

# A Case Study on Reengineering the Trade Flow for the Cross-strait Tax Plans of Taiwanese Companies

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## Abstract

New regionalism is sweeping the world making regional trade integration an irreversible global trend that countries like Taiwan must meet head on. A significant problem for Taiwan is that its competitors, such as Japan, South Korea, and ASEAN countries, enjoy a host of tariff preferences. All the above poses a very real threat of trade diversion and thus unfavorable economic outcomes for Taiwan. By using a case study, this article investigates how Taiwanese firms can develop new tax strategies through Chinese suppliers' VAT (Value Added Tax) refunds by introducing business process reengineering (BPR), which will reintegrate current cross-strait trade routes and efficiently integrate Taiwanese corporations with the commercial flow and logistics of mainland-based trade. The main research objectives are 1. Explore the current situation for trade routes and logistics distribution of an individual company that does procurement on the mainland. 2. Under the influence of ECFA (Economic Cooperation Framework Agreement), analyze how Taiwanese companies can effectively integrate commercial flow and logistics. The result of this study shows that reengineering the trade flow with a trade procurement platform allow case company significantly lower procurement-related costs, compared to direct trading, a 13.9% costs reduction for import prices makes the advantage quite clear. The main contribution of this study is helping trade managers to reintegrate a company's internal trade process(es) and build a trade procurement platform that complies with current trade policy restrictions to reduce business operations-related costs, and raise the competitiveness of a product's price.

**Keywords:** Business process reengineering (BPR), tax planning, Value added tax (VAT) refund, procurement

## 1. Introduction

In 1985, the People's Republic of China started implementing policies that involved value-added tax(VAT) and export tax rebates. After nearly 20 years of reforms, sales tax will be replaced by value-added tax by 2016. Value-added tax has a significant influence on a corporation's accounting items. Many *Taishang*(overseas Taiwanese businessmen)do not develop appropriate tax plans, and it results in tax burden-related losses, or tax plans in conflict with laws or regulations. In the past, the export capabilities of many mainland Chinese companies were unclear, and so most Taiwanese corporations would carry out trade by procurement and/or have foreign companies do transfer pricing. Recently, the OECD has promoted using Base Erosion and Profit Shifting (BEPS) action plans to re-inspect transfer pricing documents. The OECD recommends that national governments require multinational corporations to prepare core files, and it expects that corporations will be completely transparent with their tax plans, finances, and operations. Although mainland China is not an OECD member country, it is a partner and thus able to take part in BEPS action plans. Therefore, Taishang have been adapting to the possibility of mainland China making BEPS plans part of the law. Furthermore, anti-tax avoidance clauses found in Articles 43-3 and 43-4 of Taiwan's Income Tax Act have passed Finance Committee review, and legislation will be finalized once the Legislative Yuan's third reading is finished. These anti-tax avoidance clauses are aimed at overseas tax havens. With the new law, if a corporation's management office(s) is physically located in Taiwan, the Ministry of Finance sees that corporation as being a Taiwanese business and therefore must pay business income tax according to its actual revenue.

It is up to Taiwanese corporations to decide on how to adapt to regional integration. They can take advantage of mainland Chinese suppliers' VAT refunds and carry out business procurement process reengineering (BPPR), which will reintegrate current cross-strait trade routes as well as efficiently integrate Taishang with the

commercial flow and logistics of mainland-based trade. The above strategies will allow corporations to adapt to intense challenges and competition.

New regionalism is sweeping the world, making regional trade integration an irreversible global trend. Countries can choose whether to organize or join different types of regional trade agreements (RTAs), which include preferential trade agreements (PTAs), free trade agreements (FTAs), customs unions, common markets, and economic unions. A country can also establish preferential tariff environments or platforms for trade exchange with other nations. Taiwan is a small open economy with competitors that enjoy tariff preferences, and this poses the threat of trade diversion and thus unfavorable economic outcomes for Taiwan.

Taishang are facing a grim trade environment. However, under the current framework for the cross-strait ECFA (Economic Cooperation Framework Agreement), tariffs on the "early harvest" list are completely eliminated. Mainland China's value-added tax and export tax rebates can be part of cross-strait tax plans, and the close location of both sides is a big advantage for logistics. Therefore, reforming trade flow and improving the performance of business operations both need to be addressed immediately.

