Identifying Promising Export Items for SMEs under FTAs: Policy Implications

Youngjoo Lee, Soo-dong Kim, Ba-woo Kim, Chang Yong Han

Chapter 1. Introduction

The Korean government implements free trade agreement (FTA)-related policies measures in an effort to help Korean businesses find new opportunities for growth on the global market. Effective and efficient FTA-related policies are crucial to small and medium enterprises (SMEs), which face great difficulties in accessing and seizing global opportunities. The existing system of FTA support focuses on exporting SMEs. However, that only benefits around 15 percent of all Korean SMEs. The remaining 85 percent that do not presently export products are left out of the system altogether. The Korean government thus needs to devise a new system that would enable all SMEs to seize upon new opportunities presented by FTAs and expand globally.

Companies can take advantage of FTA-related policy measures by first identifying whether the products they manufacture are among the so-called promising items under FTAs. This being the

Figure 1. Research Structure
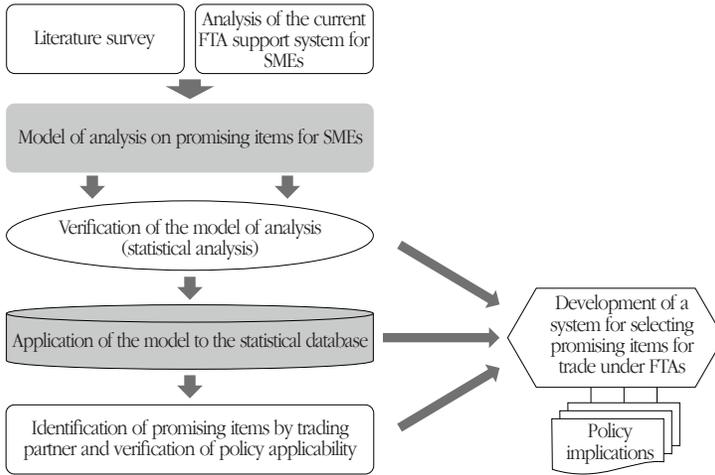
case, the government could significantly encourage the majority of SMEs to make use of the FTA export opportunities by selecting promising items fairly and providing information on them in a systematic manner. This study therefore aims to propose a new FTA support system for selecting promising items for trade under FTAs that could substantially promote exports by SMEs. Our study analyzes the policy implications of developing such a system and ensuring its efficient management.

Chapter 2. Literature Survey

No extensive literature is found on the individual items of exports under FTAs. Most existing studies focus on the factors that decide which items are exported rather than on the comparative advantages of various individual items. However, as the Korean

government has entered a number of FTAs almost simultaneously, there is growing demand for identifying which items or products are best suited for export by Korea's industries. Yet much of the existing literature provides analyses of current conditions rather than identifies promising export items based on empirical analyses. The few studies that do list promising items for trade under FTAs target specific FTAs and anticipated patterns of trade in their analyses of prospective industries and products. There is no study that provides a comprehensive analysis of all possible promising items. Moreover, researchers select promising items or industries according to rather arbitrary criteria in the absence of systemic and clear guidelines on how such items are to be selected. The few studies on this topic therefore cannot guarantee the objective validity of their conclusions.

Our survey of the literature reveals a recent increase in the number of studies analyzing promising items under FTAs, but there are still too few. To make matters worse, the existing studies on individual promising items or industries rely on one-off analyses of export statistics without the use of theoretical and in-depth models of analysis. So it is impossible to find solutions in the existing literature as to how the promising export items for SMEs are to be identified, selected, or analyzed whenever the Korean government signs onto a new FTA.

Chapter 3. Model for the Selection of Promising Export Items for SMEs

Korean SMEs expect FTAs to bring about positive changes and

improvements to their business environment. Yet, due to the many difficulties that hinder effective use of FTAs, SMEs' actual record of exports under FTAs falls short of what was expected. Most importantly, SMEs appear to lack an accurate understanding of their export prospects with respect to FTA partner countries' markets. This indicates a need for the Korean government to develop and provide systematic information on promising export items for SMEs as part of its effort to facilitate SMEs' exports under FTAs. SMEs themselves point to a disparity between FTA policy measures and their actual needs as hindering them from significantly improving their export performances. It is necessary, then, to establish channels of effective communication between SMEs and policymakers. In our survey, 84.5 percent of the SMEs surveyed expressed a need for

