



Enhancing the Competitiveness of the Cutlery Sector of Pakistan

THE PAKISTAN BUSINESS COUNCIL (PBC)

THE ENGINEERING DEVELOPMENT BOARD (EDB)

PAKISTAN CUTLERY AND STAINLESS UTENSILS
MANUFACTURERS AND EXPORTERS ASSOCIATION
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Authors

Samir S. Amir
Team Leader

Shahan Arshad
Senior Analyst

Contribution of the following from the EDB is acknowledged

Mr. Almas Hyder
Chairman-EDB

Mr. Raza Abbas Shah
CEO-EDB

Ms. Raazia Shakir
GM-EDB

Engr. K.B. Ali
GM-EDB

Mr. Khurram Rafique
AM-EDB

Mr. Muhammad Hassan
Trainee Engineer-EDB

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For any queries or feedback regarding this report, please contact

samir@pbc.org.pk or shahan@pbc.org.pk

The Pakistan Business Council: An Overview

The Pakistan Business Council (PBC) is a business policy advocacy platform, established in 2005 by 14 (now 93) of Pakistan's largest private-sector businesses and conglomerates, including multinationals. PBC businesses cover nearly all sectors of the formal economy. It is a professionally-run organization headed by a full-time chief executive officer.

The PBC is a not-for-profit entity, registered under Section 42 of the Companies Ordinance 1984. Though it is not required under the law to do so, the PBC follows to the greatest extent possible, the Code of Corporate Governance as applicable to listed companies.

The PBC is a pan-industry advocacy group. It is not a trade body nor does it advocate for any specific business sector. Rather, its key advocacy thrust is on easing barriers to allow Pakistani businesses to compete in regional and global arenas. The PBC conducts research and holds conferences and seminars to facilitate the flow of relevant information to all stakeholders in order to help create an informed view on the major issues faced by Pakistan.

The PBC works closely with relevant government departments, ministries, regulators and institutions, as well as other stakeholders including professional bodies, to develop consensus on major issues which impact the conduct of business in and from Pakistan. The PBC has submitted key position papers and recommendations to the government on legislation and other government policies affecting businesses. It also serves on various taskforces and committees of the Government of Pakistan as well as those of the State Bank, the SECP and other regulators with the objective to provide policy assistance on new initiatives and reforms.

The PBC's Founding Objectives

- To provide for the formation and exchange of views on any question connected with the conduct of business in and from Pakistan.
- To conduct, organize, set up, administer and manage campaigns, surveys, focus groups, workshops, seminars and fieldwork for carrying out research and raising awareness in regard to matters affecting businesses in Pakistan.
- To acquire, collect, compile, analyze, publish and provide statistics, data analysis and other information relating to businesses of any kind, nature or description and on opportunities for such businesses within and outside Pakistan.
- To promote and facilitate the integration of businesses in Pakistan into the World economy and to encourage in the development and growth of Pakistani multinationals.
- To interact with governments in the economic development of Pakistan and to facilitate, foster and further the economic, social and human resource development of Pakistan.

THE ENGINEERING DEVELOPMENT BOARD

The Engineering Development Board (EDB) was established in 1995 with the primary objective to promote growth of Pakistan's engineering sector. The primary mandate assigned to the Board is policy formulation and putting in place a mechanism for implementing these policies. The objective being facilitating and encouraging the development & growth of Pakistan's Engineering Industry.

The EDB is organized under four operational groups: Tariff Group, Policy Development Group, Sector Development Group and Business Development Group. The key objective as stated above is to formulate and implement strategies for developing the engineering sub-sectors. This objective is planned to be achieved by integrating Pakistan's engineering sector into global supply chains by focusing on tariff rationalization, promoting indigenization, vendor development, giving international exposure to industry, handholding of industry, and creating a comprehensive databank of industry capabilities through benchmarking, trainings etc.

EDB provides policy advice and technical support to the Ministry of Industries and Production. It also engages with the Ministry of Finance / FBR on fiscal policy, the Ministry of Commerce / NTC for tariff rationalization, and with the Ministry of Science & Technology for standards, testing and quality.

EDB maintains an export directory of local engineering companies for dissemination of information relating to the capabilities of these companies. It also identifies local manufacturing capabilities in each sector and verifies manufacturing capabilities / facilities through field visits.

Regular sector studies are carried out by the EDB to identify sectoral needs for technological upgradation, especially for entering export markets.

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Abbreviations

B2B	Business to Business
B2C	Business to Consumer
CAGR	Compound Annual Growth Rate
CPFTA	China-Pakistan Free Trade Agreement
DLTL	Duty on Local Taxes and Levies
EDB	Engineering Development Board
EDF	Export Development Fund
EOU	Export Oriented Unit
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GSP	Generalized System of Preferences
IMT	International Modern Trade
ITKIB	Istanbul Textile and Apparel Exporters Association
LMT	Large Modern Trade
NPL	Non-performing Loans
PBC	Pakistan Business Council
PCSUMEA	Pakistan Cutlery and Stainless Utensils Manufacturers and Exporters Association
PKR	Pak Rupee
PSDF	Punjab Skills Development Fund
PSIC	Punjab Small Industries Corporation
SAFTA	South Asian Free Trade Area
SBP	State Bank of Pakistan
SDPT	Sialkot Dry Port Trust
SIMTEL	Sialkot Material Testing Laboratory
STPF	Strategic Trade Policy Framework
TDAP	Trade Development Authority of Pakistan
TEVTA	Technical Education & Vocational Training Authority
TIM	Turkish Exporters Assembly
TUSDEC	Technology Upgradation and Skills Development Company
USD	United States Dollar
WTO	World Trade Organization

1 Background

The Cutlery industry contributes about 0.18 percent to Pakistan's exports. With a population of 220 million and 32 million households, Pakistan is a large domestic market for cutlery items as well as having the potential to become an important player in global markets by leveraging its domestic market. It is the view of the industry's major players that the industry will be able to achieve its full potential if it is provided with a policy framework which allows it to compete on a level-playing field with its global competitors – in other words a policy framework that supports the industry in enhancing its competitiveness.

To help improve the competitiveness of various sub-sectors of the engineering industry – including the Cutlery sector, the Pakistan Business Council (PBC) and the Engineering Development Board (EDB) have signed an MOU to jointly carry out sector competitiveness studies. This study on Pakistan's Cutlery sector is the third joint study carried out by the two organizations.

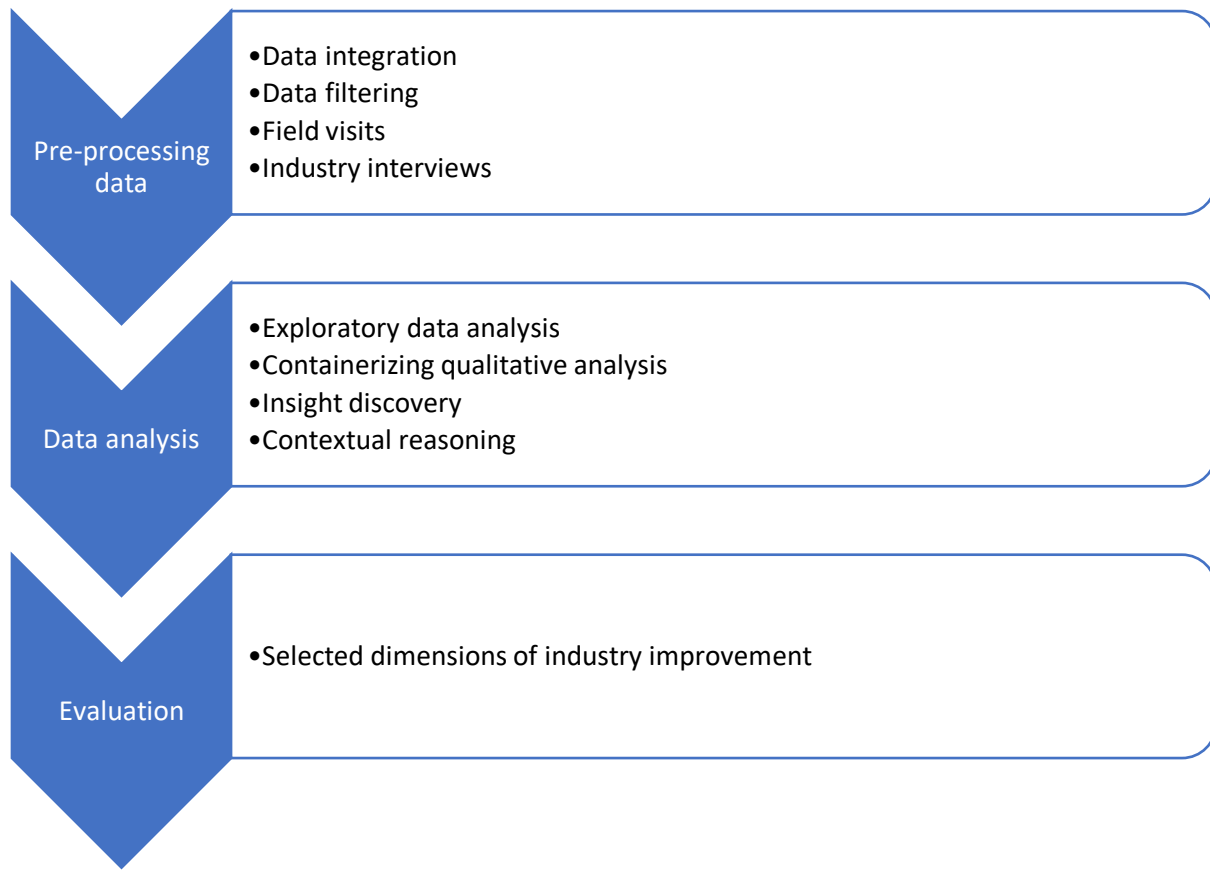
2 Study Objective

As per the terms of the PBC-EDB MOU, the objective of this study is to establish a general framework to facilitate cooperation between all stakeholders to promote further development of the Cutlery Sector of Pakistan. To accomplish this objective, this Study proposes – in consultation with industry players, and a detailed review of literature a set of policy recommendations aimed at making Pakistan a competitive hub for the manufacture & export of Cutlery.

3 Methodology

A joint team from the PBC and the EDB conducted a series of field interviews of major players in the Wazirabad cluster to obtain first-hand knowledge about the current state of Pakistan's Cutlery sector. Exporters were encouraged to share their views on global trends and emerging competitors. The fieldwork was supplemented with desk research to better understand the strategies being followed by other countries for promoting their cutlery industries.

The broad process followed in conducting this sector competitiveness study consisted of the collection of secondary data from the Pakistan Bureau of Statistics (PBS), the International Trade Centre (ITC), a detailed review of previous studies conducted on the sector along with physical interviews of major stakeholders in the sector.



4 Executive Summary

Pakistan's cutlery sector is a fragmented cottage industry that mostly manufactures hunting knives and tableware such as spoons and forks, with a few manufacturers making cooking ware utensils such as pots and pans in Wazirabad and Gujranwala. Cutlery products consist of 1) tableware such as spoons, forks, knives etc. 2) handcrafted hunting knives 3) utensils such as pots and pans. The Cutlery sector is classified under two HS codes. Tableware such as spoons, forks, knives etc. and hunting knives are classified under *HS-82xx Tools, implements, cutlery, spoons and forks, of base metal* while utensils are classified under *HS-7323 kitchenware of iron or steel* and *HS-7615 kitchenware of aluminum*. In Pakistan, tableware is mostly sold through Large Modern Trade (LMT) and International Modern Trade (IMT) stores such as Imitiaz, Hyperstar, Metro etc. Other channels, such as *kiryana* stores and small neighborhood shops called traditional markets (*riwayati* markets) by the manufacturers, are also part of the cutlery supply chain. Hunting knives made from Damascus steel are mainly exported. An increasing number of custom-made hunting knives are also being sold via online e-commerce channels such as Amazon and Alibaba. Large manufacturers of cooking utensils who also export, have their own offices in foreign countries and sell via their own offices. They also have local presence in LMT/IMT and traditional (*riwayati*) markets.

Export trend of Cutlery Groups

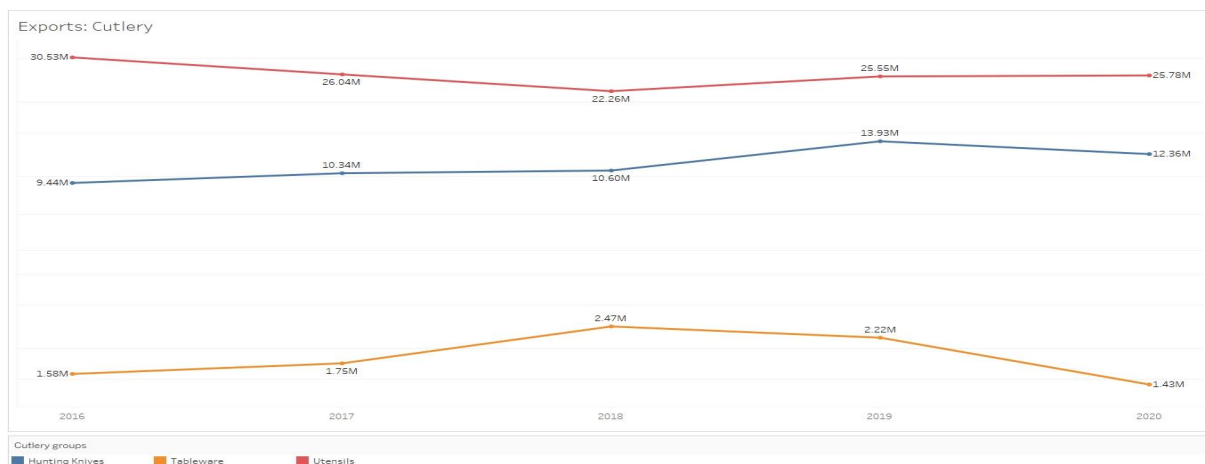


Figure 1 Pakistan's Cutlery Exports by Group

Pakistan is one of the lowest ranked cutlery exporters in the world at 36th rank with exports of USD 40 Mn and a CAGR of -1.2 percent between 2016 and 2020. Tableware exports have been declining since 2019 as spoon and fork manufacturers have shifted their preferences towards local markets. Exports of both Hunting knives and utensils have not witnessed much growth during the 2016-2020 period with the hunting knives group exporting between USD 9 Mn and USD 12 Mn annually. In this period utensils exports declined from USD 30.5 Mn in 2016 to USD 25.8 Mn in 2020. The export stagnation is possibly due to currency depreciation leading to higher raw material prices and Pakistan's inability to compete with China's economies of scale.

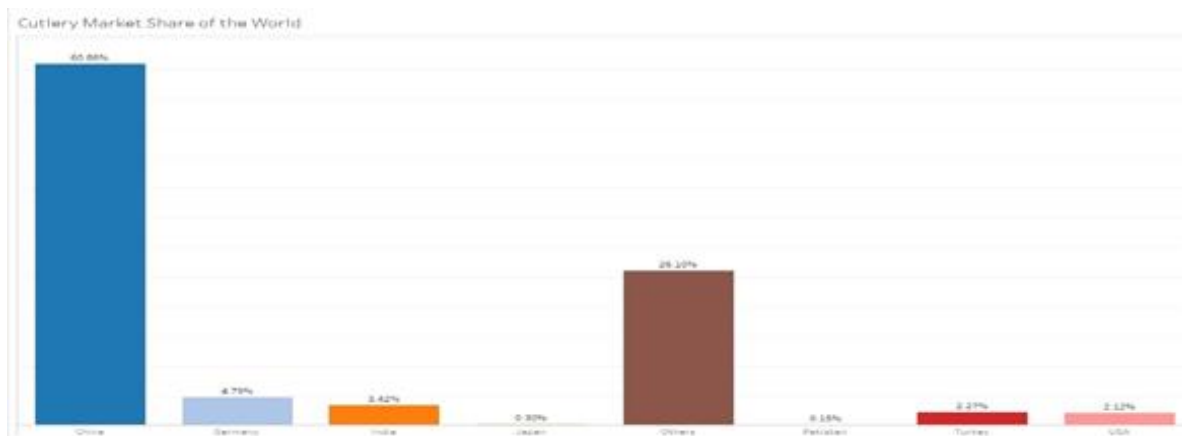


Figure 2 Market share of Pakistan vs competitors

Pakistan holds the lowest market share among its competitors at 0.15 percent. The largest exporter, China, holds 60.9 percent of the global cutlery market.

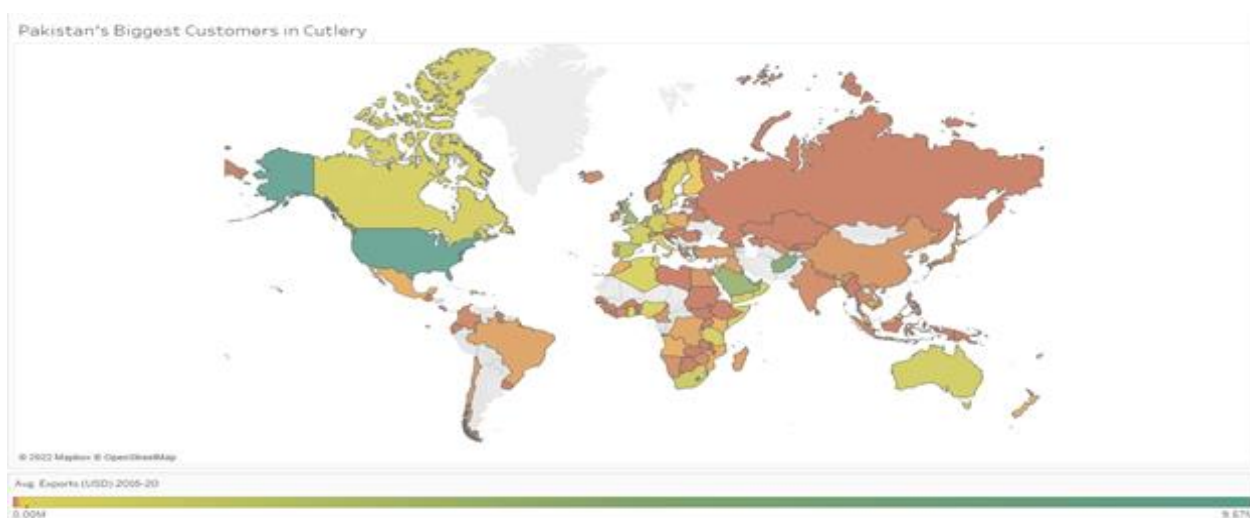


Figure 3 Pakistan's major export destinations for cutlery

Pakistan's largest customers are the USA, countries in the Middle East, the UK, EU and Afghanistan.

