Firm's Competitive Position in the Domestic Market and Global Expansion Strategy

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ABSTRACT

We investigate *how a follower company overtakes the market leader in the domestic market.* Based on prior case studies about two Korean automobile companies, *Hyundai* and *Daewoo,* we postulate a specific situation in which a follower firm catches up the market leader by *rapid foreign expansion strategy.* The follower chooses circumventing head-to-head collision in the domestic market, therefore enters into *emerging market* to acquire production capacity and sales opportunity. Especially, the follower firm's domestic competitive position affects the firm's globalization effort. We develop a globalization process model using system dynamics simulation method with which we can find empirical evidences supporting our proposition that firms in weak domestic competitive position globalize more eagerly than the domestic market leader.

KEYWORDS

Globalization; Globalization Process; Foreign Expansion Strategy; Domestic Position

1. Introduction

Understanding the globalization process of a firm requires holistic perspective and long-term consideration at least several years to a few decades. In this study, we combine related research streams into one globalization process model, and describe how a follower Korean automobile company have driven its desperate globalization. Automobile industry is the most global one [11][18], in which most companies are under the capacity expansion pressure until the minimum economies of scale capacity. Because of this industry's global nature, automobile companies are very sensitive both domestic and foreign market conditions. Furthermore, competition in the domestic market is heavy as to oligopolistic industry structure. A follower firm in this situation may struggle to solve both low capacity power and low slack resource problem. How this handicapped follower can achieve competitiveness? Traditional descriptive internationalization process theory cannot explain such question, especially in time concern. In order to investigate this process, we first devise a simple globalization process model of which theoretical background result from our previous case study about two Korean automobile companies and various studies about internationalization process and strategy. Secondly, we propose and verify our hypothesis that a firm with weak domestic competitive position more eagerly pursuit foreign operation opportunity.

2. Modeling Globalization Process

For our first job to develop a globalization process model, we reviewed previous studies and found three important issues. The first is the motivation of globalization which drives foreign expansion. Second, the globalization process should be represented gradual changing patterns of foreign operations weight. Third, the concept of the pace or speed

of globalization is deliberately embraced in the model. We have made an effort to include above considerations comprehensively in our model.

Motivation of globalization

Studies about the motivation of globalization investigated promoting factors of global business activities. The concept of the 'industry globalization potential' [18], or 'determinants of global integration' [11] makes it possible to explain the motivations of company globalization. Yin [18] classified promoting factors of industry globalization as market, cost, government, and competition factors, and firms in high industry globalization potential is more appropriate to globalize. According to this concept, automobile industry has the highest industry globalization potential especially in terms of cost and competition. Kobrin [11] also suggests that automobile industry had the highest degree of global integration. Due to the particular global industry characteristics, automobile industry has been good setting of global strategic linkage [14] and global strategic alliance [2]. Because that the economies of scale is the utmost interest in the automobile industry, smaller scale companies eagerly trying to expand their capacity.

Changing Weight of Foreign Activity

There are many studies about traditional internationalization process which focus on dividing separate stages and describing the characteristics of each stages [8][1][17]. Johanson & Vahlne [7] is a representative study about changing weight of internationalization. When a firm commits to a foreign business activity, one serious constraint is the lack of foreign knowledge. Hence, the more a firm acquires knowledge on the foreign market, it commits more resource on that market. This pattern shows gradual resource increment of foreign market entry.

The Speed of Globalization

If we consider a firm's globalization process as a corporate level strategic change, we can apply these concepts to explain the lack of time concern of Johanson & Vahlne [7]'s study. We can adopt several concepts of strategic change research such as logical incrementalism [15], quantum change [13], and punctuated equilibrium model [16]. In this respect, we can deal with the changing pattern of foreign commitment in time dimension. That is, a model is more desirable if it can explain the pace or the speed of globalization. For example, Chang & Rosenzweig [3] proposed a hypothesis that firms in a rapidly globalizing industry would FDI more. This is one possible clue that the management of the speed of additional foreign commitment is also an important task.

