that corporate foresight has an essential role in dealing with the dynamic external environment to perceive, interpret and prospect, and input strategy development and risk management. However, based on the literature review of the past study, there is still a big room to contribute to corporate foresight study in the automotive industry, especially research topics related to the corporate foresight process in local affiliate companies. Therefore, the main *objective* of this study is to determine the value creation resulted from corporate foresight activity in local affiliate companies in the automotive industry that can enhance the organizational capability to build the firm's future competitive advantage.

B. Corporate Foresight

Thomas [26] argues that corporate foresight is the company's capability to detect external information, analyse and reflect on their action. Similarly, Battistella [2] mentions foresight can correctly judge what will happen in the future and plan your actions based on this knowledge. Schwarz [14] adds that corporate foresight is the art of the long view analysis concerning business environments, markets, and new technologies and their implications for corporate strategies and operations. In conjunction with foresight in practice, Rohrbeck [14] define that corporate foresight as a practice that allows an organization to establish the groundwork for future competitive advantage. In addition, some literature describe that technological foresight is the procedure to promote the discussion among related stakeholders, which have the future scenario orientation, with the specific result of the framework. Thomas [26] also argues that foresight consists of the activities to grasp the external information that will be the potential to develop some patterns in the future, and foresight direction depends on what company's vision or goal. Some author mention that there is two fundamental consideration of foresight's thinking way. First, the presumptions for building foresight are that multiple futures exist (possible, plausible, probable), future development is uncertain and unpredictable. Second, the potential change driver can be identified and studied, and then we can form the future.

In addition, Battistella [2] argues that corporate foresight activity has a positive impact on the personal and organization on collective learning and capacity building to address a particular issue. In line with that opinion, Ruff [19] adds that the corporate foresight unit can deliver continuously updated knowledge about future customer needs to the needs of the internal clients within the organization. In addition, Heger and Rohrbeck [9] further confirm that implementing strategic foresight in the company will improve the capability for capturing future potential risks and opportunities concerning the possible change of micro, mezzo, and macro environment as visualizing the implication to the management. Finally, using another term, Rohrbeck, Thom, et al.[17] argue that corporate foresight as a practice can permit an organization to lay the foundation for a future competitive advantage through value creation.

C. Value Creation on Corporate Foresight.

Rohrbeck, Schwarz, et al. [16] argues that a firm could expect some value contribution from corporate foresight adoption, namely: an enhanced perceiving and perception, an enhanced ability to interpret change, and an enhanced ability to respond, together with an enhanced capacity for organizational learning and influencing others. An enhanced perception is the highest contribution by gaining insights into external

environment changes or reducing uncertainty [23].

According to Ruff [19], current interest in strategic foresight results from two key drivers. First, organizations want to understand the potential implications of new business models and emerging technological trajectories and overcome the limits on their ability to prepare for the unknown future. Second, empirical evidence suggests strategic foresight could lead to desirable organizational outcomes on value creation. The outcome of value creation can be adaptive learning, ambidexterity, innovation, strategic agility, and organizational learning.

Agility Capability. Organizational agility expresses a company's set of capabilities for thriving and prospering in an unpredictable and rapidly changing environment [24]. In addition, Walter [29] argues that organizational agility is a learned, permanently available dynamic capability that can be performed to a necessary degree quickly and efficiently and whenever needed to increase business performance in a volatile market environment. Teece [25] emphasized that firms with strong dynamic capabilities can assess the need for agility and implement it more easily and efficiently. Walter [29] identifies four agility categories: *agility drivers*, *agility enablers*, *agility capabilities*, and *agility dimensions*. *Agility drivers* constitute environmental changes that put organizations in a new, vulnerable position, searching for competitive advantages. *Agility enablers* describe methods, tools, practices to realize the organizational capability required. *Agility capabilities* are specific abilities for providing the necessary power and competence to react to changes: *speed*, *responsiveness*, *flexibility*, and *competency*. And regarding the *agility dimension*, Walter [29] mentions that agility capability facilitates each dimension.