As per terms of the China Pakistan Free Trade Agreement (CPFTA), all cutlery imports from Pakistan face a zero tariff when being imported into China incentivizing exports to that country. However, the domestic Chinese industry offers stiff competition to Pakistani cutlery exports going to China. Pakistan's tariffs on cutlery imports from China are at 20 percent. Raw materials for cutlery, including stainless steel is also tariff free when imported from China under the CPFTA, however Pakistan levies additional tariffs under SRO 840(I)/2021 and SRO 845(I)/2021.

Pakistani cutlery Items are tariff-free in the USA

Many of the cutlery items when exported from Pakistan to the USA are eligible under the US GSP program. The U.S. Generalized System of Preferences (GSP) provides unilateral preferential duty-free treatment for

approximately 3,500 products from a wide range of designated beneficiary developing countries including Pakistan.

China dominates the Global Cutlery Market

Pakistan's tableware sector is currently unable to compete with China in global markets. Due to the size of the domestic units and the processes and technology that they employ, the Pakistani industry is no match for the Chinese industry as far as prices and quality are concerned. On the other hand, the German industry has managed to carve out a niche for itself in global markets due to its technological advantage. In Pakistan, the export industry has developed around the making of hunting knives from Damascus steel. One reason could be that China is not willing to venture into Damascus steel making due to the labor-intensive nature of the steel making process making it unfeasible for machines and processes tuned for mass production. For China, the cost of venturing into Damascus steel blade manufacturing outweighs the benefits. Globally, non-Damascus steel blades have a much higher demand as compared to Damascus steel blades. Pakistan's strength lies in its cheap labor workforce.

Raw Materials are cited as the biggest bottleneck to competitiveness

The availability and cost of raw materials were cited as the biggest bottlenecks for the cutlery sector. The absence of locally produced raw materials and the rising prices of imported steel along with high regulatory duties meant that the industry considered the raw material node to be the biggest choke point in their manufacturing process. Stainless steel (codes starting with HS-72xxxx) is the main raw material used in making cutlery. To ensure quality, manufacturers have to use imported steel from China. Not only is Chinese steel of better quality, but also lower in price. However, recently prices of steel from China have been rising. The engineering sectors in countries such as China and India have their own domestic supply of stainless steel which greatly reduces their costs and ensures reliable quality.

Machinery Employed in Pakistan's Cutlery Industry Needs Upgrading

Machinery employed by the domestic industry for making cutlery is several decades old. Processes are mostly semi-automated. All production processes need to be hand-operated which severely limits the productivity and speed of the production processes, on the other hand manufacturers in countries such as China, Germany, USA, Japan, South Korea use more advanced machines. One of the key differences is the automatic production processes, materials are fed via conveyor belt, this greatly speeds up the production process.

The domestic industry' relies on manual processes in contrast to modern techniques such as those employed by Germany where laser cutting is the norm. Pakistani processes have a wastage of 30 to 50 percent as compared to other countries where wastage is 10 to 15 percent. Defective ratio is 15 pieces per 100 while that in Japan is 1 per million. Grinding is done manually as opposed to automated processes in other countries. The products are therefore susceptible to variations whereas other countries have

automated grinding which leads to consistent products. German products are made using the latest technology such as laser cutting and computer algorithms to produce the best quality cutting knife.

There is a lack of branding

Most of the industry is neither branding nor stamping items with 'Made in Pakistan' when exporting to Europe. Only items sent to the US are stamped because of US regulations. While exporting to Europe, exporters sometimes put the 'Made in Pakistan' label on the master carton but not on the individual items. Only a few utensils manufacturers, who have contracts with UK buyers, are able to brand and package their cookware. Japanese handcrafted knives are well known. The promotion of Japanese swords in popular culture, most notably the katana and wakizashi knives & sword make for good marketing of Japanese swords and knives. Japanese manufacturers make strong connections with chefs and work with them to develop custom made knives for use by the chefs.

The sector is unable to fulfill documentary compliance for financing

Subsidized financing is available in the form of various SBP schemes; however, the Cutlery Sector generally does not utilize these available schemes due to either (1) lack of knowledge or (2) inability to fulfill documentary compliance requirements. Instead, the Cutlery Sector borrows from local money lenders who charge them very high rates of markup. This greatly increases the manufacturer's costs. Meanwhile, China has KPIs for its banks to increase their SME exposure on an annual basis.

Most exports are hunting knives and they are sold via e-commerce platforms

Most hunting knife manufacturers are small players and they are selling via e-commerce platforms such as Amazon indicating that most exports are B2C. Most of the cargo is transported by air indicating that small quantities are exported. Warehousing is in-house. In contrast, Chinese cutlery manufacturers utilize distributors who have presence in both China and abroad, they can thus transport cargo seamlessly from China to USA, Europe etc.

There is a looming shortage of labor

The industry is heavily dependent on manual labor. The industry is currently facing a shortage of trained labor especially in the polishing part of the manufacturing process. The training of students is done by TEVTA where students are taught various courses such as basic computer skills e.g., PowerPoint, AutoCAD as well as how to operate CNC machinery. While vocational training is a good start, certain drawbacks exist such as outdated curriculums, obsolete machinery, outdated manufacturing methods and a focus on craft skills as opposed to engineering methods. Similar to Pakistan, the Japanese workforce engaged in the manufacture of hand-crafted swords does not desire to work in physical demanding manual labor and therefore the Japanese industry faces a shortage of labor as well. Japanese apprentices are however, given the opportunity to sell their own crafted knives once a year; talking to the customers they gain their own followers and the industry benefits as a whole. China is revamping its technical school education

system by learning from German and Korean systems, which successfully trained skilled workers and engineers through a robust technical school system to support an innovative manufacturing industry.

Government provided facilities are non-operational as well as redundant

Some of the government provided facilities for the industry include TEVTA, CIP and Small Industries Estate. TEVTA appears to be functional with ongoing classes, computers in working order and functioning machinery. Most of the machinery is however, outdated. The Cutlery Institute of Pakistan (CIP) was a project inaugurated in 2001 by EDF. It has been non-functional since 2014. Funding from EDF stopped in 2014 and the entire project was halted. Progress on the Small Industries Estate is slow. The project was inaugurated in 2014 and work on roads and drainage began in 2021, after a gap of 7 years and even then, no buildings were constructed on the allotted land. CIP and SIE appear to be under-utilized.

There is international competition from ceramic knives

Pakistan faces competition from ceramic knives and ceramic cooking utensils. Ceramics knives are known to hold their edge much longer than stainless steel ones while ceramic utensils are known to be more durable than stainless steel and aluminum. At the moment, Pakistan does not have the capability to manufacture ceramic knives and utensils and hence faces tough competition from substitute products in both local and foreign markets.

The following recommendations are suggested for enhancing the competitiveness of the industry:

Issue	Industry Recommendation	PBC Recommendation
Increasing cost of raw materials	The industry is looking to establish a raw materials bank which would serve as a storage facility for raw materials. Manufacturers would then purchase raw materials as needed from the raw materials bank.	It would be beneficial if the imported raw materials were stored in bonded warehouses instead of a raw materials bank. Bonded warehouses defer customs duties & other taxes till the goods are moved out of the warehouse for processing within a stipulated time period. In some countries, even minor processing is allowed within the bonded warehouses. Deferring duties until the raw materials are needed would be beneficial in lowering the cost of raw materials which is the biggest hurdle according to the Association.
Multiple Gov. Dept. to deal with	A single window may be established as a connector between manufacturers and various government departments such as the Labor Department, Social Security Department, EOBI, Environment Protection Department, Income tax department, sales tax department etc.	A single window would help reduce cost of doing business.
Cutlery representatives are not included in trade delegations	The industry proposes inclusion in trade delegations sent to other countries. The industry reported that often their representatives are not included in delegations visiting new markets.	Exports of cutlery items to the USA are tariff-free. Pakistan should take advantage of this by including cutlery manufacturers in trade delegations. Commercial counsellors in the USA may be approached to promote cutlery exports highlighting the fact that these items from Pakistan face zero-tariff.
Regulatory duty on import of cutlery and kitchen ware may be increased to 50 percent	The sector wishes to enhance its share in the domestic market and would like further protection from international competitors.	While increasing protectionism may increase domestic market share, competitiveness would be hurt because protectionism is contradictory to the objective of increasing

Issue	Industry Recommendation	PBC Recommendation
	The industry states that this would also help avoid unemployment.	competitiveness. This would subsequently result in less exports at the expense of increased local market share. That being said, some protectionism is pragmatically necessary for the fledgling industry to survive. Some limited opening up of the market may be useful to keep the industry afloat while increasing its competitiveness in the international markets.
The Federal Government may fully fund SIE	The majority of development works i.e., roads, sewerage, water supply and boundary wall has been completed. The industry would like the govt. to allocate funds for electricity supply	No units have shifted to the Small Industries Estate allotted to the cutlery sector. The empty plot of land has been vacant for four years. The Punjab Government may work with the Association to resolve the issues involved in operationalizing the SIE.
Reviving CIP	The industry recommends handing over CIP Institute to TUSDEC and a fully funded SIE.	The currently available government facilities for the sector appear to be under-utilized. Both TEVTA and CIP were made to achieve the same objective i.e., to establish a common facility center for the industry. The presence of two common facility centers to achieve the same objective is redundant. It is suggested that the federal and provincial government departments may agree on establishing a single common facility center and build its capacity instead of running two parallel facilities.
Small players are unable to export due to lack of financing	The industry wants financing amounts up to 60 percent of annual sales, at low markup	Bringing manufacturers into the tax net and providing them with financing would be beneficial. The main cause of lack of financing

Issue	Industry Recommendation	PBC Recommendation
	rates. The Association states that this will bring small manufacturers into the tax net and help them increase production capacity for enhancing exports.	is the inability of the borrower to meet documentary compliance. The manufacturers have to seek financing from informal channels which charges markups as high as 30 percent. Documentation compliance may be lowered to allow ease of financing for the SMEs.

Some additional recommendations to improve the product quality and uplift the industry:

<i>Linking with Academia</i>	Metallurgical engineers from universities such as Ghulam Ishaq Khan Institute, NED University, Punjab University etc. can be linked with the cutlery industry to provide expertise on the latest processes being used in manufacturing worldwide. Latest best practices such as improved die design to reduce wastage, optimizing the production process and the number of times steel can be recycled without a significant drop in quality, can be taught to the cutlery industry to improve the production processes and the end product.
<i>Making cutlery from ceramics</i>	Ceramic knives are sharper and lighter than steel. Unlike a traditional steel blade that requires regular honing and sharpening to keep its edge sharp, a ceramic knife will stay sharp and retain its cutting edge for much longer. Ceramic blades neither rust nor stain and are impossible to blunt. While Japan, Germany and China are manufacturing ceramic knives, Pakistan has not ventured into the manufacture of ceramic blades. Ceramic knives also fetch a higher price than steel knives. Pakistan may explore the possibility of investing in the machinery and processes to start manufacturing ceramic cutlery. This is aided by the fact that Zircon, the raw material for ceramic, is available in Pakistan.
<i>Making cutlery from composite materials</i>	It is recommended that the industry may explore the use of composite materials in cutlery making. A composite material is a combination of two materials with different physical and chemical properties. When they are combined, they create a material which is specialized to do a certain job, for instance to become stronger or lighter. Improved quality blades can be sold at a premium price. Composite materials are used by metallurgical engineers in Pakistan's military institutions in various missile and nuclear programs. The knowledge base of composite materials usage is transferable and this presents an opportunity to link military engineers with the cutlery manufacturers so that expertise of using composite materials may be utilized in the cutlery manufacturing industry.

5 Parameters of Competitiveness

Competitiveness is defined as being better than others within a comparable context. For a manufacturing industry, it could mean making products that are better than rivals, either local or foreign. Competitiveness could also mean having better processes as compared to competitors and which could improve the product costing through as reduced wastage, less impact on the environment. At a firm level it could be having easier access to financing, better or cheaper raw materials or having a lower documentary compliance cost-to-export ratio. In terms of exports, competitiveness is the ability of a country to export more in value-added than what it imports.

Measuring Competitiveness

A framework that highlights issues based on a per-node analysis is shown below. Each node of the value chain is analyzed to find how efficient it is, in relation to its foreign competitors.

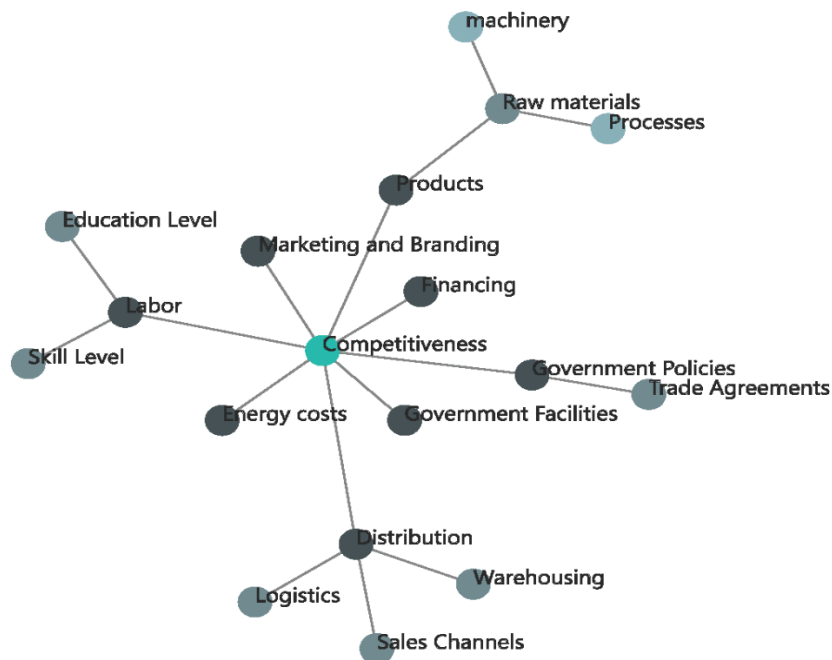


Figure 4 The nodes that are analyzed for competitiveness study
Source: S. Arshad, PBC 2022

6 Pakistan's Cutlery Industry

6.1 Introduction

The Wazirabad cluster, considered the epicenter of Pakistan's cutlery industry, lies on the Grand Trunk (GT) Road between the Pakistani cities of Gujrat and Gujranwala. Cutlery manufacturing is mostly a

cottage industry in Pakistan. Normal working days are from Sunday to Thursday with Friday and Saturday being weekly offs.



Figure 5 Location of industry

Pakistan's cutlery sector is a fragmented cottage industry that mostly manufactures hunting knives and tableware such as spoons and forks, with a few manufacturers making cooking ware utensils such as pots and pans in Wazirabad and Gujranwala. The neighboring cities also house industries that use stainless steel as their raw material, such as fans, surgical instruments and tractor parts. It is because of this concentration of light engineering industries that raw material vendors are located within the trilateral zone of Gujrat, Gujranwala and Sialkot.

There are 800 units in the cutlery sector according to the Punjab Skills Development Fund. The sector is mainly composed of very small units where 1 to 9 workers are employed. Formal units employ 10 to 29 workers (UKaid, 2016) as shown in Figure 6.

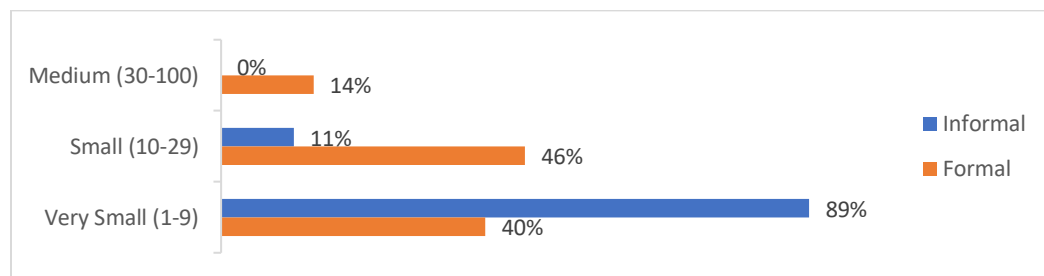


Figure 6 workforce size of cutlery manufacturing units
Source: (UKaid, 2016)

6.2 Product Mix

Cutlery products consist of 1) tableware such as spoons, forks, knives etc. 2) handcrafted hunting knives and; 3) utensils such as pots and pans. The Cutlery sector is classified under two HS codes. Tableware such as spoons, forks, knives etc., and hunting knives are classified under *HS-82xx Tools, implements, cutlery, spoons and forks, of base metal* while utensils are classified under *HS-7323 kitchenware of iron or steel* and *HS-7615 kitchenware of aluminum*. The following items fall under the umbrella category of cutlery manufactured in Wazirabad:

Sets of different knives/art (HS-821110)	Table knives with fixed blades of metal (HS-821191)	Other knives and swords etc (HS-821192)	Pocket & Pen Knives with folding blades (HS-821193)
Blades for knives (HS-821194)	Handles for knives of base metal (HS-821195)	Paper knives letter openers erasing knives pencil sharpeners etc (HS-821410)	Kitchen chopper cleavers & mincing knives & other articles (HS-821490)
Table ware sets plated with precious metal (HS-821510)	Tableware sets without plating (HS-821520)	Plated tableware articles not in sets (HS-821591)	Tableware articles without plating (HS-821599)
Table, kitchen or other household articles, and parts thereof, of iron or steel (HS-7323xx)	Table, kitchen or other household articles, and parts thereof, of aluminium (HS-7615xx)	Swords and Lances (HS-930700)	

6.2.1 Tableware

Tableware includes spoons, forks, and large knives.



Figure 7 Pakistan's tableware products

6.2.2 Handcrafted Hunting & Other Knives

Handicraft articles include hunting knives, chef knives, swords for movie props, daggers etc. Majority of Pakistan's cutlery sector are making hunting knives and chef knives.



Figure 8 Pakistan's handcrafted hunting knives

6.2.3 Cooking utensils

Utensils consisting of kitchenware products of stainless steel and aluminum, non-stick products and alloy steel.

