

Leveraging ICT for Integrating Regulatory Functions for Cross-Border Trade: Development of Pakistan Single-Window Platform

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1. Introduction

Cross-border trade plays a key role in the economic activity of every country. Import and export of goods through Pakistan's borders involve a complex regulatory regime involving a large number of departments/entities which are entrusted with compliance functions through a system of licenses, permits, certificates, NoCs, etc. The legacy manual system comprising fragmented regulatory compliance of different government agencies used to cause delays at border nodes, added transactional costs and adversely impacted competitiveness of businesses. Consequently, Pakistan's rankings in international indexes measuring efficiency of trade regulation functions were also affected. These showed a continuous decline over a long period, as other countries improved their trade governance systems leveraging the tremendous potential of information and communication technologies (ICT) for development of National Single Window (NSW).² Pakistan also embarked on this key reform through a direct intervention from the Prime Minister's Office. Pakistan Customs was entrusted with the responsibility of development and deployment of NSW through a wide-ranging consultative process involving multiple public sector stakeholders. The project faced numerous challenges and delays before it was finally rolled out. This process provides practical lessons for other initiatives attempting to leverage technology for functional convergence. This paper looks at implementation strategies, challenges and responses in the NSW project implementation. It also attempts to draw conclusions and recommendations relevant to other similar reform initiatives in the wider public policy domain.

2. The Issue

In Pakistan, manual and fragmented processes for regulation of cross-border trade by multiple public entities had continued to cause delays in clearance of shipments, added administrative costs, and created room for malpractices. Development of an ICT-based integrated system for regulatory convergence was the obvious public policy response

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² National Single Window is a single channel for electronic submission of required information for import/export/transit consignments as well as processing and uploading of compliance documents by trade regulators. In an advanced NSW, all trade regulators, port operators, logistic agents, banks, etc. are inter-linked for instituting an efficient regulatory and operational environment.

to ensure transparency, bring down compliance costs and improve ease of doing business.

This paper analyses the following key questions:

- (a) Whether ICT-based integration of cross-border trade regulations can lead to improved efficiency, enhance transparency, and increased ease of doing business?
- (b) Should public policy practitioners' endeavor to conceive and implement technology-driven reforms through home-grown projects or continue with current practice of developing reform concepts around foreign loans, driven by external consultants?

3. Scene Setter

It was a usual cold afternoon in January 2017. Tahir, Joint Secretary Economic Affairs (JSEA) serving at the PM Office, had just concluded a meeting as he was immediately summoned to the office of the Secretary to the PM (SPM). Flashing a typed paper, Fawad Hassan Fawad, the SPM, blurted, *“Here is yet another complaint regarding delays in clearance of goods at the airport.”*

Continuing in his usual heavy, no-nonsense style, he said, “I need a quick, yet comprehensive analysis of what is wrong in regulation of our cross-border trade, causing these complaints. The World Bank has recently shared yet another report highlighting the deteriorating ratings for Pakistan in ease of doing business. The PM desires a concrete plan to address this issue in a systematic way. Please do a quick research and develop practical proposals for bringing about improvements. You will brief the PM whenever we find time in his schedule and solicit his directives.”

The complaint had been sent in by M/s Mughal Seeds, an importer of vegetable seeds. They were agitating the inordinate delay in release of imported seeds from the Air Freight Unit at Jinnah International Airport Terminal in Karachi due to delay in processing of seed quality analysis report by Federal Seed Certification and Registration Department (FSCRD). On March 17, 2017, the PM was briefed in his chamber by the JSEA, highlighting the cumbersome and fragmented regulatory processes undertaken by multiple departments.

The JSEA briefed the Prime Minister: “The solution is development of a National Single Window system, an ICT platform to connect importers/exporters with regulators to complete all data entry and regulatory requirements through an online system and a single interface. Progressive countries have already developed such systems, improving trade competitiveness and related rankings.”

