

An Empirical Study on the Effect of Internal FTA Utilization Factors on Export Performance

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JKT 27(3)

Received 15 May 2023

Revised 2 June 2023

Accepted 9 June 2023

Abstract

Purpose – This study aims to identify the internal capabilities that export companies need to possess in order to utilize FTAs and to propose ways to expand their export performance through them. To achieve this goal, the study analyzed the internal factors that affect FTA utilization from a resource-based perspective, such as Origin Management Competency, Information Acquisition Competency, contract Management Competency, and Commitment to Export, based on prior research on corporate capabilities in the field of management and FTA-related research. The study ultimately aims to confirm whether a company's FTA utilization contributes to its export performance through the management and response to its internal factors for FTA utilization.

Design/methodology – To achieve the research objective, this study conducted a literature review related to FTA utilization and identified the internal factors of companies that affect FTA by classifying them into Origin Management Competency, Information Acquisition Competency, contract Management Competency, and Commitment to Export. Based on this, a final research model was developed, hypotheses were set through a preliminary study survey, and conclusions were drawn by analyzing the data of 312 companies.

Findings – The empirical analysis results indicate that Origin Management Competency and Contract Management Competency have a positive impact on FTA utilization, while Information Acquisition Competency and Commitment to Export do not have a statistically significant impact on FTA utilization. Based on these findings, this study suggests measures for efficient FTA utilization for companies that want to utilize FTAs. Additionally, FTA utilization has a positive impact on export performance. In other words, the extent to which companies utilize the signed agreements has a positive impact on their performance. Based on these results, this study identifies the characteristics of companies that want to utilize FTAs and proposes measures for future efficient FTA utilization.

Originality/value – This study has confirmed that in order for companies to utilize FTAs, they must meet the requirements of the FTA. To this end, the study has concluded that it is important to manage and address internal factors such as Origin Management Competency, Information Acquisition Competency, contract Management Competency, and Commitment to Export to increase FTA utilization. Based on these results, it can be confirmed that it is essential for companies to have an understanding and management of the internal factors that satisfy the requirements of the FTA in order to utilize the FTA.

Keywords: Competency, Export Performance, Free Trade Agreement, FTA Utilization

JEL Classifications: D12, F14, O53

1. Introduction

Trade today is largely facilitated through free trade agreements (FTAs), and countries all over the world are signing these agreements to revitalize their economies and increase the welfare of their citizens. South Korea signed its first FTA with Chile in 2004. As of June 2022,

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Korea has signed FTAs with 73 countries, including China, the United States, and members of the European Union. The share of trade using FTAs gradually increased from 14.7% in 2010 to 63.5% during the first half of 2022(Korea Customs Service, 2022). The key to utilizing FTAs is the country of origin, and the reason why it is particularly important in FTAs is because the application of preferential tariff benefits depends on where the product originated (Lee In Seong and Kim Sok Tae, 2023). Rules of Origin (RoO) refer to laws or administrative regulations that are necessary to determine, verify, and indicate the origin of a product (Park Se Hyun, 2022). In FTAs, RoO is the most important criterion for applying preferential tariffs, and it plays a very important role in preventing effective implementation of FTAs and third-country free riding, which means that products from non-FTA countries benefit from preferential tariffs (Ahn Jae Jin, 2008). Therefore, during FTA negotiations between contracting countries, RoO is the most important issue. Due to the fact that FTA tariff reductions apply only to goods originating from the contracting country, companies must go through a series of procedures to determine the origin of their products and prove that the corresponding tariff reduction is legitimate in order to actually receive the FTA tariff reduction. These procedures are outlined in RoO, which are used not only in FTAs but also in other forms of preferential agreements that provide tariff privileges to specific countries. RoO designed specifically for the purpose of providing such privileges are referred to as Preferential Rules of Origin. Verification of whether the tariff privilege is legitimate based on the determined origin of the product relies on the documentation used to determine the product's origin and is conducted after the goods arrive in the importing country and are exported. These origin verification documents are extensive, covering various information related to product manufacturing, production, sales, transportation, and procurement of raw materials, and the format, labeling, and content can vary widely depending on the type of transaction and industry. It is difficult to define their scope and limitations in legislation. Moreover, even if they are specifically defined in legislation, it is difficult for companies and customs authorities involved in applying the preferential treatment to interpret them consistently(Yi Ji-soo, 2016). When a country signs an FTA with another country, the export competitiveness of the contracting country's products is enhanced, and a stable overseas market is secured. Additionally, they receive a preferential FTA tariff rate lower than the basic tariff rate. In this sense, FTA is essentially a system that benefits the contracting countries, but it is not easy for companies to fully enjoy those benefits(Cheong In Kyo, 2009). FTA has two axes: the elimination of tariffs and RoO. There is an argument that FTA will have a positive impact on free trade, as in the case of the General Agreement on Tariffs and Trade (GATT) or the current World Trade Organization (WTO), but in reality, it is not always the case (Na Do-Sung and Yoon Young-Ho 2011). Tariffs, which are one of the issues, will eventually be abolished according to the permit schedule, and RoO are another issue, which inherently entail trade barrier effects. When countries sign Free Trade Agreements (FTAs), they attempt to fill the gap of tariff abolition using RoO. In reality, RoO is acting as a hindrance to free trade. This is pointed out as the biggest reason for the decrease in FTA utilization, but efforts to find a solution to this problem are not being extensively developed. Instead, countries around the world, aware of their own industries and sectors, are adopting RoO strictly when signing FTAs, causing excessive cost effects and making FTA utilization difficult due to the complicated procedures (Cho Seong Jang & Cho Chan Hyouk, 2016). Especially with regards to the spread of bilateral FTAs, the most concerning issues that have been raised are the strictness of RoO and the relative discrimination caused by overlapping and differing RoO.