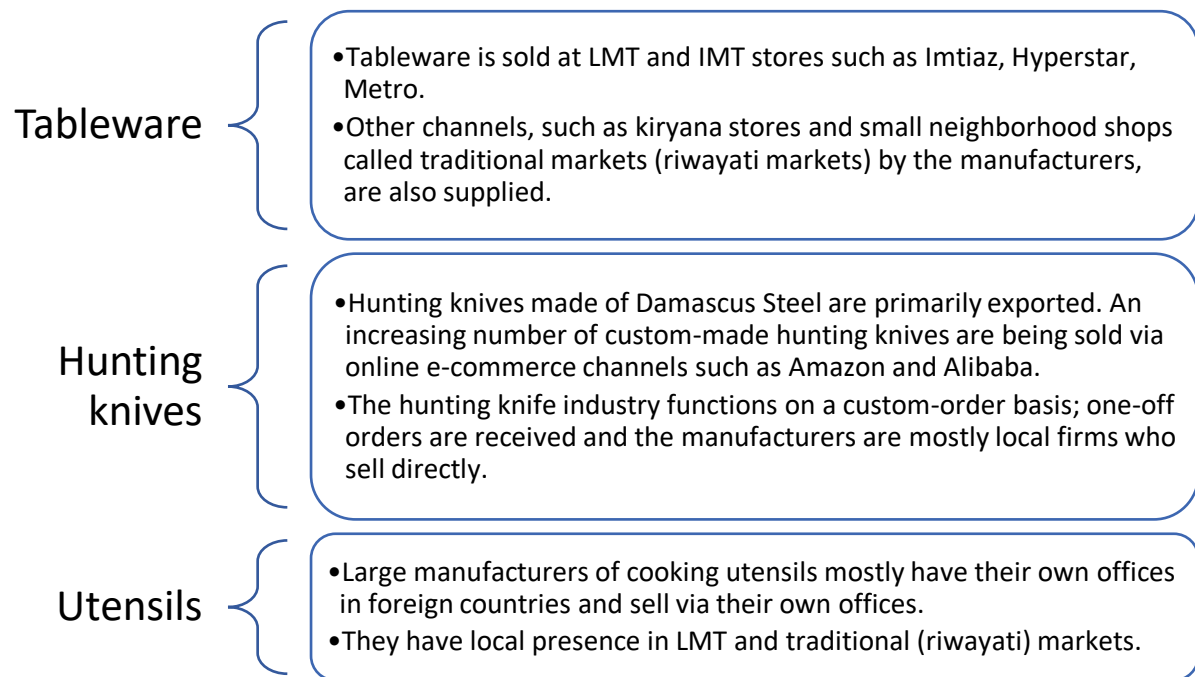


Figure 9 Utensils manufactured in Pakistan

Table 1 Imported products available in Pakistan

Country	Product
China	Tableware, knives
Turkey	Tableware sets, cooking utensils in sets.
Taiwan	Tableware sets. Used to be previously available in large quantities in the local market; market share has however reduced in the last 10 years.
Germany	Tableware, mostly catering to the upper-end segment of the market with high quality products.

6.3 Sales channels



6.4 What is Damascus steel?

Damascus steel is a type of steel easily recognizable by its wavy patterned design. In Arabic, the word 'damas' means 'watered', and Damascus blades are often described as having a water-pattern on their surface. This type of steel has been etched with a light/dark pattern. Modern day Damascus Steel is actually Pattern-welded steel and is made by layering iron and steel and forging the metals together by hammering them at high temperature to form a welded bond.



Figure 10 A blade made with Damascus steel styling

6.5 Market Share



7 Trade Analysis

7.1 Global Cutlery Exporters

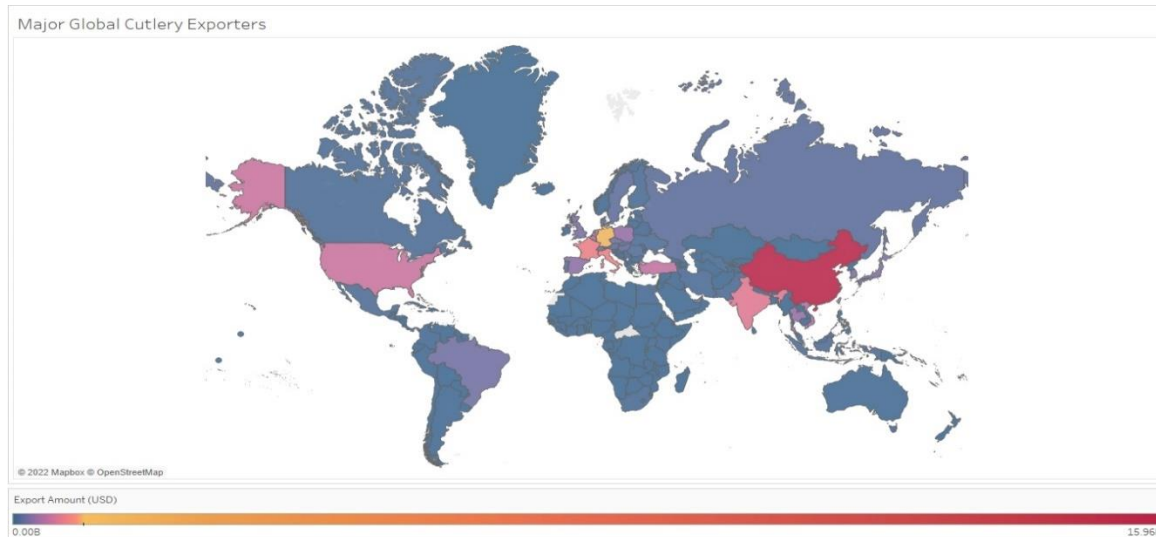
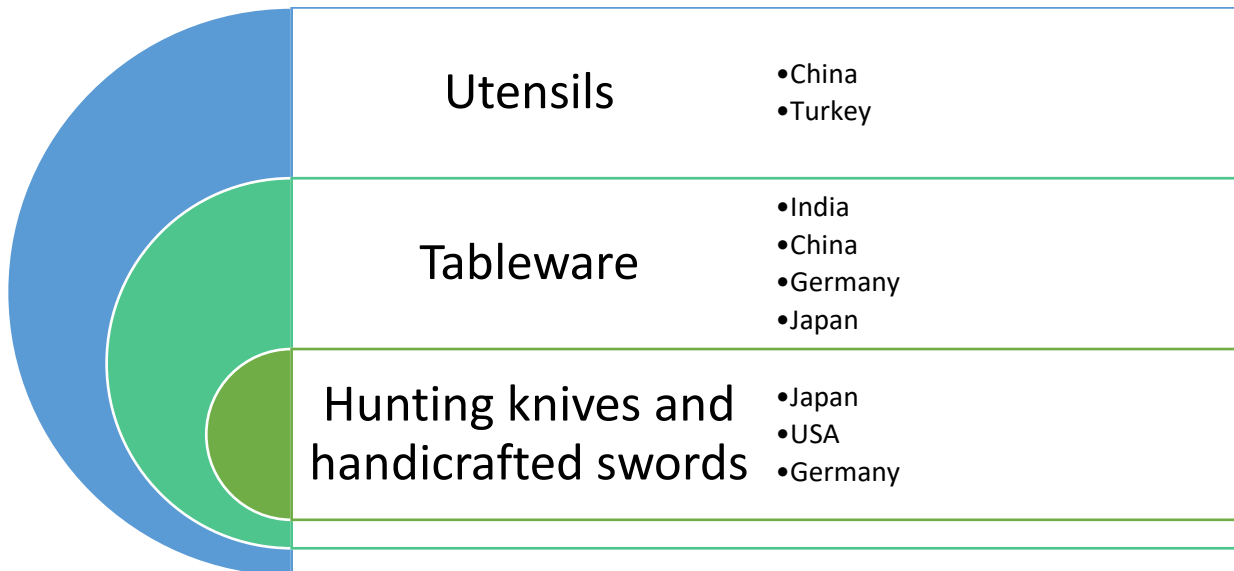


Figure 11 Major exporters of cutlery

Source: (UN Comtrade, 2022)

Total Global exports of cutlery were USD 26.0 Bn in 2020. China is the world's leading exporter of cutlery with global exports of USD 16.0 Bn, China is followed by Germany (USD 1.3 Bn) and then Italy (USD 735 Mn). Pakistan lies in the blue shaded regions being among the lowest cutlery exporters in the world at 36th rank with exports of USD 40 Mn.

7.2 Pakistan's Major Competitors in Global Markets



7.3 Pakistan's Cutlery Trade

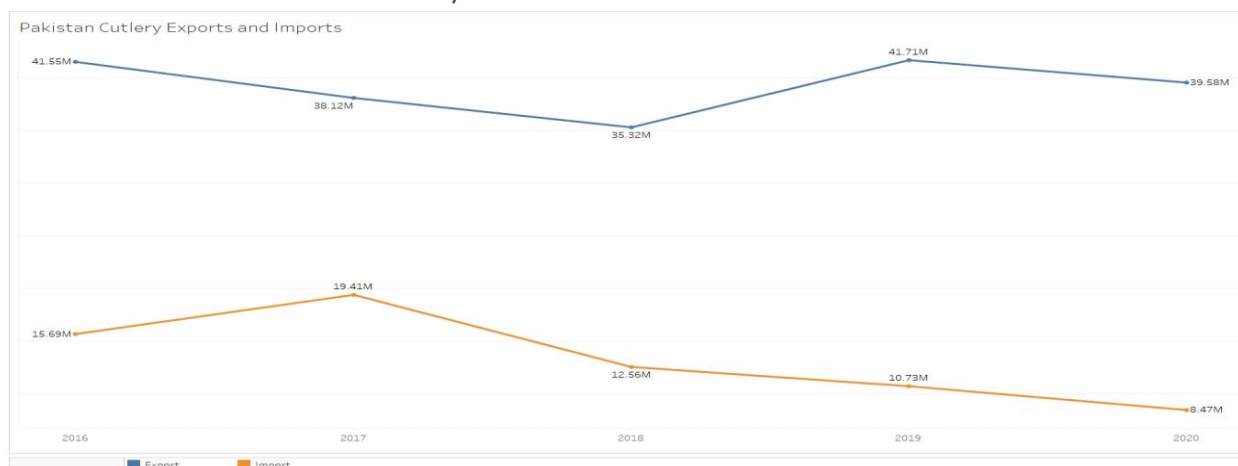


Figure 12 Pakistan cutlery trade trend

Source: (UN Comtrade, 2022)

Pakistan's cutlery exports have ranged between USD 35 Mn and USD 42 Mn between 2016 & 2020 with a Compound Annual Growth Rate (CAGR) of -1.2 percent. Exports declined in 2020 to USD 39.6 Mn mainly attribute to COVID-19 restrictions. However, exports have been declining since 2014 suggesting a loss of foreign market share. Imports have also witnessed a declining trend since 2017 indicating possibly a move towards import substitution.

7.4 Pakistan's Cutlery Exports by HS code

Table 2 Pakistan cutlery exports (USD Mn) by HS code

Cutlery Group s	HS Code	Description	2016	2017	2018	2019	2020
Hunting Knives	821192	Knives; having fixed cutting blades, (other than table knives),...	7.44	8.69	8.61	10.9	10.4
	821191	Knives; table knives, having fixed cutting blades, serrated ...	0.18	0.45	0.90	1.50	0.62
	821490	Cutlery; hair clippers and mincing knives	0.41	0.36	0.36	0.64	0.57
	821193	Knives; with cutting blades, (having other than fixed blades),...	0.96	0.50	0.44	0.52	0.45
	821410	Cutlery; paper knives, letter openers, erasing knives, pencil sharpeners ...	0.21	0.24	0.22	0.29	0.15
	821195	Knives; with handles of base metal	0.17	0.06	0.04	0.02	0.07
	821194	Blades; cutting, serrated or not, excluding those of heading no. 8208	0.02	0.00	0.01	0.02	0.03
Table	821599	Cutlery; other than plated with precious metal	1.53	1.73	2.38	2.16	1.39

Cutlery Group s	HS Code	Description	2016	2017	2018	2019	2020
	821520	Cutlery; sets of assorted articles (e.g., spoons, forks, ladles, skimmers, ...	0.03	0.01	0.06	0.04	0.03
	821510	Cutlery; sets of assorted articles (e.g., spoons, forks, ladles, skimmers, ...	0.00	0.00	0.01	0.01	0.00
Utensils	761510	Aluminium; table, kitchen or other household articles and parts thereof; ...	23.5	22.4	19.9	21.7	22.1
	732393	Steel, stainless; table, kitchen and other household articles and parts ...	5.79	2.53	1.34	2.65	2.46
	732399	Iron or steel; table, kitchen and other household articles and parts ...	1.11	1.03	0.90	0.94	1.15
	732394	Iron (excluding cast) or steel; table, kitchen and other household ...	0.01	0.02	0.00	0.15	0.03
	732392	Cast iron; table, kitchen and other household articles and parts ...	0.01	0.01	0.01	0.00	0.00
	732391	Cast iron; table, kitchen and other household articles and parts ...	0.00	N/A	0.00	0.00	0.00

Source: (Trade Map, 2022)

Handicraft hunting knives, swords and razors compose 32.0 percent of Pakistan's cutlery group exports, utensils are 64.4 percent and tableware are 3.6 percent.

Table 3 Cutlery exports group-wise breakup

Cutlery Groups	Exports (USD Mn)	Percentage Share
Hunting knives, scissors and swords	12.4	31.2
Tableware	1.4	3.6
Utensils	25.8	65.1
	40.0	100

Source: Derived from (Trade Map, 2022)

7.5 Pakistan Cutlery Exports by Group

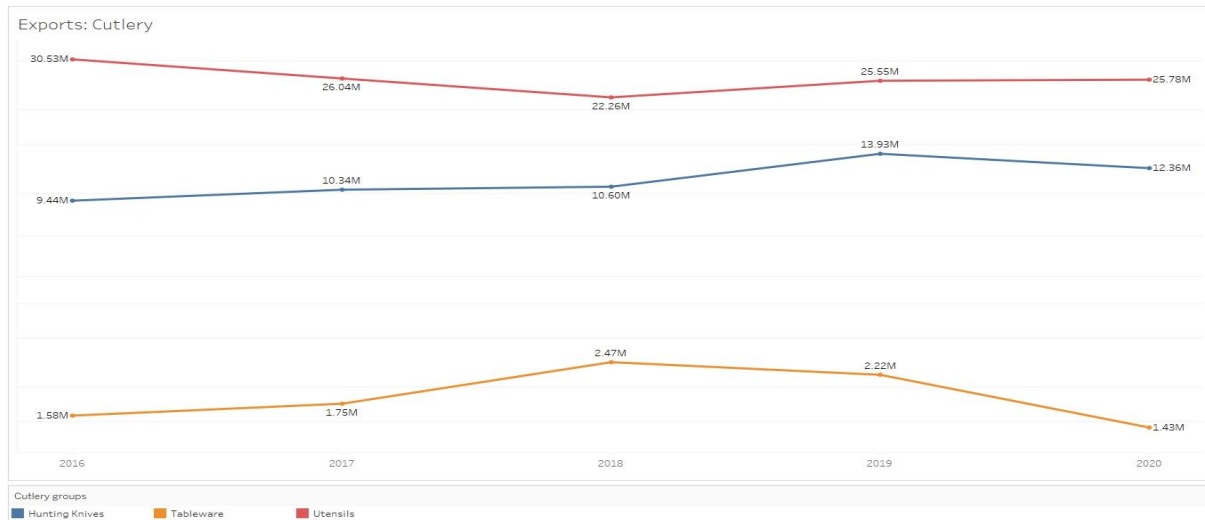


Figure 13 Pakistan Cutlery Exports by Group

Source: Derived from (UN Comtrade, 2022)

Tableware exports have been declining as spoon and fork manufacturers shift their focus towards local markets. Hunting knives and utensils have not witnessed much growth during the 2016-2020 period with the hunting knives group exporting between USD 9 Mn and USD 12 Mn annually. In this period utensils exports declined from USD 30.5 Mn in 2016 to USD 25.8 Mn in 2020. The stagnation is maybe due to currency depreciation leading to higher raw material prices, high utility costs and Pakistan's inability to compete with China's economies of scale.

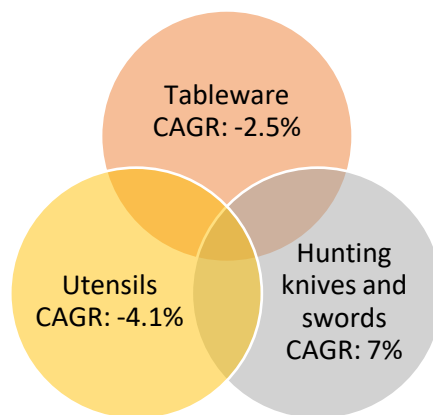


Figure 14 Breakdown of CAGR (2016-2020) of Cutlery groups

Source: Derived from (UN Comtrade, 2022)

Exports of Hunting knives and swords have grown at a CAGR of 7 percent from 2016 to 2020 while exports of tableware and utensils declined at CAGR of -2.5 percent and -4.1 percent respectively. This is because while hunting knives are mainly exported, tableware and utensils are mostly sold in the domestic market.

7.6 Value per Unit Analysis of Cutlery Exports

Table 4 Value per unit analysis in USD

Cutlery Group	HS code	Description	Qty unit	2018	2019	2020
Hunting Knives and Swords	821195	Knives; with handles of base metal	Kg	41.99	33.70	45.24
	821490	Cutlery; hair clippers and mincing knives	Kg	49.41	39.07	40.54
	821410	Cutlery; paper knives, letter openers, erasing knives, ...	Kg	N/A	N/A	28.82
	821194	Blades; cutting, serrated or not, excluding ...	Kg	23.47	19.85	21.36
	930700	Arms; swords, cutlasses, bayonets, lances ...	Kg	11.13	7.46	9.64
	821192	Knives; having fixed cutting blades, (other than ...	No. of items	0.14	0.26	0.25
	821193	Knives; with cutting blades, (having other than ...	No. of items	0.26	0.26	0.12
	821191	Knives; table knives, having fixed cutting blades, ...	No. of items	0.16	0.24	0.11
	821110	Knives; with cutting blades, serrated or not	No. of items	0.00	0.23	N/A
Tableware	821510	Cutlery; sets of assorted articles (e.g., spoons, forks, ...	Kg	32.51	34.50	35.80
	821599	Cutlery; other than plated with precious metal	Kg	24.85	N/A	20.91
	821520	Cutlery; sets of assorted articles (e.g., spoons, forks, ...	Kg	16.47	16.53	19.97
Utensils	732394	Iron (excluding cast) or steel; table, kitchen ...	Kg	2.59	1.77	3.85
	732391	Cast iron; table, kitchen and other household articles ...	Kg	2.15	0.85	3.81
	761510	Aluminium; table, kitchen or other household articles and ...	Kg	3.50	3.32	3.34
	732399	Iron or steel; table, kitchen and other household articles ...	Kg	2.80	2.89	2.36
	732393	Steel, stainless; table, kitchen and other ...	Kg	1.92	1.91	1.74
	732392	Cast iron; table, kitchen and other household articles ...	Kg	1.23	0.94	1.33

Source: derived from (UN Comtrade, 2022)

HS-821195 Knives fetched the highest price per kg among the hunting knives group while HS-821192 knives with fixed cutting blades had the highest per unit value at an average rate of USD 0.25. Among utensils, HS-732394 enameled iron or steel kitchenware sold at an average price of USD 3.85 per kg.

