

Comparison of Collaborative Cooperation between Large and Small-Medium Enterprises and its Implications*

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As global competition has become more intense in recent years, collaborative cooperation and shared growth between large and small enterprises for enhancing competitiveness of enterprises have become an important social concern. In the long run, collaborative cooperation between large and small enterprises is becoming more important not only in terms of enhancing corporate competitiveness but also in terms of CSR and CSV. In fact, many large companies are strengthening collaborative cooperation. This study compares and analyzes collaborative cooperation cases of major Chaebol companies including Samsung Electronics, and derive implications for collaborative cooperation plan of large companies.

Keywords : *Collaborative Cooperation, Shared Growth*

I. Introduction

With the acceleration of technological innovation and the globalization of the market, global competition among companies is becoming increasingly fierce. In the face of growing uncertainty about the future competitive environment, companies must focus on all the competencies needed to achieve differentiated competitiveness. Collaborative cooperation between large and small enterprises is viewed essential for strengthening competitiveness as a survival strategy of global companies in a fiercely competitive

global environment. From a strategic point of view, various changes have been tried on collaborative cooperation centered on large corporations with considerable progress.

As companies become more focused on core competencies with differentiated competitiveness in terms of business strategy, the role and importance of suppliers that provide parts to large corporations become more critical, and the nature of competitions shifts from inter-firm to inter-system as suggested in Figure 1. In other words, the competitiveness of both the company and its

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partners determines the survival of the company. Therefore, it is no exaggeration to say that the competitiveness of the ecosystem depends on the quality performance and technology level of the supplier. The quality and the technological power of the parts are crucial to the final product quality and delivery time. Leading global companies are making efforts to secure competitive advantage through collaborative cooperation and shared growth, building cooperative partnerships with partner companies and enhancing self-reliance of partner companies.

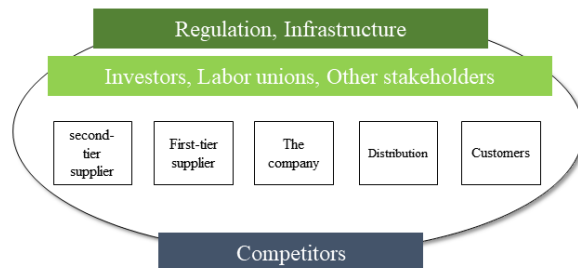
In addition, collaborative cooperation is becoming more important in terms of corporate social responsibility (CSR). As the social influence of the corporation increases, social responsibility is emphasized as sustainable growth as a means of sustained competitive advantage, which is not a competitive advantage factor such as cost reduction or productivity improvement that has been emphasized yet but raises the value of the company. In Korea, while the problem of polarization of large companies and SMEs has been deepening after the financial crisis and has become a social issue, collaborative cooperation and shared growth are viewed as overarching issues.

As collaborative cooperation began as a government initiative, the Federation of Korean Industries (FKI) has recognized that the key to our economic development is the

shared growth through strengthening cooperation between large corporations and small and medium enterprises; and in order to actively promote cooperation between large corporations and SME, Center for Large and Small Business Cooperation was established in Oct 2005. The center will establish management consulting for SMEs, share management know-how among SMEs, support SMEs to use patents for dormant patents, use large-sized SMEs and support SMEs, Samsung Electronics' competitiveness in corporate ecosystem will increase as the large enterprises and partner companies become 'hidden champions' in various small and medium enterprise support projects such as educational projects to raise cooperation among SMEs. Samsung Electronics successfully contributed to the development of national industry by establishing new model of joint-growth enterprise ecosystem and expanding into industry by successfully cultivating hidden champion, expanding trade door and developing new open technology. The shared growth is to support and nurture the competitiveness of the ecosystem in which the corporation belongs, rather than competing for profit among individual companies in the short term. In system product development and production, which requires multiple parts, one company cannot grow by itself. It is necessary to run together so that efficient and sustained performance creation becomes

Figure 1
Determinants of Competitiveness

The competitive advantage of a firm = f{R&D, Production, Supply chain, Market, Stakeholders, Regulation}



possible.

In particular, the government has emphasized shared growth and has shown concrete achievements such as collaborative partnership between large companies and their first and second suppliers, and adjustment of business areas between large and small companies. The competitiveness of partner companies is crucial to the competitiveness and long-term growth of large corporations. Spending by Korea's top 30 chaebols have already exceeded KRW 1 trillion in support for shared growth in 2011. In addition, Center for Large and Small Business Cooperation of the Federation of Korean Industries (FKI) in October 2013 surveyed the top 500 companies on progress and awareness in shared growth. According to Table 1, 60.2% of the 261 respondents answered that they are operating a dedicated shared growth organization, and 49.4% of respondents answered that CEOs and executives and staffs reflected the results of shared growth. More encouraging is the fact that the larger the company, the more likely it is that it operates a shared growth organization. In addition, if a supplier requests to adjust the unit price, an average of 60.4% of the requested amount is reflected in the payment amount, and the payment unit work is also within 25 days, which is much shorter than 60 days.