Originally, RoO can be considered as an essential institutional measure of FTAs. However, in recent years, it has been used as a powerful trade policy tool to expand intra-regional trade and protect industries, resulting in FTAs and RoO becoming even more strict and complex, with regulations being determined on a product-by-product and country-by-country basis. In particular, in a situation where countries and regions prefer trade liberalization through overlapping bilateral FTAs rather than multilateral free trade, as is the case now, FTA RoO will show an even more complex aspect worldwide, and the strictness and relative discrimination of RoO can distort trade and investment flows, and have a high potential to cause various negative issues that could hinder long-term global trade liberalization. Therefore, overcoming these problems of FTAs and RoO and establishing institutional measures that can complement the multilateral global trade system is an extremely important task (Cheong Sun Tae, 2012). FTAs pursue the interests of only the two contracting countries, which have an exclusive relationship. To this end, practical requirements such as granting preferential tariffs to goods that meet the origin criteria in the agreement text, and procedural requirements such as proving that the goods are of origin through certification exist (Han Sang Hyun, 2016). This study holds significant importance as the utilization of FTAs becomes increasingly complex and demanding, understanding the internal capabilities of firms is crucial. By identifying and analyzing the internal capacity factors that contribute to firms' successful FTA utilization, this study provides valuable insights into how companies can navigate the intricate requirements and maximize the benefits offered by FTAs.

2. Literature Review and Hypothesis Development

2.1. Literature Review on the Factors Influencing FTA Utilization

The internal factors that affect the use of FTAs include whether a company's resource base provides the competency required in the FTA environment. The resource-based approach treats a company's tangible and intangible assets, including company capital, capabilities, management attitudes, information, knowledge, and management commitment, as resources and proposes that companies with these assets have a competitive advantage. Carmeli and Tishler (2004) divided internal factors into three categories: resources, capabilities, and competencies.

There is also a view that considers entrepreneurial competency as a company resource. Baum (1994) examined the relationship between managerial competency characteristics and performance and found that the competency characteristics of chief executive officers (CEO) have a positive effect on company performance, which may include indirect influences through strategy and organizational structure, in addition to direct influences.

According to Baum (1994), managerial competency is divided into two categories: general and special. This model suggests that general competency is the ability to operate an entire company, while special competency is the manager's expertise of and ability in managing the technology required to compete in a particular industry.

Zou and Stan (1998) challenged the view that a company's management performance is primarily determined by its external environment, arguing that controllable resources and competencies such as capital, management attitude, information, knowledge, export experience, and management commitment are important factors.

Dhanaraji and Beamish (2003) suggest three main types of resources: organizational, entre-

preneurial, and technical. Typically, organizational resources can be expressed in terms of a company's size, and mainly refer to the company's financial and physical resources. Entrepreneurial resources are related to the degree of risk burden and the driving force of the management class responsible for company growth. Technical resources refer to the tangible and intangible resources of a company.

Morgan et al. (2004) reviewed existing research and found a distinction between company resources and competencies. The exporting company can be classified into four categories of empirical resources: scale, financial, and physical. Competencies were classified into three capability categories: information, relationship, and product.

Taking a resource-based perspective, Barney and Hesterly (2006) divided resources into two categories: resources and competence. A resource refers to the tangible and intangible assets under an entity's control that are used to implement its strategies, such as plant facilities (tangible), products (tangible), and reputation (intangible). As a resource, competency refers to tangible and intangible assets that can be used to devise or implement a strategy by maximizing a company's resources.

A new business environment involving FTAs demands that companies develop new competencies and resources and make good use of them. In terms of FTA utilization, a company that possesses and uses the competencies and resources required for FTA use will achieve superior results compared with a company without these competencies and resources.