3. Domestic Competitive Position and Global Expansion Strategy

Domestic competitive position of a firm might play an important role in growing process through globalization. A Firm with superior domestic competitive position can dominate the domestic market. In Korean automobile industry, domestic market is more profitable than foreign market. Foreign sales costs additional foreign cost and the domestic market have been protected by import regulation. Therefore the domestic market is the most attractive one for automobile companies.

Domestic Competitive Position

For the domestic competitive position, the firm-specific advantage of FDI theory suggests that the larger the firm, the greater the capability to expand foreign markets [5][4]. But the pierce competition in the domestic market leads follower firms to go abroad more actively to circumvent the leaders. Ito[6] suggests that in oligopolistic and highly competitive industry, follower firms go abroad more actively than market leaders. An important challenge for follower firms is to develop a creative response to the leader that takes away the leader's advantage without engaging in a head-on collision. One way that follower firms sustain their growth is to find different geographic markets. This behavior would be understood as a strategic reaction to the oligopolistic industry structure led by powerful market leader in terms of technology, production capacity, reputation, distribution channels etc. This industry also has a characteristic of increasing returns to scale, that is, there exists monopolistic power as the production capacity increases.

Slack Resource

Slack resource can be defined as any internal organizational resources beyond what is needed for current operation [6]. Meyer [12] suggested that firms with slack resources responded faster and more effectively to environmental change. Firms beginning globalization process require resources to newly invest foreign market. The required resource should be financed internally or externally. When a firm will procure investment resource internally, it should capitalize on its own surplus. When a firm will leverage external resource, a firm can borrow it at financial market or be subsidized by the conglomerate family members. Resource availability is a critical issue to deploy foreign expansion strategy. Also, the motivation of pursuit of scale expansion combined with small available slack resource leads the firm to expand low cost regions.

CEO Expansion Propensity

CEO's expansion propensity evolves as time goes. Propensity means decision maker's predisposition about some kind of decision-making problem [9]. Individual decision maker's specific propensity is similar to design hierarchy. If a decision maker chooses specific one among several alternatives, the decision maker cannot easily select alternatives included in the other alternative set at later decision making time. But, it does not saying that one alternative is superior to the other. The propensity is reinforced by positive prior performance. The performance reinforces the propensity. This cycle enhances decision makers' foreign expansion propensity, that is, which ratio will invest in the foreign market among total investment. This cycle can feedback negative reinforcement. If a firm experience a hardship by prior foreign commitment resulting poor profit gain, the decision making entity's propensity may be discouraged [10].

Proposition: Firms in weak domestic competitive position globalize more eagerly than the domestic market leader and the close follower.

4. Simulation

Influence Diagram

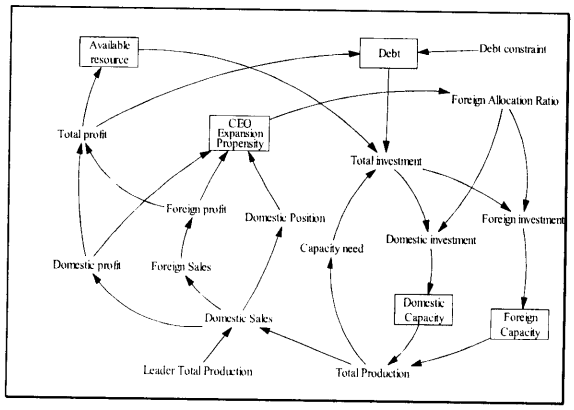
We developed an influence diagram in <Figure 1>. This diagram mainly based on our prior case study [10], which have proposed the 'global propensity model' on the automobile firms' globalization processes.

'Total investment' in each periods are determined by current *'Available resource'*, *'Debt'*, and *'Capacity need'*. *'Capacity need'* is determined by *'Total Production'*. *'Domestic position'* is determined by relative sales in the domestic market in which sale is determined by each firm's production capacity. *'CEO expansion propensity'* is determined by *'Domestic position'* and *'Domestic/Foreign profit'*. It means the propensity of the CEO's foreign expansion intent. *'Domestic/Foreign investments'* are determined by *'Foreign allocation ratio'*, that is, real allocation ratio which is influenced by *'CEO expansion propensity'*. In case of lacking investment resource to the required investment, a firm can consider leveraging external resource by getting into debt. Usually, the debt ratio is the measure of stability, which can restrict a firm's new investment.