After a short discussion, the PM instructed his Secretary to issue a directive to the Federal Board of Revenue (FBR) for development of NSW, designating Pakistan

Customs as the lead agency. “FBR may move a summary, with specific proposals on timelines, stakeholder/contact points and a National Steering Committee [NSC] for smooth roll out of NSW,” the directive concluded (**Annex-A**). The JSEA was also designated as focal person to work closely with FBR, since the project was to involve long-term engagement with numerous federal and provincial entities. With this started a long and intricate process of development of Pakistan Single Window (PSW).³

4. Organizational Background

Regulation of cross-border trade is a complex process. With numerous types of goods being imported into, exported from, or transiting through a country, these consignments have to comply with various regulations prescribed under different statutes, administered by various public sector entities. Import and export policy orders issued by the Ministry of Commerce specify regulatory requirements and the agencies authorized to issue regulatory documents for specific goods. For instance, import of seeds is allowed subject to drawing of samples and testing of quality by FSCRD of Ministry of National Food Security & Research. Similarly, bulletproof jackets are importable under authorization of Ministry of Interior. E-Form and I-Form have to be issued by banks for imports/exports in order to account for foreign exchange involved. The Customs Department can only allow release of these goods once the required compliance documents have been received and uploaded in the Customs Automated System. Public sector entities have traditionally relied on antiquated legacy manual systems, and importers/exporters had to visit these offices located at multiple locations, submitting multiple applications with repetitive data. Scale of regulatory compliance requirements can be gauged from the fact that in 2019, **2.1 million** compliance documents were issued by public sector entities for **2.5 million** containers cleared in the year.⁴

The advent of ICT offered a newfound opportunity to improve regulatory governance as process integration became a distinct possibility. However, historically public sector entities in Pakistan have been slow in adopting digitization, thus levying huge costs on the businesses. Lack of competitiveness of economy leads to low level of investments, which in turn leads to lower production and exports. The PM Office took cognizance of this state of affair. JSEA Tahir, the main character of this study, was assigned to work with Customs on development of PSW, an integrated platform where importers/exporters would file all the required information for all types of regulatory compliance. Tahir later served as Chief Reforms and Automation in FBR, working directly with the project team in various phases of the project.

³ National Single Window is a generic name for ICT-based trade regulation system. Countries name their NSW with a brand name for reference and smooth interaction with NSWs in other countries (Korean NSW is called TradeNet). The Steering Committee of the NSW project decided to name it as Pakistan Single Window (PSW).

⁴ Source: WeBOC data.

5. The Story: PSW from Conception to Roll-out

5.1 Trade Regulation in Pakistan in 2016

As Tahir pondered over the complexity of the task ahead, it was important to ascertain the current state of regulatory efficiency for cross-border trade in Pakistan. As public sector entities are reluctant to admit inherent inefficiencies, and have a delusional belief that their work processes are flawless, a good starting point would be to study related credible independent reports.

On receipt of the Prime Minister's directives, Tahir carried out a quick analysis of the state of trade regulation in Pakistan using a team of professionals in the Prime Minister's Delivery Unit (PMDU). He assigned Adil Gilani and Shazia Ghani (both team leads at PMDU), to carry out a desk review of the World Bank's annual Ease of Doing Business reports over the years which included a specific indicator 'Trading Across Borders'.⁵ This activity revealed very disturbing patterns.

In 2017, Pakistan ranked **172** out of **190** economies, *down* from **74** in 2007. On the other hand, India improved its position from **134 to 68**. Further research led to another intriguing fact. This continuous decline in Pakistan's score and ranking was not due to any deterioration in regulatory practices. In fact, Pakistan's cross-border trade regulation was almost at the same level in 2017 as in 2007. However, other countries had improved their efficiency scores and moved ahead of Pakistan. *Studies showed that the main paradigm shift achieved by progressive national administrations was achieving regulatory convergence leveraging ICT-based NSWs.*

5.2 Understanding a National Single Window

As a spadework, Tahir further studied the concept of NSW, which is an ICT-based platform connecting traders, port operators, regulators, and potential service providers like logistic companies. As part of the 'single window' approach, businesses involved in trade receive government services through a single interface in a practical model of whole-of-government approach. The complex organizational arrangements and processes that go into service delivery are made transparent to users, resulting in increased efficiencies and a reduction in transaction costs. Standardized information and documents are lodged through a single-entry point to fulfill all import, export, and transit-related regulatory requirements. Every regulator gets the information required by it through NSW, and performs regulatory processes in an automated environment, in complete contrast with (the former) manual environment.

⁵ World Bank Report. *Doing Business 2017 – Economy Profile Pakistan*. October 2016. <https://openknowledge.worldbank.org/bitstream/handle/10986/25601/WP-DB17-PUBLIC-Pakistan.pdf?sequence=1&isAllowed=y>.