Despite the efforts of these large corpo-

rations, however, SMEs tend not to fully appreciate the growth efforts of large corporations. This paper draws some implications for the collaborative cooperation plan through the current status and case analysis of collaborative cooperation. Through this, this paper proposes an effective supply chain collaborative cooperation model to strengthen Korean large companies' global competitiveness. This paper reviews the examples of collaborative cooperation in Section 2, followed by a comparative analysis of collaborative cooperation between SMEs and other large corporations in Section 3; Section 4 provides Conclusion and Implications.

II. Collaborative Cooperation between Large Companies and SMEs and Case Study

2.1 Prior Studies for Collaborative Cooperation

We categorize the collaborative cooperation of large companies based on theory suggested by Kim et al. (2006). Kim et al. (2006) argue that there are three ways for Collaborative Cooperation: (1) capacity building; (2) trust building; and (3) open innovation. Capacity building is related with growing a chain of capabilities (Fine, 1998). In partic-

Table 1
Status of and Awareness in Collaborative Cooperation
(Surveyed by Center for Large and Small Business Cooperation, FKI)

Items	Content	
Recipients of survey	Top 500 companies in terms of sales	
Survey answered and collected	261	
Has a collaborative cooperation organization	Whole sample	Y: 157, N: 104
	Top 100	90.9%
	Tot 101 to 200	75.8%
	Others	32.2%
Collaborative cooperation efforts reflected in CEO and executive performance measures	Y: 129, N: 132	
If suppliers request adjustment in unit price	60.4% of requested amount on average	
Terms of payment	Within 25 days	

Table 2
Top 30 Companies' Support for Suppliers from 2010 to 2013 and Plans in 2014

(in KRW 100 million)

	R&D support (%)	Productivity improvement (%)	Training (%)	Guaranteed loan (%)	Overseas market expansion (%)	Domestic sales and purchase support (%)	Total	Comparison with the previous year
2010	2,244 (25.2%)	1,563 (17.5%)	268 (3.0%)	802 (9.0%)	17 (0.2%)	4,028 (45.1%)	8,922 (100%)	-
2011	4,191 (27.3%)	2,188 (14.2%)	401 (2.6%)	2,987 (19.5%)	320 (2.1%)	5,269 (34.3%)	15,356 (100%)	72.1%
2012	2,992 (19.2%)	3,561 (22.9%)	487 (3.1%)	3,081 (19.8%)	980 (6.3%)	4,470 (28.7%)	15,571 (100%)	1.4%
2013 (A)	2,724 (17.1%)	4,167 (26.1%)	458 (2.9%)	2,554 (16.0%)	715 (4.5%)	5,324 (33.4%)	15,942 (100%)	2.4%
2014 (B)	2,855 (16.6%)	4,527 (26.4%)	506 (2.9%)	2,848 (16.6%)	833 (4.9%)	5,592 (32.6%)	17,161 (100%)	7.6%
Comparison with the previous year (C)	4.8%	8.6%	10.5%	11.5%	16.5%	5.0%	-	-

Source: FKI 2014 report on roadmap for collaborative cooperation (Apr 8, 2014), attached.

ular, this can start with developing R&D and new capabilities. Trust building is associated with enhancing a chain of organizations (Fine, 1998). In this case, trust is the key factor to connect the organizations in the same corporate ecosystem (Kim et al., 2006). Trust can be cultivated by adjusting payment and purchase terms of large companies to alleviate the burden of small size companies, by supporting financing, overseas expansion, and employment of small size companies, and by sharing the total profits in the corporate ecosystem. Finally, open innovation focus on the creativity in the corporate ecosystem. The creativity in the ecosystem depends on the technology of small and medium sized enterprises. In this regard, raising hidden champions in the specific industry is important to influence the development of technology in the small and medium sized companies.

2.2 Collaborative Cooperation among Major Domestic Companies: An Overview

According to the data from the FKI 2014 report on shared growth summarized in Table 2, the 30 largest companies in Korea are

showing continued growth in support for their suppliers since they exceeded 1 trillion won in 2011 and plan to support about 1.7 trillion won in 2014. Details of supports also changed dramatically: whereas purchase support (45.1% in 2010 → 32.6% in 2014) and R&D support (25.2% in 2010 → 16.6% in 2014) were prevalent, productivity improvement support (17.5% in 2010 → 26.4% in 2014) and guaranteed loan (9.0% in 2010 → 16.6% in 2014) became more common. The amount of support for the opening of the overseas market, which was insignificant in 2010, increased by 49 times in 2014 compared to 2010, and support for the training of partner companies is also doubled, supporting investment for long-term growth of suppliers.

2.3 Status of Collaborative Cooperation among Major Korean Companies

2.3.1 Samsung Electronics¹⁾

Samsung Electronics' collaborative cooperation direction can be divided into R&D,

1) Major contents include summary of Kim (2014).

procurement and raw material procurement, funding, employment support, new growth engine, profit sharing, and cultivation of hidden champions.