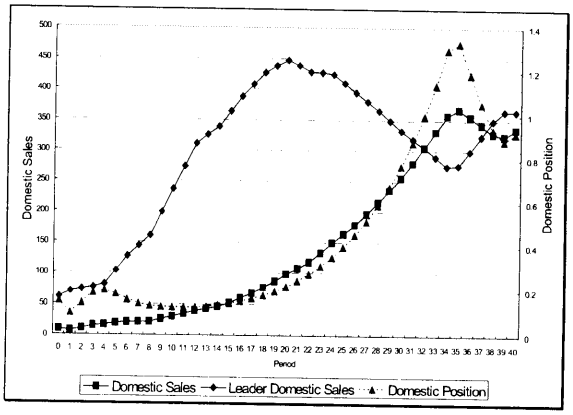
Definition of Variables

'Available resource' is accumulated total operating profit, which is acquired by regular business operation. 'Domestic position' is relative domestic market share to domestic market leader. 'CEO expansion propensity' is the degree of foreign allocation propensity of total new investment. 'Capacity need' is the amount of required capacity expansion at each period. 'Foreign allocation ratio' is the degree of foreign allocation of total investment. 'Domestic capacity' is subject firm's production capacity in the domestic market and 'Foreign capability' is production capacity in foreign countries. 'Total profit' is operating profit minus interest cost at each period.

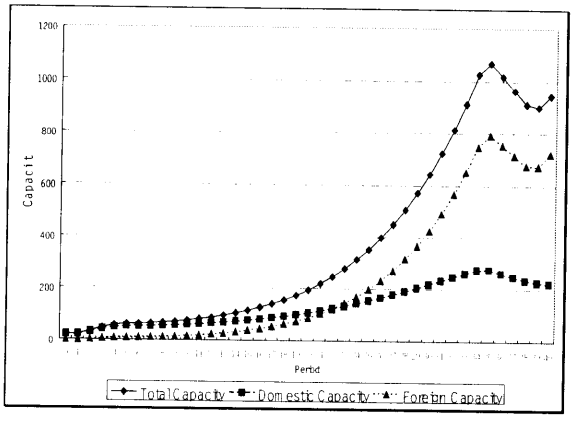
<Figure 1> Influence Diagram



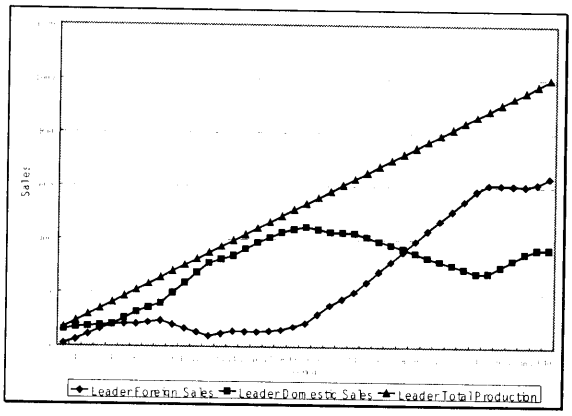
<Figure 2> Domestic Position -Base Model