Vecchiato [28]. elaborates to deepen the understanding of the relationships between corporate foresight and agility capability. Through the building of organizational memories of the future, corporate foresight enhances the strategic sensitivity of managers, i.e., their ability to recognize and interpret changes in the external environment. By exploring the rising sources of first-mover advantages, corporate foresight fosters the capability of the organization to redeploy its resources fluidly to achieve and benefit from such advantages. And finally, by collective memories of the future, corporate foresight sustains the cohesion and sharing of long-term aims that can enhance the team's collective commitment.

Extensive literature review on agility shows that an agile organization can be successful in a competitive environment through the abilities of responsiveness, competence, flexibility, and speed so that it achieves competitive advantage in the market. In summary, Vecchiato [29] describes that corporate foresight

activity has a positive impact on agility capability, and Teece et al. [25], Walter [29] argues that agility capability has a positive effect on the firm's competitiveness.

P1: Corporate foresight activity positively influences agility capability.

P2: Agility capability positively influences the firm's competitiveness.

Ambidexterity Capability. Based on the evidence of past studies in the organizational literature, most successful organizations in a dynamic environment are ambidexterity – aligning the organization design for today's business demands while also adaptive to changes in the environment for tomorrow's business exploration [27]. Some author also confirms that firms must become ambidexterity to be successful in a dynamic environment.

Amniattalab & Ansari [1] argues that firms strive to master two types of capabilities: explorative innovation, i.e., creating new products and services in new business fields often applying new technologies, and exploitative innovation, i.e., enhanced or new products and services within the current business field. Those kinds of capabilities (combining exploration and exploitation) are called ambidexterity. By becoming ambidextrous, firms aim to gain a competitive advantage.

Using another term, Gibson [6] argues regarding the organization's ambidexterity as contextual. He defines ambidextrous as the organizational behaviour to demonstrate alignment and adaptability simultaneously across an entire business unit. Alignment refers to coherence; adaptability refers to the capacity to reconfigure activities. The concept of contextual ambidexterity differs markedly from the traditional concept of structural ambidexterity.

Gibson [6] further argues that there are various paths for ambidexterity form; it depends on industry and size. The evidence shows that the ambidextrous business units in the automotive company had gradually built adaptability skills on top of their traditional model of alignment. Whereas the ambidextrous business unit in the oil and gas company focused on adaptability and created alignment around it, and the business unit in the software firm deliberately created a blend of the two abilities.

In another side, some researcher describes ambidexterity in other terms. However, the essence is still the same, namely balancing two abilities, focusing on the present and the other focus on the future. Some author mention that the conceptualization of the ambidextrous organization disclosed an appropriate equilibrium between exploration and exploitation.

Exploration is mainly about search, variation, risk-taking, experimentation, play, flexibility, discovery. Contrarily, exploitation is about refinement, choice, production need, efficiency, selection, implementation, execution.

Simultaneously pursuing exploitation and exploration within a single organizational unit is inherently challenging. Due to the competition for scarce resources, that often leads to conflicts, contradictions, and inconsistencies. To handle these competing claims, organizations need to find the right combination of different types of practices so that both exploitation and exploration innovations can be generated.

A firm's ability to engage in exploratory activities will lead to radical innovation; on the one hand, exploitative activities will lead to incremental innovation [6]. Gibson [6] emphasises the importance of exploration and exploitation that lies in the potential for improving business performance and sustaining competitive advantage. For organizational practice, Gibson [6] confirms that it is possible to balance the pursuit of exploitation and exploration and alignment and adaptability by creating a behavioural context characterized by the interaction of stretch, discipline, support, and trust. Gibson [6] adds that each character discipline, stretch, support, and trust are interdependently applied, and they are complementary features of organizational context that are non-substitutable. Therefore, all four must be present for a business unit to become ambidextrous and perform well. In other words, each character is non-substituted by the other. He further elaborates that building stretch and discipline are toward performance targets. Trust and support emerged in the process. For example, trust emerged through tangible examples of individuals not being punished for well-intentioned business failures. Support manifested itself in the use of IT systems to increase knowledge of what was happening in other parts of the business and various forums and councils for cooperating and sharing best practices.