7.7 Comparative Market Share among Export Competitors

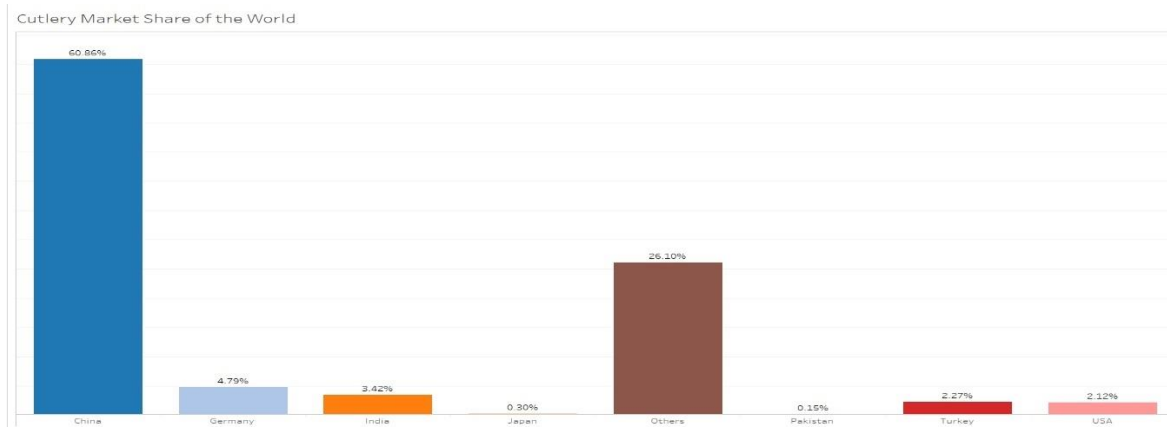


Figure 15 Market shares in global cutlery exports

Source: Derived from (Trade Map, 2022)

Pakistan holds the lowest market share among its competitors at 0.15 percent. The largest exporter, China, holds 60.9 percent of the global cutlery market.

7.8 Major Global Cutlery Importers

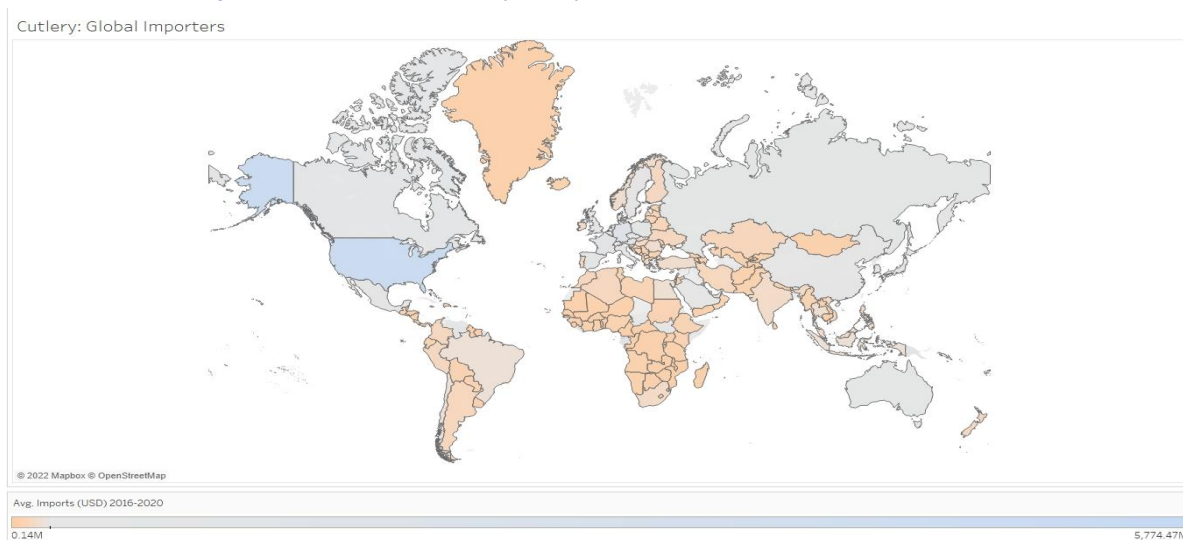


Figure 16 Largest cutlery importers

Source: Derived from (UN Comtrade, 2022)

USA is the largest importer of cutlery at USD 6.6 Bn in 2020 followed by Germany at USD 1.7 Bn and Japan at USD 932 Mn.

7.9 Pakistan's Major Customers

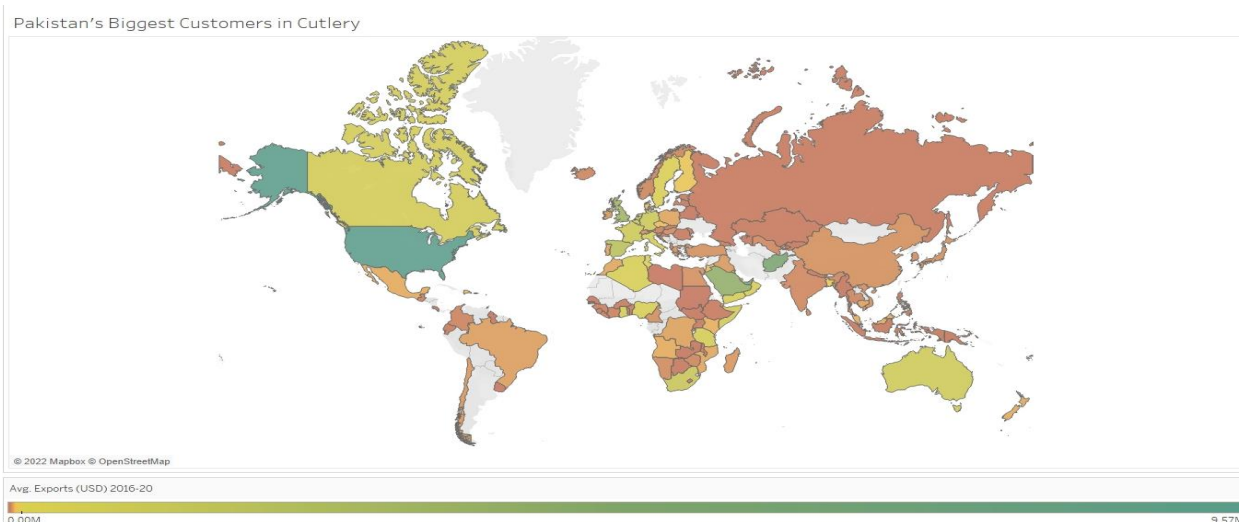


Figure 17 Pakistan's major export markets

Source: Derived from (UN Comtrade, 2022)

Pakistan's largest customers are the USA, countries in the Middle East, the UK, EU and Afghanistan. The map shows a concentration risk as Pakistan's cutlery exports are limited to a few countries.

7.10 Pakistan's Cutlery Imports by HS Code

Table 5 Pakistan cutlery imports (USD Mn) by HS code

Cutlery Group	HS Code	Description	2016	2017	2018	2019	2020
Hunting Knives and Swords	821192	Knives; having fixed cutting blades, (other ...	0.47	0.40	0.55	1.00	1.01
	821490	Cutlery; hair clippers and mincing knives	0.66	0.78	0.75	0.41	0.48
	821410	Cutlery; paper knives, letter openers, erasing ...	1.57	2.38	1.65	0.64	0.33
	821191	Knives; table knives, having fixed cutting ...	0.20	0.25	0.06	0.17	0.08
	821194	Blades; cutting, serrated or not, excluding...	0.04	0.10	0.06	0.03	0.07
	821193	Knives; with cutting blades, (having other, ...	0.03	0.08	0.04	0.04	0.06
	821195	Knives; with handles of base metal	0.01	0.00	0.00	0.00	0.00
	821110	Knives; with cutting blades, serrated or not ...	0.02	0.01	0.00	0.00	0.00
	930700	Arms; swords, cutlasses, bayonets, lances ...	0.00	0.00	0.00	0.00	0.00
Tableware	821599	Cutlery; other than plated with precious metal	0.79	0.91	0.90	0.66	0.52
	821520	Cutlery; sets of assorted articles (e.g., spoons, forks...	0.30	0.73	0.52	0.14	0.16
	821510	Cutlery; sets of assorted articles (e.g., spoons,...	0.02	0.00	0.00	0.00	0.00
	821591	Cutlery; (e.g., spoons, forks,...	0.00	0.00	0.00	0.00	0.00
Utensils	732399	Iron or steel; table, kitchen and other household...	6.72	7.95	3.95	3.53	2.48
	732394	Iron (excluding cast) or steel; table,...	3.52	3.84	1.70	1.54	1.61

Cutlery Group	HS Code	Description	2016	2017	2018	2019	2020
	761510	Aluminium; table, kitchen or other household ...	0.84	1.18	1.47	1.73	1.20
	732393	Steel, stainless; table, kitchen and ...	0.42	0.74	0.71	0.56	0.34
	732392	Cast iron; table, kitchen and other ...	0.04	0.02	0.03	0.03	0.04
	732391	Cast iron; table, kitchen and other ...	0.00	0.01	0.10	0.20	0.03

Source: (UN Comtrade, 2022)

7.11 Pakistan's Cutlery Imports by Group

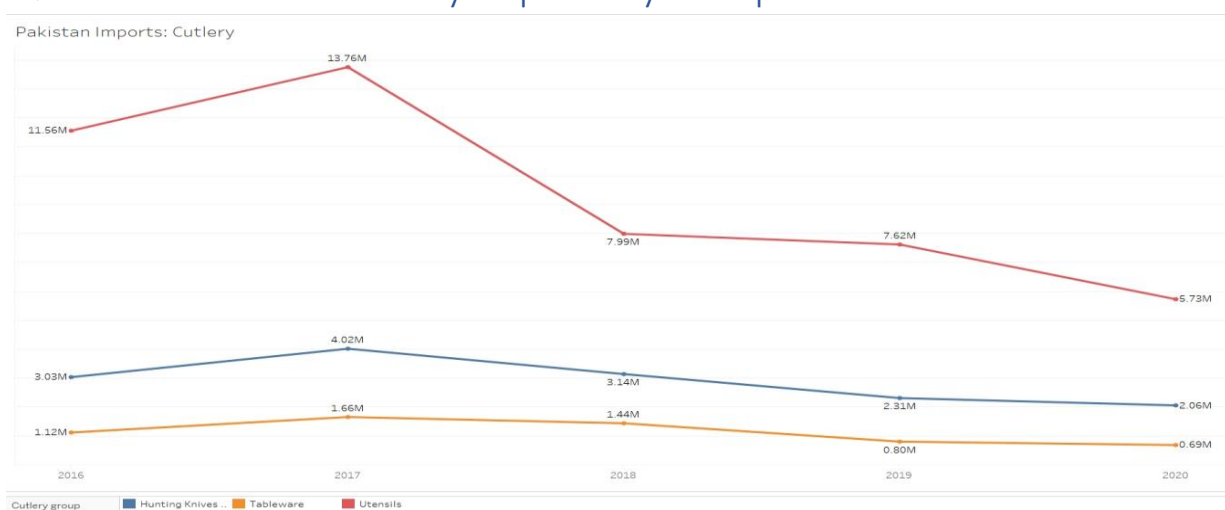


Figure 18 Pakistan Cutlery Imports by Group

Source: Derived from (UN Comtrade, 2022)

Pakistan's imports of cutlery have declined since 2017, possibly confirming reports of import substitution. Hunting knives and swords are in decline because they are not in great demand in the domestic market. In addition, tariffs on imports of finished goods have contributed to the decline. Utensils have witnessed the largest decline in imports due to the protection offered by tariffs.

7.12 Applicable Tariffs on Raw Materials and Trade Agreements

Pakistan applies the following tariffs on import of stainless steels which are used as raw materials in the production of cutlery. The HS codes are listed in order of highest quantities imported from China since most of the imported steel used in cutlery manufacturing comes from China.

HS code	Description	MFN duties (Applied)	Preferential tariff for China	Preferential tariff for Indonesia	Preferential tariff for Iran	Preferential tariff for Malaysia	Preferential tariff for SAFTA countries	Preferential tariff for Sri Lanka
722530	Steel, alloy; flat-rolled, width 600mm or more, hot-ro...	11.0%	0.0%	11.0%	11.0%	11.0%	4.3%	0.0%
721049	Iron or non-alloy steel; flat-rolled, width 600mm or m...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
721070	Iron or non-alloy steel; flat-rolled, width 600mm or m...	11.3%	7.7%	11.3%	11.3%	11.3%	3.7%	8.0%
721119	Iron or non-alloy steel; flat-rolled, hot-rolled, of a wid...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
722790	Steel, alloy; bars and rods, hot-rolled, in irregularly w...	11.0%	11.0%	11.0%	11.0%	11.0%	4.3%	11.0%
720839	Iron or non-alloy steel; in coils, without patterns in re...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
722540	Steel, alloy; flat-rolled, width 600mm or more, hot-ro...	11.0%	0.0%	11.0%	11.0%	11.0%	4.3%	0.0%
721420	Iron or non-alloy steel; bars and rods, hot-rolled, hot...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
721935	Steel, stainless; flat-rolled, width 600mm or more, co...	3.0%	1.5%	3.0%	3.0%	3.0%	2.6%	1.5%
722830	Steel, alloy; bars and rods, hot-rolled, hot-drawn or e...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.0%
721990	Steel, stainless; flat-rolled, width 600mm or more, n...	3.0%	0.0%	3.0%	3.0%	3.0%	2.6%	0.0%
721061	Iron or non-alloy steel; flat-rolled, width 600mm or m...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
721391	Iron or non-alloy steel; bars and rods, hot-rolled, in ir...	14.0%	10.0%	14.0%	14.0%	14.0%	12.0%	8.7%
720916	Iron or non-alloy steel; in coils, flat-rolled, width 600...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
722691	Steel, alloy; flat-rolled, width less than 600mm, (excl...	11.0%	0.0%	11.0%	11.0%	11.0%	4.3%	0.0%
721934	Steel, stainless; flat-rolled, width 600mm or more, co...	3.0%	1.5%	3.0%	3.0%	3.0%	2.6%	1.5%
721012	Iron or non-alloy steel; flat-rolled, width 600mm or m...	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%
722519	Steel, alloy; flat-rolled, width 600mm or more, of silic...	11.0%	0.0%	11.0%	11.0%	11.0%	4.3%	0.0%
721933	Steel, stainless; flat-rolled, width 600mm or more, co...	3.0%	1.5%	3.0%	3.0%	3.0%	2.6%	1.5%
720851	Iron or non-alloy steel; (not in coils), flat-rolled, of a ...	15.5%	10.0%	15.5%	15.5%	15.5%	6.5%	10.5%
720810	Iron or non-alloy steel; in coils, flat-rolled, of a width ...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
721030	Iron or non-alloy steel; flat-rolled, width 600mm or m...	15.5%	10.0%	15.5%	15.5%	15.5%	6.5%	10.5%
722870	Steel, alloy; angles, shapes and sections	11.0%	10.0%	11.0%	11.0%	11.0%	4.3%	5.0%
720711	Iron or non-alloy steel; semi-finished products of iron...	11.0%	5.0%	11.0%	11.0%	11.0%	4.3%	5.0%
720449	Ferrous waste and scrap; n.e.c. in heading no. 7204	7.6%	7.0%	7.6%	7.6%	7.6%	1.4%	7.0%
721190	Iron or non-alloy steel; flat-rolled, n.e.c. in heading n...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
720838	Iron or non-alloy steel; in coils, without patterns in re...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
721114	Iron or non-alloy steel; flat-rolled, hot-rolled, of a wid...	15.5%	10.0%	15.5%	15.5%	15.5%	4.3%	10.5%
720918	Iron or non-alloy steel; in coils, flat-rolled, width 600...	14.0%	10.7%	14.0%	14.0%	14.0%	7.7%	12.7%

Figure 19 Pakistan tariffs on stainless steel imports

Source: (Market Access Map, 2022)

7.12.1 China-Pakistan Free Trade Agreement

The China Pakistan Free Trade Agreement liberalized several tariff lines.

		MFN duties (Applied)	Non-MFN tariff	Preferential tariff for Pakistan	Preferential tariff for Least Developed Countries	Preferential tariff for the republic of Korea	
Hunting Knives and Swords	821110	Sets of assorted articles of knives of heading 8211; sets in which there is a higher number of k...	8.34%	76.67%	0.00%	0.21%	0.00%
	821191	Table knives having fixed blades of base metal, incl. handles (excluding butter knives and fish ...	7.34%	76.67%	0.00%	0.18%	0.00%
	821192	Knives with fixed blades of base metal (excluding straw knives, machetes, knives and cutting ...	7.34%	76.67%	0.00%	0.18%	0.00%
	821193	Knives having other than fixed blades, incl. pruning knives, of base metal (excluding razors)	7.34%	76.67%	0.00%	0.18%	0.00%
	821194	Blades of base metal for table knives, pocket knives and other knives of heading 8211	7.34%	76.67%	0.00%	0.18%	0.00%
	821195	Handles of base metal for table knives, pocket knives and other knives of heading 8211	7.34%	76.67%	0.00%	0.18%	0.00%
	821410	Paperknives, letter openers, erasing knives, pencil sharpeners and blades therefor, of base m...	7.34%	76.67%	0.00%	0.18%	0.00%
	821490	Hair clippers, butchers' or kitchen cleavers and other articles of cutlery of base metal, n.e.s.	7.34%	76.67%	0.00%	0.18%	0.00%
	930700	swords, cutlasses, bayonets, lances	13.31%	76.67%	0.00%	0.33%	0.00%
Tableware	821510	Sets of spoons, forks or other articles of heading 8215, which may also contain up to an equiv...	7.34%	76.67%	0.00%	0.18%	0.00%
	821520	Sets consisting of one or more knives of heading 8211 and at least an equal number of spoons,...	7.34%	76.67%	0.00%	0.18%	0.00%
	821591	Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs and sim...	7.34%	76.67%	0.00%	0.18%	0.00%
	821599	Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs and sim...	7.34%	76.67%	0.00%	0.18%	0.00%
Utensils	732391	Table, kitchen or other household articles, and parts thereof, of cast iron, not enamelled (excl...	7.34%	76.67%	0.00%	0.18%	0.00%
	732392	Table, kitchen or other household articles, and parts thereof, of cast iron, enamelled (excludin...	7.44%	95.83%	0.00%	0.18%	0.00%
	732393	Table, kitchen or other household articles, and parts thereof, of stainless steel (excluding can...	7.34%	76.67%	0.00%	0.18%	0.00%
	732394	Table, kitchen or other household articles, and parts thereof, of iron other than cast iron or st...	7.44%	95.83%	0.00%	0.18%	0.00%
	732399	Table, kitchen or other household articles, and parts thereof, of iron other than cast iron or st...	7.34%	76.67%	0.00%	0.18%	0.00%
	761510	Table, kitchen or other household articles and parts thereof, and pot scourers and scouring or ...	7.39%	86.25%	0.00%	0.18%	0.00%

Figure 20 China tariffs on cutlery

Source: (Market Access Map, 2022)

All cutlery imports from Pakistan are charged zero tariff by China thus incentivizing exports to that country. However, the local Chinese industry offers stiff competition to Pakistan's cutlery exports.