Figure 2. Model of Analysis for Selecting Promising Export Items for SMEs
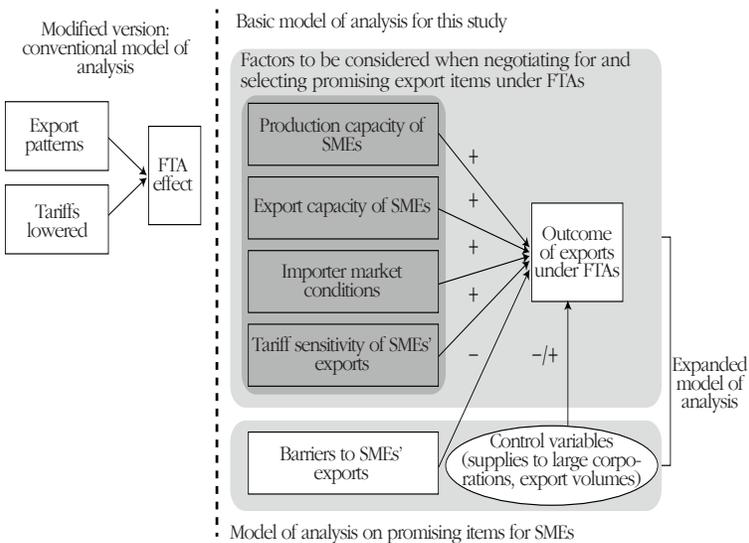
official information on promising export items with respect to each FTA partner country's market.

Based on our analysis of the existing studies on how SMEs could make use of FTAs, we developed a model for analyzing promising export items under FTAs. The factors considered in our model include the production capacity and export capacity of SMEs, the importer market conditions, and the tariff-influenced prices. Our model also accounts for possible structural barriers to Korean SME exports. In addition, we developed both an expanded

Table 1. Multiple Regression Analysis Results

	Modified model		Basic model		Expanded model	
	Standard-ization coefficient	Significance probability	Standard-ization coefficient	Significance probability	Standard-ization coefficient	Significance probability
Export capacity	.197***	.001<	.148***	.002	.149***	.002
Tariff sensi-tivity	.441***	.001<	.408***	.001<	.420***	.001<
Production capacity	-	-	.087*	.052	.102**	.028
Importer market conditions	-	-	.121***	.010	.129***	.006
Barrier to exports	-.062	.168	-.094**	.035	-.086*	.053
Subcontract-ing to large corporations	-	-	-	-	-.082*	.057
Export orientation	-	-	-	-	-.080*	.085
Model fit (F-value)	46.5***	.001<	32.3***	.001<	24.2***	.001<

Source : KIET Survey (August 2014).

model that includes control variables and a modified version of the conventional model used in other studies on promising export items to ascertain the quantitative validity of our model.

We applied our model to various empirical analyses, including principal component and factor analyses, a reliability analysis using Cronbach's alpha, and a multiple regression analysis. These empirical analyses statistically confirmed the validity and reliability of our model. Our analysis of variance on the characteristics of SMEs that export products under FTAs reveals the types of trading partners, CEO characteristics, business sizes, and the presence or absence of global hidden champions to be statistically significant factors. These and other factors revealed by our analyses can help policymakers select and support promising export items more efficiently.

Chapter 4. Selecting Promising Export Items for SMEs under FTAs

1. Objectives and tool of analysis

The ultimate purpose of this study is to increase the extent to which SMEs in Korea make active use of FTAs. In general, policymakers tend to devise and implement measures to promote businesses' utilization of FTAs only after the government has signed the FTAs. This study, however, proposes that policymakers consider promising export items for Korean SMEs during negotiations leading up to FTAs.

To this end, we applied our analytical model, tested and confirmed by empirical analyses described in Chapter III, to an ac-

tual database of trade statistics to identify and select promising SME export items. Until now the process of selecting promising export items has been largely focused on export and tariff rate data. A handful of large conglomerates in Korea account for over 70 percent of all exports from the country. So selecting promising export items on the basis of tariff rates alone holds little advantage for SMEs, and it has the effect of discouraging them from making active use of FTAs. We can overcome this problem only by encouraging SMEs that are currently focused solely on the domestic market and subcontracting to large corporations in Korea to begin exporting abroad. Our process of identifying and selecting promising export items for SMEs under FTAs also carries implications for how to design an appropriate statistical database to that end and how our model can be used to aid related policymaking.