Based on an analysis of previous studies, the internal variables of the company are as follows: The first is FTA origin management competency. Previous studies have suggested that export performance in an FTA environment is influenced by a company's ability to utilize the country of origin, which includes an understanding of the regulations of the country of origin and the ability to determine the country of origin. Additionally, the main reasons why companies cannot utilize FTA preferential tariffs are lack of information on origin, lack of awareness of the FTA utilization process, and additional costs incurred for utilization. Therefore, this study analyzes the effect of origin management competency on FTA utilization and export performance.

The second is commitment to exporting. From a resource-based perspective, the CEO of a company is a company-specific resource, and the commitment of the management class is an important determinant of company strategy and management performance. Studies widely support the assertion that management commitment to exporting has a positive effect on company export performance. As FTAs only grant preferential tariff benefits to products originating in the contracting partner country, signatories of FTAs have relative price competitiveness compared with non-signatory countries, which increases exports. In other words, a key factor in the use of an FTA is the management's commitment to improving management performance through higher price competitiveness resulting from preferential tariffs under FTAs.

The third is information acquisition competency. Foreign markets involve high risks and competition with international companies, as well as uncertainty and information asymmetry compared with domestic markets; therefore, successful export activities require active collection and analysis of overseas market information. In an FTA environment, additional import and export knowledge and overseas market information are required, in addition to information on overseas markets. These include standard country-of-origin information for exports, information and knowledge regarding certification of origin and procedures, and a schedule of tariff eliminations on goods from the counterpart. A company's ability to obtain

FTA information was adopted as the research variable in this study because it may significantly affect the decision to begin, maintain, or expand exports through FTAs.

The fourth is trade contract management competency. Using the FTA involves additional expenses and costs, including administrative costs for issuing certificates of origin, production costs for obtaining intermediate input goods within the FTA-covered territory to meet the criteria for determining the country of origin, costs associated with the construction of computer systems to manage the country of origin, and costs associated with hiring staff. It is more advantageous for companies to procure goods from non-FTA member countries with tariffs for most favored countries if the administrative and production costs exceed the size of preferential tariffs. As a result, the FTA may not generate the expected economic results, such as increased exports. However, because trade costs, such as administrative costs, are an inevitable part of import and export transactions, the total costs may vary depending on the ability of a company to manage and control these costs between companies using the same goods and the same agreement.

Contracts for the international sale of goods occur before FTAs are used in commodity trade. Because this is an international transaction, the input cost varies according to the level of a company's capacity to conclude, execute, and manage contracts. Further, if the input costs are higher than the expected profit, FTA usage will inevitably decrease, affecting company performance. Accordingly, this study aims to establish whether trade contract management competency significantly affects FTA utilization and performance.

This study distinguishes itself from previous studies in several ways. Firstly, it specifically focuses on the internal capacity factors of firms in relation to FTA utilization. While previous research has examined the impact of FTAs on trade and investment flows, this study delves deeper into the internal capabilities of firms and their role in effectively utilizing FTAs. Secondly, this study aims to provide empirical evidence by analyzing the actual effects of internal capacity factors on firms' FTA utilization and export performance. By conducting an empirical analysis, it goes beyond theoretical discussions and provides concrete insights into the relationship between internal capacity factors and FTA outcomes.

2.1.1. Relationship between Origin Management Competency and FTA Utilization

In an FTA environment, certificates of origin are required to improve price competitiveness and expand exports. The use of FTAs is strongly influenced by a company's FTA-origin management competency, which can be considered an internal resource of the organization. According to Nam Poong-woo and Choi Jun-ho (2007), since the Korea-ASEAN FTA is complicated and strict in determining the country of origin, certification of origin, and confirmation of origin for each item subject to tax rates, it is possible that damages may result from unfamiliar parts; thus, they argue for the need to develop customs agents who specialize in FTAs and origins. Kim Mu-han (2010) asserts that Korean SMEs underutilize FTAs because of a lack of information about FTA status and methods, as well as the complexity of origin regulations. Moreover, he suggests that companies should increase their level of origin certification and origin management to ensure their survival and competitive advantage.

Kawai and Wignaraja (2009) highlight the need to recognize the cost burden associated with complex return on objectives (RoO) as the export area becomes more diverse when the company grows. They also stress upon the importance of securing experts and information systems to develop origin management competency that can generate practical results.

This competency can be applied to practical results by securing experts and information systems. From a resource-based perspective, Na Do-sung and Yoon Young-ho (2011) view a company's ability to utilize the country of origin as a type of company resource or competency and argue that securing the capacity to use the country of origin is an important factor in determining export performance for companies that allows them to increase price competitiveness and expand through tariff-free market access.

Hence, there is a close relationship between origin management competencies, such as understanding country-of-origin criteria and certification methods for FTA preferential tariff benefits, and the use of FTAs. As a result, the following hypothesis was established:

H1: Origin management competency has a positive effect on the use of FTAs.

