

Impact of Digitalization on Trade Facilitation and Revenue: Evidence from Pakistan

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Abstract

This paper traces the trajectory of digitalization and innovation reforms undertaken by Pakistan Customs to facilitate cross-border trade, with special focus on Faceless Customs Assessment (FCA), the latest initiative of the Government of Pakistan under the Prime Minister's Transformational Plan for FBR. Data of over 144,000 goods declarations (GDs) of red (non-facilitated) and yellow (semi-facilitated) categories filed in 180 days, pre-intervention 90 days, and 90 days post-intervention, is analyzed to assess the impact of this initiative on trade facilitation and quality of assessments. Pre-post data of assessment time, documents calling, and referrals to physical examination, reviews filed, and clearance-related complaints are evaluated to assess the impact on trade facilitation. The results conclusively suggest that under the new initiative, trade facilitation has increased remarkably. For determining the impact on the quality of assessments, analysis of assessed value (AV) vis-a-vis declared value (DV) is conducted. The results suggest that revenue did not witness any dip, and the quality of assessments improved due to FCA intervention. The positive impact on revenue (collected as additional revenue), though marginal in comparison with the increase in trade facilitation, further confirms that the quality of assessments has increased in the post-intervention period. Impliedly, it also suggests that the quantum of import-stage lost revenue through undervaluation and collusion is much less than generally perceived and reported in the press. The paper argues that the abolition of interaction between the assessors and customs brokers, embedding an element of anonymity in the process of assessment of GDs, and innovation in the internal management of the organization, are the key determinants of the positive outcomes. AI-driven risk evaluations and assessments of GDs and the use of a Blockchain-based framework are suggested to further enhance trade facilitation and to improve the quality of assessments.

Keywords: Trade Facilitation, Digital Customs, Digitalization, Customs Clearance, Goods Declaration, Quality of Assessment, Risk Management System, Faceless Customs Assessment, Central Appraising Unit, Trade Revenue

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Abbreviations

AV	Assessed Value
CAU	Customs Appraising Unit
DV	Declared Value
FBR	Federal Board of Revenue
FCA	Faceless Customs Assessment
FCAS	Faceless Customs Assessment System
FIFO	First-in, first-out
FTO	Federal Tax Ombudsman
GD	Goods Declaration (GD)
OGA	Other Government Agencies
PaCCS	Pakistan Customs Computerized System
PRAL	Pakistan Revenue Automation Limited
PSW	Pakistan Single Window
QAO	Quality Assurance Officers
RMS	Risk Management System
SQA	Software Quality Assurance
SQL	Structured Query Language
WeBOC	Web-Based One Customs

1. Introduction

The role of Customs, being a key regulator of cross-border trade, is very vital in trade facilitation.² Modernization and innovations in customs processes have multiple positive externalities for the economy, trade, and national competitiveness of a country through the way of enhancing supply chain efficiency, decreasing transaction costs, and reducing clearance time.³ Digitization in Customs for reducing physical documentation, integration of Information and Communication Technology (ICT), and automated processes enhance trade facilitation.^{4,5,6} Trade facilitation, in turn, boosts trade flows and supports businesses.⁷

Owing to the enormous competitive advantage that digital interventions and solutions confer upon countries by enhancing trade facilitation, developed as well as developing countries are leveraging digitization and innovation in Customs. For example, **India introduced Faceless Customs Initiative (FCI) in 2020 which increased trade efficiency of the country by creating a paperless and contactless environment within Indian customs.**⁸ The FCI eliminated physical contact between the importers and customs authorities, significantly reduced clearance time, and enhanced India's ranking on ease of doing business.⁹ Similarly, other digital interventions like introduction of Single Window Systems (SWS), automated or computerized customs clearance, and centralized assessment reduce transaction costs for businesses and promote supply chain

² Maria Viktorovna Grudina, Adaptation of the terminological and lexical system in the field of customs to the modern conditions of digitalization and sustainable development, in Anna Rumyantseva, Vladimir Plotnikov, Alexey Minin & Henry Anyigba (eds.), *Challenges and Solutions in the Digital Economy and Finance* 461 (Springer 2022).

³ Augusto Azael Pérez Azcárraga, Tadatsugu Matsudaira, Gilles Montagnat-Rentier, János Nagy & R. James Clark, *Customs Matters: Strengthening Customs Administration in a Changing World* (International Monetary Fund 2022).

⁴ Yann Duval, Tengfei Wang, Chorthip Utoktham & Andrei Kravchenko, Next-generation trade facilitation for Asian integration: Cross-border paperless trade, 1 *J. Asian Econ. Integration* 11 (2019), <https://doi.org/10.1177/2631684619841552>.

⁵ World Trade Organization, *The Role of Advanced Technologies in Cross-Border Trade: A Customs Perspective* (World Trade Organization 2022).

⁶ Graça Maria do Carmo Azevedo, Jonas da Silva Oliveira, Rui Pedro Figueiredo Marques & Augusta da Conceição Santos Ferreira, *Handbook of Research on Modernization and Accountability in Public Sector Management* (IGI Global 2018).

⁷ Kubra Siraj, Muhammad Imran Khan & Syed Kamran Abbass Naqvi, Impact of trade facilitation reforms on the trade volume of SAARC countries, 4 *Sustainable Bus. & Soc'y Emerging Econ.* 393 (2022), <https://doi.org/10.26710/sbsee.v4i2.2327>.

⁸ Sajid Khan & Muhammad Tayyab, Digitalizing customs services to enhance public service quality with AI, blockchain, GIS, and web portals in Pakistan: Prospects, challenges, and policy options compared with developed countries, 3 *Khyber J. Pub. Pol'y* 3 (2024).