Regarding R&D support, the company is carrying out a new technology development contest system, transferring idle patents, and depositing technical data.²⁾ The new technology development contest system is a system that supports SMEs when it develops promising new technologies at the level of Samsung Electronics apart from transactions. In particular, in 2011, about KRW 100 won was introduced to the Small and Medium-Sized Enterprise Cooperation Foundation and implemented based on this system as a system started to develop small and medium enterprises with lack of investment resources but technological power. Samsung Electronics will share some achievements if SMEs supported by the new technology development contest system succeed in technology development and gain fruits. By 2013, Samsung Electronics provided about KRW 40 billion to 56 companies.

Since 2005, Samsung Electronics has been fully cashing out payment for partner companies for the first time in Korea. In particular, starting in 2013, the payment standard was further improved and the payment was made within 10 days after the transaction. In order to improve the payment of secondary suppliers, Samsung Electronics is constantly monitoring primary suppliers. The company pays a considerable amount (about 800 billion won on average) every year according to holidays such as Lunar new year and Chuseok. In relation to the fluctuation of commodity prices, Samsung Electronics is trying to reflect fluctuations in commodity prices on suppliers' prices. Currently, the company has introduced a premium system³⁾ for iron plates,

2) A system that stores technical data jointly developed by large enterprises and small and medium enterprises in a facility equipped with temporary facilities. Technology leaks can be reduced to large enterprises.

3) A system in which large companies directly pur-

chase raw materials and provide them to suppliers. It is a system in which large companies pay the risk and fund/finance costs due to fluctuations in raw material prices.

resins, and copper used in large home appliances, and plans to gradually expand it to various products.

Samsung Electronics, in cooperation with IBK, Woori Bank, and KDB, created a collaborative fund of KRW 1 trillion, supporting loans to primary and secondary suppliers. Its suppliers can loan up to KRW 9 billion per company and the fund can be used for facility investment/technology development /operation funding. In 2013, a total of KRW 870 billion was provided to 662 companies. Performance-based sharing refers to a system that identifies and promotes innovation tasks jointly with partner companies and shares the achievements of the project with partner companies. Samsung Electronics conducts preliminary assessments on the proposals proposed by the suppliers and supports the fund/technology/manpower for potentially competitive projects.

Hidden champion cultivating system is a program that supports Samsung Electronics' partner companies to grow into a global company. Samsung Electronics started the program in 2011 and through this program, SMEs will become hidden champion. In addition, Samsung Electronics will provide technology, manufacturing, and management support so that its partner can win the second largest market share in Korea or fifth largest globally. The program has a great effect. For example, 14 companies that grew into a global top-tier company through the hidden champion program in saw their revenue rise about 1 trillion won in 2013 compared to 2010. These hidden champions accounted for the largest market share in the world with three companies in the world, two in the second, two in the third, five in the domestic market and two in the second place. Table 3 summarizes Samsung Electronics' collaborative cooperation efforts.

chase raw materials and provide them to suppliers. It is a system in which large companies pay the risk and fund/finance costs due to fluctuations in raw material prices.

Table 3
Samsung Electronics' Collaborative Cooperation Efforts

Category	Category	Details
R&D	New technology development contest system	Supports new technology development by external SMEs who are not trading
	Introduces advanced technologies and transfers idle patents	Holds advanced technology briefing, benchmarking excellent manufacturing site, transferring idle patent technology
	Technical data deposit system	Stores technical data of large companies and SMEs in facilities equipped with deposit facilities. Reduces technology leaks to large companies
Payment and raw material purchase	Terms of payment	Cash payments to suppliers from 2005 (twice a month, four times a month if the company wishes). When evaluating the first supplier from 2012, Samsung Electronics reflects the conditions for payment between the first and second suppliers, considering the financial difficulties of the second supplier.
	Fluctuations in raw material prices	Samsung Electronics applies a premium system (supplier optional) for iron plate, resin, and copper. In addition, raw material prices are regularly disclosed to suppliers portal.
Financing support	Collaborative funds	Suppliers operate 1 trillion won (KRW) in 2013 for operating capital.
	Equipment purchase support	Supports about KRW 20 billion including free rental of high-priced equipment and joint development of facilities
	Collaborative guarantee program	Loan support for partner financial institutions (KRW 44.7 billion in 2013).
Employment support and exploring new growth engines	Collaborative hiring for suppliers	An online recruitment service for Samsung's suppliers, in cooperation with IBK. Holds offline employment fairs for Samsung's suppliers
	Open sourcing	Developments/proposals by external companies that are not trading, and examined and adopted by Samsung Electronics Commercialized 16 tasks by 2013
Profit sharing	GVE (Group Value Engineering) initiatives with suppliers	Collaborates with suppliers to identify VE challenges and support improvement tasks. Shares profits with suppliers based on sharing standards
Nurturing hidden champions	Nurturing hidden champions	Hidden champions that have the market dominance in the 5th (globally) or 2nd place (nationally) in the field and helps to secure competitiveness in technology, management and manufacturing fields

2.3.2 Hyundai Motor Company⁴⁾

Hyundai Motor's collaborative cooperation can be broadly divided into R&D, procurement and raw material procurement, funding, overseas expansion, employment support, and discovery of new growth engines.