2.1.2. Relationship between Commitment to Exporting and FTA Utilization

Daily, Certo, and Dalton (2000) view the CEO of a company as a company-specific resource from a resource-based perspective (218), and Deligonul and Cavusgil (1997) and Zou and Stan (1998) identify management commitment as an important determinant of company strategy and management performance. Studies widely support that management's commitment to exporting has a positive impact on company export performance. The willingness of top management to allocate more company resources to export-related departments is an important prerequisite for successful export activities. Navarro et al. (2010) argue that export commitment consists of current export commitment and anticipated export commitment. Therefore, current export commitment is defined as the financial, managerial, and human resources currently invested by companies in overseas trade operations to achieve export goals, whereas export commitment refers to the willingness of management to invest in future export activities financially, managerially, and humanly.

Navarro et al. (2010) suggest that export commitment is key to effectively implementing resource-based strategies. They argue that a company's export resources, including empirical resources (export experience), special export capabilities, and export market orientation, strengthen the company's export commitment, which, in turn, helps it dominate overseas markets. Na Do-sung and Yoon Young-ho (2011) argue that the willingness and initiative of management are important factors in improving the export performance of small and medium-sized businesses within the FTA environment.

An FTA is a trade norm that grants preferential tariffs on products of origin; preferential tariff treatment is not automatically granted but rather based on a country's proven origin. In light of this, management commitment to exports is required to improve export performance. Management commitment to exports means taking an active role in export activities, such as setting up an export-first management plan and allocating sufficient resources for export activities. Management commitment to exporting via an FTA is defined as interest and willingness to expand exports and explore new markets by taking advantage of the fact that signatories to an FTA have a competitive advantage in the import and export markets with relatively lower prices than non-signatories. Based on the resource-based perspective—a theory that explains management performance among companies—management's export commitment is considered a company asset (Daily, Certo and Dalton, 2000); it is a major determinant of company strategy and management performance (Zou and Stan, 1998). Studies find that management commitment to exports positively impacts export perfor-

mance. Successful export activities require top management to allocate more company resources to export-related departments. According to Styles and Ambler (2000), one of the reasons companies fail in export activities is the lack of management initiatives. That is, a lack of management initiative can adversely affect a company's export performance.

As discussed above, management's attitude and behavior toward improving export performance by responding actively to the FTA environment has a positive impact on the use of FTAs. Therefore, the following hypothesis is proposed:

H2: Management commitment to exports has a positive impact on the use of FTAs.

2.1.3. Relationship between Information Acquisition Competency and FTA Utilization

Because international trade transactions are conducted between parties in remote places, language, culture, and custom differences create problems of uncertainty and asymmetry in trade transactions. As most parties in a transaction lack sufficient information on the overseas market and export knowledge for decision-making, they cannot derive export performance. Consequently, exports are difficult or often abandoned, and it has been argued that these factors influence decisions to initiate, maintain, and expand export activities (Zou and Stan, 1998).

A survey (2008) conducted by the Korea International Trade Association of small and medium-sized businesses regarding the acquisition of FTA-related information revealed that 37.3% of those companies were unable to utilize FTAs because they did not have information about the FTA origin. Further, in a survey of Korean companies and overseas buyers conducted jointly by the Korea Trade-Investment Promotion Agency and Korea International Trade Association (2008), 43.1% of the companies cited a lack of information on FTAs as a reason for not utilizing them.

According to Morgon, Kaleka, and Katsikeas (2004), a company's export competencies can be defined by its information, relationships, and product competencies. Information competency refers to the ability to gather, process, and utilize information about customers, competitors, and distribution markets. Kaleka (2002) argues that company competitiveness comes from export knowledge or overseas information acquisition competencies. Thus, when a company lacks information acquisition competency in an export market, it is difficult for companies to make decisions about new market entry and discovery strategies. Yeoh (2005) suggests that acquiring information is the process of bringing in information about the external environment into an organization, and with this information, companies can take advantage of opportunities in overseas markets, thereby improving their management performance by developing appropriate strategies.

The above research findings suggest that it is essential for companies to obtain information and knowledge related to the FTA environment, in addition to standard overseas market information and export knowledge, to receive preferential tariff benefits, such as tariff elimination schedules of other FTA counterparts and RoO. In light of this, the following hypothesis was developed:

H3: Information acquisition competency has a positive effect on the use of FTAs.

2.1.4. Relationship between Trade Contract Management Competency and FTA Utilization

The internal capacity to manage international sales of goods and contracts can be examined in connection with research on the costs of using FTAs. This is because a company's internal capacity to sign and manage contracts for international sales of goods can affect the cost of using FTAs differently. It should be noted that the effects on utilization and performance may depend on the cost of FTA utilization. Several studies have demonstrated that utilization costs have a positive effect on FTA utilization and performance.

As mentioned earlier, the capacity to manage trade agreements can be measured as FTA management capacity. In relation to this, there is research indicating that the better the FTA management capacity of small and medium-sized enterprises (SMEs), the more positive impact it has on their export performance (Lim Jae wook and Kang Yu Jeong, 2017).