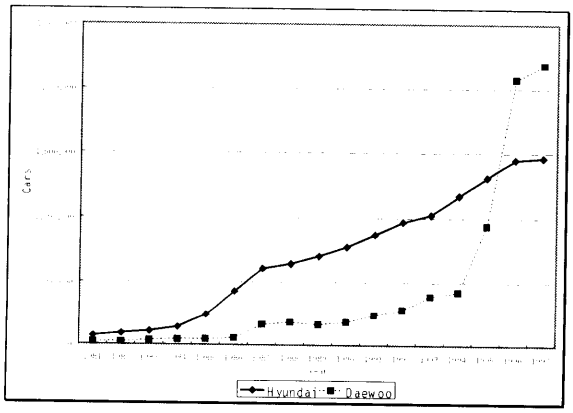
<Figure 3> Capacity -Base Model



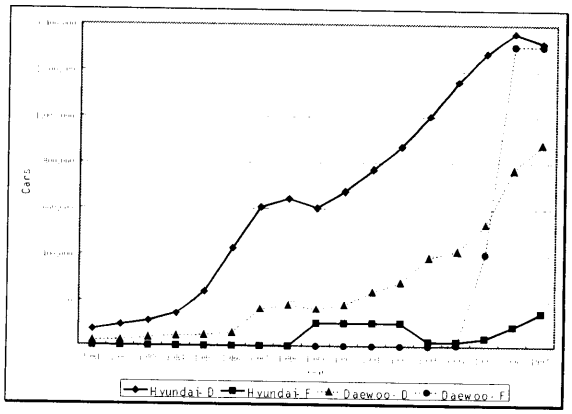
<Figure 4> Leader Sales - Base Model



<Figure 5> Real Total Capacity



<Figure 6> Real Domestic/Foreign Capacity



5. Base Model

Initial Condition

The base case model is constructed by following the Daewoo case. We consider twenty years time horizon from 1979 to 1998 and define unit period as semi-annual. Therefore we have forty time units in all. The subject firm's initial domestic capacity was set to 20(unit: 1,000 cars) reflecting Daewoo's total semi-annual domestic production in 1979. Total production of domestic market leader at the same year was approximately 70. Total domestic market size has also follows the real Korean domestic automobile market size in semi-annual time period. Especially, this model assumes that the subject industry has 'increasing returns to scale' effect. Therefore we adopt correction coefficient 'ρ' reflecting sheering effect based on the relative production capacity. Generally, we might suppose that $\rho>1$ because of market imperfection, thus a firm could take more domestic sales growth rate than it's capacity growth rate.

Specific Feature

From <Figure2>, we can find that the follower firm catches up the leader in the domestic market at period 33. The follower firm strives to survive during early periods but only maintain its initial position for a very long time. Because of its weak initial competitive position in the profitable domestic market, the follower had a very tough game. On the other hand, subject industry requires very large capacity to meet the minimum economies of scale. Therefore the follower firm should try to find ways to expand their small production capacity in spite of relatively very weak domestic position. But the weak domestic position implies that the firm cannot acquire plentiful resources to invest additional production capacity expansion. So, the follower goes to places where the marginal cost of adding new capacity is lowest.

Now consider the capacity expansion pattern in <Figure3>. Follower firm's capacity increases until pre-determined economies of scale capacity level or 1,000 unit-production capacity and afterwards maintains its capacity around that level. It's noticeable that foreign capacity increases much faster than domestic capacity. At period 36 when the follower reaches the economies of scale capacity, foreign capacity reaches triple of domestic capacity. We assume that the leader's total production increases incrementally similar to the real domestic market leader, Hyundai <Figure 5>. Thus, one can find linear total production capacity increase in <Figure 4>. In <Figure 5>, one can also find that the follower catches up the leader in later period, especially through bold foreign expansion (See <Figure 6>). This pattern is much similar to the pattern in <Figure 3>.

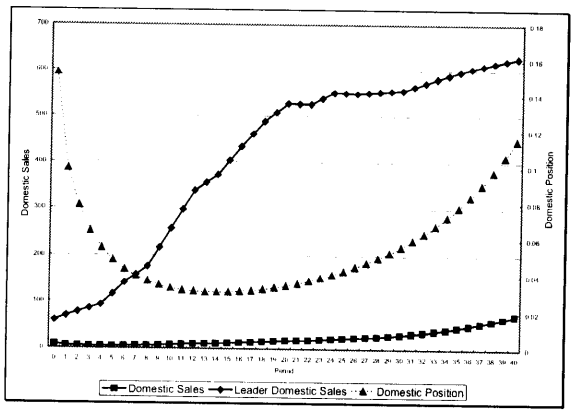
6. Comparative Model - No Debt Case

In contrast to base model, let's consider another situation that the follower can't use external financing. The follower can't procure new investment resource from outside financial market, but only can use its own operating profit. Then, the follower never catches up the domestic market leader and the final capacity at period 40 reaches far below 300 unit-production capacity (<Figure 7>, <Figure 8>). For the firm such as Daewoo automobile company, capacity expansion need is remarkable which enables the firm to compete more cost effectively and powerfully. Although the weak follower has strong desire to invest large amount of resource to acquire enough capacity, at the same time the follower is in a financial crisis. Without using external leverage, the follower can't get out of continuing inferior position.