Based on the empirical research, Amniattalab & Ansari [1] argues that the firm can gain a competitive advantage through owning corporate foresight capability mediated by ambidexterity. He adds that the organization can enhance the exploitation and exploration innovation ability by demonstrating corporate foresight.

P3: Corporate foresight activity influence positively the ambidexterity capability.

P4: Ambidexterity capability positively influences the firm's competitiveness.

D. Competitive Advantage.

Grant & Baden [7] describe competitive advantages as superior positioning over other organizations by creating different capabilities over competitors in the industry. There are two strategies to achieve a competitive advantage: cost leadership and product differentiation/value. *Cost leadership* manages resources through continuous improvement to be less than competitors with a minor loss. While still providing equal benefits to competitors' use, most companies focus on reducing costs rather than increasing sales prices, leading to lower product prices than competitors. *Creating product value and differentiating* from competitors is a strategy that promotes resource investment to adjust the product to meet customers' needs. Grupe & Rose [8] defined with a bit different approach, competitive advantage as simply an organization's ability to stay ahead of present or potential competition. It is the superior performance or performance edge of an organization in the form of market leadership, include the firm's ability to improve the quality of its products, reduce the cost of its product, or enlarge the market share of profit. Similarly, Pickering & Hill [12] argues that competitive advantages refer to superiority over other organizations by making different capabilities over competitors within the industry. Except for two concepts of cost and value as above explained, Belay et al. [3] add another essential dimension, namely: time to market, as they argue that to win the competition in the manufacturing industry, we must secure to develop and deliver the product with superior performance in three main dimensions of competition: product cost, quality/value and time. Thus, earlier coming to the market becomes a first-mover advantage. Concerning resources required, Pickering & Hill [12] argued that they would utilize their strategic resources for firms to face the competition in the market. The firm should have these resources characteristic of having a competitive advantage, namely: VRIN. *Value* – the ability to exploit any opportunity to neutralize the competition with an internal capability. *Rarity* – the ability to own the capacity or resources that very hard to find in others. *Imitable* – the ability to have the capacity or resources that difficult to find an equivalent or make a copy. *Non-substitutable* – the ability to own the capability or resources that a similar one can't replace. Rohrbeck, Battistella, et al. [14] argued that corporate foresight enables an organization to lay the foundation for future competitive advantage. Corporate foresight involves multiple stakeholders preparing the organization for change, creating value by providing access to critical resources ahead of the competition, and enabling the organization to proactively move toward the desired future.

II. METHODOLOGY.

The current study applies multiple case studies in local affiliate companies in the automotive industry and

cross-case analysis. The selection of a case study is very crucial in conducting qualitative research [30][. Then, the proposed case study must fulfil the criteria 'interactive' which is based on classification as Figure II.1. *Interactive*: both the local affiliate and the principal company are active in conducting foresight activity. *Proactive*: the local affiliate company is active in conducting foresight activity, but the principal company is not active. *Vertical*: the local affiliate company is not active in conducting foresight activity, but the principal company is active. *Passive*: both the local affiliate company and the principal company is not active in conducting foresight activity.

The final judgment for case study selection is based on table II.2. The case selected should be interactive and has the best performance in multi-years regarding becoming a market leader or increasing market share. According to Eisenhardt [4], to help shape the initial design of the theory-model building, it is important to clarify problem identification, research question, literature review, and identification of priority construct.

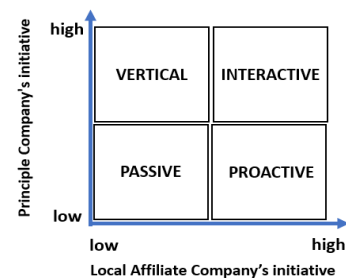


Figure II.1. The classification of corporate foresight engagement.