⁹ Prabir De, *Paperless Trade Facilitation in India: New Initiatives and Challenges* (UNNEX Working Paper Series No. 13, ESCAP 2024).

stability.¹⁰ For example, an analysis of digitalization and automation of customs operations in Rwanda, undertaken by the Rwanda Revenue Authority (RRA) in 2015, suggests a decrease in overall clearance time respectively for imports and exports by 40 % and 55 % due to reduction of time-consuming physical movement of documents within customs and other regulatory agencies.¹¹

According to the World Bank, the results of reforms aimed at modernization of Albanian Customs suggest that reduction in physical inspections of goods decreases clearance time and increases import volume.¹² Delays in customs clearance increase transaction costs in the form of demurrages, storage fees, and delayed supply of materials needed for production. The shelf life of goods particularly of perishable goods also gets affected due to delayed clearances having negative implications for business profit. Besides enhancing national competitiveness and productivity of the firms, technology-driven solutions in customs are also associated with an increase in revenue for the governments.¹³ A study in the context of Cameroon provides some empirics in this regard. According to the results of this study, introduction of ICT in customs operations, for instance, the implementation of the automated system for customs data, positively impacted revenue collection in Cameroon.¹⁴ Digital solutions in trade processes also improve transparency and reduce corruption.¹⁵ Transparency creates predictability in the system and improves compliance with rules and procedures by traders as well as customs authorities.

The Faceless Customs Assessment System (FCAS) was launched on 15th December 2024 in Karachi with the aim to enhance trade facilitation, abolish collusion, ensure transparency in customs procedures, and standardize decision-making in the assessment of goods. The Central Appraising Unit (CAU) was formally inaugurated by the Prime Minister of Pakistan on 8th of January, 2025. The FCAS intervention is closely aligned with the Uraan Pakistan programme (2024-2029) which primarily aims at digital transformation to establish a knowledge-based

¹⁰ Central Board of Customs, Paperless Customs (Directorate General of Taxpayer Services, Nov. 2023).

¹¹ Christian Nizeyimana & Luc De Wulf, Rwanda electronic single window supports trade facilitation, 9 World Customs J. 73 (2015).

¹² Ana Margarida Fernandes, Russell Hillberry & Alejandra Mendoza Alcántara, Trade effects of customs reform: Evidence from Albania, 35 World Bank Econ. Rev. 34 (2021).

¹³ Mats Engman, The Economic Impact of Trade Facilitation, OECD Trade Pol'y Paper No. 21 (OECD Pub'g 2005), <http://dx.doi.org/10.1787/861403066656>.

¹⁴ Thomas Cantens, Gaël Raballand & Samson Bilangna, Reforming customs by measuring performance: A Cameroon case study, 4 World Customs J. 55 (2010).

¹⁵ Prabir De, Paperless Trade Facilitation in India: New Initiatives and Challenges (UNNExT Working Paper Series No. 13, ESCAP 2024).

techno-economy in the country. E-Pakistan, an essential component of Uraan Pakistan, emphasizes improving digital infrastructure and expanding IT-based solutions, both in the public and private sectors, to boost socio-economic growth. The FCAS supports the digital transformation programme of Uraan Pakistan. By reducing delays and the potential for collusion between customs officials and customs brokers, FCAS is set to play a critical role in reducing the cost of doing business¹⁶. This system of Customs clearance envisions incorporating artificial intelligence to optimize the efficiency of Customs officers, enable data-driven assessments¹⁷, and improve risk assessment.

The digitization of customs operations also represents a key governance reform¹⁸ designed to promote trade facilitation. The FCAS strives to reduce clearance time, enhance transparency, and standardize customs operations. Modernization in customs through such initiatives is likely to enhance integrity and responsiveness in the system, as envisioned in Uraan Pakistan. Increase in tax-to-GDP ratio and operational efficiency are some of the desired outcomes for the National Economic Transformational Plan under Uraan Pakistan. Digitization of Customs, through reforms like FCAS, can create a significant impact in terms of pursuing the fiscal goal as the collectible revenue is expected to rise with the abolition of collusion and an increase in the quality of assessments. The automation would also contribute to the operational efficiency of the customs.

2. Digitalization in Pakistan Customs

Pakistan customs embarked upon a series of reforms in the 1990s with the main aim to expedite customs clearance. These reforms involved outsourcing clearance to international companies for

¹⁶ Reduction in clearance time, abolition of speed money, and reduction in rents paid to the terminal operator are some obvious benefits and channels of decrease in cost of doing business. The time which the importers earlier spent in visiting Customs offices is also saved. The traders can use the saved time to focus on their business operations. In the stricter terms of cost-benefit analysis, a trader is saved from other costs like costs of petrol and time consumed in visiting Customs offices and mental agony due to delayed clearances.

¹⁷ Evaluations and assessments by the machine reduce errors and biases which humans are generally prone to due to their opinions and emotions.

¹⁸ During the post-intervention period of 90 days, all the GDs were assessed and cleared through the central appraising hub or unit without any physical interaction between the assessors and the importers or customs brokers. Owing to the peculiar design of the system, opportunities for bribery or speed money became non-existent. According to the World Bank governance framework, control of corruption is one of the key components of good governance. In this context, it can be confidently said that the new initiative would contribute in improving the governance of Pakistan Customs.