In relation to R&D support, Hyundai Motor supports customized technology development for suppliers and supports quality

improvement and R&D capability enhancement. Many of these programs are mainly performed by R&D technical support team of partner companies. In the automobile industry, the technology and quality of suppliers are more critical than in other industries. If the quality of components is not maintained for a long period of time, the cost of anticipated AS will increase, and ultimately Hyundai Motor's global competitiveness will be hindered. Therefore,

4) Major contents include summary of Lee (2014).

Table 4
Hyundai Motor's Terms of Payment

Category		Terms	Payment schedule
Automobile parts for export	SME	Cash	Monthly
	Large companies	Cash	Monthly
Automobile parts for domestic market	SME	Cash	Weekly
	Large companies	Electronic bills (60 days)	Weekly

Hyundai Motor operates a support team dedicated to partners R&D.

Hyundai Motor is paying the supply payments as described in Table 4.

Since 2006, Hyundai Motor has paid all of the payment for SMEs in cash, and weekly for domestic parts. In the case of automobile parts, manufacturing costs vary greatly depending on raw material price fluctuations. However, most of the suppliers are small in size and cannot purchase large quantities of raw materials at stable prices. Therefore, in order to reduce the risk of fluctuations in commodity prices of these suppliers, Hyundai Motor operates a subsidy system for steel plates. In the case of aluminum and precious metals, the company adjusts the unit price based on international prices; for plastic, the prices are protected within 5% fluctuation. During holidays like the Lunar new year and Chuseok, early payments are made.

Hyundai Motor provides a total of KRW 1.6 trillion in funding to its suppliers, including direct and indirect funding programs. Approximately KRW 200 billion is directly donated by Hyundai Motor in the name of operating funds, quality improvement and production operation funds; and about KRW 1.45 trillion is supported by facility investment and operating funds through cooperation with commercial banks.

Hyundai Motor is helping Korean suppliers advance overseas by focusing on overseas production bases. As of 2013, a total of 599 companies, including 239 first-tier suppliers and 360 second-tier suppliers, have entered the overseas market together with Hyundai Motor. Hyundai Motor as-

sured stable trading volume for suppliers, established a computerized system to manage logistics production, supported land purchasing and tariff negotiations, and provided support measures for new partners. For example, the company holds or operates parts export roadshow overseas and is promoting small and medium-sized parts suppliers for finished car manufacturers overseas. In addition, Hyundai Motor supports joint logistics through the utilization of domestic and overseas export logistics centers and establishing certificate system of origin of partner companies. In fact, the amount of direct exports to overseas car-makers (KRW 18.1 trillion) is larger than the amount sold to overseas Hyundai Motor Company (approximately KRW 12 trillion).

Hyundai Motor is contributing to the commercialization of ideas by supporting domestic venture companies that lack the money that they call "Open Innovation Venture Plaza." When commercializing promising ideas, Hyundai Motor first selects venture companies that have innovative technologies in cooperation with private nurseries, government, and universities. And by providing development cost and infrastructure to selected venture companies, Hyundai Motor promotes development of fusion technology that can be applied to mass production of automobiles. Lastly, if successful in developing new technologies, it will support commercialization more actively by building business models, assisting in securing salespersons, and participating in equity as needed. Table 5 summarizes the collaborative partnership of Hyundai Motor Company.

Table 5
Hyundai Motor Company's Collaborative Cooperation Efforts

Category	Category	Content
R&D	Custom-supported technologies	Supports for lack of R&D; improvement work on core issues
	Quality improvement	Supports improving quality mind; prevention of parts claim
	R&D capability enhancement	Product development ability improvement support; professional technical education
Payment and raw material purchases	Terms of payment	When purchasing from SMEs, cash payment is made in full from May 2006 (for domestic use: once a week, for export: once a month). Early payment during holiday
	Fluctuations in raw material prices	Iron plate: subscription system using POSCO's official price Aluminum and other metals: prices connected with international prices Plastics: reflecting fluctuations in prices based on international prices (based on 5%)
Financing support	Operating capital	Direct financing: KRW 190 billion; financial institution loan support: KRW 300 billion
	Molds	Collaborative mold equipment fund: KRW 50 billion; Green mold facility loan: KRW 500 billion
	Ex-Im Bank: collaborative programs	Funds for exporting parts for suppliers, overseas operation/facility funding support for loans from financial institutions: KRW 500 billion
Overseas expansion support	Export competitiveness improvement support	Assists to secure supplier's quality and technical competitiveness
	Export demand expansion support	Holds parts export roadshow overseas, expansion of overseas joint venture to strengthen export base, promotion of small and medium-sized parts suppliers to overseas automakers
	Export infrastructure support	Supports joint logistics through the utilization of domestic and overseas export logistics centers and establishing certificate system of origin of partner companies.
	Monitoring systems	Identifies and supports difficulties related to parts export
Employment support and exploring new growth engines	Suppliers job fair support	A total of 348 companies supported in 2012 and 2013 in each region
	Open innovation venture plaza	Supports external venture companies that do not have sufficient funds to commercialize their ideas. Example) Rear camera lens water-proof coating technology, localization of lamp vent cap

2.3.3 LG Electronics⁵⁾

LG Electronics' collaborative cooperation efforts can be divided into R&D, procurement and raw material procurement, funding, overseas advancement, employment support and exploring new growth engine.