(1) Frame of analysis on promising export items for SMEs

Promising exports for SMEs, in terms of types or categories of products, combine the superior manufacturing capacity and relatively effective export capacity of Korean SMEs and will enjoy greater prospects of exports abroad thanks to FTAs. Our frame of analysis on these items takes into account of dimensions of factors, i.e., factors of domestic production capacity, of export capacity, of importer markets, and of tariffs. We analyze these factors with respect to Level-4 Korean Standard Industries and HS sub-heading industries to identify promising export items. The four dimensions of factors under our consideration are illustrated below.

Figure 3. Criteria for the Selection of Promising Export Items for SMEs under FTAs
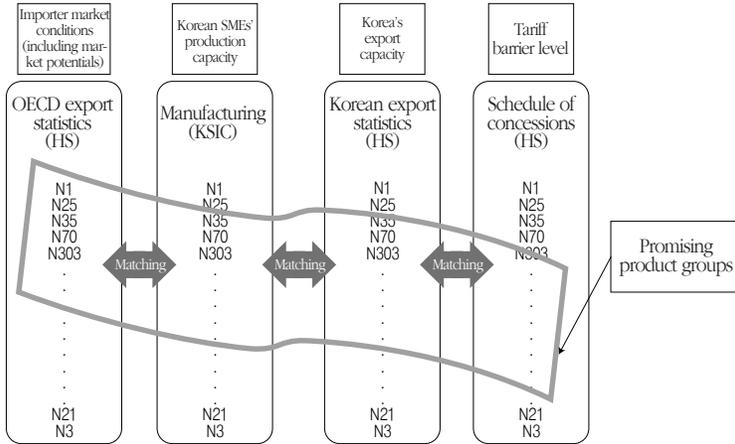
SMEs' production capacity = f (total SME output, SMEs' share in by-industry output, rate of increase in SMEs' output)

Export capacity = f (export output by category, rate of increase in exports)

Importer market conditions = f (amount of imports from Korea by product, rate of increase in imports from Korea by product, amount of imports from worldwide, rate of increase in imports from worldwide)

FTA tariff barrier effect = f (FTA tariff rates, margin of decrease in tariff rates due to FTAs)

2. Process of identifying promising export items

We analyzed and identified promising export items for Korean

SMEs with respect to HS sub-heading industries on the basis of data on (1) the production capacity of Korean SMEs, (2) Korea's export capacity, (3) import conditions of target markets abroad, and (4) FTA tariff barriers. To select our target markets, we surveyed the importance of advanced and emerging markets, and accordingly chose three FTA partners, i.e., the United States, Vietnam, and China.

We assessed the production capacity of Korean SMEs on the basis of the Korean Standard Industrial Classification (Level 4) instead of using individual industries or products. We matched the Level-4 Korean Standard Industries with their HS sub-heading counterparts. Here the production capacity of SMEs is defined as a weighted average of (1) ranked output sizes of SMEs by industry as of 2013, (2) ranked SME shares of output per industry as of 2013, and (3) ranked rates of growth in output by SMEs from 2011 to 2013. We additionally ranked SMEs by industry or product in terms of the weighted averages of their production capacity. Our corporate survey results were used to obtain the weighted average of each item.

Korea's export capacity is defined as a weighted average of (1) rankings of Korea's exports as of 2013 and (2) the ranked rates of growth in Korea's exports from 2011 to 2013. We re-ranked these weighted averages to determine the export capacity of SMEs by industry or product.

Each importer market condition is the weighted average of (1) the ranking of the target market on the list of importing markets worldwide as of 2013, (2) the ranking of the target market in terms of the rate of growth in imports from worldwide, from 2011 to

2013, (3) the ranking of the target market as an importer of Korea's goods as of 2013, and (4) the ranking of the target market in terms of the rate of growth in imports from Korea from 2011 to 2013. We then re-ranked the target markets by industry or product.

The size of the FTA barrier is measured by taking into account the height of the given tariff rate and the speed at which the tariffs were to be lowered or abolished according to the given tariff concession schedule. We measured the size of the tariff barrier for each product or industry and ranked the tariff barriers in the descending order of their sizes accordingly.

Next we used the weighted averages of the rankings of SME production capacity, the rankings of export capacity of Korean products, the rankings of target markets as importers, and the rankings of tariff barriers to determine the final rankings of promising industries and products.

3. Findings of analysis

(1) Result of including additional variables in the frame of analysis

Whereas the majority of existing studies only employ export capacity and tariff barrier data to determine promising export items for SMEs, this study takes into account additional factors, such as the production capacity of Korean SMEs and importer market conditions.