Under PaCCS, additional information required by customs could be sought online, and physical inspections could be conducted without the presence of importers at the ports. PaCCS also introduced a more robust risk management system, eliminating around 62 verifications, 26 clearance steps, and more than 30 signatures. Its implementation accelerated goods clearance, increased transparency, reduced corruption, and contributed to 20% increase in trade revenue by 2006.²² Empirics also suggest that under PaCCS, revenue collection efficiency²³ at the import stage increased.²⁴ However, due to erosion in ownership of the project at the senior level, corruption, and resistance against the system from within the department led to inefficiencies in the system²⁵. Pakistan Customs, however, taking a leaf from the experiment of PaCCS, introduced Web-based One Customs (WeBOC) 2011 as a pilot project at Karachi and rolled it out country-wide in phases. It is functional 24/7 and covers all imports and exports of the country. The WeBOC supports end-to-end integration and uses advanced Information Technology to automate trade processes. The system is built on SQL Server and SOA (Service Oriented Architecture) with the capacity to enable data exchange with multiple systems. It utilizes web services as well as File Transfer Protocol (FTP) to perform its functions.²⁶

Risk Management System (RMS) forms a critical part of the WeBOC system. All the GDs filed in the system are assigned to green, yellow, and red channels based on the selection criterion fed into the system. The assigned channel in turn determines whether the consignment would be gated out swiftly i.e., fully facilitated, or would be assessed for documentary compliance (semi-facilitated), or would be physically examined (non-facilitated). In this way, RMS balances trade facilitation with compliance. As time went by, the number of facilitated GDs increased. As of now, almost half of the imports GDs are fully facilitated and are cleared without physical inspections or incurring waiting time. Empirics confirm that revenue collection efficiency increased for clearances under WeBOC.²⁷ Moreover, due to improved business and trade regulation, Pakistan's ranking in the World Bank's Doing Business index improved to

²² Manzoor Ahmed, Reforming Customs Clearance in Pakistan (Investment Climate in Practice No. 9, World Bank 2010), <https://hdl.handle.net/10986/10503>.

²³ The value of CEF theoretically ranges between 0 and 1 but can neither be zero nor one. Its value would in all probability be between 0.4 and 0.7.

²⁴ Jamil Nasir, The tariff tripod of Pakistan, 59 Pak. Dev. Rev. 517 (2020).

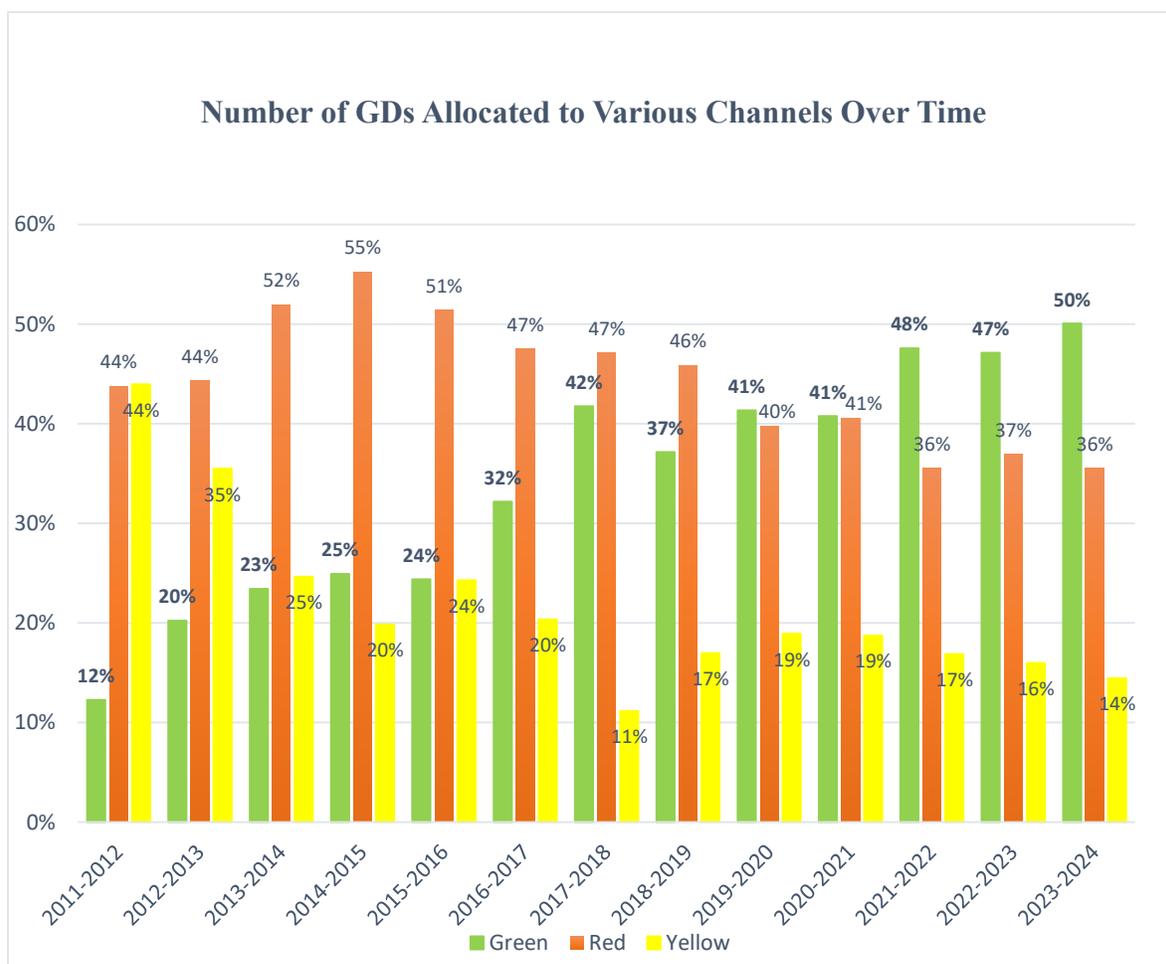
²⁵ It soon became an open secret that the officers were peddling influence for their postings and placements in the PaCCS due to opportunities for rent-seeking.

²⁶ Syed Tanvir Ahmad, WeBOC (Web Based One Customs): Complete Concepts and Techniques (self-published 2015).

²⁷ Jamil Nasir, The tariff tripod of Pakistan, 59 Pak. Dev. Rev. 517 (2020).

108th place from 136th in 2020. The total volume of goods being routed through the green channel has gradually increased ever since the rollout of WeBOC. As the quantum of facilitated GDs increased, the number of semi-facilitated and non-facilitated GDs decreased, showing improvement in the trade facilitation levels (see Figure 2).