Melitz (2003) identifies FTA utilization cost as a type of fixed cost in that it occurs regardless of the company's production and analyzed the relationship between FTA utilization and FTA cost. According to Melitz (2003), firms with higher productivity tend to pay fixed costs readily, such as FTA utilization costs, whereas SMEs with lower productivity and output tend to negotiate lower costs.

Isono (2008) notes that Japanese companies are not making good use of FTAs because of their lack of knowledge of FTAs; particularly, the incidental administrative costs associated with a lack of information on FTAs and complex and difficult RoO hinder the use of FTAs.

Kawai and Wignaraja (2009b) find that the low utilization rate of FTAs in major Asian countries was due to factors such as lack of information, additional costs from FTA use, low preferential tariffs, and concerns over company secrets. Further, Korea's lack of information about FTAs is one of the main obstacles to their use; however, insufficient information and additional costs resulting from FTA utilization were identified as major FTA obstacles for Asian countries overall.

According to research results that classify FTA utilization costs into production and administrative costs, production costs refer to the input costs in the process to meet the RoO of the agreement. Administrative costs refer to the costs incurred from procedures to meet the RoO.

Koskinen (1983) shows that the administrative cost of obtaining a certificate of origin by Finnish companies accounted for 1.4–5.7% of export transactions. Holmes and Shephard (1983) find that when exporting from EFTA, 36 different types of documents were needed, and there were 360 pages on average. Krueger (1999) cite a case where Canadian companies exporting to the United States as part of the US–Canada FTA gave up tariff benefits applicable to local products because of excessive administrative costs.

A company's trade costs related to FTAs may include transaction, policy, contract execution, and facilitation costs. However, in this study, competency related to contract execution costs, which are the costs associated with implementing and managing signed contracts, and the facilitation costs associated with legal and regulatory systems, has been classified as competency for managing international sales contracts. The following hypothesis can be formulated based on the fact that a company's internal capabilities affect the use of FTAs.

H4: Trade contract management competency has a positive effect on FTA use.

2.2. Relationship between FTA Utilization and Export Performance

Takahashi and Urata (2008) use variables such as “increasing sales” and “increasing sales but no profit” to measure the economic performance of companies that utilized the Japan–Mexico and Japan–Malaysia FTAs after their implementation. They show that 20% of the examined companies reported an increase in sales, while the rest had no change in sales or impact. The findings appear to suggest that FTAs had a positive impact on a company’s business, but the study noted that it was too early to draw any firm conclusions. Japan’s FTAs were the focus of the study, and such findings were due to Japan’s domestically oriented industrial structure and the fact that Japan’s FTA execution at the time of the study was incomplete. Generally, when the utilization rate of FTA exports increases, the price of domestic products that are subject to exports decreases for the counterparty, increasing price competitiveness in the counterparty’s market and resulting in an increase in domestic export sales and management efficiency. In other words, FTAs can affect exports, both directly and indirectly.

Katsikeas, Leonidou, and Morgan (2000) aim to determine a scale that can measure export performance in three categories: economic measurement, non-economic measurement, and general measurement. A total of 23 economic measurement methods were used, and the remaining five were related to export satisfaction compared with competitors or satisfaction with exports. The measurement method has advantages and disadvantages. For example, economic measurements are associated with respondents’ reluctance to provide detailed information on a company’s sales or profits, whereas non-economic measurements are qualitative rather than quantitative. The findings of this study indicate that using two or more measurement methods was effective in achieving the research goal. That is, when measuring export performance, it is deemed desirable to not rely on only one method, but to measure complementarily from various angles using two or more methods.

FTA utilization generates practical impacts for the entities that use it, suggesting that FTA performance is affected by utilization rate. With an increase in FTA utilization, price competitiveness in other countries can be improved owing to the benefits of FTA preferential tariffs, leading to increased export sales and profitability for FTA preferential items.

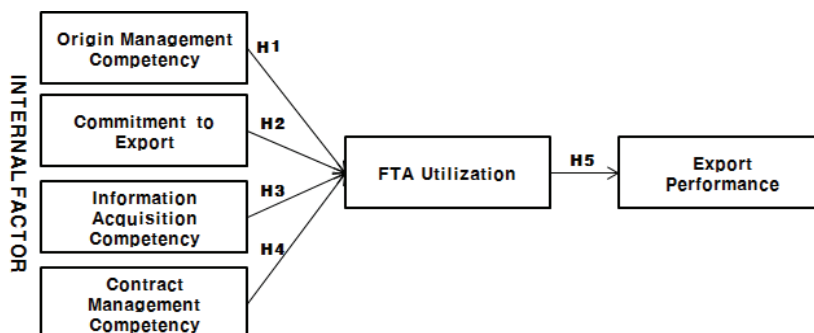
Korean government agencies and research institutes have conducted theoretical studies to estimate the economic impacts of FTAs. Several studies have concluded that the conclusion and implementation of FTAs can lead to economic benefits and performance improvements, such as export growth, import line conversions, and improved market access.