LG Electronics' R&D support includes suppliers green partnership, conditional R&D support, and technical data deposits. The green partnership is a program supporting R&D for mid-to-long term new business, such as solar power with a scale of KRW

40 billion for five years starting from 2011. Under the conditional R&D support with purchase program, LG Electronics can offer items with support from suppliers, or supports R&D costs while LG Electronics guarantees purchase of developed products. Particularly, the conditional purchase program is a government project linked to large and small cooperative foundations.

LG Electronics closes the contract twice a month for subcontractors, and all of the payment is paid in cash within 10 days after the closure. If there is a holiday (e.g. Chuseok, lunar new year) during the payment period,

5) Major contents include summary of Jeon (2014).

Table 6
LG Electronics' Collaborative Cooperation Efforts

Category	Category	Content
R&D	Green partnership	A program to support R&D for mid-to-long term new business such as solar panels with a scale of KRW 40 billion for 5 years from 2011
	Conditional purchase program	LG Electronics offers items and suppliers support them. Supports R&D expenses and guarantees LG Electronics to purchase developed products
	Technical data deposits system	Stores technical data of large companies and SMEs in facilities equipped with deposit facilities. Reduces technology leaks to large companies
Payment and raw material purchase	Terms of payment	100% cash payment in full within 10 days after closing, twice a month. Early payment during holiday
	Fluctuations in raw material prices	Adjusts unit price when raw material price or exchange rate fluctuates by more than 10%. Implemented a paid-up commission system for raw materials (approx. KRW 600 billion as of 2012).
Financing support	Facilities/operating capital	Productivity/quality improvement, facility extension, high-tech development, etc. Direct fund support KRW 10.6 billion (2012)
	Collaborative cooperation funds	Approximately KRW 50 billion worth of funding programs for suppliers
	Financial institutions indirect support	Network loan, etc. Through cooperation with LG Electronics, financial institutions are lending out to suppliers.
	Overseas operation partnership (Ex-Im Bank)	A program that supports facilities, operating funds, factoring, etc. at favorable interest rates for overseas entities of suppliers
Overseas expansion support	Overseas adaptation support	Supports local legal advice, purchase land, financing, etc.
	Overseas production infrastructure support	Internalizes suppliers within overseas subsidiary factories
Employment support and exploring new growth engines	Suppliers job fair support	Conducted in conjunction with government agencies, and major media companies
	Consulting support	Provides management innovation consulting, ERP, and IT model consulting support for suppliers (64 companies in 2012). CSR and EESH (Energy, Environment, Safety, Health) custom consulting also supported
	Autonomous research activities and proposals	The research members (LG Electronics and its suppliers) uncover common innovation tasks and propose/develop the tasks that they have unearthed.

LG Electronics helps the liquidity of partner companies through settlement. LG Electronics adjusts the unit price of products commissioned to suppliers by reflecting the changes in the terms of the unit price decision based on shifts in economic conditions, etc. in the “Basic Contract of Manufacturing Contract.” In addition, if the raw material price of the supplier or the exchange rate rises by more than 10%, which is more advantageous than the case where the raw material price is increased by more than 20%, the unit price is adjusted as stipulated in Article 6 Paragraph 2 of the standard subcontracting

contract. In 2012, LG Electronics actively adjusted its unit prices to more than KRW 160 billion due to economic fluctuations. LG Electronics implements a premium subscription system for raw materials that are difficult to purchase directly from partner companies or raw materials that are considered to be effective in collective purchasing (basic materials for producing parts supplied by the primary supplier such as resin and steel). In 2012, LG Electronics provided KRW 600 billion worth of raw materials to its suppliers using the premium payment system.

The total amount of direct funding for LG Electronics' suppliers from 2004 to 2012 amounted to about KRW 170 billion, which was achieved by improving productivity and quality, expanding facilities, and funding technology development. In cooperation with financial institutions, the company also operates collaborative cooperation funds of approximately 125 billion won (50 billion won from LG Electronics and 75 billion won from financial institutions) and lend to the first and second tier suppliers. Network Loan is a program that lends unsecured loans to production and operation funds to partner companies through IBK Bank through LG Electronics' purchase orders and letters of recommendation. The partnership for overseas joint venture is aimed at the local corporations of partner companies that have entered into overseas business, in accordance with the business agreement established with the Export-Import Bank of Korea on April 10, 2012 for the operation of large- and medium-sized companies' collaborative cooperation programs on facilities, financing, and factoring.

When partner companies enter overseas, LG Electronics implements a program to help partner companies adapt quickly, supporting local legal advisors, property acquisition, and financing for overseas partner companies. LG Electronics is also actively cooperating with suppliers to build production infrastructures by internalizing supplier factories in overseas plants.