Figure 2: Growth Trend in Facilitated GD Processed through Green Channel

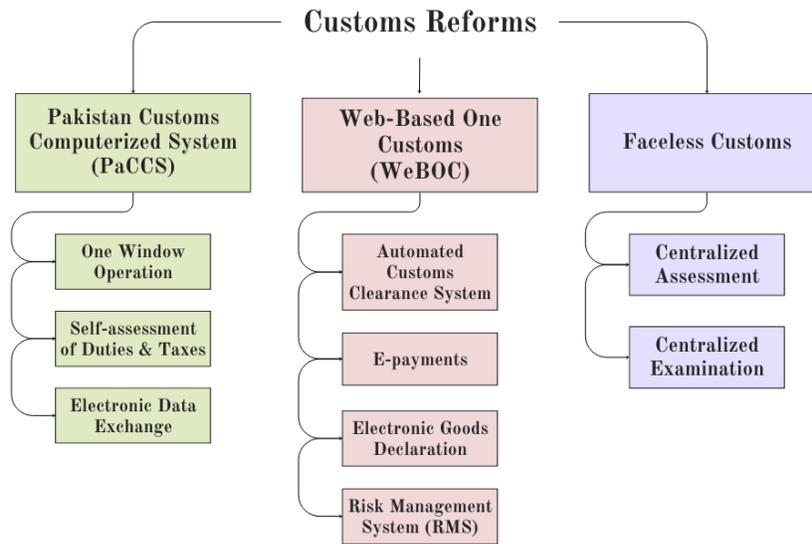


Source: Pakistan Single Window (PSW) database.

Pakistan Single Window (PSW) is another important digitization initiative of Pakistan Customs. PSW was introduced to complement the work of WeBOC and replace it eventually. It is a one-point contact for all stakeholders as it connects customs, banks, shipping agents, port authorities, traders, and Other Government Agencies (OGAs) for close cooperation. Presently, a total of 77 government bodies are connected to PSW. Owing to its larger ecosystem, PSW allows traders to submit all their documents straight away and get them verified through one platform. It

also uses Artificial Intelligence and data analytics to perform risk profiling of consignments. PSW supports seamless transactions through real-time data exchange and integration with banks and other concerned bodies. Comprehensive and well-integrated platforms like WeBOC and Pakistan Single Window (PSW) were built along the same lines as PaCCS, which was designed by adopting its features and building further on them to promote efficiency (see Figure 3).

Figure 3: Digital Customs Reforms in Recent Years



Source: Illustration by the author.

Almost all the major initiatives taken by Pakistan customs in recent years aim at trade facilitation through making customs operations digital, reducing paperwork and physical interactions between customs authorities and importers. Digital measures such as the e-payment mechanism, online advance ruling issuance, e-auction, and the introduction of the blue channel, etc., were all meant to facilitate trade (see Figure 4). The evolution of customs operations in Pakistan shows that the department already had a robust system of digitization in place before the Faceless Customs Assessment System (FCAS) was introduced as an important component of the Prime Minister’s Transformational Plan²⁸ for FBR.

Figure 4: Trade Facilitation Initiatives

²⁸ The Transformational Plan envisages reforms in various areas both in Customs and IRS. On Customs side, establishment of Centralized Examination Unit (CEU) and digital stations are some other important areas of reform.

TRADE FACILITATION INITIATIVES IN WEBOC & PSW



Source: Illustration by the author.

However, despite the implementation of such digital solutions, multiple inefficiencies still plagued the system. The rampancy of informal payments (speed money), collusion between the assessing officers and customs clearing agents compromising on due collectible revenue, preferential treatment to the consignments of certain importers and agents, delays in semi-facilitated and non-facilitated consignments due to excessive document calling²⁹ and referrals for

²⁹ A document calling is an important variable to determine the level of trade facilitation as document calling simply translates into delays in Customs clearance. Sometimes assessors are justified in calling documents for the ascertainment of the nature and value of goods but, as per data analysis of the post-intervention period, it emerges that in around 80 % cases in the pre-intervention period, documents calling was perhaps not justified.

physical examination³⁰, and variations in valuation and classification of the same category of goods among Collectorates were some common issues in customs clearance. The variations in assessments and delays also resulted in unnecessary litigation consuming the time and energy of importers as well as customs employees.

In order to take care of the above issues, the intervention of FCAS was introduced. A pool of assessors was created out of four Appraisal Collectorates of Customs at Karachi, and they were posted in a Central Appraising Unit (CAU) in a sanitized environment³¹. All the GDs, allocated by the RMS to Yellow and Red Channels, filed in the four Collectorates, were routed to the CAU with effect from 16th of December, 2024. The assessors were required to finalize the assessments immediately on the allocation of GDs to them under FCAS. This intervention marked a significant shift from earlier interventions of this kind, such as that of PaCCS. The FCAS provides a more controlled environment as customs officials are not allowed to access phones and contact importers or their agents. There is greater confidentiality in FCAS than in PaCCS as GDs no longer bear importer details and information on customs brokers.

Moreover, the assignment of GDs is not discretionary under FCAS. GDs get assigned randomly and are treated on FIFO basis by the assessors. The pool of assessors being comparatively big, it is hard to collude as the probability that a particular GD would be allocated by the system to a particular assessor is almost non-existent. The importer or his agent is also unaware of the name of the assessor who has assessed their GD. Around 10 % of GDs assessed by the assessors are marked randomly to QAOs³² for accuracy check. The system, however, provides that in case an importer feels aggrieved of the assessment, he may file a review (First Review³³) before the principal appraising officer and then with AC/DC (Second Review³⁴). What

³⁰ The consignments allocated to the Yellow channel theoretically require document check by an assessor, but in case he has reasons to believe that physical examination of goods is required for the ascertainment of the true nature of goods, he can refer such consignment for physical examination. Once the consignment is referred to physical examination, it is converted into the non-facilitated category for all practical purposes.