Pakistan Tariffs on Cutlery Imports			MFN duties (Applied)	Preferential tariff for China	Preferential tariff for Indonesia	Preferential tariff for Iran	Preferential tariff for Malaysia	Preferential tariff for SAFTA countries	Preferential tariff for Sri Lanka
Hunting Knives and Swords	821110	Sets of assorted articles of knives of heading 8211; sets in which there is a higher numb...	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	18.00%
	821191	Table knives having fixed blades of base metal, incl. handles (excluding butter knives an...	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	821192	Knives with fixed blades of base metal (excluding straw knives, machetes, knives and cu...	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	18.00%
	821193	Knives having other than fixed blades, incl. pruning knives, of base metal (excluding raz...	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	821194	Blades of base metal for table knives, pocket knives and other knives of heading 8211	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	821195	Handles of base metal for table knives, pocket knives and other knives of heading 8211	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
	821410	Paperknives, letter openers, erasing knives, pencil sharpeners and blades therefor, of b...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	14.40%
	821490	Hair clippers, butchers' or kitchen cleavers and other articles of cutlery of base metal, n...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	16.00%
Tableware	930700	swords, cutlasses, bayonets, lances	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	5.00%
	821510	Sets of spoons, forks or other articles of heading 8215, which may also contain up to an ...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	821520	Sets consisting of one or more knives of heading 8211 and at least an equal number of s...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	821591	Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs a...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
Utensils	821599	Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs a...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	18.00%
	732391	Table, kitchen or other household articles, and parts thereof, of cast iron, not enamele...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	732392	Table, kitchen or other household articles, and parts thereof, of cast iron, enamelled (ex...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	732393	Table, kitchen or other household articles, and parts thereof, of stainless steel (excludi...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	732394	Table, kitchen or other household articles, and parts thereof, of iron other than cast iro...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	5.00%
	732399	Table, kitchen or other household articles, and parts thereof, of iron other than cast iro...	19.94%	20.00%	20.00%	20.00%	20.00%	4.29%	20.00%
	761510	Table, kitchen or other household articles and parts thereof, and pot scourers and scour...	19.94%	20.00%	20.00%	20.00%	18.00%	4.29%	20.00%

Figure 21 Pakistan tariffs on cutlery
Source: (Market Access Map, 2022)

Pakistan's tariffs on cutlery imports from China are at 20 percent. Despite reduction in tariff categories and tariff rates since 2013, Pakistan protects several local industries by imposing high tariff rates and additional customs and regulatory duties. Included in the FY 2021 budget that went into effect on July 1, 2021, Pakistan continued additional customs duties focused primarily on finished goods (Office of the United States Trade Representative, 2021).

7.12.2 The USA GSP

The U.S. Generalized System of Preferences (GSP) provides unilateral preferential duty-free treatment for approximately 3,500 products from a number of designated beneficiary developing countries. Pakistan is one of these beneficiary countries and may look to take advantage of the duty-free treatment available on cutlery items. Many of the cutlery items are eligible for GSP status in the US.

Table 6 USA GSP eligibility

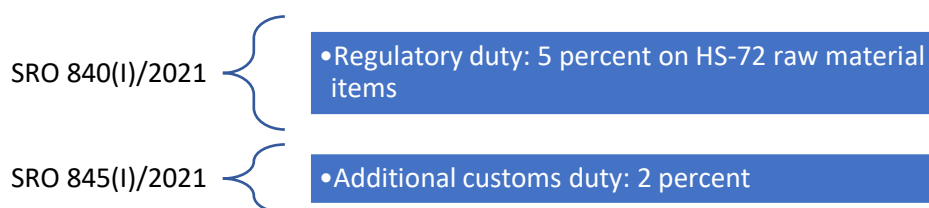
Group	HS Code	Description	GSP eligible
Hunting Knives and Swords	821110	Sets of assorted articles of knives of heading 821...	no
	821191	Table knives having fixed blades of base metal, in...	yes
	821192	Knives with fixed blades of base metal (excluding ...	yes
	821193	Knives having other than fixed blades, incl. pruni...	yes
	821194	Blades of base metal for table knives, pocket kniv...	yes
	821195	Handles of base metal for table knives, pocket kni...	yes
	821410	Paperknives, letter openers, erasing knives, penci...	yes

Group	HS Code	Description	GSP eligible
	821490	Hair clippers, butchers' or kitchen cleavers and o...	yes
	930700	swords, cutlasses, bayonets, lances...	yes
Tableware	821510	Sets of spoons, forks or other articles of heading...	no
	821520	Sets consisting of one or more knives of heading 8...	no
	821591	Spoons, forks, ladles, skimmers, cake-servers, fis...	yes
	821599	Spoons, forks, ladles, skimmers, cake-servers, fis...	yes
Utensils	732391	Table, kitchen or other household articles, and pa...	yes
	732392	Table, kitchen or other household articles, and pa...	no
	732393	Table, kitchen or other household articles, and pa...	yes
	732394	Table, kitchen or other household articles, and pa...	yes
	732399	Table, kitchen or other household articles, and pa...	yes
	761510	Table, kitchen or other household articles and par...	yes
	761511	Pot scourers and scouring or polishing pads, glove...	no
	761519	Table, kitchen or other household articles, parts ...	no

Source: (United States Trade Representative, 2020)

7.12.3 Additional Customs and Regulatory Duties

Despite government's stated policy to keep tariff rates low or zero for raw materials, Pakistan continues to impose regulatory and customs duties on imports of raw materials.



Source: (Federal Board of Revenue, 2022)

8 Value Chain Analysis

8.1 Raw Materials

Stainless steel (codes starting with HS-72xxxx) is the main component used in making cutlery. Other raw materials such as plastics and stag horns for handles are secondary components.

Table 7 Pakistan Imports of HS-72 raw materials

HS Code	Description	Import (USD Mn)	Quantity (in MT)
720449	Ferrous waste and scrap; n.e.c. in heading no. 7204	898.90	2,288,828
720441	Ferrous waste and scrap; turnings, shavings, chips, ...	732.68	2,148,613

HS Code	Description	Import (USD Mn)	Quantity (in MT)
720839	Iron or non-alloy steel; in coils, without patterns in ...	419.97	861,788
722530	Steel, alloy; flat-rolled, hot-rolled...	249.71	510,014
721070	Iron or non-alloy steel; flat-rolled, width 600mm, ...	76.46	116,404
720916	Iron or non-alloy steel; in coils, flat-rolled, cold-rolled...	63.75	119,534
721049	Iron or non-alloy steel; flat-rolled, width 600mm ...	53.99	96,292
721990	Steel, stainless; flat-rolled, width 600mm or...	52.22	46,255
722790	Steel, alloy; bars and rods, hot-rolled, in ...	51.47	89,060
720230	Ferro-alloys; ferro-silico-manganese	37.59	39,163
721935	Steel, stainless; flat-rolled, width 600mm, cold-rolled,...	36.12	37,176
721012	Iron or non-alloy steel; flat-rolled, width, plated ...	32.77	42,608
720430	Ferrous waste and scrap; of tinned iron or steel	29.70	87,913
722599	Steel, alloy; flat-rolled, width 600mm or more, n.e.c. ...	24.94	60,540
720918	Iron or non-alloy steel; in coils, flat-rolled, cold-rolled, ...	23.01	36,736
722540	Steel, alloy; flat-rolled, width 600mm or hot-rolled, ...	21.68	41,189
721061	Iron or non-alloy steel; flat-rolled, width ...	21.09	37,009
721934	Steel, stainless; flat-rolled, width 600mm, cold-rolled...	19.00	18,128
720310	Ferrous products; obtained by direct reduction, ...	18.77	67,759
721119	Iron or non-alloy steel; flat-rolled, hot-rolled, ...	18.36	33,920
721030	Iron or non-alloy steel; flat-rolled, width 600mm or ...	17.47	18,139

Source: (Trade Map, 2022)

Coils of scrap steel are imported from China and cut according to specification. Manufacturers reported that raw materials comprise 33 percent of their production cost. At the time of fieldwork as part of this Study, the international market price was PKR 345 per kg however with the inclusion of customs duties its market price at that time was PKR 450 per kg.

PAKISTAN	Raw materials used	<ul style="list-style-type: none"> • HS-722530 Flatrolled products of other alloy steel, of a width of 600 mm or more... • HS-721049 Flatrolled products of iron or nonalloy steel, of a width of 600 mm or more... • HS-721070 Flatrolled products of iron or nonalloy steel, ...coated with plastics • HS-720839 Flatrolled products of iron or nonalloy steel...other • HS-720839 Flatrolled products of iron or nonalloy steel, of a width of 600 mm or more, hotrolled • HS-721935 Flatrolled products of stainless steel, ... coldrolled
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Raw material grade	Primarily 200, 201 and 202 grade stainless steel is used. For export grade 202 is required as it is classified as food-grade. In the local market, grade 200 is used.
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Traditionally, AISI¹ 304 stainless steel was used to manufacture tableware. The world subsequently shifted its manufacturing of these articles to AISI 201 and 202 grade stainless steel. This alloy has almost the same characteristics as AISI 304 but is much cheaper. The local industry was late to adopt AISI 201 steel as it was not manufactured locally. Presently AISI 201 steel is imported from China and India at competitive rates. For exports, grades 201 and 202 are used while for the local market grade 200 is used. Some manufacturers use a mix of local and imported scrap steel to reduce costs. Manufacturers also reported that local steel is not of the desired quality. Quality testing is done at the Sialkot Material Testing Laboratory (SIMTEL) facility in Sialkot. To ensure quality, manufacturers have to use imported steel from China. Not only is Chinese steel of better quality, but also lower in price. Raw material vendors are located in Sambrial, Daska and Gujranwala and supply to the Cutlery manufacturing industry as well as to the Surgical Instruments industry and the Fan manufacturing industry. Local steel manufacturing units have faced intermittent energy shortages which has had an impact on the operational efficiency of the steel mills. Higher interest rates and volatile law and order situation in Pakistan in the recent past deterred investments in the steel industry. Mostly small plants characterize Pakistan's steel industry, with a majority of them employing outdated technology. Most smelting, re-rolling, and fabricating firms are small units compared to their competitors in steel-exporting countries. Similarly, the use of obsolete (and energy inefficient) technology raises the cost of production for these businesses, resulting in low-quality output with varied standards. In contrast, finished Chinese goods cost lower than locally produced raw materials.

Table 8 Peer analysis raw material imports

	Avg. Imports (2016-20) USD Mn	Avg. Quantity (kg)
Turkey	421.81	757,301,574
USA	343.20	264,628,238
Pakistan	313.85	529,465,041
India	203.43	393,094,172
China	160.43	203,904,760
Germany	113.65	162,867,397
Japan	10.59	20,264,234

Source: (UN Comtrade, 2022)

¹ AISI – American Iron and Steel Institute

In terms of quantity, Turkey and Pakistan from among the manufacturers of cutlery, are the largest importers of raw materials. Countries like China and India have their own supply of stainless steel which greatly reduces their costs and ensures reliable quality.

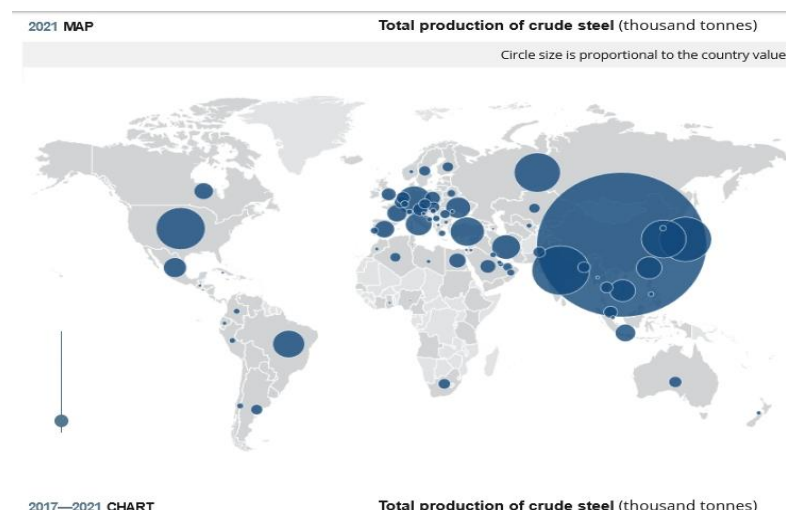


Figure 22 Global crude steel production

Source: (World Steel Association, 2021)

Steel plants in China and India are operational while steel plants in Pakistan have now become defunct.

Table 9 Crude steel production

Country	Production (000' MT)	%age of world total
China	1,064,766.8	56.6%
India	100,256.5	5.3%
Japan	83,186.5	4.4%
USA	72,732.1	3.9%
Russia	71,621.0	3.8%

Source: (World Steel Association, 2021)

The Chinese steel industry has for a long time played an important role in the development of the Chinese economy. China's steel industry has also made advances in energy conservation which has enabled it to lower its cost of manufacturing. Currently China's steelmaking capacity represents roughly one-half of global capacity and more than twice the combined capacity of the EU, Japan, the United States and Brazil. China's steel production climbed above 1 billion metric tons for the first time in 2020, reaching 1.05 billion metric tons, a 5.3 percent increase over 2019, despite a significant contraction in global steel demand caused by the COVID-19 pandemic (Office of the United States Trade Representative, 2021). China remains by far the world's largest exporter of steel, exporting roughly double the quantity of steel exported by Japan, the world's second largest steel exporter. China deploys a combination of export

restraints, including export quotas, export licensing, minimum export prices, export duties and other restrictions on exports of raw material inputs.

8.2 Machinery Used in the Cutlery Sector

Pakistan

Semi-automatic machinery used for cutting, shearing, grinding, polishing.

The machinery used in making cutlery in Pakistan is several decades old. Processes are mostly semi-automated. Lack of conveyer system is noticeable. All production processes are hand-operated which severely limits the productivity and speed of the production processes. Pakistan's cutlery manufacturers rely on discarded machinery from other countries or on government subsidized machinery to remain operational. Some of the machinery which was donated has remained unused at the Cutlery Institute of Pakistan for several years. Manufacturing is done on per-order basis and order quantities remain small for hunting knives and tableware. Utensil operations appeared a bit larger in contrast, with large scale manufacturing taking place.

8.2.1 Other countries

Countries such as China, Germany, USA, Japan, South Korea use more advanced machineries such as CNC machines.



Figure 23 Machinery at a German plant (Mono.de, 2022)

One of the key differences is the automatic production processes in which materials are fed via conveyor belt.



Figure 24 Conveyor belt feeding mechanism



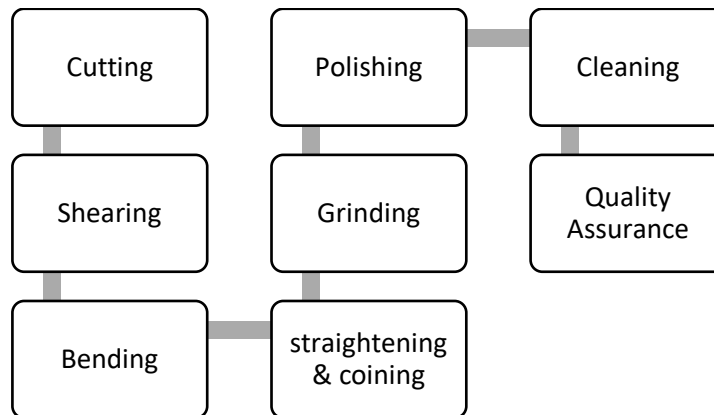
Figure 25 Automated processes

The conveyor belt process greatly speeds up the production process. China's strategies aimed at 'indigenous innovation' and technology transfer have closed the technological gap in the manufacturing sector. In the past, foreign companies seeking market access to China had to agree to transfer technology to Chinese companies.

Pakistan's machinery is outdated and semi-automatic. There is no conveyor belt feeding mechanism to increase productivity. Grinding is done manually as opposed to Germany where automated processes are used.

8.3 Processes

8.3.1 Pakistan



(UKaid, 2016)

Knives are given their hollow handles by taking two separate pieces of metal and bonding them together by using a soldering tool and then buffing out the seam. Spoons are created using a press to give them their unique scoop. Forks also use a press, but the outline is different from that of a spoon.

Utensils

A single order takes 12 days for Pakistani manufacturers to fulfill as compared to China which takes a single day.

Pakistan produces 6,000 units per day and ships 4 containers per month indicating that the plant is running at or near production capacity.

A mix of formal and informal units are engaged at different stages for the completion of a single product. Sometimes different processes are subcontracted to smaller units. While this keeps costs low, it affects consistency in quality as the smaller units often do not follow quality control procedures. Grinding is done manually as opposed to automated processes in other countries. Due to this, the items are susceptible to variation whereas other countries have automated grinding which leads to consistent product quality.