In addition, LG Electronics is actively supporting partner companies' job fairs in conjunction with government agencies and major media companies, etc; the company supports business innovation consulting, ERP and IT model consulting (64 companies in 2012) And EESH (energy, environment, safety, health) custom-made consulting. LG Electronics also operates an activity and proposal system frequently, and members of the research affiliation (LG Electronics and its partners) identify common innovation issues and propose/develop them for realization. Table 6 summarizes LG Electronics collaborative co-

operation efforts.

2.3.4 Lotte Home Shopping Inc.⁶⁾

Lotte Home Shopping's direction for promoting collaborative cooperation is largely composed of building a fair distribution trading system, expanding partner companies' sales, funding, and supporting overseas expansion.

In order to establish a fair distribution transaction system, Lotte Home Shopping is rendering its utmost to comply with the introduction of vendor entry and broadcasting operation standards and procedures. In addition, the company is offering on-line access only to provide fair and equal opportunities. The Fair Trade Compliance Committee and the Ethics Management Team operate under the direct supervision of the CEO, and also operates the Unfair Transaction Reporting Center and the Ethics Management Newspaper in the official homepage. Lotte Home Shopping conducts thorough internal and external education on fair trade and ethical management to prevent unfair transactions.

In order to expand the market for SMEs, Lotte Home Shopping operates a program of 1 company 1 luxury goods, which supports excellent products of domestic SMEs through free broadcasting without paying a commission fee. In addition, it broadcast Love & Fair CSR show which supports free market to social enterprises 10 times in 2013. Lotte Home Shopping provides funds to SMEs by establishing collaborative cooperation special funds, etc. In addition, it also directly supports SMEs with funds for strengthening competitiveness.

Lotte Home Shopping is entering the Chinese (3 channels) and Vietnam (2 channels) markets, and is helping SMEs advance globally through their overseas channels. Lotte Home Shopping supports interpreter services for home shopping contents of SMEs, and manpower related to program production and MD for product. In addition,

6) Major contents include summary of Lim (2014).

Table 7
Lotte Home Shopping's Collaborative Cooperation Efforts

Category	Category	Content
Establishing fair distribution systems	Fair selection and operation of suppliers	Introduction of vendors' entry points and broadcasting operation standards and procedures online shop system for suppliers
	Monitoring for unfair trades	Execution of Fair Trade Compliance Committee, Ethics Management Team directed by CEO, Unfair Transaction Reporting Center in official website, operation of Ethical Management Newspaper, education of fair trade and ethical management
Suppliers sales expansion	Broadcasting for SME	1 company 1 luxury goods (program that supports excellent products of domestic SMEs through free broadcasting without charge)
	Love &Fair CSR broadcast	Broadcasting that supports social enterprises free of charge to the market Conducted 10 times in 2013
Financing support	Financing support	Enhancement of competitiveness, special funds for collaborative cooperation, etc.
Overseas expansion support	Manpower	Supports manpower for translation and interpretation, manpower for program production, MD for commodities, and manpower for import and export process
	Network	Lotte Home Shopping's domestic logistics infrastructure and export related network
	Photography support	Local broadcasting video support for studio photography

Lotte Home Shopping also supports SMEs in the import and export process. Lotte Home Shopping's domestic logistics infrastructure and export-related network are provided. Table 7 summarizes the collaborative cooperation of Lotte Home Shopping.

2.3.5 POSCO⁷⁾

POSCO's collaborative cooperation direction can be broadly divided into R&D, procurement and raw material procurement, funding, overseas advancement, benefit sharing, and idea market place.

POSCO's R&D support includes techno-partnership and technical data deposit. The techno-partnership is a program where POSCO provides technology support to SMEs in Pohang and Gwangyang by organizing technical advisory groups together with POSTECH, RIST, and Pohang Techno Park since 2006. From March 2011, POSCO also supports SMEs in Gyeongin area through a global R&D center in Songdo, Incheon. Through this program, POSCO conducted about 4,500 consultations on 421 companies

from 2006 to 2011.

For SMEs among partner companies, POSCO in principle pays cash twice a week on Tuesdays and Fridays within three business days after 2004. Also, during the holidays where funds are concentrated, the funds are paid every day from the week before the holiday and the funding cycle is adjusted.

As of 2013, POSCO's funding amount is about KRW 1 trillion. POSCO has contributed about KRW 900 billion to SMEs, financing about KRW 100 billion. POSCO has entered into a joint venture with overseas steel mills to support SMEs overseas.

The benefit sharing system implemented since July 2004 is a system in which POSCO and SMEs jointly improve their activities to reduce material costs, improve equipment life, reduce labor costs, and improve productivity. Through this system, SMEs can improve their constitution and acquire skills, and POSCO can achieve competitiveness and quality improvement in the long term. The results include 50% of the performance accrual over the three years according to the agreed method, and also provide incentives such as long-term contracts (3 years), grant-

7) Major contents include summary of Jeon (2013).