³¹ The assessors are not allowed to take their mobile phones inside the CAU or communicate through social media during duty hours.

³² The quality assurance officers are the assessors with comparatively high standards of professionalism.

³³ First review is filed online to the principal appraiser. The importer or his agent is not allowed to interact physically or through phone to discuss the case. He submits his point of view or defence by uploading the requisite documents and principal appraiser decides the review based on such information and documents. The principal appraisers conducting the first review also sit inside the CAU.

³⁴ The second review is filed before the Assistant/Deputy Collector of Customs of the concerned appraisal group of the collectorate where GD is filed. The importer or his agent can physically visit the office of the AC/DC to plead his case. If the importer is not satisfied with the outcomes of the reviews, then adjudication and appeal process starts as envisaged in the Customs Act, 1969.

are the outcomes of FCAS? This paper is an attempt to analyze the impact of FCAS innovation/intervention, based on pre-post data of 90 days, on trade facilitation, quality of assessments, and litigation.

3. Analysis and Discussion

3.1 Variables of Interest

Before carrying out pre-post analysis, we need to identify the variables of interest and proxies to evaluate the impact. First variable of interest is trade facilitation for which this intervention was primarily introduced. There may be several variables for trade facilitation, like a change in the costs in terms of informal payments and a decrease in rents and demurrages. It is hard to capture informal costs, demurrages, and rents, etc., objectively from the customs data³⁵. The change in clearance time for the semi-facilitated (yellow channel GDs) and non-facilitated GDs (red channel GDs), which is duly captured in the Customs data, would be a good proxy for trade facilitation.

The second variable of interest is the quality of assessments. The quality of assessments can be captured in the additional revenue realized through assessments and value addition made by the assessors while assessing GDs. In over 99% of imported goods, duty and taxes at the import stage are determined ad valorem³⁶. Many importers indulge in under-declaration³⁷ of value to evade leviable duty and taxes. The under-declaration is particularly rampant in commercial imports (other than bulk imports meant for energy and food security and raw materials, etc. imported by manufacturers). To fix the problem of under-declaration, Pakistan Customs has adopted a two-pronged approach. First, it has developed a robust system of issuance of VRs, generally for the items more prone to undervaluation, in consultation with the importers and local stakeholders. These items would be cleared on the value determined by the VR, and an assessor has no discretion to assess the goods on a lower value. There is only one exception, and that is in case DV is higher than the value determined vide VR, then goods are to be assessed on

³⁵ Currently, the Customs data captures the details of imported and exported consignments. Data from many other relevant stakeholders is still not fully captured in the Customs system. A big data base covering both internal and external stakeholders would be required on the pattern of China's Big Data Initiative to make RMS robust and for improving the customs controls.

³⁶ There are very few items which are subject to specific rates of duty, such as palm oil, gold and silver.

³⁷ There are other modes of evasion besides misinvoicing which include misdeclaration of quantity and origin, and claiming of inadmissible exemption of duty and taxes.

DV. Besides the VR approach of valuation, Customs have developed a data base over the years, and in case the value of the imported item does not match the value of imports of similar goods (available in the data), the assessor then determines the correct value in the light of past 90 days data of imports of identical or similar goods³⁸. So the role of an assessor is crucial, particularly in the assessment of commercial imports where the price of goods may vary widely. The difference between AV and DV is the value addition an assessor makes. This value addition (difference between AV and DV) would thus be a good proxy for the quality of assessments.

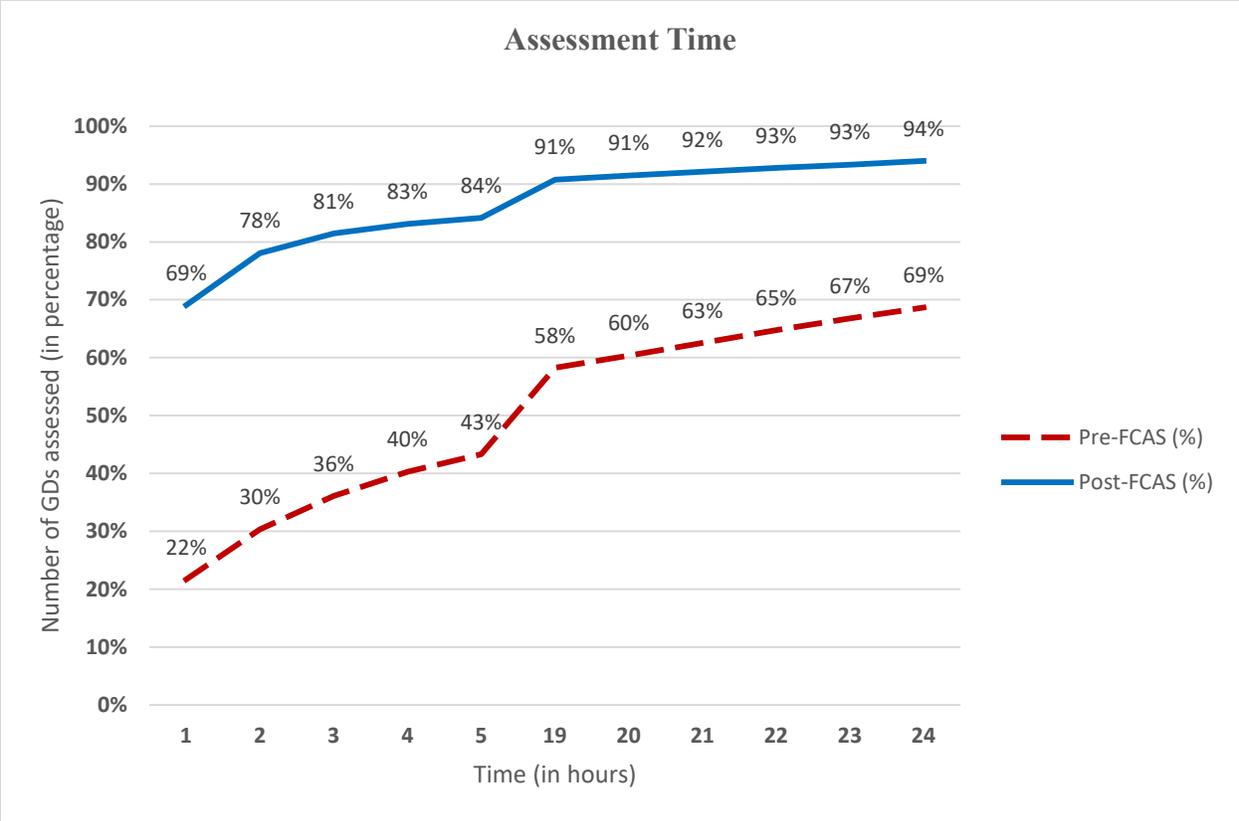
Whether an assessor enhanced the value of the imported goods correctly also constitutes an important element of the quality, and it brings into the picture the third variable of interest. If the value enhancement is not correct to the satisfaction of the importer, he would file a review against the assessment made by the assessor, and litigation would ensue. So the number of reviews filed by the importers against the assessments of assessors is a good proxy variable for litigation, and a comparison of number of reviews filed in the post-period with the pre-period would capture the impact of FCAS on litigation. Let us now analyze the impact of FCAS intervention on trade facilitation, quality of assessments, and litigation in the ensuing section in the light of these proxy variables.