TABLE II.1. DEFINITION OF EACH LEVEL CLASSIFICATION

Judgement for Case Study		ENGAGEMENT LEVEL			
		PASSIVE	VERTICAL	PROACTIVE	INTERACTIVE
Firm Performance	MARKET LEADER	NO	NO	NO	YES
	MARKET SHARE	NO	NO	NO	YES

Based on the literature review conducted, the initial proposition of the theoretical framework has been formulated and the development of research design referring to research onion by [22]. The overall study consists of four steps with the following sequences: research topic exploration, qualitative research design, triangulation activities, and theoretical framework finalization, as Figure II.2. This study applies the research philosophy of interpretivism and an abductive approach. The data collection and analysis refer to the initial proposition of the theoretical framework. An in-depth qualitative interview is conducted with the selected key informant's representative of practitioner experts from local affiliate companies in the automotive industry.

Data analysis will be proceeded based on cross-case analysis. For a within-case study, the research will be conducted in Indonesia's leading automotive company as company A. In addition, a cross-case study will be conducted in three local affiliate companies in Indonesia as company B, C, D, and three local affiliate companies in ASEAN as company E in Thailand, F in Malaysia, and G in the Philippines. The image of cross-case analysis can be seen in Figure II.3.

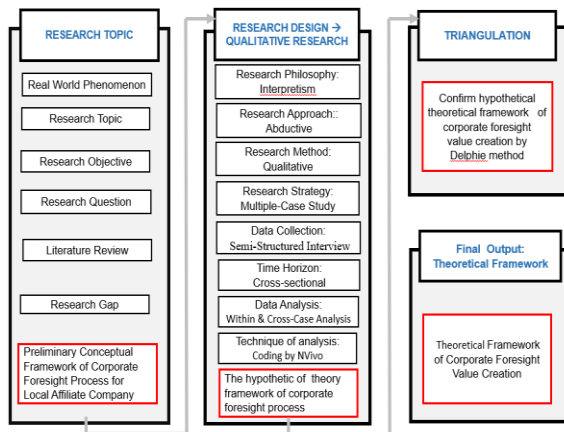


Figure II.2. The research journey of qualitative research



Figure II.3., A cross-case analysis between a within-case and cross-cases.

The purpose of conducting cross-case analysis is to find the similarities and differences between a within-case study and a cross-case study. Based on the similarities found, the analysis proceeds to the development of thematic insights.

We use Nvivo software for coding analysis and thematic data development. The result of data analysis is the proposed hypothetical, theoretical framework that will be reconfirmed by using Delphie method as a triangulation step. Finally, based on the recommendation from Delphie's expert panel, we propose the final theoretical framework.

III. RESULT

This section is a temporary result because this research will continue with qualitative research as informed earlier. Nevertheless, based on two interviews conducted, we found some findings and insight that we will share.

We have interviewed the two practitioner experts from the within-case study (company A). as mentioned before; this research will apply multiple-case study. The first step is to plan to interview six informants as practitioner experts. This paper is summarized based on two of six interview results. These two experts are selected based on their experiences to handle the jobs related to the corporate foresight activity for more than ten years, namely: Mr X and Mr Y.

Interviewing sessions are conducted by online meeting due to the Covid19 pandemic limitation. Video and voices are recorded along with notes during the interview. The interview session is conducted in Bahasa as well as the script. A certified consultant supports the translation of the script to the English version. English version of the script is required to conduct analysis using NVivo software. This research employs NVivo to assist throughout data sorting, coding, and thematic development.

The following paragraph explains interviewing result toward each construct of an initial proposition as proposed earlier.

Both experts mention that corporate foresight has three-dimensional activity, namely: perceive, interpret, and prospect. According to them, the activity of detecting, grasping, and analyzing the information data from external are classified into perceiving. External information is obtained through the multi-channel of networking: association, news, University, an event with government, or direct meeting with the government, as mentioned by Mr. X below:

"Usually, we also seek information from several other stakeholders, for example, from the government, from universities, from association, then also from other parties."

Both explained that the Interpretation includes the analysis toward business impact. Prospect include the reflective action to the mid-long-term plan and corporate risk management.