In the manual environment, traders must submit documents at multiple points, repeating the same information fields for different compliance documents. Moreover, offices of regulators are situated at multiple locations within a port city, or even in other cities as well. Traders have to run around to all those offices to get compliance documents incurring huge costs. This extremely inefficient system adds to time and cost of clearance of goods. Tahir had realized that development of NSW was a comprehensive solution to bring ICT-based integration of cross-border trade regulations.

5.3 NSW and World Trade Organization's Trade Facilitation Agreement

During the course of desk study, Tahir learned that establishment of NSW was one of the suggested trade facilitation measures under the WTO's Trade Facilitation Agreement.⁶ He discussed this with Joint Secretary WTO in Ministry of Commerce, who informed that Pakistan had not yet decided on including NSW in the schedule of commitments. Intrigued, he called Syed Tauqir Shah, Pakistan's Ambassador to WTO, who confirmed the position. "It is the most complex of all the commitments, and Ministry of Commerce has not yet started any spadework nor communicated any timeline for its implementation." Tauqir Shah suggested that Pakistan should put NSW commitment in the schedules which allow longer time for implementation. Tahir quickly called a meeting of FBR and Ministry of Commerce at the PM Office. With consensus, NSW timeline of June 2022 was communicated to the WTO in May 2017. However, it was decided that there will be an internal shorter timeline of December 2020 to reap early benefits of reforms. From the onset, it was clear that the project will involve a lot of spadework and challenges.

5.4 Spadework and Initial Challenges: Inter-Ministerial Turf Wars

On receipt of the PM's directives, Tahir engaged with Customs Wing of FBR to move on with the next steps. There were several challenges upfront like developing a roadmap, institutional mechanism for inter-ministerial consultation and finding a project director who was capable of and willing to work on the project for a long time, keeping in view the high turnover of officers due to persistent jockeying for field postings.⁷ One additional hiccup was a tug-of-war between Ministry of Commerce and FBR. Since WTO matters in Pakistan are entrusted to Ministry of Commerce under the Rules of Business, 1973, and NSW was now a WTO commitment, the ministry was lobbying to get the project implementation of NSW. Customs Wing of the FBR, on the other hand, was of the view that since NSW was a cross-border trade issue, Customs Department had the domain expertise to develop the system. Moreover, Customs already had the experience of successful development and deployment of its own

⁶ Trade Facilitation Agreement is an agreement negotiated by World Trade Organization member countries. Agreement aims to promote trade efficiencies by cutting red tap at border, promoting transparency and leverage information and communication technologies. Pakistan ratified TFA in 2015, and it came into effect February 22nd, 2017.

⁷ The reason for the general interest in "field" (as opposed to HQ) postings is not just the "experience" and independence but, unfortunately, also participation in the general culture of 'unlawful gains'.

automated system WeBOC.⁸ It had the technological base to lead the NSW project. Since no consensus could be reached, Tahir requested the FBR and Commerce to move a note for the Prime Minister, recording their respective stances. Once the note reached the PMO, Tahir decided to use it to seek clear orders of the PM on the way forward, including designation of lead agency and subsequent steps.

5.5 First Building Blocks: Institutional Framework for NSW Project

Tahir briefed the PM and SPM on the note received from the FBR and Ministry of Commerce. He got the approval for a go ahead on the project with clear guidelines on institutional arrangements and implementation policy. A directive issued on October 13, 2017, re-affirmed the earlier decision to designate Pakistan Customs as lead agency for the development of NSW (**Annex-B**). All other regulators were to retain their respective legal jurisdictions, while integrating their trade regulation functions with ICT-based PSW platform. Moreover, key ministries were directed to work closely with the FBR for preparing inception document for the project, as it was to involve business process mapping and re-engineering to prepare all the entities for a single-window environment. The FBR was also directed to move a summary for constitution of the steering committee for the project, which was to be headed by the Finance Minister and having representation of key regulatory ministries to guide the project team.

This institutional set up was to guide the project for next four years till the establishment of NSW. The next step on the critical path was building a project team capable of taking this complex project forward with a long-term commitment to regulatory integration project.