3.2 Trade Facilitation

Analysis of administrative data of 28206 semi-facilitated (Yellow) and 42312 non-facilitated (Red) GDs, pertaining to post-intervention 90 days, shows that assessment time witnessed remarkable reduction. In the pre- intervention 90 day period of FCAS, 30101 GDs (36.12%) were assessed within three hours (from assignment stage to determination of duty and taxes by the assessors). In the post-period, 63798 (81.46%) GDs cleared within the said baseline time of three hours. Certainly more advantage accrued to semi-facilitated consignments as they almost became at par with the facilitated consignments. **More than 90 % consignments completed assessment stage of clearance within 19 hours in the post-intervention period (see Figure 5).**

Figure 5: Pre-Post GD Assessment Time

³⁸ In case of imported items where a VR has not been issued, the law provides a detailed mechanism for the determination of customs value under Section 25 of the Customs Act, 1969. An assessor may determine the value in the light of past data captured in the system and while doing so, he keeps factors like origin and commercial level, etc., in view.



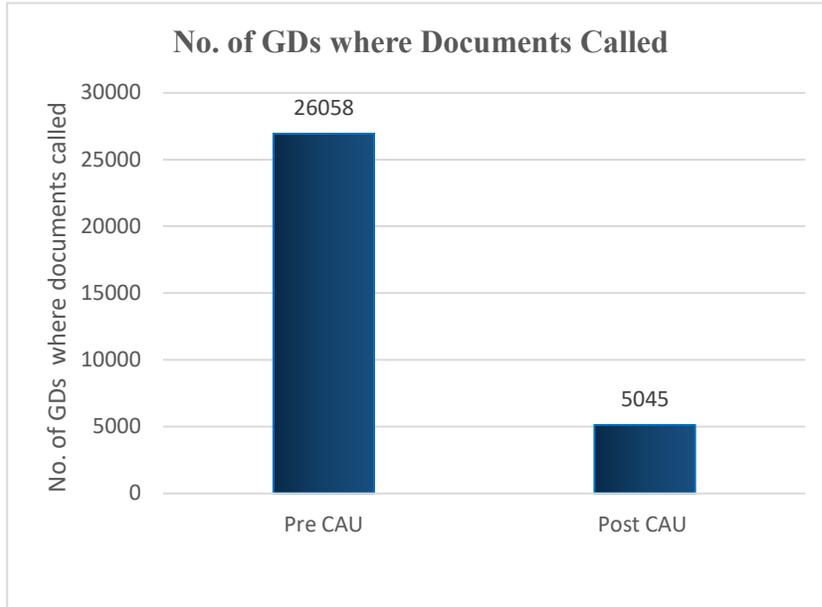
Source: Pakistan Revenue Autommation Limited (PRAL) database.

What factors contributed in enhancing trade facilitation by decreasing customs clearance time for semi-facilitated consignments? Two factors i.e., document calling and referrals to physical examination, are of vital significance in this regard. Basically, the consignments allocated to the Yellow channel by the RMS are subject to a document check for verification of value and description of the imported goods. The documents required for the confirmation of above said aspects are generally uploaded in the system but in certain cases an assessor may not form a conclusive opinion on the basis of documents uploaded by the importer in the system along with his declaration and may require additional information from the importer for ascertainment of assessment but sometimes frivolous documents may be called or assessment may be delayed due to some ulterior motives and in that case document calling may work as signaling to the importer or his agent for fulfillment of the ulterior motives³⁹.

³⁹ There is an asymmetry of information between the importer and the customs broker. Sometimes the customs broker is also part of the delay, as he is not only charging legal money from the importer for his services, but getting money in the name of an assessor as well

The design of the FCAS, due to a sanitized environment and some technical tinkering (like one GD at a time, anonymity of clearing agent and importer, time-bound assessment, low probability of referral of a particular GD to a particular assessing officer), it was not possible in the new system to use document calling as signaling. There were certain other motivations in the previous system for unnecessary document calling. An appraising officer's folder had a number of GDs pending for assessment in all probability in the previous system. Breaking the queue to favour some importer, whose GD was waiting much down in the queue, by way of early assessment and customs clearance was possible by disposing of the GDs above that particular GD, and the easiest route to dispose of those GDs was to raise objections and call documents. The FCAS changed the incentive structure as now neither an assessor needs to break the queue as he has only one GD for assessment with him at a certain point of time nor document calling can work as signaling as the importer does not know the name of the assessor who has called the documents. Resultantly, unnecessary document calling decreased drastically. During the Pre-CAU period, 26058 documents were called. This number reduced to 5045 in the Post-CAU, registering a decrease of 80.6% (see Figure 6).