Table 8
POSCO's Collaborative Cooperation Efforts

Category	Category	Content
R&D	Techno-partnership	Customized technical support for SMEs Conducted about 4,500 consultations on 421 companies from 2006 to 2011.
	Technical data deposits system	Stores technical data of large companies and SMEs in facilities equipped with deposit facilities. Reduces technology leaks to large companies
Terms of payment	Terms of payment	After 2004, cash payment within 3 business days after delivery to SMEs. Early payment during holiday
Financing support	Loan support fund	Support for small business financing at low interest rates Contributed about KRW 900 billion A joint-venture investment fund of about KRW 20 billion, and a financial stability support fund of about KRW 101 billion.
	Equipments	Operates the facility purchase interim payment system
Overseas expansion support	Overseas expansion support	Support overseas expansion and sales of SMEs in conjunction with overseas steelmills
Benefit sharing	Benefit sharing	Implemented since 2004. Jointly improves various business activities of suppliers and pursues productivity improvement. Compensates for 50% of the amount incurred for 3 years and provides a long-term contract
Idea Marketplace	Goals	Activation of venture business support
	Scale	In the second half of 2010, 1,367 ideas were recruited of which 13 were awarded.
	Details	Selects some of the ideas proposed by the proponents and fosters them through POSCO's unique venture support programs such as idea development camps and membership programs, and then introduces them to investors in the idea marketplace to establish a venture support system

ing of points for evaluating suppliers, and joint patents.

Idea Marketplace selects some of the ideas proposed by the proponents and fosters them through POSCO's unique venture support programs such as idea development camps and membership programs, and then introduces them to investors in the idea marketplace to establish a venture support system. In the latter half of 2010, POSCO recruited 1,367 ideas of which 13 were awarded. Table 8 summarizes POSCO's collaborative cooperation.

III. Comparison of Collaborative Cooperation between Samsung Electronics and other Large Companies for SMEs

Except for Lotte Home Shopping, which

is not a manufacturing company, all four major companies are making major efforts to develop R&D for their suppliers. However, in the case of Hyundai Motor Company, there is no technical data deposits, and LG Electronics is providing R&D support for new and renewable energy related ventures.

Regarding the payment terms, Samsung Electronics, Hyundai Motor, LG Electronics, and POSCO are all increasing their portion of cash settlement, except Lotte Home Shopping, which is a service company. In order to reduce the risk of purchasing raw materials due to fluctuations in exchange rates and prices of subcontractors, there is a trend to increase the utilization of subscription systems. In terms of funding, all companies are funding SMEs by creating collaborative funds, and the amount of indirect support (loans) through financial institutions is also

increasing.

While Lotte Home Shopping is also actively expanding overseas, all five of the analyzed companies are actively supporting overseas expansion of partner companies through various channels, helping to become a global company from simple export infrastructure support (hidden champion cultivating project). Although not mentioned in Section 2, the five companies are also strengthening their communication with suppliers.

Each company has a collaborative cooperation strategy with one or two characteristics.

In the case of Samsung Electronics, hidden champion cultivating project/profit sharing system, Hyundai Motor's open innovation venture plaza, LG Electronics' management innovation consulting, Lotte Home Shopping's free broadcasting for companies/SMEs, and Idea Marketplace/benefit sharing for POSCO. Although the names are different, the contents themselves are similar. For example, Hyundai Motor's Open Innovation Venture Plaza has similarities with POSCO's Idea Marketplace. Samsung Electronics' hidden champion cultivating project is similar to

Table 9
Summary of Collaborative Cooperation Efforts among large Companies

Company	R&D	Payment	Financing	Overseas expansion	Communications	Others
Samsung Electronics	New technology development contest system, technical data deposit system	Cash payment, raw material prices adjusted, steel plate, resin, and copper subscription system	Establishment of funds and direct support (KRW 1 trillion), indirect support with financial institutions	Hidden champion cultivating project	Collaborative cooperation Day	Hidden Champion cultivating project, profit sharing
Hyundai Motor Group	Customized technical support for suppliers	Cash payment, raw material prices adjusted, steel plate subscription system	Establishment of funds and direct support (KRW 1.45 trillion), indirect support with financial institutions	Export infrastructure and sales channel support	Operates industry cooperative body	Open innovation venture plaza, commercializes external ideas
LG Electronics	Green partnership (green projects support), conditional purchase and R&D investments, technical data deposits system	Cash payment, raw material prices adjusted, raw material subscription system	Establishment of funds and direct support, indirect support with financial institutions	Overseas infrastructure support (factory sites, etc)	Voice of Suppliers, regular meetings, etc.	Business innovation consulting for suppliers (CSR and customized EESH (Energy, Environment, Safety, Health))
Lotte Home Shopping		Lower fee compared to industry standard (35.2%)	Establishment of funds and direct support	Support overseas expansion of SME through overseas home shopping channels	Satisfaction survey for suppliers, regular meetings	Free broadcasting for social enterprise and SME
POSCO	Techno-partnership, technical data deposit system	Cash payment	Establishment of funds and direct support	Support sales channels overseas	Regular meetings, etc.	Idea Marketplace, benefit sharing

LG Electronics' management innovation consulting in some aspects.