Concerning the effect of corporate foresight on organizational agility, both mention that corporate foresight positively influences speed, especially in decision making. By understanding better on external environment movement, decision-making can be faster. Regarding the flexibility, Mr. X mention that by understanding the government's movement better and customer expectation, the company can have the flexibility to adjust the business process.

"So, in the last few years, we have indeed been looking, looking for some new business opportunities, even though in the short term or

medium-term or long term, so that we are not too rigid, so we are just selling cars, right? Indeed, at first, we only sold cars, but now we don't just sell cars; what else? Services, selling platforms like that, or maybe a mobility company later"

In contrast, Mr. X doesn't recognize that responsiveness is one of the agility characteristics, as he mentioned below:

"It seems that we have the ability for the content, the ability for this content does seem necessary, we still need support. Support of how we will be able to respond better."

Regarding the effect on the ambidexterity capability, both experts mention that corporate foresight strongly influences the dimension of ambidexterity, which consists exploitation-exploration and alignment-adaptation.

"One of the keys, right now, how can the current and future abilities be run parallel. So indeed, this is an organization sometimes we do a number of things."

The next construct is the relationship between agility capability and competitive advantage. Both experts mentioned a positive effect of agility capability on cost leadership and first-mover advantage; on the other hand, Mr X doesn't realize the positive impact on quality/value performance.

"I haven't seen the real impact; yes, it's agility towards quality is not significant."

Regarding the relationship between ambidexterity capability and competitive advantage, Mr. X mentions that it is similar to the effect of agility capability, whereby it doesn't have a significant impact on the quality performance, while for other two dimensions are influenced significantly by ambidexterity capability.

IV. DISCUSSION

As informed earlier, this research is still ongoing; however, the temporary result of two interviews with practitioner experts suggests some insight responding to the initial proposition of theoretical framework, including its dimension.

From two interviews conducted, we observe that they explain the importance of corporate foresight in dealing with external environment movement, including three-dimensional activities: perceive, interpret, and prospect. Two interviewee experts from the leading company in Indonesia automotive company explain various activity

or networking of foresight activity with their principal company. They realize that corporate foresight activity that is currently applied daily has a positive impact on organizational capability, especially agility and ambidexterity capability. Two experts realize two dimensions of agility capability, namely: speed and flexibility. But we note that two experts don't realize one of the proposed dimensions of agility capability, namely: responsiveness. It isn't easy to measure the degree of corporate foresight's effect on the dimension of responsiveness. They argue that responsiveness is a part of speed and flexibility action itself. Regarding the dimension of ambidexterity capability, they mention that it is sure for foresight activity having a positive effect on the dimension of exploitation-exploration and alignment-adaptation. They realize that the company aggressively considers current and future business exploration parallel at present.

Regarding the construct of competitive advantage, the expert realizes that both organizational capabilities, agility capability, and ambidexterity capability positively impact the firm performance, especially on achieving cost competitiveness and becoming the first-mover. But, on the other hand, they don't realize the effect on the value of quality performance. []

Since the above finding is still a temporary result, we continue to proceed with the research within-case study and cross-case. [Rohrbeck, Thom and Arnold, 2013]

V. CONCLUSION

This study has just started and is still in the very early stages of the whole research. Nevertheless, based on a semi-structured interview with the practitioner experts who come from the leading company of automotive industry, we can take some insight for conclusion.

This study aims to determine the value creation resulting from corporate foresight activity in local affiliate companies in the automotive industry that can enhance the organizational capability to build the firm's future competitive advantage. In line with the research objective, this study temporary can answer the initial research question on how corporate foresight influences organizational capability creating the value to build the firm's future competitive advantage.