5.6 Challenges in Establishment of Project Management Office

Tahir held separate meetings with Chairman and Member Customs at the FBR, emphasizing the importance of the NSW initiative and the Prime Minister's personal interest in the matter. Selection of the project team was of paramount importance, as the project required a long-term commitment, robust IT component and challenges of working across different ministries. The FBR bosses highlighted that since no funds were allocated for the project in the budget for the ongoing year, it was not possible to hire a separate project team from the market. Additionally, since the NSW was a very unique project, there was little possibility to find the right people from the private sector with relevant experience. After deliberations, it was decided that Project Management Office will be established within the FBR House as a component of the Customs Wing, comprising officers of Pakistan Customs without any additional financial incentive. Moreover, on the suggestion of Tahir, it was agreed that Imran Khan Mohmand will be the Project Director (PD). Imran was working in FBR as Chief Reforms. Besides being a reforms-minded officer with strong views on leveraging ICT for regulatory

⁸ Web Based One Customs was developed by FBR using available expertise of PRAL and domain knowledge of a team of customs officers. Development started in 2010 and deployment started in 2011.

convergence, he was tech savvy and strong headed enough to take up this challenging assignment.

5.7 With Significant Challenges, Project Gets Going

Tahir was initially unsure about prospects of the project. The project team started off in very challenging circumstances. The contours of the project were not clear, the level of cooperation from other ministries uncertain, and there was no budget available to carry out spade work. The PD Imran Mohmand briefed Tahir on this situation, and concluded, “I will manage some financing from development partners as grants. But for keeping ministries and department involved in the project, I need your support.”

Tahir assured him of full support, and designated Awais Siraj, a team leader in PMDU, to work with PD NSW and push ministries and departments wherever needed. The next steps for the project team were also discussed. These included preparation of a situation analysis report by an international consultant, and a high-level blueprint and implementation program. These two were supposed to be high-level documents, a big canvas to draw the outline of ICT-based integration of regulatory functions of various public sector entities.

5.8 Not so Rosy: Picture Out of Situation Analysis and Implementation Program

Working with various stakeholders, both these documents were finalized in next four months by an international consultant, Crimson Logic.⁹ This was a particularly difficult phase as ministries and departments were not very eager to share their workflows. Any mention of change is bound to elicit adverse response from a typical public sector mindset. Tahir and his PMDU team lent full support to the consultant and project team so that the consultant could finalize the work in the shortest possible time. The document highlighting challenges and prospects for ICT-based regulatory integration of functions related to cross-border trade was finalized by April 2018.

According to documents, there was potential of no less than 28 applications and issuance of permits, licenses, release orders, certificates, registrations, etc. required by trade regulators to be integrated in the NSW platform. With a few exceptions, most of the regulators worked in a manual environment relying on paper-based documentation, and multiple layers of approvals and verifications. There was no risk management system. Storage, maintenance and archiving of records was hugely chaotic and virtually dysfunctional.¹⁰

⁹ Crimson Logic is a Singapore-based technology firm specializing in digital government solutions. <https://www.crimsonlogic.com/>.

¹⁰ Crimson Logic, a Singapore-based consultancy, commissioned this study titled “Consultancy on Pakistan National Single Window: NSW Blueprint and Implementation Program”.

On the financial side, the consultant estimated a cost of **\$163 million**, and an operating yearly cost of **\$22.5 million**. The annual benefit to cross-border trade was projected at **\$80 million**, declaring the investment viable. However, with the project being run on zero PSDP¹¹ allocation, and even the cost of consultancy being borne by USAID, it introduced another layer of challenges. On implementation, the document recommended quick establishment of working groups in key areas comprising government agencies and private sector to deep dive into data harmonization, business process mapping and re-engineering, e-commerce, and port community system. Other implementation challenges highlighted were developing a financing model, training of ‘laggards’, i.e. departments with low levels of automation, business model development, services to be provided, operations flow, change management, service fees, legislation, etc. But the most challenging decision to be taken, according to the report, was whether to buy an “off the shelf” solution from an IT solutions provider, or develop an in-house system for integration of trade regulators.