Business process reengineering (BPR) is a type of reform strategy that helps businesses adapt to the demands of the current era. The aim of BPR often focuses on process reform within a corporation. Trade environments are constantly changing, and in order to adapt to demands from external competition, Taishang business should take advantage of interior knowledge to search for external advantages. Using BPR procedures can strengthen integration with upstream and downstream suppliers for different parts of the process. Therefore, the following needs to be analyzed: how to take advantage of ECFA tariff preferences and mainland China's VAT refunds system, as well as how to carry out process reengineering that involves tax plans and integrating commercial flow and logistics.

This study focuses on inspecting and discussing in detail the commercial flow and logistics plans of an individual company. Processes will be redesigned and then assessments will be carried out in order to determine changes in business performance. Main study objectives are as follows: 1) Explore the current situation for trade routes and logistics distribution of an individual company that does procurement on the mainland. The advantages and disadvantages of its trade routes and logistics distribution will also be analyzed. 2) Under the influence of ECFA, analyze how Taiwanese companies can effectively use company resources to integrate commercial flow and logistics. Then, build a more convenient and efficient framework for a trade platform that will increase the performance of business operations. 3) Based on empirical results, the study will provide both feasible process reengineering solutions and related advice that will help raise the competitiveness of Taiwanese corporations, which are currently suffering from different types of trade restrictions in the Asia Pacific economic region.

## 2. Literature Review

Literature review has two sections. First, BPR as written in Hammer and Champy (1993) serves as this study's theoretical foundation. Second, some keys to success and important factors for BPR will be discussed, and they will serve as the theoretical basis for this study's benefit analysis. Hammer and Champy's (1993) definition of BPR is from basic concepts for business operations, and the writers reconsider and then completely redesign business processes in an effort to examine important performance factors, including cost, quality, service, and speed. This is part of an effort to help companies make large-scale improvements. According to Davenport and Short (1990), a business process is developed in order to achieve a company's specific goal(s). When a company reintegrates its own resources and then comprehensively redesigns a business process, the company should utilize information technology (IT) as the primary method, because IT allows a company to quickly and efficiently redesign a business process. Lee et al. (2006) found that IT use and BPR had a positive correlation. Champy (1995) points out that around 70% of BPR efforts are not able to meet the company's performance goals. Determining whether BPR is able to bring about real performance-related results is worthy of continuing to be researched and pondered in both academia and the business world. Holland and Kumar (1995) explain in detail that 60-80% of BPR efforts fall short of companies' expectations, and the writers express that managers must redesign their own core process(es) from their clients' point of view. The main spirit of BPR is to represent fundamental changes. Therefore, one must first thoroughly examine the structure of a company's business process(es). BPR can influence every section of a company's operations, and this amount of change can result in either a great success or utter failure. Yet, before they carry out BPR reform, companies should take note of a survey by Motwani et al. (1998) that indicates that 88% of companies are satisfied with the results BPR reform is supposed to bring about.

A successful BPR effort can significantly reduce costs. However, it is also possible that elements of a BPR effort will not be able to reach the lofty expectations of some goals. The most important factor if a BPR effort will be successful in the end is people; *how invested is the team? And are they professional enough?* When BPR is implemented, you need experts that possess a great variety of types of knowledge and skills. BPR involves many different areas within an organization; therefore earning the support of all the departments involved is very important. By getting selected employees to be involved, the group will get valuable suggestions, and an environment in which all the departments work together will be created (Covert, 1997). When a company is analyzing and determining whether to carry out process reengineering or not, a series of meetings should be held with everyone who will be involved in the process as well as stakeholders, and the meetings will discuss the reasons why there needs to be process reengineering planning. These discussions will help build consensus as well as develop an ideal organized system for the business process(es) and a process model. The meetings will also help with both diagnosing and discussing steps, procedures, or items that are not needed. Overall, the results of these meetings will be helpful in determining the group's goals for basic planning concerning the business process(es) (Al-Mashari & Zairi, 1999).