Based on the analysis of existing studies, this study developed the following hypothesis to investigate the impact of FTAs on the export performance of the sampled companies.

H5: The use of FTAs has a positive impact on companies’ export performance.

A research model based on previous studies and the hypotheses discussed above is presented in Fig. 1.

Fig. 1. Research Model



3. Methodology

3.1. Sampling

In this study, preliminary surveys were conducted before the main survey. Approximately 35 copies of the preliminary questionnaires were collected to revise the measurement items, and the main questionnaire was completed after modification of some measurement-related passages. Businesses engaged in trade and exports that used FTAs were sampled from university business incubators throughout the nation. The survey was conducted between November 1 and 30, 2022. Before the survey, respondents were provided with an explanation of the study so that they could understand the major concepts. A total of 312 valid surveys were selected for the empirical analysis, and the basic characteristics of the study sample are summarized in Table 1.

Table 1. Demographic characteristics of sample

	Item	Frequency	%		Item	Frequency	%
Age of Company	Below 1	43	13.8%	Employee	Below 5	26	8.3%
	1~5	125	40.1%		5~10	90	28.8%
	5~10	99	31.7%		10~20	122	39.1%
	Over10	45	14.4%		Over 20	71	23.7%
	Total	312	100%		Total	312	100%
Main Item	Food	54	17.3%	Target Market	China	78	25.0%
	Chemistry	53	17.0%		America	67	21.5%
	Textile	34	10.9%		EU	55	17.6%
	Electric	48	15.4%		Asia	46	14.7%
	Automobile	47	15.1%		M.East	26	8.3%
	Precision	54	17.3%		Africa	22	7.1%
	Others	22	7.1%		Other	18	5.8%
	Total	312	100%		Total	312	100%

3.2. Measurement Items

To measure the variable factors presented in the research model according to the appropriate concepts, the measurement items of each variable were determined based on existing studies, the results of which are displayed in Table 2.

Table 2. Measurement Items

Item	Measures
Origin management competency	Capability to determine country of origin (origin management system, origin determination manual) Level of understanding of the RoO Ability to respond to post-verification of country of origin
Commitment to exporting	Interest and willingness to explore overseas markets using FTAs Budget allocation for securing manpower and system construction using FTAs Providing incentives to personnel in charge of FTAs Willingness to export using FTAs
Information acquisition competency	The ability to obtain information related to FTA tariff reduction and abolition Ability to acquire information related to the counterparty's FTA country of origin Ability to acquire information on the competitive structure of FTA counterparty's markets
Trade contract management competency	An understanding of trade contract business Ability to respond to trade contract disputes Ability to bear costs of securing professional manpower for trade contracts
Utilization of FTAs	FTA utilization rate for export goods FTA utilization rate for imported goods
Export performance	Increasing profits through increased exports of companies Increasing profits through increasing company income The degree of increase in new trading opportunities due to the enhancement of price competitiveness Reduced costs with the use of FTAs (increasing profits)

4. Findings

4.1. Correlation between Variables

The results of the correlation analysis between the major concept variables are shown in Table 3. Generally, there was a high degree of correlation between the use of FTAs and independent variables. Trade contract management competency showed the highest correlation at .28**, followed by information acquisition competency at .27**.

Table 3. Correlation between Variables

Construct	①	②	③	④	⑤	⑥
①	.92					
②	.22**	.91				
③	.12*	.16*	.89			
④	.17*	.11	.27**	.88		
⑤	.15*	.21**	.10	.19**	.91	
⑥	.27**	.23**	.12	.28**	.21**	.90
Mean	3.02	2.88	3.25	3.23	3.39	3.43
Std	.73	.62	.63	.85	.75	.83

Note: 1. ** $p < .01$, * $p < .05$, diagonal values are the square root of AVE.

2. ①Origin management competency ②Commitment to export

③Information acquisition competency ④Trade contract management competency

⑤Utilization of FTAs ⑥ Export performance

4.2. Exploration Factor Analysis

In this study, an exploratory factor analysis was conducted to find out whether the abstract concept was appropriately reflected by the actual scale in order to reflect the abstract concept in the actual study. If the commonality value of the exploratory factor analysis was 0.5 or more, it was judged that there was no problem. The extraction value of this study was analyzed to be 0.5 or more and there was no problem, and it was reflected in the study.