5.9 Dilemma: Off-the-Shelf ICT System or Develop an In-house One

This was a critical decision in the project lifecycle. The PD was called to the PM Office to make a presentation on the pros and cons of both the options. Imran, PD NSW, informed that “off-the-shelf system” was an easy option, but carried multiple pitfalls. It would save the team a lot of effort in hiring IT professionals and developing modules for each function of the program. While some international development partner would be ready to provide funding, it will be expensive. The provider will retain rights over the software. That would mean periodic payment of license fees. Secondly, any future changes required in the program (e.g. if government decides to impose halal certification from an authority on all meat imports/exports) would entail sending requests and negotiating anew with the developer(s). This too would entail cost and time. In the past, a payment dispute of the FBR with system providers had led to the International Centre for Settlement of Investment Disputes tribunal in London. Moreover, there were peculiarities of functions of Pakistan’s border stations (like Wahga, Torkham and Chaman) which might require dynamic system design.

For a homegrown system, the positives were the fact of holding proprietary rights over the system, development of local talent, flexibility of tailoring and altering modules whenever needed, no license fees and a future possibility of providing system development services to other countries in case of successful development and deployment of NSW. On the downside, there was a risk of not finding the required human resources, danger of failure in software development and deployment, resource constraints and very high level of scrutiny (by NAB, etc.).

After substantial discussion, it was agreed that the project will be developed in-house. Despite anticipated difficulties, this carried more value for the country. Tahir assured the project team of all-out support in overcoming the challenges. It was time to get

¹¹ Public Sector Development Programme, the main government window for new development work.

going with constitution of the steering committee and working groups for critical decision-making.

5.10 National Steering Committee (NSC) and Working Groups

In April 2018, Tahir got the National Steering Committee (NSC) notified. Headed by the Advisor to the Prime Minister on Finance, it had representation from key stakeholders.¹² Although Tahir had proposed that the PM should chair it, this was not agreed by the PM on the ground that it will not be possible for him to hold regular meetings due to his busy schedule. Four working groups were also constituted to develop stakeholder consensus on key components of NSW.

Over the next three years, the NSC took several key decisions with consensus. It was decided that a separate entity will be created to run NSW and the initiative was renamed Pakistan Single Window. The draft PSW law was approved and sent to Parliament for deliberation. Hiring of technical and domain experts through Pakistan Revenue Automation was also started.

5.11 Development of Legal Framework

Tahir worked with a legal consultant and the project team to prepare the draft PSW law. By May 2019 the draft was circulated to all the stakeholders for their comments and suggestions. For the next six months, an intensive consultative process ensued, as key ministries shared their perspectives and suggestions. The final draft was sent to the Law Division for vetting after which the bill was forwarded to the Federal Cabinet for its approval prior to introduction in Parliament. Approval was granted in May 2020, and it was introduced in Parliament in the subsequent month where it was referred to the Standing Committee on Finance. After its approval from the respective standing committees in the National Assembly and Senate, the bill was finally signed into law by the President of Pakistan on April 9, 2021.¹³

However, the legislative process was not as simple and straightforward as it may have appeared. There were serious issues and disruptions, which are discussed in the analysis below.

5.12 Staging of the Project: Testing the Waters

Tahir realized that NSW projects were unique and undertaken only once. Hence, there was always going to be a level of trial and error learning process leading to improvements. Not surprisingly, NSW projects had failed in many countries and were

¹² Although the original directive from the PM had nominated Minister for Finance, Revenue and Economic Affairs as Chairman of the Steering Committee, later developments saw the portfolio of Finance Minister going to the PM and appointment of an Advisor to PM on Finance.

¹³ <https://download1.fbr.gov.pk/Docs/20214261345351407SingleWindowAct.pdf>.

progressing very slowly in others. Accordingly, it was decided to test the waters, and see how integration actually worked and impacted regulation of cross-border trade. Tahir had a detailed meeting with the Customs Department team, and it was decided to stage the project in three phases.

- 1) Stage I – Integration of early adopters through INTRA¹⁴ (completed in July 2018);
- 2) Stage II – Development and launch of PSW-Light, integrating major trade regulators (completed in December 2020);
- 3) Stage III – Comprehensive PSW, to be completed by June 2022.

5.13 Administrative Changes and New Role

In June 2018, Tahir was transferred to FBR. He requested the top FBR management for getting posted as Chief Reforms and Automation (Chief R&A). The Project Office of PSW was reporting to Chief R&A, so there was an opportunity to work directly with the team and use his background experience. The first challenge was arranging finances. So far, even consultancy services were being financed by development partners. Now it was time to hire experts, arrange office spaces and purchase IT equipment, all of which needed financing.