### 3. Approach

This study uses Hammer and Champy's (1993) BPR theory as well as case study methodology, and the commercial flow and logistics of the individual company serve as research objects. A theoretical model will be built and then used as an object to verify results for the study's sole company, which will be called R Company. By using this theoretical model to analyze and plan, the methodology can then be verified.

#### 3.1 Case Study-R Company

R Company is unique in that its roots have stayed in Taiwan and it also continues to be one of the few companies with an investment layout centered on Taiwan's traditional manufacturing industry. Manufacturing gas compressors, the company possesses advanced technology and produces high quality products. Many years ago, R Company set up a subsidiary company in mainland China. Due to regional trade integration, R Company now faces a serious threat from competition brought about by member countries reducing tariffs. In addition to expectations concerning technology and quality, clients place an even bigger emphasis on the company being able to offer more competitive prices for its products. R Company buys materials from mainland China that require higher levels of resource consumption. Furthermore, the technology used for the materials has low threshold. As a result, these materials account for 60% of total production costs.

In order to effectively integrate every aspect of supplier management, resource sharing and quality control are critical. The Taiwanese parent company and mainland subsidiary company both use the same suppliers. Sometimes, R company has its mainland subsidiary company first buy something and then sell that item to the Taiwanese parent company, which avoids potential transaction-related issues involving transfer pricing. An overseas company then processes the resale transaction. In the past, this overseas company model could actually earn R Company a small profit, but in today's competitive market only slim profit margins are up for grabs, making this activity often cause the parent company to suffer a financial loss. The company also must mull over how to deal with anti-tax avoidance clauses as well as the recent trend of BEPS action plans. The company needs to take ECFA into consideration as well, as the cross-strait agreement's early harvest list has eliminated many tariffs. The air compressor industry's components are found throughout the early harvest list. According to ECFA guidelines for trade regulations, foreign trade does not fall under "direct trade", and therefore does not meet the requirements for tariff preferences part of ECFA's early harvest list. When developing tax plans, companies should investigate and do planning work to see if carrying out trade process reengineering can meet the qualifications for VAT refunds of mainland suppliers. By utilizing ECFA tariff preferences and information management systems to reintegrate logistics, procedures for customs processing can be expedited and all relevant financial affairs can be managed effectively.

#### 3.2 The Seven Steps of Process Reengineering

Harbour's (1994) seven steps are often used in BPR models. The process order is as follows:

- 1). Make goals for process and define scope.
- 2). Observe and inspect process.
- 3). Collect process data and other relevant information.
- 4). Analyze process data.
- 5). Check to see if and how process can be improved.

- 6). Continue to improve process.
- 7). Implement process and observe the process's improvements.

### *3.3 Analysis for Comparing Process Differences before and after Carrying Out BPR*

Hronec (1993) made three performance assessment indices: quality index, time index, and cost index. Hammer and Champy's (1993) definition of BPR focuses on examining important performance factors so that it can help companies make large-scale improvements. This study uses logistics processes, ECFA processes, and customs processes, and the overall amount of processes that need to be carried out serves as the time and speed index. The production costs and expenditures table for all manufacturing processes serves as the cost index. There are also measures for supplementing the steps in which service quality is analyzed; for example, there are analysis steps for confirming process reengineering results and if some parts of the process lower quality or reliability.

## **4. Case Study**

### *4.1 Trade Route Types*

As cross-strait trade has become increasingly more frequent, different types of trade routes have emerged due to the demands of Taiwanese parent companies and the different types of mainland manufacturers. All this has also led to the rise of different types of trade processes.

Supplier A: This trade type is labeled as direct trade. The mainland supplier must be able to import and export goods, and possess the ability to carry out orders according to ECFA regulations. The advantage of this trade process for the Taiwanese company is that it can communicate much more directly with the supplier, which helps prevent problems where processing issues create differences in the ways both sides. The disadvantage is transaction currency and the frequency that goods are delivered often results in additional manufacturing and marketing costs.