Wastage

- Pakistan's Cutlery Industry Average is 30 to 50 percent

Defective ratio

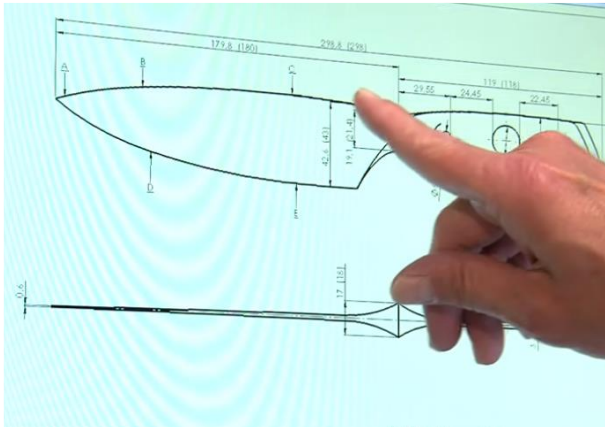
- 15 pieces per 100

8.3.2 Germany

German products are made via highly automated processes, using the latest technology such as laser cutting and computer algorithms to make the best quality cutting knife. The finished products are exported to more than 90 countries.

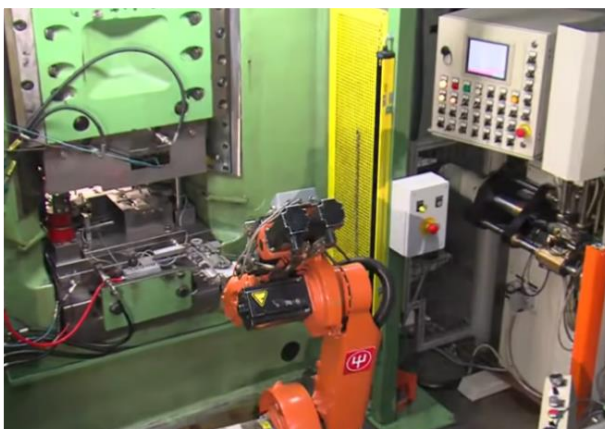


Figure 26 German manufacturing environment



Design and engineering

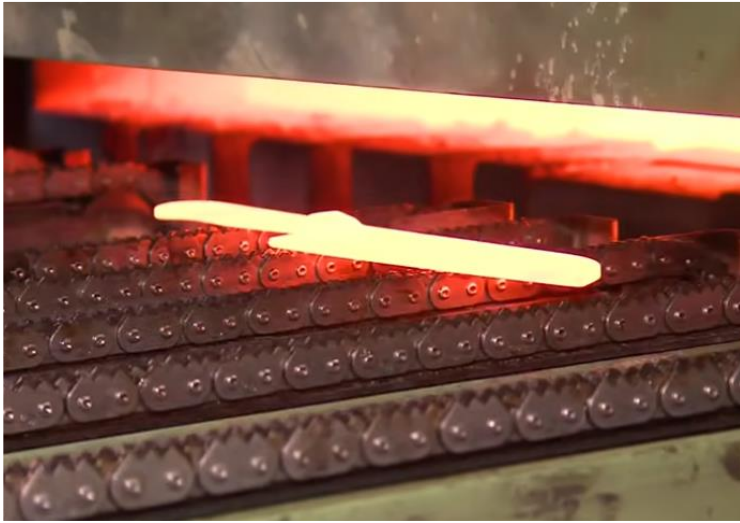
Specialists work alongside the designers. New knife designs are optimized.



Forging

Stainless steel is cut to measure and heated to approximately 1200 degree Celsius (2200 degrees Fahrenheit). The knife is precision forged in a die.

The blade is cut from the forged piece with precision using a laser.



Tempering

The soft steel is hardened. The blades are heated to approximately 1050 degree Celsius (1920 degrees Fahrenheit) in a tempering oven.

This hardens the blade to 58 Rockwell².

The blades are then cooled quickly. The knives become hard but also brittle. In a separate annealing furnace, the blades are heated back up to approximately 180 degrees Celsius (350 degrees Fahrenheit).

This enables the steel to have the optimum characteristics: hard yet still flexible.



Grinding and polishing

The blades are ground using the grinding machines. The flat surface of the blade is coarsely ground by the robots, then the blades are polished to give them their fine satin surface. Robots are also used to sharpen each hollow edge in the blade.

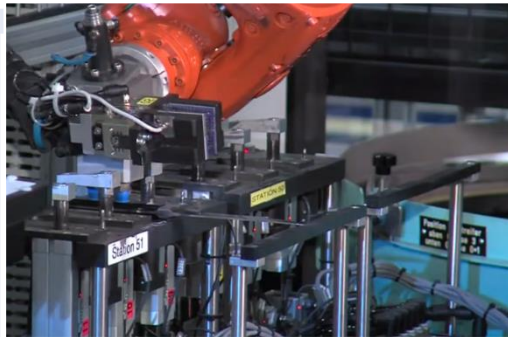
Qualified staff constantly monitors the production process. Oil and dirt is removed from the blade in a cleaning unit. Each blade is closely inspected.

² The Rockwell scale is a hardness scale based on indentation hardness of a material. When testing metals, indentation hardness correlates linearly with tensile strength.



Etching

The knives are electrolytically etched and then cleaned in ultrasonic units or engraved by laser and imprinted.



Handle attachment

The handles are mounted automatically using robots. They are welded and attached firmly to the tang using three rivets.



Finishing of the handle

Individually programmed robots polish the bolster, handle and tang with precision

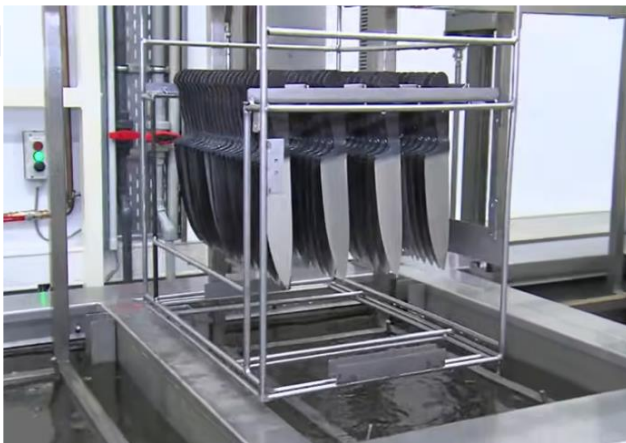
The result is consistent and of high quality. Skilled specialist staff check each knife at this stage. The surface of the handle is rubbed down. Manual work continues to be essential for the finishing touches. The surface of the handle and stainless steel rivets are polished to make them smooth.



Sharpening

A specially developed sharpening process gives the knives their ultimate sharpness. The blades are measured by sensors and lasers. Computers calculate the optimum angle. The knife is honed and sharpened on the whetstone.

Manual fine honing removes any remaining buzz. In the final stage, each knife is tested for sharpness, the finishing touches are then applied and the knives are submitted to rigorous quality control.



Quality Control

The quality control department carries out constant cutting tests and performance tests in accordance with European and DIN standards.

Source: (WÜSTHOF, 2014)

Regarding tableware, German manufacturers have their own websites that have complete buying options including online shopping and payment options for customers to purchase directly from their websites.

The websites also contain store locator options for customers wishing to visit the stores and manually inspect the goods before buying.



Figure 27 German tableware product display

For tableware, stainless steel sheets of thicknesses ranging between 0.8mm to 4mm are used. Stainless steel type used includes cold rolled, brushed or shiny material, depending on the intended use. Knife blades are made of other hardened special steels. The stainless-steel plate is delivered in a 100 x 200cm size. From one plate about 400 forks or 800 coffee spoons can be made (Mono.de, 2022). Wastage is from 10 to 15 percent. The low wastage is due to better cutting techniques and modern die designs.

8.3.3 Japan

Japanese knife makers also make Damascus steel knives and are direct competitors to Pakistani manufacturers.



Japanese Damascus



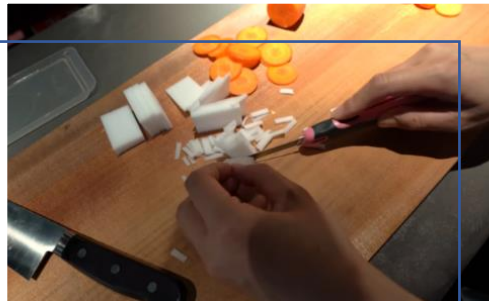
Japanese knife forging



Japanese knife sandblasting



Japanese knife handle polishing



Japanese knife testing



Pakistan's processes rely on manual labor in contrast to modern techniques such as those employed by Germany where laser cutting is the norm. Pakistani processes have a wastage of 30 to 50 percent as compared to other countries where wastage is 10 to 15 percent.

Pakistan

Pakistani manufacturers generally do not brand their products. Only a few of the larger utensil manufacturers put their brand name on their products. There is some limited form of marketing in online sales but that is due to the design of the ecommerce platform where the supplier's name must be provided. The products themselves are not branded with the company name. Manufacturers who are subcontracted by German manufacturers do not put 'Made in Pakistan' label on the items the way China does. Instead, the 'Made in Pakistan' sticker is normally put on the outer master carton which is easily peeled off by the German importers.

Japan

Japanese handcrafted knives are well known. The promotion of Japanese swords in popular culture, most notably the katana and wakizashi which are type of swords / knives, make for good marketing of Japanese swords and knives. Japanese knives are branded with the maker's name. This is not a new phenomenon, in medieval times, Japanese sword makers used to mark their signatures into the tang of their hand-made swords. While the handcrafted knives industry is also dying in Japan and several companies have closed, Japanese manufacturers have strong connections with chefs and work with them to develop the required types of knives. Continued feedback from the chefs is used to make specialized handcrafted knives which are preferred by chefs worldwide. Customers are invited to test the knives by cutting vegetables or Styrofoam. The difference in sounds while cutting vegetables and the ease of the cut distinguishes Japanese handcrafted knives from other competitors.

China

Chinese manufacturers brand their knives and tableware as 'Made in China' which leads to increased recognition.

8.5 Financing available for the Pakistan's Cutlery sector



Figure 28 Financing facilities available in Pakistan

SMEs are more likely to participate in alternative means of financing channels as opposed to the larger firms. Currently the smaller manufacturers obtain financing from local lenders with markup rates as high as 30 percent per annum. Often, SMEs lack the proper documentation required to fulfill the current financing regulations; therefore, they are unable to take financing from mainstream channels. Under the new SME Asaan Finance (SAAF) program of the SBP, manufacturers will be provided financing at 9 percent without pledging any collateral. The following lists the options available to the cutlery manufacturers for meeting their financing needs.

<i>Name</i>	Export Finance Scheme
	To encourage exporters to increase their exports, SBP allows financing to exporters at special rates. Financing is available for exports of goods especially value-added products. As an incentive, the scheme is broken down into Part I and Part II. Part-I is a transaction-based facility. Banks having EFS limits provide export finance to the exporters at pre-shipment and/or post-shipment stage on case-to-case basis against Export Letter of Credit/Contract for export of eligible goods. Under Part II an exporter's credit limit is equal to 50 percent of the export revenue of the previous year.
<i>Eligible sectors</i>	Direct/Indirect Exporters including Manufacturers, Trading Companies and New Exporters.

<i>Markup rate</i>	SBP Rate +2 percent for SMEs
<i>Tenor</i>	180 days
<i>Islamic alternative</i>	IERF (Islamic Export Refinance Scheme) available for those wanting to avail Islamic financing products.
<i>Name</i>	LTFF (Long Term Finance Facility) Financing is available for export-oriented projects only, having annual exports equivalent to US\$ 5 million or 50 percent of sales, whichever is lower. Financing is also available for new projects based on projected exports. New projects are required to meet the minimum export target of LTFF (annual export equivalent to US\$ 5 million or 50 percent of sales, whichever is lower) on staggered basis in four years.
<i>Eligible sectors</i>	Engineering Goods eligible among others
<i>Markup rate</i>	Up to 3 years: SBP rate+1.5 percent. 3 to 5 years: SBP rate+2.5 percent. 5 to 10 years: SBP rate+3 percent.
<i>Tenor</i>	up to 10 years
<i>Islamic alternative</i>	ILTFF (Islamic Long Term Finance Facility) available for those wanting to avail Islamic financing products.
<i>Name</i>	Refinancing facility for modernization of SMEs Financing is available for purchase of new imported/local plant and machinery for BMR of existing units and for setting up new SME units. Financing is also available for import /local purchase of new generators up-to a maximum capacity of 500 KVA under the Scheme.
<i>Eligible sectors</i>	Cutlery and Stainless-Steel Utensils eligible among others.
<i>Markup rate</i>	6 percent
<i>Tenor</i>	Up to 10 years.
<i>Islamic alternative</i>	IRFMS (Islamic Refinance Facility for Modernization of SMEs).
<i>Name</i>	Refinance Scheme for Working Capital Financing of Small Enterprises & Low-End Medium Sized Enterprises This scheme is for meeting the working capital requirements of SMEs. Maximum financing limit for Small Enterprises is Rs. 25 million whereas low-end Medium Sized Enterprises (with annual sales turnover of Rs. 300 million) can avail financing up to Rs. 50 million
<i>Eligible sectors</i>	Surgical goods sector is eligible; however, cutlery may be subsumed under surgical goods category.
<i>Tenor</i>	Up to 1 year
<i>Markup rate</i>	6 percent

Islamic alternative | IWCF (Islamic Refinance Scheme for Working Capital Financing of Small Enterprises and Low-End Medium Enterprises)

Name | Microfinance Credit Guarantee
The MCGF Facility has been started with the help of a UK Department of International Development (DFID) grant of GBP 10 Mn.

Amount | Rs 500,000 to Rs 3 Mn.

Name | SME Asaan Finance (SAAF)
This scheme is for collateral free financing to SMEs. All SMEs that are new borrowers are eligible. Loans may be secured against personal guarantees of the borrowers. Government will provide risk coverage up to 60 percent for the loans borrowed for four years. However, the facility may only be availed from one bank.

Amount | Max PKR 10 Mn for a single SME. One individual owning multiple SME businesses can only avail cumulative financing up to PKR 10 Mn under the scheme.

Markup rate | 9 percent

Islamic alternative | I-SAAF (Islamic SME Asaan Finance)

Tenor | Up to the discretion of the bank.

Name | PMKJ-YES (Prime Minister's Kamyab Jawan Youth Entrepreneurship Scheme)
Financing under PMKJ-YES is available for all citizen of Pakistan holding a valid CNIC and aged between 21 and 45 years with entrepreneurial potential. Financing is available for long term loan /working capital loan including Murabaha and leasing /financing of locally manufactured vehicles for commercial use.

Amount | Maximum PKR 25 Mn

Markup rate | Up to 5 percent.

Tenor | Maximum 8 years

Islamic alternative | N/A

Source: (SBP, 2022)

Other countries provide financing via specialized banks to their SME sectors.

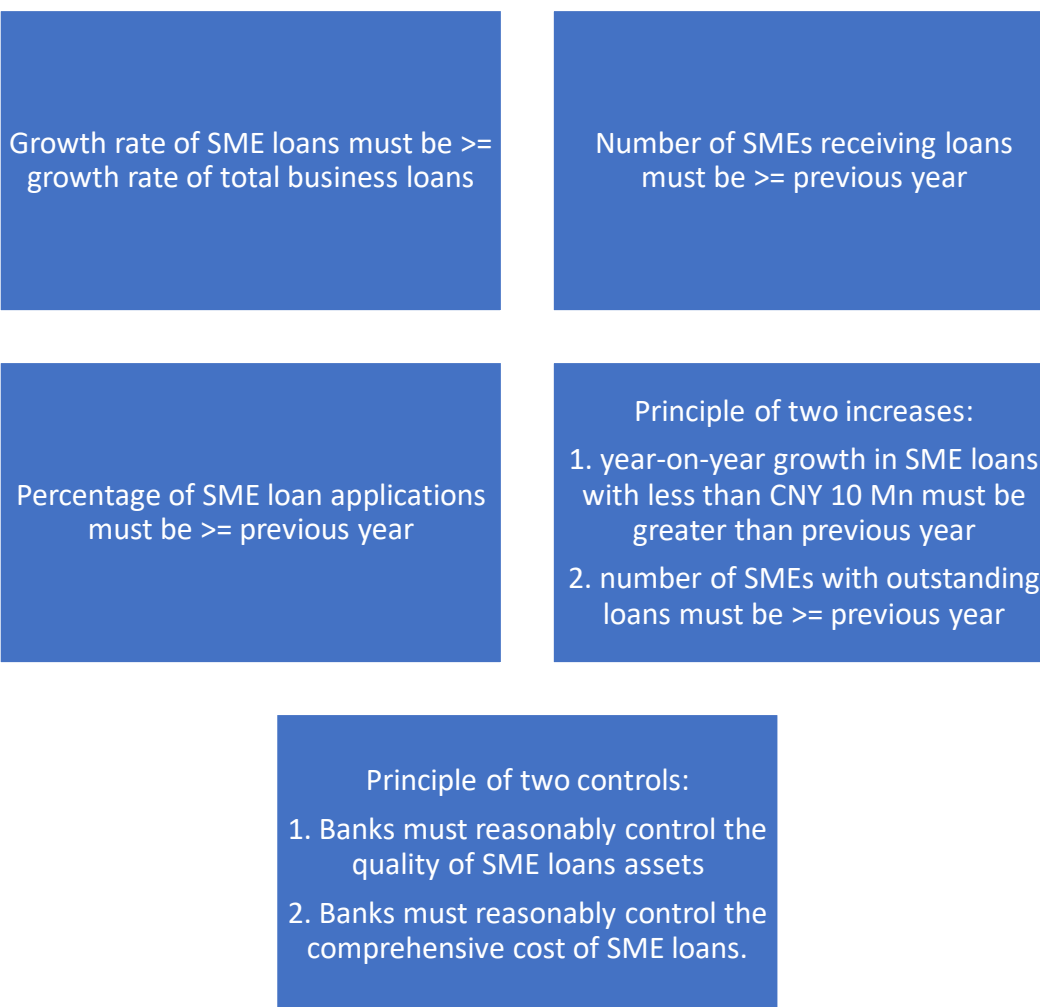
Table 10 Country specific SME sector initiatives

	India	Bangladesh	Germany	South Korea
Specialized Banks for SME Sector	✓	✓	✓	✓
Specialized Bank Branches for SME lending	✓	✓	✓	✓
Credit Guarantee Institutions	✓	✓	✓	✓
SME priority sectors advances/low interest rate lending to SMEs	✓	✓	✗	✗
Annual lending targets for SMEs	✓	✓	✗	✗
Composite Term Loans to SMEs	✓	✗	✗	✗

	India	Bangladesh	Germany	South Korea
Working Capital Loans	✓	✗	✗	✗
Cluster financing of SMEs	✓	✓	✓	✓
Provision of specialized branches for clusters	✓	✓	✓	✓
Provision of Loans without collateral/third party guarantees	✓	✓	✗	✗
Mandatory credit rating of SMEs	✗	✗	✗	✗
Optional credit rating of SMEs	✓	✓	✓	✓
Provisions for debt restructuring of advances for sick units	✓	✗	✓	✓
Training Institutes for Entrepreneurs (supported by Financial Institutions)	✓	✗	✓	✓
Priority for Women Entrepreneurs	✗	✓	✗	✗
Priority financing for Research and Innovation	✗	✗	✓	✓
Financing support for SME sector exports	✗	✗	✓	✓

Source: (SBP, 2017)

China's strategy to provide financing to its SMEs is based on five principles:



While Pakistan's financing schemes are at par with India (and Bangladesh), the lack of utilization of these by SMEs due to their inability to fulfill documentary & compliance requirements means that Pakistani SMEs are unable to make the most of the financing opportunities available.