The concept note of the project had already been cleared by the Planning Division, with the direction to look for funding from development partners as the national budget situation was very tight. Although these partners had picked up the cost of certain consultancies for supporting studies, there were certain expenditures like salaries of programmers, cost of equipment, building hiring, etc. that could not be provided by donors. This was a big challenge. Working with the project team, Tahir found an innovative solution for the same, which is discussed below.

6. Analysis of Specific Issues and Challenges

The development cycle of any project presents many sets of unforeseen issues and challenges, and it requires quick thinking and innovative approaches. This section will study some of the important issues and challenges faced in development of PSW.

¹⁴ Integration of Trade Regulatory Agencies (INTRA) initiative integrated 11 regulatory authorities including Engineering Development Board, Ministry of Climate Change, Trade Development Authority, State Bank of Pakistan, commercial banks, Department of Plant Protection, Federal Seed Certification Agency, Animal and Plant Quarantine Department, Ministry of Commerce and National Tariff Commission.

6.1 Financing Challenges: Finding Solution to a Complex Problem

6.1.1 What was Going On in Minds

From the start, financing appeared as a big challenge. In private discussions, PD PSW confided that he actually did not want public funds for projects due to excessive level of public scrutiny by media, the National Accountability Bureau (NAB), etc. On the other hand, funding through donors entailed risk of project takeover with re-prioritization and expensive consultancies with little utility. Hence, some quick thinking was needed.

6.1.2 Thinking Out of the Box: Goods Declaration Fund (GDF)

While brainstorming options, Tahir floated the idea of using GDF, a special fund available to the FBR, for project expenditures. A levy of PKR. 250 per “Goods Declaration”¹⁵ had been imposed through Finance Act, 2011 (the annual national budget approval bill) for staff welfare and improvement of IT infrastructure of the FBR. Strangely, the money had been accumulating in a National Bank of Pakistan branch in Karachi. Although some rules were framed, and a committee was empowered to take decisions on expenditures from the Fund, not a single meeting of the committee had been held in last eight years and no expenditure had been incurred.

Tahir got approval of two things immediately. One was transferring the money from Karachi to Islamabad. The second was convincing the Member Customs (Operations) to hold first meeting of the GDF committee and take a decision regarding allocation of funds. A decision from NSC was also obtained for utilization of GDF for PSW project. This opened the way for utilizing the hitherto stagnant GDF and eased a lot of burden related to financing constraints.

6.1.3 Ensuring Long-Term Commitment of Domain Experts of Other Departments

Tahir foresaw another important challenge: long-term commitment of domain experts of other departments. Since the project involved integration of functions of different departments through an IT-based intervention, the departments were asked to nominate domain experts who must remain involved in the project till its roll out. The challenge was to keep these officers engaged, given the practice of frequent transfers and postings. As was well known, the lack of continuity seriously impeded progress throughout Pakistani governance. Indeed, it was a general practice that a representative from a ministry in one meeting never showed up in the subsequent meeting.

¹⁵ Goods Declaration or GD is a document filed by all importers/exporters with Customs, containing all the information required by department for processing of the import/export/transit procedure.

Tahir worked around this challenge in consultation with the project team. It was decided that a project allowance will be paid to the domain experts after getting approval from the NSC. In the final analysis, this greatly helped sustain interest of the domain experts to stay engaged with PSW over a long period and contribute actively. Financial incentives are perhaps one of the best nudge to guiding human behavior.

6.2 Multiple Choices and Decision-Makers' Predicaments: Selection of Operational Models

The next challenge for Tahir and the project team was to solicit a NSC decision on the appropriate operational model. A few models of NSW operations were considered.

- 1) A government operated system, with full accountability and cost of the PSW being borne by the government, and PRAL¹⁶ developing the IT modules.
- 2) A public-private partnership, where operations of NSC are outsourced to a private entity which could recover costs through service fees.
- 3) A hybrid model, where PSW would be governed by a statutory body established under a new act that appointed a government agency to operate the PSW. The operation and delivery of the PSW would be undertaken by a SPV (special purpose vehicle) wholly owned by the government agency but acting outside of government constraints in terms of compensation, HR practices and technology procurement.