We proceeded to analyze the degree of variability in the rankings of promising export items to test and determine the significance of these additional factors. Our assumption was that if an

additional variable had significance, the rankings of export items would change significantly. We used four models to test this assumption. Model 1 ranks possible export items using two criteria only, i.e., production capacity and tariff barriers, as defined above. Model 2 adds the production capacity of SMEs to the two variables of Model 1. Model 3 adds the importer market conditions to the two variables of Model 1. Finally, Model 4, the central model of analysis in this study, adds both the production capacity of SMEs and importer market conditions.

(2) Changes in the rankings of all export items

First, we ranked the possible export items using Model 1 (export capacity + tariff barriers) and divided the items into four groups, i.e., upper 25 percent, middle 25 to 50 percent, middle 50 to 75 percent, and lower 25 percent. We ranked the possible export items using all of the other three models and again divided them into four groups, using the same scale each time. Then we counted the number of items whose rankings changed from model to model.

With respect to the American market, adding production capacity as a variable to Model 1, i.e., using Model 2, we found that 55.6 percent of all the listed items change their groups. Switching from Model 1 to Model 3 (i.e., adding importer market conditions as a variable) results in the movement of 41.7 percent of all listed items from one group to another. Switching from Model 1 to Model 4 (i.e., adding both production capacity and importer market conditions) results in the movement of 48.4 percent of listed items across groups. In other words, additional variables cause significant

changes to the rankings of possibly promising export items. This variability was especially prominent with respect to items in the two middle groups.

The same patterns were observed in the case of the Vietnamese and Chinese markets. In the case of Vietnam, switching from Model 1 to Model 2, Model 3, and Model 4 resulted in the movement of 55.5 percent, 46.9 percent, and 53.6 percent of listed items across groups, respectively. In the case of China, the same switches caused the movement of 51.6 percent, 44.5 percent, and 49.6 percent of listed items across groups, respectively. Items in the two middle groups showed most variability in both Vietnam and China.

(3) Changes in the rankings of the top 200 items

Next, we identified the top 200 items ranked in each model and analyzed how the change of models affected their rankings. Of particular interest to us was how the switch from Model 1 to Model 4 affected these items' rankings.

In the case of the American market, changing from Model 1 to Model 4 reduced the number of possibly promising products from industries such as basic chemicals manufacturing, steel manufacturing, primary non-ferrous metal manufacturing, and general-purpose machinery manufacturing. By contrast, an increase was seen in the number of highly ranked and possibly promising products from plastics manufacturing, medical instruments and apparatuses manufacturing, precision machinery manufacturing (for measurement, testing, navigation, and control), and motor vehicle parts and accessories manufacturing.

In the case of Vietnam, there was a reduction in the number of items from basic chemicals manufacturing, steel manufacturing, electronic audiovisual equipment manufacturing, domestic appliance manufacturing, motor vehicle and engine manufacturing. By contrast, an increase was seen in the number of items from the knitted fabric and product manufacturing, synthetic rubber and plastic material manufacturing, plastic manufacturing, and spe-

Table 2. Top 200 Promising Export Items under the FTA with China: in Models 1 through 4

KSIC (Class)	Industry	Model 1	Model 2	Model 3	Model 4
131	Spinning of textiles and processing of threads and yarns			1	
132	Weaving of textiles and manufacture of textile products	7	7	4	3
133	Manufacture of knitted fabric mills and fabric products	1	6	3	3
139	Manufacture of other made-up textile articles, except apparel	1	1	5	3
141	Manufacture of sewn wearing apparel, except fur apparel	15	7	9	8
143	Knitted and crocheted apparel	8		4	
144	Knitted and crocheted apparel accessories	6			
151	Manufacture of luggage, footwear and similar products	8	12	6	10
152	Manufacture of footwear and parts of footwear	6	2	2	3
162	Manufacture of wood products		1	1	1
192	Manufacture of refined petroleum products			1	
201	Manufacture of basic chemicals		1	2	2
202	Manufacture of fertilizers and nitrogen compounds		1		2
203	Manufacture of synthetic rubber and of plastics in primary forms	1	3	8	12
204	Manufacture of other chemical products	9	11	12	15
221	Manufacture of rubber products	9	8	8	9
222	Manufacture of plastic products	4	19	8	21
231	Manufacture of glass and glass products	6		7	1
232	Manufacture of ceramic ware	1			