Table 9 summarizes the direction of collaborative cooperation among the five major companies analyzed.

From the view of Samsung Electronics, there are some important differences between the collaborative cooperation strategies of other large corporations and the collaborative cooperation strategy of Samsung Electronics. First, Samsung Electronics' strategy to nurture global hidden champions is a strategy that is more innovative and long-term oriented in the sense that other large companies are considering merely entering overseas markets. It is significant that the global hidden champion upbringing strategy can start from the stage of technology development of SMEs, and offer a road map for SMEs to become global companies through all processes from productization to sales. However, Samsung Electronics' collaborative cooperation strategy is not enough, especially in terms of entrepreneurship support. Samsung Electronics has a lot of plans to collaborate with existing partners, but there are no programs that support entrepreneurial ideas as POSCO's Idea Marketplace does.

In addition to the suppliers, it is necessary to support start-up companies. It is more likely that there will be more innovation in start-up companies than in companies that already have a business model in place. Therefore, helping start-up companies will create a more open ecosystem that will enable Samsung Electronics to drive innovation.

The financial status of startup companies is weak in general. Therefore, financial support at the R&D stage may be crucial for start-up companies. Samsung Electronics has a plan. In addition, startup companies do not have enough resource to invest the departments other than R&D. Hence, it is important to provide consulting for the support departments.

IV. Conclusion and Implications

Recently, companies are shifting to ex-

ternal procurement and outsourcing from self-production and subcontracting as a strategic choice. As outsourcing tends to be a strategic partnership, the importance of shared growth through mutual partnerships and the importance of collaborative supply chain management are increasing. Cooperative supply chain management can achieve efficiency and effectiveness of supply chain through cooperation and coordination with partner companies. Therefore, it is possible to reduce the bull-whip effects, promptly respond to demand forecasts of production and sales, and achieve competitive advantage through higher quality. Recognizing this importance, in 2011, the government announced 9.29 Comprehensive Measures for Shared Growth and after that, it seems that the performance of collaborative cooperative partnerships among SMEs in major domestic companies has become more concrete. Many companies have set up organizations dedicated to shared growth and strengthened communication with suppliers. In particular, companies support technological and innovation support for suppliers, provides financial support, improves payment terms, reflects cooperation results in personnel evaluation, and supports overseas business development.

In the case of large companies, it can be confirmed there is a growing social consensus on interest and visible performance of collaborative cooperation among large corporations in Korea. Not only funding for suppliers, which was the center of existing collaborative cooperation in the past, but also developmental cooperation such as technical cooperation and component joint development, and joint growth efforts are emerging. Samsung Electronics offers a vision of partners - hidden champions - and supports them, not only quantitative aspects of collaborative cooperation but also considerable changes in terms of quality. In other words, the stage of cooperation is developing into a value-creating cooperative relationship such as joint development between companies based on long-term vision sharing in contract trust

based on short-term fair transactions.

In order to be sustainable and collaborative cooperation rather than temporary support or cooperation through collaborative cooperation, it is necessary for long-term sustainable development to be possible only if large companies recognize SMEs as true cooperation partners and mutually beneficial shared growth can be achieved. Maintaining a successful cooperative partnership requires long-term contracts, commitment, sharing of information, cost reduction, quality improvement, sharing of risks and rewards, and mutual trust. In order for successful collaborative cooperation to achieve results, firm recognition and support for collaborative cooperation among the CEOs of large corporations is of utmost importance, and it is important to systematically institutionalize collaborative cooperation structures and collaborative partnership performance evaluation. On the other hand, SMEs should develop competencies and qualities as cooperative partners on par with large corporations through technology development and innovation, rather than staying at the weaker position to receive protection and support from large corporations.

From the examples discussed in the manuscript, many large companies seems to wrok towards turning small and medium-sized companies into business partners that match their structure. However, we cannot conclude that all of the large companies successfully open the ecosystem. In order for large companies to further improve its collaborative cooperation strategy, it is necessary to expand the scope of the ecosystem to include not only the relationship between large companies and their suppliers but also potential start-ups that can benefit large companies in the long run. This will create a more

open ecosystem that will enable large companies to drive innovation.

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국내 대기업 상생협력 사례비교 및 시사점 도출

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최근 글로벌 경쟁이 더욱 치열해짐에 따라 기업의 경쟁력강화를 위한 대·중소기업간 상생협력과 동반성장이 중요한 사회적 관심사가 되고 있다. 대·중소기업 상생협력은 기업경쟁력 강화측면 뿐 아니라 장기적으로 CSR과 CSV 관점에서도 중요성이 더욱 커지고 있다. 실제로 많은 국내 대기업들이 상생협력을 강화하고 있는 추세이다. 본 연구에서는 삼성전자를 비롯한 국내 주요 대기업들의 상생협력 사례를 비교 분석하고, 이를 바탕으로 국내 대기업들의 상생협력 방안에 대한 시사점을 도출하였다.

주제어 : 상생협력, 동반성장

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