8.6 Distribution and Logistics

Pakistan

Manufacturers ship to distributors overseas. In some cases, distributors overseas are family members. Most of the cargo is transported by air indicating that low quantities are exported. Warehousing is in-house. Items are usually kept in a small room until they are ready to be transported to the airport by courier or Pakistan Post. However, Utensils are shipped in LCL containers indicating larger quantities or lower values.

China

Many of the larger Chinese trading companies have offices abroad, in addition to a significant network within China. Chinese cutlery manufacturers utilize distributors who have presence in both China and abroad, this allows them to transport cargo seamlessly from China to USA, Europe etc. In places where Chinese distributors do not have a presence, the freight forwarders establish connections with overseas distributors who know their own markets.

China is number one in the world in terms of freight volume. Trucks line up for loading at Chinese companies 4 times a day as opposed to once a day in Pakistan. The volume of orders is high in China. Shipping however, remains very expensive. Heavy road tolls pay for China's ongoing infrastructure upgrades. These tolls can account for 30 to 40 percent of trucking companies' transport costs.

Distributors in China also provide value-added services such as 1) warehousing 2) inventory management 3) secondary packaging. SMEs with limited budgets for branding and marketing often turn to regional agents or distributors to create a sales network. These agents and distributors bring their existing sales networks and can be helpful in terms of responding quickly to market changes and keeping track of policy and regulation updates.

Source: (Canadian Trade Commissioner Services in China, 2021)

India

Indian manufacturers utilize overseas distributors to ship their goods to foreign markets. SMEs may also have family members abroad who act as distributors.

India is expected to unveil its National Logistics Policy in 2022 which will aim to reduce logistics costs, long blamed for eroding the competitiveness of Indian exporters. The logistics sector in India remains very complex, with the involvement of more than 20 government agencies under various ministries, 40 partnering government agencies and 37 export promotion councils. These deal with 500 certifications covering 10,000 commodities. Further, 81 authorities and 500 certificates are required for exports or imports.

Source: (Pattanayak, 2021) (ANI, 2021)

India generally has a better infrastructure than Pakistan for both cargo and passenger movements.



Figure 29 Worli-Bandra Sealink. An example of India's infrastructure

Germany, Japan and China have an advantage of better infrastructure, better warehouse management and the use of bonded warehouses which cuts down their inventory management costs. The World Bank's rankings of the customs clearance process are: Pakistan (2.12), India (2.96), China (3.29), United States (3.78), Japan (3.99), Germany (4.09).

8.7 Manpower

PAKISTAN	The industry is currently facing a shortage of labor especially in the polishing segment. Previously the industry used to work under the ustad-shagird (master-apprentice) model
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	where a master would take apprentices under his wing, usually from within the family, and then proceed to teach them the trade. Since the ban on child labor, this model is defunct. Now the training of students is done by TEVTA where students are taught various courses such as basic computer skills, AutoCAD, PowerPoint as well as how to operate CNC machinery. While vocational training is a good start, certain drawbacks exist such as outdated curriculums, obsolete machinery, outdated manufacturing methods and a focus on craft skills as opposed to engineering, this leads to inefficiencies an example of which is the industry's inability to reduce wastage. Pakistan's educational system lacks an effective monitoring mechanism which leads to implementation problems.
JAPAN	Similar to Pakistan, the workforce engaged in hand-crafted swords does not desire to work in physical demanding manual labor and therefore the Japanese industry faces a shortage of labor as well. Workers' age varies between 18 and 30 years. Apprentices learn one process at a time and it takes years to be able to do it all from start to finish. Japanese apprentices are also given the opportunity to sell their own produced knives once a year; also talking to customers helps them gain their own followers and the industry benefits as a whole.
CHINA	China's strong growth has meant that the demand for skilled workers, trained in Computer Numerical Control (CNC) technology, has increased. Chinese SMEs reported that many students from senior vocational and technical colleges are often snapped up by major enterprises even before they graduate. According to data released by the Ministry of Education, by 2025, the total number of skilled workers in 10 key areas of China's manufacturing industry including new materials, CNC machine tools, energy-saving and new energy vehicles, will be close to 62 million, with a talent demand gap of nearly 30 million, a 48 percent shortfall. China is revamping its technical school education system by learning from German and Korean models, which have successfully trained skilled workers and engineers through a robust technical school system to support an innovative manufacturing industry. The Chinese government has introduced some policies to strengthen the vocational education drive. For example, the introduction of technical skill certificates helps to benchmark and monitor technical learning.

Source: (Yang, 2021), (Li, 2021)

8.7.1 Demand Skill Gap Analysis

Pakistan is lagging due to several factors. The training given is not industry specific; the courses taught, apart from computer related courses, are outdated. There are not enough modern machines for the apprentices to practice on.

China initially had the same problem as Pakistan wherein vocational training was seen as a fallback for those who could not get into universities. While plagued with the same problems as Pakistan, China revamped its technical education system with the introduction of technical skill certificates to benchmark

and monitor technical learning. China also moved towards more automated manufacturing processes to compensate for the drying up of a large pool of manual labor.

8.8 Government Policies

PAKISTAN	<u>Drawback of Local Taxes and Levies (DLTL)</u> : The cutlery sector is eligible for a 3 percent drawback on exports. 50 percent of the rate of drawback is provided without condition of increment in exports. Remaining 50 percent of the rate of drawback is based on annual export performance, where the exporter must achieve an increase of 10 percent or more in exports during the current financial year as compared to the previous financial year. To improve the cash flow of exporters, disbursement of the remaining 50 percent of the rate of drawback on annual performance is further relaxed and allowed on the performance during July- December of each year. This relaxation is subject to submission of a bank guarantee that, the exporter shall return the excess amount, in case his annual exports are less than the eligibility criteria stipulated to avail the remaining 50 percent of the rate of drawback payments. Further the facility incentivizes the exports of products under the stated categories to the non-traditional markets by allowing an additional 2 percent. The non-traditional markets consist of five regions including Africa, Latin America, Non-EU European countries, Commonwealth of Independent States and Oceania and comprise a total of 143 countries.
CHINA	<u>Import duties on pig iron, crude steel and recycled steel</u> have been cut to zero. Previously, China used to give a rebate of 13 percent on VAT charged on exports of hot rolled coil, cold rolled steel sheet and other raw materials. However, since May 2021, these rebates have been revoked. This has caused the prices of scrap steel imports from China to increase which have affected the prices of cutlery from Pakistan while lowering the prices of Chinese cutlery even further. Because of its state-led approach to the economy, China is the world's leading creator of non-economic capacity, as evidenced by the persistent excess capacity situations in several industries, including, for example, steel, aluminum, solar panels and fishing. China's economic policies have contributed to massive excess capacity in China through various government support measures. For steel, the resulting over-production has distorted global markets.

Source: (Tan, Zhang, Dai, Ye, & Zhuo, 2021)

Pakistan's government policies have mostly been unpredictable and inconsistent. The industry cannot take strategic decisions like expansion, investment, and procurement of machinery since these critically depend on the predictability of policies.

8.9 Energy Costs

Pakistan's electricity tariffs are 40 percent higher compared to regional competitors. One of the reasons for this is government taxation. Pakistan has the highest rate of taxation on electricity, as high as 55

percent. The highest tax rate on electricity outside of Pakistan is around 20 percent. Energy tariffs that are not regionally competitive hurt the competitive position of Pakistani products in the international market (Qasim, Resolve to Revive Our Textile Sector, 2021).

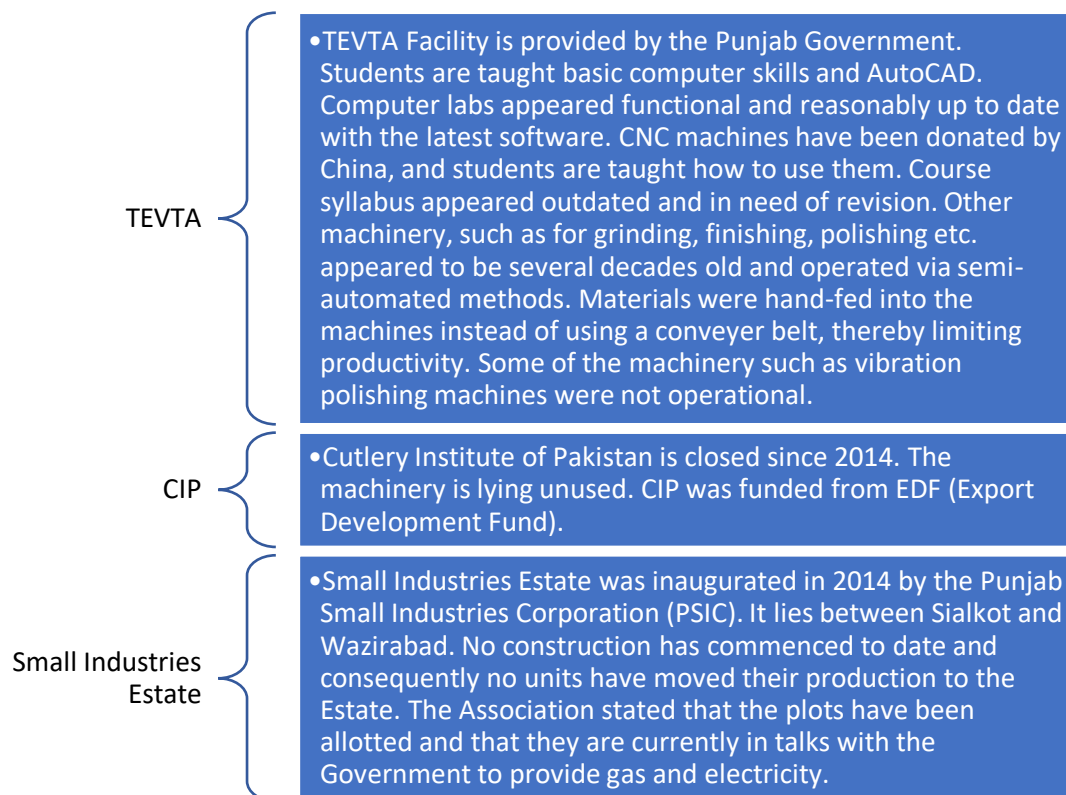
Table 11 Energy rates comparative analysis

	Pakistan	China	India	Bangladesh	Vietnam	Germany	Japan
Energy rates in USD per kW/h	0.148	0.099	0.108	0.104	0.077	0.271	0.187

Source: (GlobalPetrolPrices.com, 2022)

8.10 Government Facilities for the Cutlery Sector

Field visits to the government provided facilities revealed the following:



Both CIP and SIE are located next to each other on the outskirts of Wazirabad.

9 Cutlery Sector Input

One window operation	<ul style="list-style-type: none"> A single window operation may be established as a connector between manufacturers and the Punjab Labor Department, Social Security Department, EOBI, Environment Department, Income Tax Department, Sales Tax Department etc.
Interest free loan package of minimum PKR 5 bn.	<ul style="list-style-type: none"> For enhancement in exports, interest free loans may be provided for transferring the cottage industry to SIE and subsidizing production costs.
Rebate on export be enhanced to 9 percent.	<ul style="list-style-type: none"> To offset rise in energy prices, cost of raw materials, increase in wages, financing of modern machinery and participation in exhibitions.
Delegation for cutlery	<ul style="list-style-type: none"> The sector wishes to be included in trade delegations sent to other countries. The industry reported that often their representatives are not included in delegations visiting other countries.
Regulatory duty on import of cutlery and kitchenware be increased to 50 percent.	<ul style="list-style-type: none"> The sector wishes to enhance its share in the domestic market and would like further protection from international competitors. The industry states that this would also help avoid unemployment.
The Federal Govt. may fully facilitate SIE.	<ul style="list-style-type: none"> 90 percent of the development works i.e., roads, sewerage, water supply and boundary wall has been completed at the SIE. The sector would like the government to allocate special funds for electricity supply so that the local manufacturers can get electricity and gas at the lowest rates.
GST on imported raw material be reduced from 17 percent to 5 percent.	<ul style="list-style-type: none"> The sector would like the GST on raw material to be reduced to 5 percent to counter the increasing cost of raw materials.
Small players to be provided loans amounting to 60 percent of annual sales at a markup rate of 3 percent.	<ul style="list-style-type: none"> The sector states that by providing loans at low markup rates upto 60 percent of annual sales, manufacturers will be brought into the tax net and therefore will be able to increase their production capacity to export.

10 Major Findings

10.1 China Dominates the Global Cutlery Market

In Pakistan the industry mostly operates on a small scale with a few utensil making units which could be classified as medium to large units as per Pakistani standards. Due to the size of the units and the processes and technology employed, the Pakistani industry is no match for the Chinese industry as far as output, quality and prices are concerned. The German industry has managed to carve out a niche for itself because of its technological advantage. The domestic industry can compete in the local market for tableware as they have an advantage over China and Turkey in terms of logistics costs plus the tariff protection offered to them by the government. The export industry has developed around the making of hunting knives using Damascus steel. This might be because China is not willing to venture into Damascus steel making due to the small-scale production process for the steel, making it unfeasible for machines and processes tuned for mass production. For China, the cost of venturing into Damascus steel blade manufacturing outweighs the benefits. Non-Damascus steel blades are much more in demand than Damascus steel blades. Some of the larger Pakistani utensil manufacturers have been able to fare better by exporting to other countries. Hunting knives manufacturers are making Damascus steel knives, which have a high carbon content and need to be kept oiled, otherwise they become brittle. Increasing carbon content increases hardness and strength, but carbon also increases brittleness and reduces weldability. The product may be preferred by some due to its low cost but is ultimately a lower quality product compared to similar Japanese or German products.

10.2 Protectionism vs Competitiveness

The tableware sector is currently unable to compete against China in the global markets. It fares better in the domestic market due mostly to reduced logistics costs and the tariff protection that it enjoys. Subsequently, local manufacturers get a higher price in the local market as compared to export markets, thus disincentivizing any export efforts. This is a major reason tableware exports are a negligible component (3.6 percent) of cutlery exports. On the opposite end of the spectrum, Handcrafted hunting knives made of Damascus steel are only sold in export markets. They have no presence in the local market. Their main competitor in Damascus steel knives is Japan while China, Germany and USA offer other substitutes in the form of non-Damascus blade hunting knives. Currently the cutlery industry is asking for further protection in the form of higher tariffs, maybe as high as 50 percent, on cutlery imports. Protectionism is contrary to the objective of enhancing competitiveness and would hurt the industry in the long run. That being said, some protectionism is pragmatically necessary for the local industry to survive. Some limited opening up of the domestic market may be useful to keep the industry afloat while increasing its competitiveness in the international markets.

10.3 Raw Materials

High quality raw materials are not available locally. They have to be imported from China. Due to supply shortages, prices of raw materials have been increasing. The global trend of rising raw material prices and local rupee depreciation has put pressure on the Cutlery sector. China uses VAT rebates as a mechanism to control its exports of steel. Currently these rebates have been revoked leading to increases in prices of raw materials. The industry is looking into the possibility of establishing a raw materials bank together with the Surgical sector. This pooling of resources to establish a raw materials bank may relieve the pressure on raw material prices for both sectors but will entail costs in the form of inventory and logistics including warehousing.

10.4 Quality – impacted due to an absence of Technology

Exports are often hampered by quality constraints. Pakistani hunting knives are brittle and need to be kept oiled to prevent the edge from breaking. The edge of these knives are not as sharp as German knives because German knives' edges are made using laser sharpening whereas Pakistani edges are manually made on a grinding belt. German and Chinese knives have the advantage of being consistently sharp since they use machines to achieve a consistent level and have access to higher quality steel from domestic steel mills. This is an area requiring focus in the immediate future to fuel growth in the sector. A major obstacle to removing this shortcoming in addition to the quality of the steel is the low technical level amongst the workforce together with minimal technology implementation.

Quality control checks though present in most factories need to be further strengthened. The industry appreciates the need to comply with internationally acceptable standards if it is going to make a mark in export markets, however, it needs help in complying with international standards. Utensils manufacturers have more stringent quality control standards due to their export-oriented nature.

10.5 Shortage of Skilled Labor

The industry suffers from labor shortages. Workers are reluctant to work in heavy manual tasks. Social taboos such as viewing polishing as 'dirty work' prohibit the entry of new entrants into this field. Workers prefer to work in the apparel sector where the work environment is much better than the dusty and sometimes hazardous environment in the cutlery sector. Other export-oriented sectors such as textile and sports goods have to comply with safety and environment standards. For example, Pakistan's status in the EU GSP+ category requires compliance with environmental, labor, health and safety standards. This helps in attracting more willing workers who are guaranteed some benefits which are not available in the cutlery sector as their factory environment and safety conditions are not being monitored by the buyers.

Businesses claim that apprentices coming from vocational training institutes are not up to the required mark. Part of the reason for this is that the training institutes lack both the machinery and an updated curriculum for hands-on training and imparting of knowledge. Some of the machinery lying with the CIP

needs to be repaired so it could be used for training students. This situation might have been avoided if there was better coordination between industry and the governments at the Federal & Provincial levels.

10.6 Financing

Subsidized financing is available in the form of various SBP schemes; however, the Cutlery Sector does not utilize these available schemes due to either (1) lack of knowledge or (2) inability to fulfill documentary compliance requirements. Instead, the Cutlery Sector borrows from informal channels who charge them very high markups. This greatly increases the manufacturer's costs. The industry proposed to be included in the eligibility criteria of SBP Refinance Scheme for Working Capital Financing of Small Enterprises & Low-End Medium Enterprises.