Supplier B: This trade type is considered purchasing trade. When a supplier is not qualified to import or export or the supplier is unable to meet VAT invoicing requirements, exporting via trade purchasing is an option. This type of trade route meets neither the spirit of ECFA nor its regulations. This trade method is typically for non-profit organizations that are unable to give VAT invoices, such as collaboration efforts with mainland manufacturers and academics, government corporations, and suppliers that are unable to write VAT invoices. In purchasing trade, the financial figure for trade exporting determines purchasing cost.

Supplier C: This involves working with a trade agent in carrying out import/export trade. In this method the supplier is not qualified to import or export, there is an insufficient trade quota, and the supplier has no experience with ECFA. Therefore, a trade agent must be hired. If there are concerns about being unable to limit customs duties, the trade agency will accept an adjusted rate. The established rate for managing and marketing costs is usually determined by the value of the good(s). Therefore, a careful assessment must be made whenever a company is choosing between trade agencies. Trade agencies can carry out export tax rebates when they are processing work, but the actual rebate amount is distributed 90 days after the goods are exported and the way the rebate is distributed depends on what the supplier and import company agree upon.

Suppliers D & E: The planning strategies of these two trade routes are very similar, as both use a foreign company to do a connected transaction barrier. This tax-saving measure is legal, foreign investment needs capital, and the difference in exchange rates for foreign currency payments will be offset. The above type of method is typically part of financial plans, and usually it is suggested to use materials that enjoy lower Taiwanese import tariff rates, more stable prices, and/or are not on ECFA's early harvest list. Due to changes to the current tax system, using foreign companies is no longer an effective method for avoiding taxes. As a result, there is a decreasing amount of plans that use foreign companies for legal tax-saving purposes, as most plans today use foreign investment and offsetting exchange rates. However, the RMB Clearing Agreement recently took effect, which means when carrying out trade on the mainland companies no longer need to use the American dollar as the transaction currency, and this has significantly lowered remittance-related losses. As for the need to have foreign companies process orders, that is no longer a necessary measure.

After going through different eras and a constantly changing trade environment, R Company must constantly consider how to lower business management risks. Being able to effectively lower procurement costs of trade routes is important, and integrating cross-strait demand so that central procurement integration can be implemented is also critical. As a result, this study focuses on the advantages and disadvantages of current trade routes when it carries out assessments and improvements; integrates different types of resources in an advantageous way; implements logistics integration; and manages financial affairs, customs processes, and manufacturing demand. By using information management systems to integrate relevant information, a

comprehensive and reliable trade platform that features procurement information integration can be built. The trade platform will conform to current national policies, and by integrating the company's resources those resources can then be efficiently distributed. R Company's trade process(es) can essentially be separated into the following categories:

- 1) Procurement and Production Management System: plan orders, resource management, customs-related operations, ECFA-related operations, lower risk of data leakage during customs-related operations, central procurement integration for price negotiating, and delivery management.
- 2) Finance Management System: export tax rebate process management, control transaction figures, and transaction currency management.
- 3) Warehousing and Logistics Management System: carry out processes for consolidating materials before they are shipped, regulate packaging specifications, and integrate goods collection site for cargo-delivery purposes.

This study uses the spirit of BPR when it inspects and discusses the company's internal processes. Cross-strait trade route integration serves as this case study's goal and scope for the reengineering process, and it is expected that this will improve R Company's business management performance. R Company's Taiwanese parent company and mainland subsidiary company share the same procurement intermediaries. They also share the same five suppliers mentioned above, which have higher rates for procurement prices. Their current trade types are found in Figure 1.