Based on the initial finding, as the conclusion, this study responds to the research objective and question by understanding the influence of corporate foresight on competitive advantage mediated by organizational capability, namely agility and ambidexterity capability. We can take a conclusion that a firm having corporate foresight practice can create value-added organizational capability. This value-added organizational capability enhances the organization's future competitive

advantage.
[Vecchiato, 2012]

Based on the qualitative research, it is expected that this study will contribute to current literature: corporate foresight directly affects agility capability and ambidexterity capability. Corporate foresight can contribute to gaining future competitive advantage mediated by agility and ambidexterity capability.

As this study is still ongoing, we will continue the rest of the qualitative research, and more findings and insight could be reflected in this study in the future.

ACKNOWLEDGMENT

We would like to extend our utmost appreciation to the lecturers and staff of School of Business Management of Institut Teknologi Bandung who facilitate and giving much support this on going research. We also would to thank to the ICMEM Committee for giving an opportunity us to participate and sharing the ideas and knowledges.

References

- [1] Amniattalab, A. and Ansari, R. (2016) 'The effect of strategic foresight on competitive advantage with the mediating role of organisational ambidexterity', *International Journal of Innovation Management*, 20(3), pp. 1–18. doi: 10.1142/S1363919616500407.
- [2] Battistella, C. (2014) 'The organisation of Corporate Foresight: A multiple case study in the telecommunication industry', *Technological Forecasting and Social Change*. Elsevier Inc., 87, pp. 60–79. doi: 10.1016/j.techfore.2013.10.022.
- [3] Belay, A. M., Welo, T. and Helo, P. (2014) 'Approaching lean product development using system dynamics: Investigating front-load effects', *Advances in Manufacturing*, 2(2), pp. 130–140. doi: 10.1007/s40436-014-0079-9.
- [4] Eisenhardt, K. M. (1989) 'Agency Theory: An Assessment and Review', *Academy of Management Review*, 14(1), pp. 57–74. doi: 10.5465/amr.1989.4279003.
- [5] George Day (2007) "Is it real? can we win? is it worth doing?", *Harvard Business Review*.
- [6] Gibson, C. B. (2004) 'THE ANTECEDENTS , CONSEQUENCES , AND MEDIATING ROLE OF ORGANIZATIONAL AMBIDEXTERITY', 47(2), pp. 209–226.
- [7] Grant, R. M. and Baden-fuller, C. (2004) 'A Knowledge Accessing Theory of Strategic Alliances', (January).
- [8] Grupe, C. and Rose, A. (2010) 'China , India , and the Socioeconomic Determinants of Their Competitiveness', 2010(Section 4). doi: 10.1155/2010/860425.
- [9] Heger, T. and Rohrbeck, R. (2012) 'Strategic foresight for collaborative exploration of new business fields', *Technological Forecasting and Social Change*. Elsevier, 79(5), pp. 819–831. doi: 10.1016/j.techfore.2011.11.003.
- [10] Iden, J., Methlie, L. B. and Christensen, G. E. (2017) 'The nature of strategic foresight research: A systematic literature review', *Technological Forecasting and Social Change*. Elsevier Inc., 116, pp. 87–97. doi: 10.1016/j.techfore.2016.11.002.
- [11] Ministry of Industry; Indonesia (2018) *Industri-4.0-bakal-Scrap-400-Ribu-Orang-Per-tahun*, Ministry of Industry; Indonesia. Available at: <https://www.kemenperin.go.id/artikel/19062/Industri-4.0-bakal-Scrap-400-Ribu-Orang-Per-Tahun>.
- [12] Pickering, C. M. and Hill, W. (2007) 'Impacts of recreation and tourism on plant biodiversity and vegetation in protected areas in Australia', *Journal of Environmental Management*, pp. 791–800. doi: 10.1016/j.jenvman.2006.11.021.
- [13] Rohrbeck, R. (2012) 'Exploring value creation from corporate-foresight activities', *Futures*. Elsevier, 44(5), pp. 440–452. doi: 10.1016/j.futures.2012.03.006.