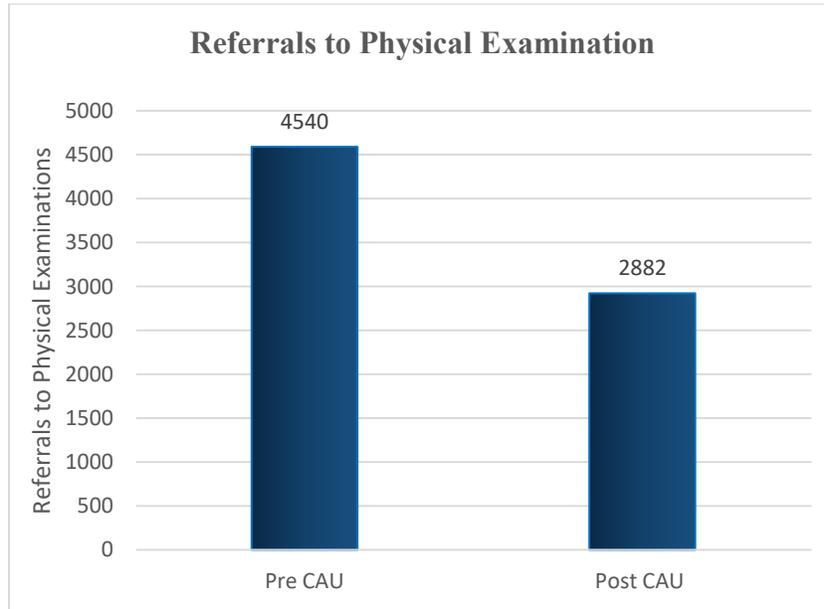
Figure 6: Pre-Post Analysis of Number of GDs where Documents Called



Source: Pakistan Revenue Autommation Limited (PRAL) database

Under the FCAS, the number of referrals for physical examination also witnessed a drastic reduction of around 36.5% in the case of semi-facilitated consignments. The reduction in referrals also happened mainly due to a change in the design of the incentive structure in the new system. In the new system, referral to physical examination could not be used as signaling just like documents calling. During the pre-CAU period, 4540 examinations were called. This number reduced to 2882 in the post-CAU-period (see Figure 7). The reduction in documents calling and referrals to physical examination decreased customs clearance time considerably.

Figure 7: Pre-Post Analysis of Referrals to Physical Examination



Source: Pakistan Revenue Autommation Limited (PRAL) database.

3.3 Quality of Assessments

Increase in import-stage revenue is a function of several variables like volume of imports, mix of imports, and quality of assessments by the Customs officers. The intervention of FCAS basically pertains to assessments. During the post-period, no dip in the revenue was witnessed due to this intervention rather, additional revenue⁴⁰ of Rs. 44.29 billion was collected (Rs. 877.875 billion against declared revenue of Rs. 833.587 billion) during the post-intervention period of 90 days. In percentage terms, additional revenue constitutes 5.3% of the total revenue, the same as it was in the pre-intervention period.

The variable of our interest, however, here is the quality of assessments and when it comes to quality, the difficult part of the analysis is warding off the subjectivity as quality like beauty lies in the eyes of the beholder but in Customs we can largely capture the quality of assessments through a proxy variable of difference between AV and DV. As per the scheme of Pakistan tariff, more than 99 % imported items are assessed ad valorem, which means that the quality of assessment would mainly depend on the quality of valuation of imported goods, i.e., the correct application of valuation rulings and data for the determination of assessable customs

⁴⁰ Difference between revenue declared payable by the importers and the revenue determined by the assessors on the basis of assessments.

value. Detection of under-declaration of value, ascertainment of correct value, and assessment of duty and taxes as per the ascertained value thus constitute the core elements of the quality of assessments or value addition made by an assessor. It merits pointation here that the declared value cannot be revised downwards by an assessor under the Customs law. Impliedly, quality or value addition of an assessor shall be captured in the AV in comparison with DV, i.e., AV-DV is the value addition made by the assessor.

An analysis of 144241 GDs (filed in 180 days) was conducted to determine the value addition made by the assessors. During the pre-period, 44900 GDs and 28823 GDs, respectively belonging to non-facilitated and semi-facilitated categories, with respectively declared values of Rs.677 billion and 938 billion, were assessed by the assessors. The value enhancement for the non-facilitated category was 6.78 % while for the semi-facilitated category value addition was 0.85% in the pre-period. During the post-period, 42312 GDs with declared value of Rs 659 billion and 28206 GDs with declared value of Rs 1300 billion, respectively of non-facilitated and semi-facilitated categories, were assessed by the assessors. The value enhancement over declared value for non-facilitated and semi-facilitated consignments was, respectively 7.33% and 0.86%. Thus, in the post period, value enhancement for the non-facilitated and semi-facilitated categories was respectively 0.55% and 0.01 % more than in the pre-intervention period. This increase seems to be marginal, but anecdotal evidence suggests that the importers and brokers also improved their declarations due to the fear of the unknown, abolition of the possibility of collusion, and point scoring mechanism⁴¹ put in place for assessing the performance and conduct of the brokers (See Table 1 and Table 2).

Table 1: Red Channel (Non-Facilitated Goods Declarations)

Period	No. of GDs	Declared Import Value (Billion Rs)	Assessed Import Value (Billion Rs)	Value Enhancement (%)
Pre-CAU	44,900	677	723	6.78
Post-CAU	42,312	659	708	7.33

Source: PRAL data base; figures of import value have been rounded off

⁴¹ FBR introduced the point scoring mechanism for the Customs brokers during the post-intervention period. Under this mechanism, the brokers giving quality declarations would get points while those giving wrong declarations of value, origin, and quantity would lose points under the point scoring system. They may eventually face cancellation of their licenses if they persist with the bad behavior.