Table 4 Exploration Factor Analysis

	KMO & Bartlett's Test		Bartlett's Tests Testsnalys	
	KMO	χ^2	df	p-value
Origin management competency	.867	1139.312	57	.000
Commitment to exporting	.901	1367.802	87	.000
Information acquisition competency	.899	989.217	65	.000
Trade contract management competency	.872	1121.583	84	.000
Utilization of FTAs	.921	659.583	37	.000
Export performance	.897	1256.051	57	.000

4.3. Reliability and Validity of Measurement Items

We conducted confirmatory factor analysis to examine the reliability and validity of the measurement items. As shown in the table below, the *t* value of the measurement items explaining each concept variable was 8.91 or higher ($p < .01$), indicating convergent validity. Given that construct reliability of .7 or above and an average variance extracted (AVE) of .5 or higher are considered reliable, it was determined that both constructed reliability and AVE were within a reasonable range in the study (Table 3). To measure discriminant validity, this study examined AVE as the number of correlations between square roots and variables. As illustrated in Table 3, the square root value of AVE was larger than the correlation coefficient between the adjacent horizontal and vertical axes, confirming that the discriminant validity of the measurement items used in this study posed no issues. Specifically, the maximum correlation square value was smaller than the minimum AVE value, indicating that the measurement items had fair discriminant validity.

Table. 5 Results of Confirmatory Factor Analysis

Construct	Item	Factor loading	Standard error	t-value	Cronbach's α	CR	AVE
Origin management competency	OM1	.842	-	-	.87	.85	.83
	OM2	.870	.06	18.75			
	OM3	.902	.05	18.58			
Commitment to exporting	CE1	.898	-	-	.86	.84	.81
	CE2	.947	.07	11.18			
	CE3	.886	.08	16.56			
	CE4	.897		15.51			
Information acquisition competency	IAC1	.891	-	-	.84	.89	.81
	IAC2	.888	.06	14.46			
	IAC3	.851	.05	17.37			
Trade contract management competency	TCM1	.894	-	-	.81	.88	.81
	TCM2	.941	.06	23.53			
	TCM3	.907	.05	22.17			
Utilization of FTAs	UT1	.881	-	-	.83	.83	.79
	UT2	.926	.03	11.77			
Export performance	EP1	.912	-	-	.82	.89	.75
	EP2	.926	.07	12.84			
	EP3	.927	.06	13.73			
	EP4	.894		11.65			

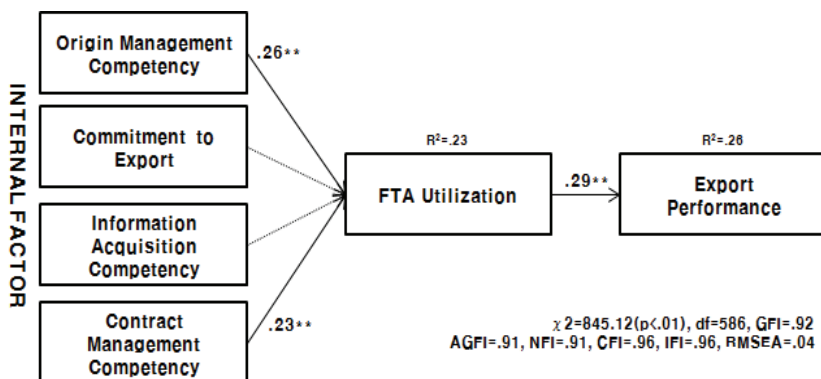
4.4. Results of Empirical Test

In this study, structural equation modeling (SEM) analysis was conducted to investigate the causal relationship between each variable using AMOS 21.0. Prior to SEM verification, this study analyzed the suitability of the model. The results were as follows: $\chi^2=845.12$ ($p < .01$), $df=586$, goodness of fit index=.92, adjusted goodness of fit index I=.91, normed fit index=.91, comparative fit index=.96, incremental fit index=.96, root mean square error of approximation=.04, etc. According to the results of the analysis, the structural model's goodness of

fit index value was not higher than the reference value; however, as the other indicators were generally fair, the model was considered suitable.

The hypothesis verification of independent variables that affect FTA use demonstrated the following results: $\gamma=.325$, $t=4.604$ ($P<0.05$) for origin management competency; $\gamma=.075$, $t=.317$ ($P<0.05$) for commitment to exporting; $\gamma=-.058$, $t=-.805$ ($P<0.05$) for information acquisition competency; and $\gamma=.323$, $t=3.737$ ($P<0.05$). The results are shown in Figure 2. First, among the internal factors influencing FTA utilization, origin management capability and trade contract management capability showed high influence at $.26^{**}$ ($P<.01$) and $.23^{**}$ ($P<.01$), respectively. In other words, the hypotheses between origin management capability and FTA utilization and between trade contract management capability and FTA utilization were all accepted. On the other hand, among the internal factors that affect FTA, it was analyzed that immersion in farming and information acquisition capability did not have a statistically significant effect, and the related hypothesis was rejected. In addition, it was analyzed that there was a high correlation between FTA utilization and company export performance at $.29^{**}$ ($P<.01$), and Hypothesis 5 was adopted. Through the above analysis results, in this study, it was analyzed that the origin management competency among the company's internal capabilities has the greatest effect on FTA utilization and export performance, which indicates that investment in relevant training for company representatives and those in charge of origin management is very necessary. I was able to draw implications.