(Continue)

KSIC (Class)	Industry	Model 1	Model 2	Model 3	Model 4
233	Manufacture of cement, lime and plaster and its products		4		1
239	Manufacture of other non-metallic mineral products	2	5	3	5
241	Manufacture of basic iron and steel	2		5	1
242	Manufacture of basic precious and non-ferrous metals			1	
251	Manufacture of structural metal products, tanks, reservoirs and steam generators	4	2	1	3
259	Manufacture of other metal products; metal working service activities	14	16	14	9
264	Manufacture of telecommunication and broadcasting apparatuses	1		1	1
265	Manufacture of electronic video and audio equipment	6	2	6	2
271	Manufacture of medical appliances and instruments	1	2	1	4
272	Manufacture of instruments and appliances for measuring, checking, testing, navigating, controlling and other purposes, except optical instruments	1	10	4	13
273	Manufacture of spectacles, photographic equipment and other optical instruments	2	2	3	2
281	Manufacture of electric motors, generators and transforming, distributing and controlling apparatus for electricity	5	7	10	5
282	Manufacture of primary cells, batteries and accumulators	2		3	
283	Manufacture of insulated wires and cables, including insulated code sets	4	1	6	3
284	Manufacture of electric lamps and bulbs	5	7	6	7
285	Manufacture of domestic appliances	8		6	1
291	Manufacture of general purpose machinery	14	6	11	7
292	Manufacture of special-purpose machinery	6	14	8	8
301	Manufacture of motor vehicles and engines for motor vehicles	8		5	
302	Manufacture of bodies for motor vehicles, trailers, and semitrailers	1	1	1	1
303	Manufacture of parts and accessories for motor vehicles and engines	14	19	17	20
311	Building of ships and boats		1		
319	Manufacture of other transport equipment			1	1
320	Manufacture of furniture	2	1		
331	Manufacture of precious metals and ornamentations	4	6	3	4
332	Manufacture of musical instruments	1			
333	Manufacture of sports and athletic goods	2		1	
339	Other products manufacturing	7	11	1	5

cial-purpose machinery manufacturing.

In the case of China, the number of items from apparel manufacturing, domestic appliance manufacturing, motor vehicle and engine manufacturing decreased, while the number of items from synthetic rubber and plastic material manufacturing, plastic manufacturing, and precision machinery manufacturing (for measurement, testing, navigation, and control) increased. Table 2 lists the top 200 promising export items, ranked according to Model 4, for China, with which Korea has entered an FTA that will take effect soon.

Our analysis confirms that adding new variables, such as production capacity and importer market conditions, gives rise to new and different products as promising export items.

4. Policy implications of promising export items under FTAs

(1) Promising export items for targeted and for global markets

Globally promising export items are exportable products with which Korean businesses have an advantage in terms of production capacity, export capacity, importer market conditions, and tariff conditions. In this study, we identify the top 100 items found across all the lists of promising items for the three target market countries as globally promising. The list of globally promising items include a number of plastic products and motor vehicle parts and accessories. As these products could contribute to the diversification of Korean SMEs' markets abroad, policymakers may need to bring these items under the favorable terms of trade offered by

FTAs when pursuing and negotiating future FTAs.

Then there are export items that are promising with respect to particular target markets. Using the list of these items may help to enhance the efficiency of policy programs supporting Korean SMEs' utilization of existing FTAs.

(2) FTA negotiation strategies for Korean SMEs

We can divide the promising export items we identified by those favoring Korean export capacity and those favoring the importer market conditions. Doing so can help us devise more effective FTA negotiation strategies.

The Korean government could maximize the export prospects of items that enjoy both favorable conditions of export capacity and importer market conditions by actively negotiating and winning early tariff concessions. For items that enjoy strong export capacity, but less favorable importer market conditions, gaining greater access to certain markets via FTAs may not significantly enhance the economic prospects of the involved industries. Target market shares of Korean products in such cases might be increased even without tariff concessions. The Korean government could permit foreign governments to retain protectionist measures on these items and use them instead as leverages for gaining tariff concessions on other items Korean industries are better suited to export.

(3) Encouraging SMEs to utilize FTAs more actively

Dividing the promising export items we identified by export

capacity and importer market conditions can also enhance the effectiveness of policy support for SMEs looking to globalize.