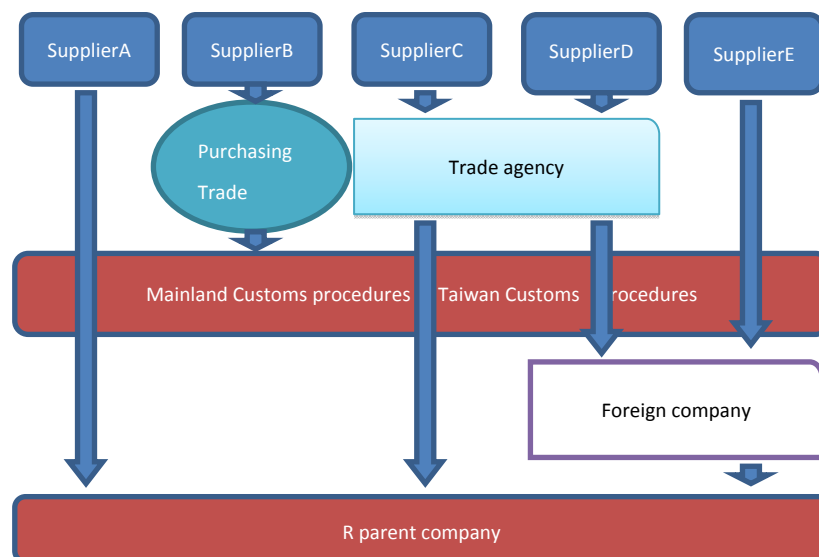


Figure 1. Trade route types of R

#### 4.2 Trade Procurement Process Reengineering

This study implies the seven steps proposed by Harbour (1994). The process's order is as follows:

Step 1: Make goals for process and define scope:

The goal of this phase is analyzing the process(es), as goals can be met by merging processes or improving the process's efficiency. This study's company chose to have the process's costs serve as the performance index. Furthermore, the procurement processes of R Company's parent company, subsidiary company, and five primary suppliers were integrated.

Step 2: Observe and inspect process:

This phase's purpose is to observe different parts of the process in action and then carry out a feasibility evaluation for potential improvements. During this part, companies must take a broad perspective when they make holistic observations.

Step 3: Collect process data:



This step involves organizing these five suppliers' procurement processes. The combined amount of times these suppliers carry out all the different processes serves as a basic measure for process improvement. The number of times the ordering process, logistics process, ECFA process, and customs process are implemented is the meaning of "combined amount of times".

(1) Ordering process: Production management employees should handle purchase requisition-related demand for manufacturing materials in sales orders. After a purchase requisition form is authorized and given final approval by the head of the production management department, the form will be transferred to the procurement manager in order to organize the materials that are in demand and confirm materials with procurement employees so that purchase requisition form tasks can be distributed. After procurement workers get confirmation from manufacturers concerning price, delivery time, and location, a purchase requisition form will be sent to the procurement manager to be authorized. The form will then be converted into a purchase order, which will be faxed or e-mailed to the manufacturer. In order to keep information on file for future reference, the manufacturer will be asked to fax the purchase order back. On average, R Company's parent and subsidiary companies place an order with Suppliers A-E once per month.

(2) Logistics process: Suppliers deliver goods according to delivery time and location. Using exporting materials as an example, the manufacturer needs to contact the shipping company to book cargo space in advance. If exterior package is wooden boxes, the boxes should be fumigated before loading. When goods are being delivered, an export invoice, export packing list, and bill of lading are required. There should be a minimum of one delivery per month and a maximum of eight deliveries per month (this is based on the ferry schedule). Delivery demand for each supplier should be taken into consideration. Therefore, every month be sure to calculate the number of times a process needs to be carried out. Afterwards, add up the total number of times that all the processes need to be carried out. Suppliers A and B deliver goods once per month, whereas Suppliers C, D, and E deliver goods once per week.

(3) ECFA process: After the supplier confirms the goods' shipping schedule and receives the bill of lading, it can then apply to a Taiwan foreign trade institution to have it issue a country of origin certificate. Afterwards, the supplier will designate a certified employee(s) to visit the issuing institution in order to sign and get the certificate. This employee(s) needs to scan the ECFA country of origin certificate and then e-mail the photocopy to procurement employees in order to process customs-related operations. The original ECFA country of origin certificate should be express mailed to R-TW procurement employees, who use the original certificate to get the refund for customs duty paid. The number of ECFA country of origin certificates produced by every supplier per month should be taken into consideration. Therefore, every month be sure to calculate the number of times a process needs to be carried out. Afterwards, add up the total number of times that all the processes need to be carried out.

(4) Customs-related process: (expediting processing that concerns the mainland China customs clearance process and the Taiwan customs clearance process).