Fig. 2. SEM Result



5. Conclusion and Implications

As of June 2022, Korea has signed FTAs with 73 countries, including the United States, China, and members of the European Union, gradually expanding its free trade. Various perspectives and research findings on the economic effects of FTAs have been presented, such as those of research institutes. In these studies, FTAs have generally been expected to result in considerable economic impacts on the nation, industries, and individual companies. However, relatively little research has been conducted on FTA utilization methods, necessary procedures, and regulations. FTAs must be understood as evolutions of existing trade

paradigms; however, no research has been conducted that links them with the existing trade order.

In an FTA, RoO are presented as general principles owing to their nature, so the parties must interpret the regulations on their own and devise specific measures to implement the agreement. Hence, RoO, which were introduced to prevent the bypass of income, can be used at any time as a policy tool. Generally, advanced countries prefer generous interpretations to protect trading parties' rights. Conversely, since developing countries apply the agreed tax rate based on procedural requirements, the FTA utilization rate for goods exported to developing countries is inevitably low. Nevertheless, advanced countries also strictly verify the origin of strategic industries, so attention must be paid in this area. Furthermore, while the number of FTAs in each country is steadily increasing, protectionism is also increasing. This means that companies face more risk factors owing to complex procedures and different regulations. It is very concerning, however, that even companies using agreed tariffs in Korea are still unaware of RoO and lack preparation for post-verification (e.g., not setting up an origin management system), which can potentially cause considerable harm.

Essentially, a clear understanding of practical requirements and formal procedures is required for the application of FTA tariffs. In addition, because FTA tariffs are privileges and origin verification can occur after commercial transactions, exporters and importers must be prepared for all scenarios.

Accordingly, this study analyzed the internal factors of companies that affect the use of FTAs (origin management competency, information acquisition competency, trade contract management competency, and commitment to exporting). We showed that, through the management and response of internal factors, the use of FTAs by companies improved their export performance. We also examined companies' perceptions.

The results of the empirical analysis of this study can be summarized as follows: First, origin management competency and trade contract management competency, selected as variables of internal factors of the company, influence the use of FTAs. Second, information acquisition competency and commitment to exporting, also selected as variables of internal factors of companies, do not have a significant influence on the use of FTAs. The reason why information acquisition capability and export commitment do not have a significant impact on FTA utilization is believed to be due to the acquisition of inaccurate information. In order for companies to utilize FTAs, they need to possess accurate and up-to-date information about the regulations and requirements of the respective FTAs. However, if their information acquisition capability is insufficient or they acquire inappropriate information, companies may not be able to fully leverage the benefits of FTAs. Third, the impact of FTA use on company export performance was found to be significant.

The theoretical implications that can be derived from this study are as follows. First, previous studies on the export performance of firms from a resource-based perspective have focused on the direct impact of firm resources on export performance, and there is a lack of research on the determinants of the export performance of small and venture firms through FTAs. Therefore, this study provides a basic framework for research aimed at improving export performance through FTAs that Korea has already concluded or will conclude in the future. Second, FTA is a great opportunity for companies to expand into a huge market beyond the fiercely competitive domestic market. Therefore, this study presents a theoretical basis for the positive effects of FTA on export performance through appropriate and practical government support, including enhancing the internal resource capacity of companies,

including strengthening the capabilities of top management. The practical implications suggested by the results of this study are as follows. First, in order for companies to receive preferential tariff treatment under FTA, it is essential to have knowledge of origin certification-related tasks. Although there are differences in the origin certification requirements for each agreement, the basic principles are generally the same, so the knowledge and information of origin-related tasks with certain countries can be useful in utilizing FTAs with other countries. Second, to overcome the limits of tangible resources, export companies should continue to make innovative efforts to possess differentiated technological capabilities and enhance their intangible resource capabilities, such as product differentiation, low-cost capabilities, overseas marketing capabilities, and overseas market information acquisition capabilities, which will improve their ability to utilize external environmental changes such as FTAs, resulting in positive effects on export performance.

A limitation of this study is that some hypotheses produced different results from those of previous studies. This may be because the study focused on exporter companies that are already highly knowledgeable about trade, and their ability to utilize FTAs has improved as FTAs have become more prevalent. In other words, with the use of FTAs, companies are adjusting and developing capabilities for utilizing FTAs. This limits the generalizability of the findings of this study, and it is necessary to examine similar companies that have only recently began using FTAs for exports. By doing so, it will be possible to determine the problems associated with FTAs, as they apply to Korean regions and industries, and create measures that make FTAs more effective. The results can be used to support companies aiming to expand exports with the entry of new trade agreements and FTAs.

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