In encouraging Korean SMEs to export by making use of FTAs, policymakers need to focus not only on businesses that are already exporting, but also on SMEs that are primarily or solely focused on domestic demand, though have strong export capacity. However, it is difficult to identify capable potential exporters before they actually start exporting. Korean policymakers should thus resort to the list of promising export items to identify and support businesses that produce these items. The Korean government also needs to announce and regularly update the information on the list of promising export items to help increase the number of exporting Korean SMEs.

Chapter 5. Conclusion

This study presents a new model of FTA-related policy measures for SMEs in Korea that takes into account four dimensions or categories of factors—i.e., production capacity, export capacity, importer market conditions, and tariff sensitivity. The study provides empirical demonstrations of the validity and reliability of the new model, along with a list of promising export items. This new model is expected to help Korean policymakers innovate and improve their FTA-related policy measures significantly. We see this study as a possible basis for upgrading the framework of policymaking on SMEs and their exports, thereby encouraging more businesses to utilize FTAs and giving policymakers new options in future FTA negotiations. The system of identifying and selecting promising ex-

port items provided in this study can help policymakers determine effective ways to help SMEs seeking to globalize and to devise better FTA negotiation strategies. Our empirical analyses of the expanded version of our model and our ANOVA on the characteristics of SMEs point to the need for more refined and tailored policy measures toward maximizing Korean SMEs' utilization of FTAs. Our ANOVA, in particular, provides specific criteria for identifying the types of SMEs in need of support.

The policy implications of our analysis can be summarized as follows.

(1) Establishing a system of support for SMEs seeking to utilize FTAs

The first and foremost way to increasing Korea's exports under FTAs is by ensuring that resulting FTA conditions cater to the actual needs of SMEs in Korea. SMEs, in turn, can use FTAs as opportunities for expansion and growth when they are backed by proper and effective systems of policy support. The Korean government needs to establish a more effective system of support for FTA-utilizing SMEs as a means of boosting its free trade drive.

As the model of analysis presented in this study systematically identifies promising export items with respect to each target market on the basis of production factors, export factors, import factors, and tariff factors, policymakers can use this model to devise and analyze a system of policy support for FTA utilization. This study verifies the validity of the model using empirical analyses of three of Korea's FTA partners, i.e., the United States, China, and Vietnam. Policymakers can expand the application of the model to

Figure 4. Using the List of Promising Export Items to Support Korean SMEs' Utilization of FTAs
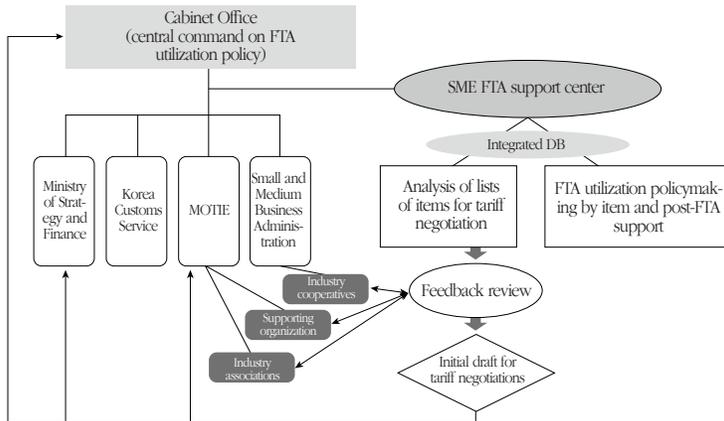
all of Korea's trading partners worldwide in the development of a comprehensive system of FTA-related support.

The system of FTA policy support for SMEs we envision would have the Cabinet Office as the central coordinator of the policy tasks of various departments. The system would involve the participation of the Ministry of Foreign Affairs, the MOTIE, the Small and Medium Business Administration, the Korea Customs Service, and Statistics Korea. It would also feature a SME FTA support center, authorized to run analyses on Statistics Korea's data, that would effectively support the FTA utilization policy.