Table 2: Yellow Channel (Semi-Facilitated Goods Declarations)

Period	No. of GDs	Declared Import Value (Billion Rs)	Assessed Import Value (Billion Rs)	Value Enhancement (%)
Pre-CAU	28,823	938	946	0.85
Post-CAU	28,206	1300	1311	0.86

Source: Pakistan Revenue Autommation Limited (PRAL) database.

3.4 Litigation

The Customs law provides a very broad mechanism for dispute resolution. Contrary to other laws of adjudication, customs law provides for the speedy resolution of disputes through the mechanism of reviews. In case a trader is aggrieved by the assessment made by an assessor (assessment order of the assessor is a legal order appealable at higher fora), customs rules provide for two reviews against the assessment order, one before the principal appraising officer and the second review before the Assistant/ Deputy Collector. These reviews generally relate to issues or points of disagreement on valuation, classification, exemptions of duty, and taxes and importability of goods. This review mechanism is a unique feature of Customs law, aiming at the speedy resolution of disputes. The pre-post analysis shows that under the FCAS, the filing of reviews overall witnessed a decrease of over 12%. During the pre-period, 12351 reviews were filed while for the post-intervention period, this number was 10841 (see Table 3).

The second category of litigation relates to complaints of maladministration filed before the FTO (see Table 3). The office of FTO was created in 2000 for the redressal of the grievances of taxpayers particularly relating to delays in dispensation of services by the Customs and IRS departments. As time went by, it started overstepping its jurisdiction, like other departments and institutions in the country, entertaining complaints relating to determination of valuation and assessment (which the legislature had specifically excluded from its purview due to their technical nature). Moreover, for want of effective pre-scrutiny mechanism of complaints and making the quantity (number of complaints filed and disposed of) the performance yardstick, number of complaints before the FTO increased manifold in the last couple of years which consumed lot of time of the officers of the Collectorates in submission of replies and attending the hearings before the FTO. As the time of clearance reduced, the complaints of maladministration also reduced. In the pre-intervention period, 71 clearance-related complaints were filed before the FTO in the four appraisement Collectorates part of the CAU. This number

reduced to just 4 in the post –intervention period, indicative of improvement in governance and timely clearances.

Table 3: Analysis of Reviews & FTO Complaints

Nature of Litigation	Post CAU	Pre CAU
Number of Reviews	10841	12351
Clearance-related Complaints before FTO	4	71

Source: Database of Customs and administrative data of FTO complaints from East, West, SAPT and PMBQ Collectorates of Appraisalment, Karachi

4. Conclusion & Policy Recommendations

Initiatives like WeBOC and PSW were highly instrumental in enriching the digital landscape of Pakistan Customs. They helped create an ecosystem for trade facilitation by reducing the requirements of paper documents and providing a platform for various regulators for the benefit of the traders. With the evolution of RMS of the WEBOC system, around 50 % import consignments are now cleared without any physical intervention or interaction of the importers with the customs examiners or assessors. However, almost half of the consignments were still subject to documentary check and physical interventions by the Customs when CAU was established. The interaction between the importers (particularly customs brokers) and assessors created potential for collusion, corruption, and discretion despite robust digital initiatives of WEBOC and PSW. Perhaps technological innovation happened without concomitant innovation in internal institutional management of the organization. Recently introduced innovation of creating central assessment hub at Karachi, covering over 80 % of imports of Pakistan, fills in that gap between digitalization and innovation in management practices. **Abolition of interaction between the customs brokers and assessors, introduction of an element of anonymity in the customs assessment process, and re-designing the incentive structure for the brokers and assessors are three main components of the FCA innovation.** With the introduction of innovation in management, trade facilitation has remarkably increased with reduction in assessment time. Over 80 % GDs of the semi-facilitated and non-facilitated categories are now being assessed and cleared within three hours of their filing or allocation for assessment by the system. Unwarranted

calling of documents and referrals to physical examination have drastically decreased. Results based on pre-post analysis also suggest that litigation has also decreased, thus saving time and energies of both the taxpayers and customs employees. The quality of assessments has also improved as reflected in the additional revenue realized and value addition made by the assessors in the post- intervention period. In view of the positive dividends of CAU at Karachi, following policy prescriptions are recommendations.

- (1) The remaining import clearances at Dry ports, border customs stations, and Air Freight Units should also be assessed and cleared through CAUs to bring in uniformity and transparency in assessments and reducing the potential of duty evasion by way of port-hopping. For the time being, two to three CAUs can be created in the big cities like Islamabad and Lahore. Later on, all the CAUs may be merged into a single central appraising hub for taking care of assessments of all types of imports through sea, border stations, or by air.
- (2) The positive outcomes of the FCA innovation owe much to the abolition of human interaction and anonymity in assessment process, implying that improvements can be scaled up further by refining the said components in the customs assessment process. It can be done by integrating modern technologies in the RMS and assessment system through use of AI for instant document and risk assessment analysis for customs compliance, automated due diligence, and real time anomaly detections in GDs.
- (3) The customs evaluations currently made under the FCAS by the assessors should be complemented with AI-driven analyses and assessments. Doing so would reduce human bias and errors in assessments besides enhancing consistency in customs decision making.
- (4) Pakistan should develop customs big data Platform for cross-border trade as done by China to obtain both external data i.e. data from port operators, transporters, freight forwarders, and shipping agents etc. and internal data of importers, exporters, their declarations, and manifests for AI-based smarter analysis.
- (5) A Blockchain-based framework should be developed for ensuring the authenticity and security of trade-related electronic documents. For example, for ensuring authenticity, digital signatures and decentralized identifiers (DID) can be used to

verify the legitimacy of the documents. It would induce regulatory acceptance, bring in efficiency improvements, and further reduce clearance time. The commissioning of a Blockchain Feasibility study on trade and customs processes would be a good starting point for developing the proposed framework.

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