Mainland customs process:

After suppliers declare to customs and complete documentation delivery, goods inspection, and pay taxes, a supplier can then ship the export products, which involves customs release. Suppliers need to apply for an import/export goods declaration form. After the export goods physically leave the country and they receive the export tally report, customs will need around five working days to process customs clearance for the export goods as well as issue export tax rebate declaration documentation. This documentation allows exporting suppliers to process export tax rebates. These rebates are for suppliers that have manufacturing processes in mainland China and concern the value-added tax of the goods they produce, which is given in refunds, exemptions, and deductions for taxes they paid.

Table 1. Total number of processes and frequencies for manufacturers' different processes

R Company's Process (monthly)	Supplier										Subtotal for Processes	
	A		B		C		D		E		CN	TW
	CN	TW	CN	TW	CN	TW	CN	TW	CN	TW		
Ordering Process	1	1	1	1	1	1	1	1	1	1	5	5
Logistics Process	1	1	1	1	4	4	4	4	4	4	14	14
ECFA Process	0	1	0	1	0	4	0	4	0	4	0	14
Customs Process	0	1	0	1	0	4	0	4	0	4	0	14
Payment Process	1	1	1	1	1	1	1	1	1	1	5	5
Total Number of Times:											24	52

Step 4: The total number of times processes were carried out is 142. The logistics process (39%), ECFA process (20%) and customs process (20%) were the most frequent processes (see Table 2). As a result, they became the case company's primary goals for implementing BPPR.

Table 2. Estimated costs for each process

Type of Process	Type of Operation	Before BPBR (monthly)			Percentage of Total of Processes (%)	Average Cost of Process (NTD)	Subtotal for		Total Costs for R Company (NTD)
		CN	TW	Total Processes			CN	TW	
Order Process	Placing an order	5	5	10	14%	2,000	10,000	10,000	20,000
	Order confirmation	5	5	10		1,000	5,000	5,000	10,000
	Order delivery H-CN	14	0	14		4,500	63,000	0	63,000
Logistics Process	Order delivery H-TW	0	14	14	39%	4,500	0	63,000	63,000
	Shipment H-TW	0	14	14		3,000	0	42,000	42,000
	TW goods pick up H-TW	0	14	14		3,000	0	42,000	42,000
ECFA Process	ECFA document production	0	14	14	20%	2,000	0	28,000	28,000
	ECFA document express mailing	0	14	14		500	0	7,000	7,000
Customs Process	Customs declaration H-CN	0	14	14	20%	450	0	6,300	6,300
	Customs declaration H-TW	0	14	14		5,000	0	70,000	70,000
Payment Process	Payment processing	5	5	10	7%	600	3,000	3,000	6,000
	(Payment) Collections processing	0	0	0		600	0	0	0
Total Number of Times:		29	127	142	100%	Total :	81,000	276,300	357,300

Step 5: Check to see if and how process can be improved: Since the goal of BPPR is to eliminate or reduce the amount of redundancy, the goal of this study is to improve the entire process, including the logistics process, ECFA process, and customs process. Furthermore, the goal involves redesigning the layout and process order to make the overall process more reasonable. This study's researchers suggest that R Company's parent and subsidiary companies establish a "procurement trading platform" that can integrate the logistics and customs processes in order to improve upon the current procurement process having areas where steps repeat themselves.

By integrating the remote end of the database, which involves carrying out information integration for the trade procurement platform, the ordering process of R Company's parent and subsidiary companies will go through an information management system with integrated data. All this will then be converted into internal purchasing requisition work. By having the trade procurement platform carry out procurement directly with the five main suppliers, when R Company's parent and subsidiary companies notify the procurement trading platform that they have demand, the process will be different from what it was like in the past. R Company's parent and subsidiary companies used to process purchase requisition applications, and then the procurement department would convert the applications into order forms, which would be sent to the supplier. Then, the supplier would confirm the order and complete the ordering process. The above change will cut out a lot of unnecessary steps.