(2) Assessing FTA-related policies and enhancing SMEs' strategizing capabilities

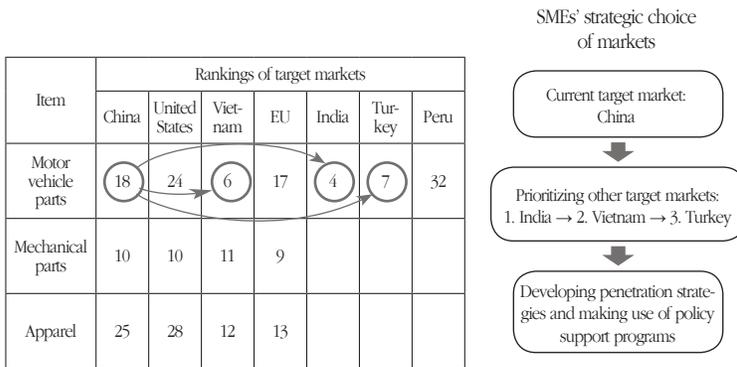The matrix of promising export items by target market, as iden-

tified by our model, can help policymakers assess the effectiveness of their FTA-related policy measures and pave the way for SMEs' growth under FTAs. Our model allows policymakers to identify and analyze the causes of relative inaction regarding target markets for which Korean SMEs hold promising exports, and accordingly tailor their policy support measures. Consider the sample matrix presented in Figure 5. If Korean motor vehicle parts and accessories hold little appeal to certain target markets, policymakers can refer to the four groups of factors making up the low score (Korean exports, Chinese imports, tariff barriers, etc.) and see that the root of the problem lies in Chinese imports. Korean policymakers can then work out and develop effective alternatives and strategies. Our system of analysis, in other words, facilitates policymakers' discovery, analysis, assessment, and handling of FTA-related issues, allowing them to provide more effective support for Korean SMEs seeking to utilize FTAs.

Figure 5. Sample FTA Policy Assessment Using the List of Promising Export Items
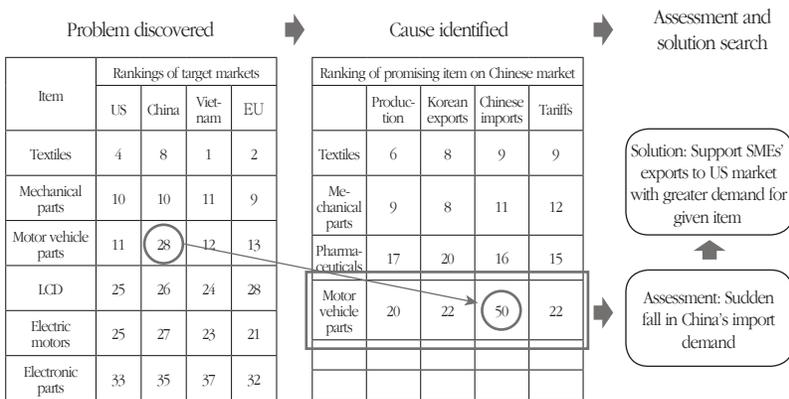
The results of the matrix analysis, as shown in Figure 6, can also help Korean SMEs better navigate and decide on strategies for their global expansion and growth under FTAs. As Figure 6 shows, SMEs can identify how promising their products will be on target markets under FTAs, and decide, strategically, which market to target first or export to by taking advantage of new benefits and opportunities provided by FTAs. An SME that currently exports most of its motor vehicle parts to China, for instance, can see from the matrix analysis that India, Vietnam, and Turkey would be better prospects as importers than China. Having thus identified potential target markets for their products, SMEs can then strategically seize upon the opportunities for growth and expansion that FTAs provide.

Figure 6. Sample Matrix of Decision-Making for an SME Exporting Motor Vehicle Parts

Item	Rankings of target markets							SMEs' strategic choice of markets
	China	United States	Viet-nam	EU	India	Tur-key	Peru	
Motor vehicle parts	18	24	6	17	4	7	32	Current target market: China
Mechanical parts	10	10	11	9				Prioritizing other target markets: 1. India → 2. Vietnam → 3. Turkey
Apparel	25	28	12	13				Developing penetration strategies and making use of policy support programs

(3) Introducing new policy measures to support SMEs' utilization of FTAs

FTAs are undoubtedly enhancing the prospects of globalization for Korean SMEs today. Yet there are almost no policy programs that specifically facilitate SMEs' exports under FTAs. The Korean government should consider introducing a new support program, provisionally entitled Program for Supporting FTA-Utilizing and Exporting SMEs (Table 3), to fill the gap.