There was a heated debate in the NSC. Even the PM's Advisor on Finance (Chair of NSC) pointedly asked why a new entity was needed as PRAL was already there. The Chair was informed that although PSW was being developed by the Customs Department as directed by the Prime Minister, it was not a FBR specific project. It involved many government entities which were to be represented in the governing body of the new entity. Moreover, PRAL had become another bureaucracy, with multiple layers and a very complex decision making process that could potentially stifle the development of PSW. *"Is there any guarantee that a special company that will be created to run PSW, will not become another PRAL?"* the PM's Advisor on Finance asked.

Tahir and the project team had no cogent answer to this hypothetical query. He informed the Advisor that there could be no guarantee to that effect, except good management practices. After a lot of discussion, the NSC finally agreed to go ahead with the hybrid model wherein PSW would be governed by a statutory body established

¹⁶ PRAL was established in 1994 as IT company for computerization of FBR data. Beside data warehousing, it also developed several solutions for automation of key functions of FBR. The current Customs solution WeBOC and Income Tax solution Iris were developed by PRAL. However, PRAL gradually lost its creative edge and got subsumed in public sector entity culture of FBR.

under a new Act (to be passed through Parliament) and incorporated with the Security & Exchange Commission of Pakistan (SECP).

6.3 Powerful Pulls: Unwanted Interest of Development Partners

In early 2019, Tahir and the project team were invited to a meeting at the World Bank (WB) country office in Islamabad. After a briefing on PSW, a Senior Sector Specialist of WB intervened: “The WB is finalizing a three-year program with Government of Pakistan for tax reforms, amounting to \$400 million. We are considering inclusion of PSW as one of the program components. However, we will implement it our own way, through our own consultants and procurement of hardware/software.” Tahir did not endorse the proposal, and asked the WB to support the NSW on a need basis, as against a takeover of the project.

Such a takeover by a development partner was one lingering fear of the project team. This was because foreign consultants did not have a comprehensive understanding of or a long-term commitment to any project. They were primarily concerned with loan disbursement targets, often exaggerating the costs of components. They were politely informed that since all the decisions on these matters were being taken through a consensus in a very well-represented NSC and validated from the PM Office, hence there was no need or option for mid-course changes. The argument went a little too far, and the meeting ended on a sour note, with the WB side emphasizing the leverage they had due to deteriorating balance of payment situation of the country and eagerness of the Finance Division to sign off this big loan. Imran (the Project Director) informed Tahir that in case the project is taken over by WB, he would resign from his position and the FBR may look for another person. That too would have been a potential crisis.

Tahir held meetings with the FBR management, as well as in the Finance Division, and convinced them to exclude PSW from proposed loan deliverables as steps had already been initiated for utilizing Goods Declaration fee for certain expenses and other financing options were also being explored.

6.4 Legal Framework Puzzles: Use of Existing Enabling Provisions or a New Law?

Tahir held long discussions with legal experts on this particular aspect. There were two options for the governing legal framework of PSW. The easier option was to use existing laws and cobble together a legal framework. The current law on electronic transactions, the Electronic Transactions Ordinance, 2002, partly addressed the primary legal requirements of an NSW by creating functional equivalence of paper and electronic documents and recognizing electronic signatures. Similarly, the Customs Act, 1969 allowed goods declarations and other processes to be handled electronically. However, these provisions were inadequate to support a comprehensive ICT-based regulatory integration. There were gaps in existing legislations, particularly with regard

to the other regulators governed by their respective legislations that made no reference to processes like electronic communications, digital signatures, integrated risk management, joint inspections, and other essential functions of the NSW.

The second option was to establish PSW through a standalone legislation providing for an appropriate governance structure for supervision and oversight of the PSW operating entity to protect public interest. This necessitated a well-developed legal statute that fully empowered the PSW's governance and operating entity and defined the relationships between various stakeholders including the lead agency (Customs), other government agencies, and the private sector. The NSC approved this second option. However, moving such a proposal through a cumbersome legislative process proved to be a bigger challenge than was anticipated.

6.5 Moving PSW Law Through a Partisan Legislative Process

This was a very challenging process and required an extremely personal outreach effort from Tahir. The Standing Committee of National Assembly on Finance was gridlocked as members of the opposition in the committee refused to discuss the legislation unless the Advisor on Finance appeared in person and presented it. The Advisor, for his part, was wary of the attitude of the opposition members, who had earlier embarrassed him for not being a member of the Parliament. He had decided not to appear before the committee. Hence, the whole business was gridlocked. And so, as it happened, for over three months, nothing moved.