Table 3. Benefit analysis

Type of Process Type of Operation		After BPBR				Before BPBR	Difference	Average Cost	Benefit
		H-CN	H-TW	platform	Total				
Logistics Process	Order delivery H-CN	12	0	0	12	14	-2	4500	-9000
	Order delivery H-TW	0	4	0	4	14	-10	4500	-45000
	Shipment H-TW	0	4	0	4	14	-10	3000	-30000
	TW goods pick up H-TW	0	4	0	4	14	-10	3000	-30000
ECFA Process	ECFA document production	0	0	4	4	14	-10	2000	-20000
	ECFA document express mailing	0	0	4	4	14	-10	500	-5000
Customs Process	Customs declaration H-CN	0	14	4	4	14	-10	450	-4500
	Customs declaration H-TW	0	14	4	4	14	-10	5000	-50000
Total		12	16	12	40	112	-72		-193500

Based on demand and shipping frequency between both sides of the strait, make adjustments to and a plan(s) for the logistics process, as well as integrate the monthly shipping demand for R Company's parent and subsidiary companies. Also be sure to reduce the frequency that manufacturers ship goods and do goods collection, as these actions will lower land-based transportation costs in Mainland China and Taiwan. As for the ECFA process, the procurement trading platform has integrated the original purchasing operations of Suppliers A and B. When Supplier C carries out export operations, suppliers no longer need to produce their own ECFA temporary country of origin certificate, and goods can be directly express mailed to R Company's Taiwanese parent company. As a result, the number of times the customs process is carried out will be reduced, the number of times for logistics-related shipping is reduced from 56 times to 24 times; the ECFA process is reduced from 28 times to 8 times; and the customs process is reduced from 28 times to 8 times (see Table 3). Because of R Company's parent company's overall plan, Supplier C carries out procurement, which reduces the amount of times the customs process is carried out. Expected benefits for reducing the process are 193,500 NTD per month, and costs should be 54% lower.

Step 6: Continue to improve process: By considering process improvements, one can learn about benefits related to reducing parts of the process. Adjustments to the process must continue to be made, and finer details must be discussed and confirmed so that the process's efficiency and reliability can be improved.

Step 7: Implement process and observe the process's improvements: This step involves actually implementing the process and installing improvements. The model needs to be tested and after confirming step-by-step to ensure reliability and that results are precise, a complete switch-over must be made. R Company not only needed an adjustment period, but during the process multiple meetings also resulted in an eventual consensus.

#### 4.3 Benefit Analysis

R Company's planning for the trade procurement platform focuses on the production costs and performance index's comprehensive benefit analysis, which can be separated into the following items:

- Benefits from Tariff Reductions and Exemptions: ECFA's temporary country of origin gives tariff preferences to goods on the early harvest list.
- Benefits of Export Tax Rebates: Because export tax rebates are returned as value-added tax for export companies located in mainland China, R Company's trade procurement platform is set up in mainland China.
- Benefits of Post-process Reengineering Implementation: Using the trade procurement platform to carry out the procurement process results in a reduction of production costs. The above aspect involves the ordering process, logistics process, application process for ECFA country of origin certificates, customs process, and financial affairs process. R Company's parent company and suppliers having their transaction processes combined resulted in a reduction of production costs.
- Explanation for Management Costs of Trade Procurement Platform: When the trade procurement platform is implementing all the processes, these processes, people and equipment are the same as the department and staff involved in the original process. Therefore, this does not result in additional management costs.

By integrating the above four factors, develop a simulated trade procurement platform and different trade types



with different prices, which are all found below.

Table 4. Import price differences for R Company's different procurement processes

Trade Type	Procurement Price with Tax(17%)	Management and Marketing Costs (3%)	Profit Retained by Foreign Company (5%)	Tariff Costs (3%/1%)	Mainland Export Tax Rebate (15%)	Taiwanese Import Tariff (3.4%)	Import Price and Cost	Notes
Trade Procurement Platform	100	100+3=103	-	103+1=104	104/1.15=90.43	-	90.43*	ECFA has cargo consolidation benefits
Direct Trade	100	-	-	100+3=103	-	-	103	ECFA
Purchasing Trade	100	100+3=103	-	103+3=106	-	106*1.034=109.6	109.6	Must pay price and fees
Trade Agent	100	100+3=103	-	103+3=106	106/1.15=92.17	92.17*1.034=95.3	95.3	Trade agent can carry out export tax rebate
Trade Agent Backward Shifting with Foreign Company	100	100+3=103	103+5=108	108+3=111	111/1.15=96.52	96.52*1.034=99.80	99.80	Trade agent can carry out export tax rebate
Foreign Company	100	-	100+5=105	105+3=108	-	108*1.034=111.67	111.67	