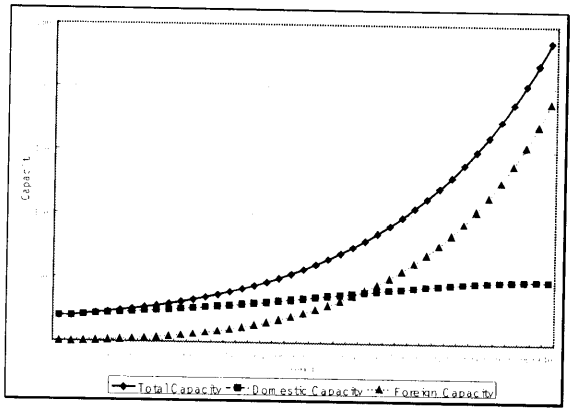
7. Comparative Model - Higher Initial Domestic Position

We postulate another case same as the base model but only the initial domestic position is higher than the base model. Higher initial domestic position of the follower firm can shorten the time of the economies of scale capacity target accomplishment. In <Figure 9>, one can find that the catch up take place at period 28, very earlier relative to period 36 of base model. Another remarkable result is the ratio of foreign capacity to domestic capacity. <Figure 10> showes that the foreign capacity is about 60% of total capacity much lower than the ratio about 80% in <Figure 3>.

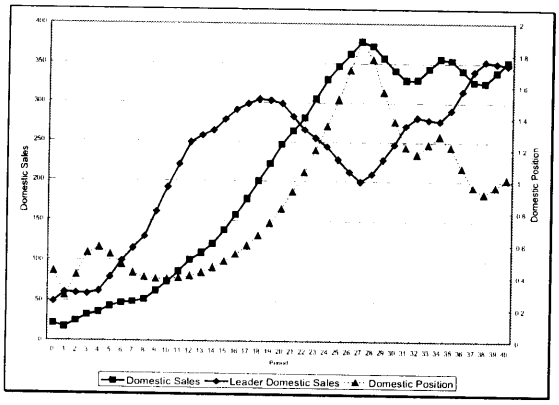
<Figure 7> Domestic Position - No Debt Case



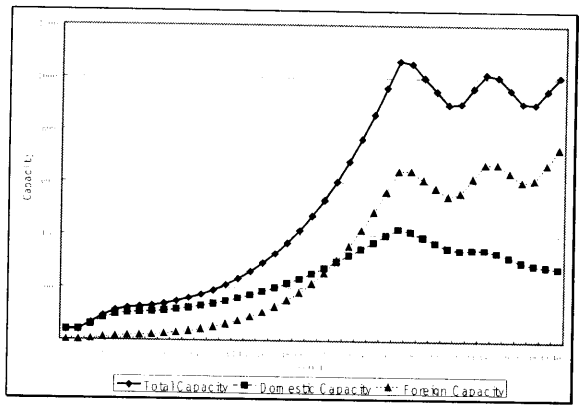
<Figure 8> Capacity - No Debt Case



<Figure 9> Domestic Position - Higher Initial DP Case



<Figure 10> Capacity - Higher Initial DP Case



9. Conclusion

Our effort to model the globalization process of a follower automobile company by using system dynamics simulation method should be noticed. This work required a holistic and dynamic approach. Therefore, we developed a simple model in imitation of the real Korean automobile company. One can find concepts such as motivation of globalization, changing weight of foreign commitment, globalization speed in this model. We believe that this model will provide a good mental model about globalization process and can contribute to the dynamic research about internationalization process.

For the domestic competitive position and foreign expansion strategy, we can find that inferior domestic competitive position is a critical obstacle to the follower firm, hence it has a hard time for a very long time. Furthermore, the follower goes abroad more vigorously until it reaches economies of scale capacity. In this way, the follower can acquire competitive power and finally can overtake the leader.

To grow until this level, the follower should leverage external resource because that it's almost impossible to secure required investment resource solely from internal operating income. If a follower has higher initial domestic competitive position, than the firm can acquire more resource from domestic market for the additional capacity increase. Having more slack resource initially may have similar effect to higher initial domestic position, since both of them generate larger available resource pool to invest.

10. References

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