- [14] Rohrbeck, R., Battistella, C. and Huizingh, E. (2015) 'Corporate foresight: An emerging field with a rich tradition', *Technological Forecasting and Social Change*. Elsevier B.V., 101, pp. 1–9. doi: 10.1016/j.techfore.2015.11.002.
- [15] Rohrbeck, R., Konnertz, L. and Knab, S. (2013) 'Collaborative business modelling for systemic and sustainability innovations', *International Journal of Technology Management*. inderscienceonline.com, 63(1–2), pp. 4–23. doi: 10.1504/IJTM.2013.055577.
- [16] Rohrbeck, R., Schwarz, J. O. and Oliver, J. (2013) 'The value contribution of strategic foresight: Insights from an empirical study of large European companies', *Technological Forecasting and Social Change*. Elsevier, 80(8), pp. 1593–1606. doi: 10.1016/j.techfore.2013.01.004.
- [17] Rohrbeck, R., Thom, N. and Arnold, H. (2013) 'Technological Forecasting & Social Change IT tools for foresight : The integrated insight and response system of Deutsche Telekom Innovation Laboratories', *Technological Forecasting & Social Change*. Elsevier Inc. doi: 10.1016/j.techfore.2013.09.015.
- [18] Rohrbeck, R., Thom, N. and Arnold, H. (2015) 'IT tools for foresight: The integrated insight and response system of Deutsche Telekom Innovation Laboratories', *Technological Forecasting and Social Change*. Elsevier, 97, pp. 115–126. doi: 10.1016/j.techfore.2013.09.015.
- [19] Ruff, F. (2006) 'Corporate foresight: Integrating the future business environment into innovation and strategy', *International Journal of Technology Management*, 34(3–4), pp. 278–295. doi: 10.1504/IJTM.2006.009460.
- [20] Ruff, F. (2014) 'Technological Forecasting & Social Change The advanced role of corporate foresight in innovation and strategic management — Re f l ections on practical experiences from the automotive industry', *Technological Forecasting & Social Change*. Elsevier Inc. doi: 10.1016/j.techfore.2014.07.013.
- [21] Ruff, F. (2015) 'The advanced role of corporate foresight in innovation and strategic management - Reflections on practical experiences from the automotive industry', *Technological Forecasting and Social Change*. Elsevier, 101, pp. 37–48. doi: 10.1016/j.techfore.2014.07.013.
- [22] Saunders, Mark N.K. ; Lewis, Philip; Thornhill, A. (2019) *Research Methods For Business Students*. Eight Edit. Harlow United Kingdom: Pearson Education Limited UK.
- [23] Schwarz, J. O., Ram, C. and Rohrbeck, R. (2019) 'Combining scenario planning and business wargaming to better anticipate future competitive dynamics', *Futures*. Elsevier, 105(July 2018), pp. 133–142. doi: 10.1016/j.futures.2018.10.001.
- [24] Taylor, P. et al. (2012) 'Estimation of reliability and validity of agility constructs using structural equation modelling', (March 2015), pp. 37–41. doi: 10.1080/00207543.2011.623246.

- [25] Teece, D. (2016) 'Uncertainty, Innovation, and Dynamic Capabilities', 58(4), pp. 5–12.
- [26] Thomas, M. T. (2015) 'Role of strategy in value capture from foresight exercises: firms' responsiveness to long term trends in the passenger car industry', *Foresight*. emerald.com, 17(6), pp. 574–587. doi: 10.1108/FS-04-2015-0021.
- [27] Tushman, M. L. (2007) 'Ambidexterity as a Dynamic Capability : Resolving the Innovator ' s Dilemma'.
- [28] Vecchiato, R. (2015) 'Creating value through foresight: First mover advantages and strategic agility', *Technological Forecasting and Social Change*. Elsevier, 101, pp. 25–36. doi: 10.1016/j.techfore.2014.08.016.
- [29] Walter, A. T. (2020) *Organizational agility: ill-defined and somewhat confusing? A systematic literature review and conceptualization*, *Management Review Quarterly*. Springer International Publishing. doi: 10.1007/s11301-020-00186-6.
- [30] Yin, R. K. (2018) *CASE STUDY RESEARCH and APPLICATIONs Design and Methods*. California: Sage Publications.