10.7 Liquidity Issues

Manufacturers have to pay their vendors immediately, yet have to wait to receive their sales proceeds from both local and international buyers. This creates a cash flow issue.

10.8 E-commerce

Most hunting knife manufacturers are small players and they are selling via e-commerce platforms such as Amazon indicating that most exports are B2C. There are no long term B2B contracts with any large buyers. Payment is mostly received from the buyer via payment portals available on these platforms.

10.9 Branding and Marketing

Branding and marketing appear to be almost non-existent. There is an absence of stamping of Made-in-Pakistan on export products, there are no major Pakistani Brands & hence no Country-of-Origin advantage. Most of the industry is neither branding nor stamping products with 'Made in Pakistan' when exporting to Europe. Only products sent to the US are stamped because of US regulations. While exporting to Europe, exporters sometimes put the 'Made in Pakistan' label on the outer packaging but not on the items. Only a few utensils manufacturers, who have contracts with UK buyers, are able to brand and package their products. The industry, by and large, does not believe in its own strengths.

10.10 Concentration Risk



Figure 30 Export concentration
Source: (UN Comtrade, 2022)

Pakistani hunting knife manufacturers either have established buyers or try to find new ones through Amazon and other online platforms. In both cases there seems to be a reluctance to venture into non-traditional export markets. Most exports appear to be concentrated in the USA, Germany and the UK. This is due to a variety of factors such as the inability of the businesses to seek out new markets, inability to contact commercial counsellors placed in non-traditional markets, banks reluctance to approve L/Cs in non-traditional markets and payment difficulties. Utensils exporters supply to the UK, Canada and Tanzania via their own offices abroad and have a better diversification in their export markets.

10.11 Competition from Ceramics and Other Materials

Pakistani products made from stainless-steel face competition from ceramic knives and ceramic cooking utensils. Ceramics knives are known to hold their edge much longer than stainless steel ones while ceramic utensils are known to be more durable than stainless steel and aluminum. At the moment, Pakistan does not have the capability to manufacture ceramic knives and utensils and hence faces tough competition from substitute products in both local and foreign markets.

10.12 Absence of an Enabling Environment Impacts the Sector

Pakistan has the highest rate of taxation on electricity - as high as 55 percent (Saleem, 2021). The highest rate outside of Pakistan is around 20 percent. World Bank rankings for Efficiency of customs clearance process are given in Figure 31 (World Bank, 2018). Pakistan ranks last in terms of customs clearance efficiency among its peers in the cutlery sector.

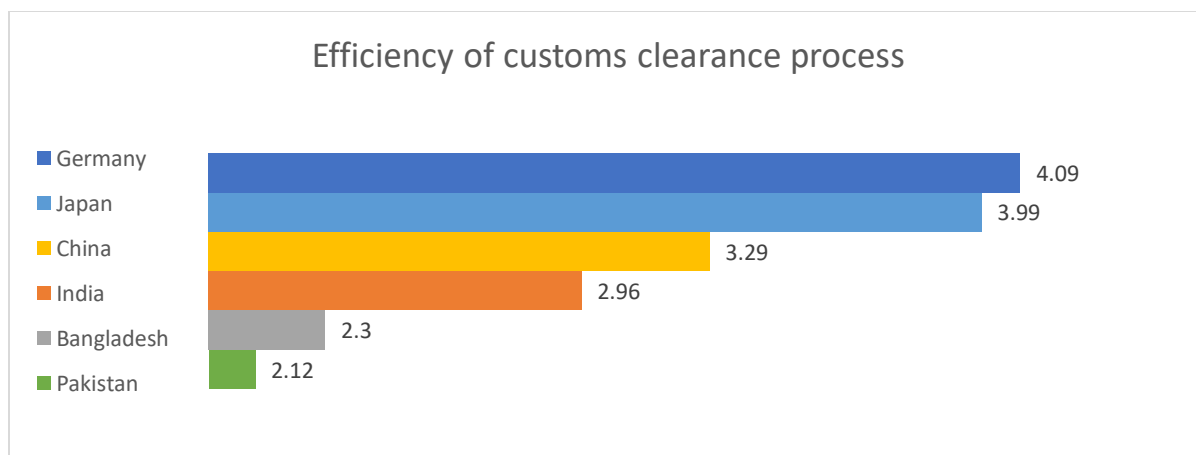


Figure 31 World Bank Rankings for Efficiency in customs clearance process

At times, SROs are issued without stakeholder consultation. The government, at times, pledges to keep tariffs on raw materials low and then imposes additional customs duties and regulatory duties. Currently the regulatory duty on scrap steel, a vital raw material for cutlery, is as high as 35 percent according to PCSUMEA. The prices of raw materials remain high, impacting production costs and the prices of finished goods. Despite the government's stated objective to diversify the export basket, most subsidies are still budgeted towards textiles which results in stunted diversification of the overall export basket.

10.13 Government provided facilities

10.13.1 Small Industries Estate

Progress on operationalizing the Estate is slow. The project was inaugurated in 2014 and work on roads and the drainage system began in 2021, after a gap of 7 years and even then, no buildings have been constructed on the allotted land. This unutilized land has an opportunity cost. According to the Association, there are electricity and gas supply issues that need to be negotiated with the Government. The Government and PCSUMEA are still negotiating as to who will pay the CAPEX for these services.

10.13.2 Cutlery Institute of Pakistan

The Cutlery Institute of Pakistan (CIP) was a project inaugurated in 2001 by EDF. It has been non-functional since 2014. Funding from EDF stopped in 2014 and the entire project has since been halted. Recently PCSUMEA stated that they are looking to restart the Institute together with TUSDEC, however no concrete timeline is in place to restart CIP.

10.13.3 TEVTA

TEVTA appears to be functional with ongoing classes, computers in working condition and functioning machinery. Most of the machinery is outdated. However, some of the machinery donated by China is state-of-the-art. Apart from training workers, TEVTA also fulfills job orders for the cutlery industry.

10.14 Other Issues

Other issues not specific to the cutlery industry but undermining the overall growth of business in Pakistan include the complex taxation system. The World Bank's Doing Business Report notes that companies pay 34 different taxes, compared to an average of 26.7 taxes in other South Asian countries. Taxes on energy are as high as 55 percent undermining the competitiveness of every industry in Pakistan. Excessive regulations and not enough attention on sectors in the engineering sector seem to have eroded the industrial base of the country. As an example, the bureaucratic procedures at customs clearing posts are needlessly complex and result in high documentary compliance-to-GDP cost.

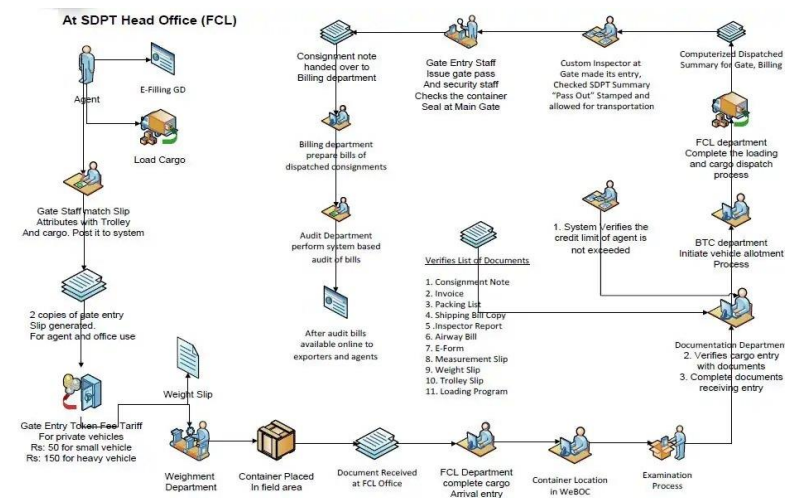


Figure 32 Process flow at SDPT

11 Recommendations

In order to promote Make-in-Pakistan and to become a player in international markets, the industry will need to step up in several areas such as product quality, upscaling, branding etc. Corrective steps need to be taken to reach a competitiveness level with other countries. On the government side a better understanding of SME development in other countries such as Japan and China may offer insights into policy approaches that may also prove to be viable for Pakistan at this stage in its economic development. For example, Japan's historical progress toward a mature SME sector does suggest strategies that Pakistan can adopt in its own development. In particular, Japan's decision to encourage joint partnership between SMEs and academic institutions, together with its innovative approaches toward SME financing are worth emulating. Given that Pakistan has less of a technological legacy, marginal changes are more productive than a radical overhaul of the sector.

11.1 Raw materials supply

The current cost of scrap steel from China is approximately Rs 400 per kg. Manufacturers are reporting that the biggest bottleneck they are currently facing is in the procurement of raw materials. Long term

goal should be to restart supply of raw materials from Pakistan's own steel mills instead of relying on scrap steel imports from China. The manufacturers are proposing to build a raw materials bank to alleviate rising prices of stainless steel.

Although exporters are exempt from import duties, they have to pay almost 50 percent additional amount in the form of GST and other taxes. This creates a cash flow liquidity issue for exporters. Instead of establishing a raw materials bank, it would be more beneficial to establish bonded warehouses in Pakistan where raw materials are stored. The raw materials would be stored in the bonded warehouse until needed thus eliminating the need for paying additional duties. This would reduce production costs for manufacturers and resolve the issue of liquidity.

Table 12 Raw materials bank vs Bonded warehouse

Raw materials bank	Bonded warehouse
<ul style="list-style-type: none"> • Pools resources to provide raw materials at one location. • Does not resolve the issue of additional customs duties increasing production costs. • Runs the risk of misallocation or disproportionate allocation of raw materials depending on the management. 	<ul style="list-style-type: none"> • Goods are received directly into the warehouse, all necessary duties, taxes, and customs charges are deferred until the goods are ready to leave the warehouse. • Instead of paying all customs duties at once, bonded warehouses give the flexibility to control when payment is made by requiring payment only on release of goods. This significantly reduces the cost as opposed to importing large quantities of goods by manufacturers.

11.2 Financing

The industry requires ease of financing. Inability to fulfill documentary compliance has hampered the industry's ability to obtain financing. While manufacturers state the hurdle of raw materials, their machinery is also outdated and productivity is severely hampered. Govt may encourage LTFF or ILTFF financing to purchase the latest machinery. At present the industry has to meet its financing needs from informal channels which charges markup as high as 30 percent per annum. Ease of documentary compliance is needed as well as the SBP setting KPIs for banks to enhance SME exposure like in China.

The industry proposes the inclusion of cutlery sector in SBP Refinance Scheme for Working Capital Financing of Small Enterprises and Low-End Medium Enterprises. PBC backs this recommendation. However, the industry's basis for this inclusion i.e., that their HS codes are similar to surgical instruments is factually incorrect. It may be noted that surgical instruments are classified under HS-9018 while the cutlery industry's items are classified under HS-82xx, HS-73xx, HS-76xx and HS-9307.

11.3 Improving Work Processes

It is important to reduce wastage and reworks to near competitor levels. Pakistan's raw material wastage is 30 to 50 percent whereas wastage in other countries is 10 to 15 percent. It is recommended that Pakistani engineers may be utilized to alter the design of dies and review production processes in a manner to reduce wastage to competitive levels. Other methods include the use of consultants to make the industry aware of how to reduce wastages. The funding for such consultants may come from the EDF prescribed for such purposes.

11.4 Revitalizing Closed Government Facilities

The industry recommends handing over CIP Institute to TUSDEC and a fully funded SIE.

The currently available government facilities for the sector appear to be under-utilized. Both TEVTA and CIP were formed to achieve the same objective i.e., to establish a common facility center for the industry. TEVTA, in addition to teaching apprentices, also houses a common facility center for use by the industry. CIP was funded by the federal government via EDF while TEVTA is funded by the provincial government. The presence of two common facility centers to achieve the same objective is redundant. It is suggested that the federal and provincial government departments may agree on establishing a single common facility center and build its capacity instead of running two parallel facilities. This will save resources which can be utilized in other areas. The out of commission machinery present at CIP may be handed over to TEVTA for training of students.

No units have shifted to the Small Industries Estate allotted to the cutlery sector. The empty plot of land has been vacant for four years. The Punjab Government may work with the Association to resolve the issues involved in operationalizing the SIE.

11.5 Improving Quality

Pakistani manufacturers sharpen knives manually; leading to inconsistency in sharpness. The industry requires latest machinery to be able to produce knives with consistent quality. New machinery for grinding, sharpening etc. may be procured for common use at TEVTA.

11.6 Branding & Marketing

The reluctance to stamp 'Made in Pakistan' or their own brand name minimizes the potential to get a premium price or to sell in new markets. Pakistan could learn valuable lessons from the Turkish 'TURQUALITY' Program through which the Turkish government has been funding the development of 10 global Turkish brands. A "PAKQUALITY" initiative may be promoted under a Public Private Partnership model to ensure that Pakistani brands also become regional / global icons.

Launched in 2005, TURQUALITY® is a scheme developed to promote Turkish brands. It is a project associated with bringing the concept of Turkey and Quality together. TURQUALITY® was initiated by the Ministry of Economy, Turkish Government, Turkish Exporters Assembly (TIM) and Istanbul Textile and Apparel Exporters Association (ITKIB).

11.7 Exploring new markets

Most exports are concentrated towards the USA, Germany and the UK. The industry does not appear to focus on diversification of its export markets. Commercial counsellors posted in non-traditional markets may be advised to promote cutlery items manufactured in Pakistan.

11.8 Review of Customs Duties

Prices of Chinese steel have increased due to rising labor costs and that country's internal policies to revoke rebates on exports of raw materials. In the absence of locally manufactured steel, Pakistan's cutlery industry has to purchase recycled steel from China. Despite the tariff free import of raw materials due to CPFTA, additional customs duties and taxes imposed on imports increases production costs and the price of finished goods, thus hampering the industry's ability to compete in international markets. If the government's objective is to increase exports, these additional duties imposed via SRO 840(I)/2021 and SRO 845(I)/2021 may be removed to help in the industry's growth.

11.9 Taking advantage of the US GSP scheme

The industry noted that they are often not included in trade delegations which visit other countries. Cutlery items are included in the list of items eligible under the US GSP program. These items are eligible for duty free import in the USA. Commercial counsellors posted in USA may be requested to seek buyers of cutlery items as these would be tariff-free under the US GSP. It is recommended that, during calls to nominate members for trade delegation visits to the USA, members of the cutlery industry may be included. Commercial counselors may act as a liaison between the interested buyers and Pakistani manufacturers. If the number of interested buyers and exports of cutlery increase, more focus may be given to cutlery-specific delegations.

11.10 Linkage with Academia

Metallurgical engineers from universities such as Ghulam Ishaq Khan Institute, NED University, Punjab University etc. can be linked with the cutlery industry to provide expertise on the latest processes being used in manufacturing worldwide. Latest best practices such as improved die design to reduce wastage, optimizing the production process and the number of times steel can be recycled without a significant drop in quality, can be taught to the cutlery industry to improve the production processes and the end product.

11.11 Value-Addition: Ceramics

Ceramic knives provide a substitute for steel knives in many uses. Ceramic knives are sharper and lighter than steel. Unlike a traditional steel blade that requires regular honing and sharpening to keep its edge sharp, a ceramic knife will stay sharp and retain its cutting edge for much longer.

Ceramic blades neither rust nor stain and are nearly impossible to blunt. They are mostly used for light work such as fine slicing and decorative cuttings, but are not for heavy-duty use as their edges are brittle. For this reason, they are not a replacement for chef's knife, however in many uses, they are preferred in the kitchen as they outperform steel knives.

Zircon, the raw material for ceramic manufacturing, is available in Pakistan.

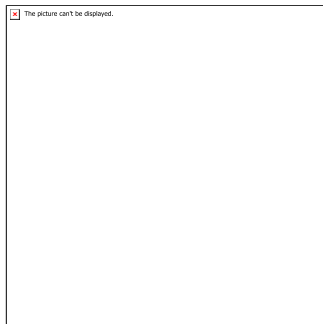


Figure 33 Ceramic knives

While Japan, Germany and China are manufacturing ceramic knives, Pakistan has not ventured into the manufacture of ceramic blades. Germany is not only manufacturing ceramic blades for kitchen knives, but also for surgical knives and scalpels.



Figure 34 Ceramic scalpel

Not only are Japanese ceramic knives renowned throughout the world, they have also established branding for distinguishability. Kyocera™ from Japan is a world recognized brand name in the manufacture of ceramic blades. Pakistan may explore the possibility of establishing a ceramic blade manufacturing facility. Ceramic blades require their own set of raw materials and machinery. A ceramic blade is typically made from zirconium dioxide. The raw materials for manufacturing advanced ceramics come in powder form. Zircon is available in Pakistan in the Gilgit-Baltistan and KPK regions where gemstones are also found.

Japan obtains its zircon from New Zealand where it is converted into powder and impurities are removed in industrial plants. Then it is sent to China for further refinement into zirconium oxide and is then sent to

Japan for manufacturing ceramic blades. Pakistan has the advantage of zircon being available within the country. Therefore, a value chain can be setup where Zircon can be mined, sent to China for processing into zirconium oxide (or Pakistan may establish a plant within the country), and then used by the cutlery industry to make ceramic knives.

11.12 Value-Addition: Composite materials

Another opportunity for the industry is in the form of using composite materials. It is recommended that the industry may explore the use of composite materials in cutlery making. A composite material is a combination of two materials with different physical and chemical properties. When they are combined, they create a material which is specialized for a particular job, for instance to become stronger or lighter. They can also improve strength and stiffness. Current tableware and hunting knife manufacturing in Pakistan utilize recycled stainless steel as the basic raw material. The wastage is further recycled leading to a decline in steel quality. Cutlery made from composite materials can stabilize quality as well as give the products an innovative edge. Improved quality blades can be sold at a premium price. Composite materials are used by metallurgical engineers in Pakistan's military institutions for various missile and nuclear program purposes. This knowledge of composite materials is transferable and thus presents an opportunity to link military engineers with the cutlery manufacturers so that expertise of using composite materials may be utilized within the cutlery manufacturing industry.

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13 Appendix

List of interviewees and visits:

M/S Pak Cutlery Consortium	M/S C.C. Factories Pvt Ltd
M/S Sahar Industries	M/S A One Cutlery Works
M/S Kent Industries	M/S New Friend Industries
M/S Zubair Sports	M/S Nafees Kitchen
M/S Prime Steel Industries	Meezan Bank
M/S Omair Enterprises	Cutlery Institute of Pakistan
M/S M.A. Asar & Co Pvt Ltd	TEVTA
M/S Klassic Kitchenware	Small Industries Estate