The program would exclusively benefit SMEs that produce promising export items under FTAs. It would provide packaged support solutions, including assistance with production and technology development, the expansion of export infrastructure, and target-specific marketing support. Eligible businesses would be able to select the packages they need. The new program would benefit not only SMEs that are already exporting, but also SMEs with export potential and capability. By enabling businesses themselves to choose what types of solutions they need, the program

Table 3. Program for Supporting FTA-Utilizing and Exporting SMEs (draft)

	Description
Objective	To support the growth of SMEs producing promising export items under FTAs
Eligible SMEs	Exporting and non-exporting SMEs that produce promising export items and have the capability for increasing or starting exporting under FTAs *Extends the scope of beneficiaries to non-exporting SMEs
Benefits	Packaged solutions for product development and improvement, export infra-structure, and target-specific FTA marketing support, from which businesses may choose *FTA marketing support for developing FTA-suited business models, finding global partners, developing products/technologies based on contracts, overcoming legal and institutional barriers, etc.

would provide more demand-centered than supply-directed help.

The new program would set itself apart from the existing programs of FTA-related support by specifically taking into account promising export items under FTAs. Existing programs supporting SMEs' exports abroad are more business than product oriented, making them incapable of guaranteeing support for items or products that would become promising once FTAs take effect. In contrast, the new program channels support to SMEs that already produce promising export items under FTAs. By providing better guarantee of support on the condition of FTAs and tariff concessions in advance, the program would serve to increase SMEs' utilization of FTAs overall. Furthermore, unlike existing support programs that only support export marketing, the new program would additionally assist SMEs in producing and developing products that cater to target markets.

(4) Using the list of promising export items with existing policy
     support programs

The list of promising export items under FTAs can also be used to enhance the effectiveness of the existing SME support programs. At present, SMEs that produce promising export items and intend to start exporting under new FTAs face great difficulty in receiving policy support due to a lack of an export history. The Korean government could use the list of promising export items and extend opportunities for growth to such SMEs seeking to begin exporting.

More specifically, policymakers could assign preferential points to support-applying SMEs on the basis of whether these businesses

produce promising export items on the list. Alternatively, policymakers may assign certain quotas of SME-support funding to SMEs that seek to globalize under FTAs. The FTA consulting program should focus on businesses that produce promising export items instead of all SMEs, so that it enhances the effectiveness of consultation and advice in penetrating target markets. All these new measures would require enhancing the ability of the Cabinet Office to serve as a central coordinator of different programs.

(5) Developing a centralized database and related services

Collecting and analyzing data necessary to identify promising export items under FTAs would require greater interdepartmental collaboration. It is particularly difficult to access and acquire data on changing tariff rates without active government support. The databases on production, imports, and exports should be expanded to include panel data with the existing secondary data. These databases should be updated annually to maintain their time-series characteristics. In addition to identifying promising export items, policymakers and researchers should also regularly review and update the models of analyses used in identifying such items. The database on promising export items under FTAs should therefore be updated and expanded on an ongoing basis through the monitoring, evaluation, and review of items already chosen.

Moreover, the new database should target not just a few countries, but all of Korea's existing and potential FTA partners. The existing databases do not permit comparisons of FTA partner countries, and thus provide information pertaining to only a few specific

countries. SMEs, however, need information on all the existing and potential target markets abroad as opposed to being told which markets they should target. Once a comprehensive and centralized database on all existing and potential FTA markets is established, Korean policymakers will have a better chance of developing a more effective system of support for SMEs. Such a database would be of more practical use, help diversify target markets, and increase the exports of Korean businesses.

(6) Generating and updating useful business information

Production statistics provide useful indicators of export potentials, and they indeed serve as important measures of capacity in identifying promising export items. In this study, we analyzed production statistics on businesses in the mining and manufacturing sectors and incorporated our findings into a decision on promising export items. However, in matching industry-by-industry production statistics with product-by-product export and import statistics, we had to compromise the precision of our analysis. To better match and incorporate the use of production statistics into FTA analyses, we need more statistics based on the HS codes. The Korean government might begin to produce HS code-based statistics. But given the overarching objective of production statistics and in the interest of economic efficiency, we would advise it against producing these additional statistics. A more feasible alternative would be refining the match between the Korean Standard Industry Classification and HS codes further. To this end, we may integrate the match tables used by different individual researchers, review these

tables thoroughly, and combine them and produce a more realistic match table for all researchers to use.

This study uses tariff rates in defining and measuring tariff barriers. In reality, however, there is a wide range of non-tariff barriers to free trade, such as origin verification requirements and technology standards, as well as informal export barriers such as cultural distances. Policymakers ought to take these other types of barriers into account, and it should set up a system for centralizing the management of fragmentary research being undertaken by different public policy research institutions.