Overall, trade procurement platform planning allows for R Company's different processes to significantly lower costs. Being able to effectively use logistics to combine exports can lower the percentage that cross-strait customs costs will influence a good's price tag. By using methods involving trade agents and trade agent back shifting with foreign companies for export trade processes, R Company can choose a reliable trade agency to process mainland export tax rebates. The trade procurement platform model can allow R Company to significantly lower procurement-related costs when it carries out procurement on the mainland. Compared to direct trading, a 13.9% costs reduction for import prices makes the advantage quite clear.

## 5. Conclusion and Suggestions

A business should analyze the advantages and disadvantages of its own current trade routes. The planning process for trade procurement routes should utilize the concepts of minimizing costs and maximizing resource use so that costs can be reduced. This study's empirical model focuses on lowering the number of processes in order to reduce costs related to procurement prices. By adapting to changes in the tax rates of mainland China's export tax rebates, companies can reduce costs. Utilizing central procurement concepts can help companies raise their ability to effectively negotiate prices while carrying out procurement. Integrating procurement intermediaries makes companies able to effectively distribute production capacity among suppliers, helping suppliers be more proficient in delivering goods and allowing companies to better utilize their suppliers' production capacities. This study's researchers suggest that a company's BPR scope should start from the company itself and extend to the entire supply chain, as making suppliers' part of the process is useful for control-related purposes and the entire supply chain plays a crucial role in a company being able to earn profits. The most important part of business reform is removing boundaries between different processes, departments, and even companies. Also important is choosing the shortest route for a job, guaranteeing your quality of work, and ensuring that information will be delivered effectively. While carrying out a BPR effort, a company can actually learn about ways of thinking for new processes that work well with current times. The indirect benefit of this is that you can engage the creativity of employees and increase their involvement in the job at hand.

The main contribution of this research study is helping trade managers working for Taiwanese SMEs that frequently do work in mainland China. In today's diverse international trade environment, reintegrating a company's internal trade process(es), building a trade procurement platform that complies with current trade policy restrictions, reducing business operations-related costs, and raising the competitiveness of a product's price are all very important. The real-world example of BPR that this study provides can be used as a reference by managers, as these leaders are navigating their companies in an era where information is constantly changing.

Therefore, effectively carrying out information integration can increase the efficiency of a company's operations. Important concepts that this study provides as a reference for companies are as follows:

- The concept for combining shipments with logistics is about integrating the company's and supplier's transportation, distribution, and materials processing operations. Lowering a supplier's shipping frequency and transportation costs can serve as bargaining chips for price negotiating. This concept can also lower the frequency a company's warehousing management has to carry out materials processing.
- For export tax rebate-related work, there are methods that use mainland China's export tax rebate mechanisms that can lower the company's procurement costs.
- Combining the importing/exporting operations of multiple suppliers can reduce expenditures for customs-related costs.
- The spirit of business reform is that when implementing a process reengineering plan, the company's old department boundaries must be broken, as an effective process is one of the most important factors for implementation. After finishing the process plan there will be more control measures and the process's quality will improve. Furthermore, the most important element of BPR is continuing to inspect, discuss, and improve the process. Information technology and the trade environment will both constantly change with time. Therefore, a comprehensive reengineering system must be constantly changing and looking for new methods.
- This study believes that current trade restrictions make using foreign companies an unfavorable method in terms of price and production costs. In fact, this method can even result in financial losses. The registered country address of foreign companies is constantly being revealed, and the foreign trade process is no longer tax saving. Furthermore, currency hedging and transferring to foreign investment enjoy advantageous tools. By having mainland suppliers do foreign trade exporting, not only will some of the export tax rebate(s) go to the supplier, but the foreign profit will actually result in added costs for the importer. Also, for this method, tariff preferences are not available. Currently, loan interest rates are lower, meaning that loan-related costs are relatively low. There are comparatively fewer benefits with using currency hedging.

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