In the meantime, PSW got the attention and support of the PM's Advisor on Trade, Investment and Industry, Abdul Razaq Dawood, who viewed it as an important reform initiative for ICT-based regulatory convergence. He was approached to seek the PM's attention and instruction to Advisor Finance for getting the legislation cleared through the committee. The same was done. As a result, the PSW Bill was approved by the National Assembly's Standing Committee on Finance in September 2020.

In addition, Tahir reached out to the opposition members to enlist their support. The key opposition members in the committee, Ahsan Iqbal and Aisha Ghaus Pasha, were approached with the argument that the PSW legislation was the outcome of a reform initiative by the PML(N)'s previous government and the then PM had issued orders for its development. So, passage of the legislation will be a joint credit for both the government and opposition, and a positive development for the country. This intervention proved very useful, as the bill was finally cleared by the committee.

The second challenge was passage of the bill through the Senate, where the opposition had a numerical advantage over the treasury benches at that particular time. Hence, the Standing Committee of the Senate was dominated by opposition members. However, proceedings there were surprisingly smooth as Chairman of the Committee Niaz A. Naik just read through the draft and he became a supporter of the legislation.

6.6 Analysis of Early Results of Regulatory Integration under INTRA Initiative

As already noted, Tahir had conceived the PSW in stages. An early exploratory project for integrating early adopters had been carried out in 2017-18. It had yielded a very promising result. In the 2019 WB report on Ease of Doing Business, Pakistan moved to 142 out of 180 economies surveyed for ‘Trading Across Borders’ indicator. This was an improvement of 29 positions from a year earlier and was at a time when only the first batch of eleven regulators had been integrated. In the 2020 report, Pakistan made another massive improvement and appeared at rank 111, an improvement of 31 positions.¹⁷ *Due to this very impressive performance, Pakistan was included in the list of 10 best reforming economies.*¹⁸ This was a huge relief and encouragement for Tahir and the PSW project team, as it clearly established that ICT offered a huge potential to leapfrog regulatory reforms through integration of trade regulatory practices. These early results also increased broad-based support for the PSW project which became very useful in many subsequent stages.

Analysis of Projected and Actual Cost

As noted earlier, an international consultant had estimated the project cost to be at **\$163 million**. This was based on a financing model involving consultancies and procurements through foreign loans and off-the-shelf components. An analysis of this cost estimate indicates that the total expenditure on the PSW so far is **\$5.251 million**. Out of this, **\$3.378 million** has been procured as technical assistance grant from partners like USAID, ITC, DFID and ADB. An amount equal to **\$1.753 million** has been spent from GDF, and **only \$0.120 million** has been utilized from PSDP. This clearly showed that leaving reform projects to loan agreements led to exorbitant costs, while limiting outcomes due to lack of ownership.

Launch of PSW

The Pakistan Single Window Act was passed by Parliament in April 2021. Subsequently, the Economic Committee of the Cabinet approved the issue of 12 notifications under the Act on May 26, 2021, operationalizing various provisions of the law. The Governing Council of the PSW has been notified, with Minister for Finance, Revenue and Economic Affairs as its Chairman and secretaries of the Ministries of Commerce, National Food Security and Research, Maritime Affairs, National Health Services, Science and Technology, Narcotics Control, Additional Secretary (Economic Affairs) of the PM Office, Member Customs (FBR) and Chief Executive Officer of the PSW Company as members. In addition, four additional members who are specialists

¹⁷ <https://www.doingbusiness.org/en/data/exploreconomies/pakistan>.

¹⁸ <https://www.worldbank.org/en/news/press-release/2019/10/24/doing-business-2020-accelerated-business-climate-reform-agenda-puts-pakistan-among-top-10-improvers>.

in areas related to international trade, logistics information and communication technology and corporate governance were also be included in the NSC.

The PSW Company has been incorporated under Section 42¹⁹ of Companies Act, 2017 to carry out functions of the PSW. As a first step, registration of users has been started and a biometric verification system has been launched using integration with NADRA and SECP. So far, over **5,915** users have got themselves registered with PSW. The PSW Act provides for a self-sustaining financing model based on fee for services.

7. Conclusions

- (i) ICT-led integration of regulatory functions through PSW initiatives has already resulted in improved efficiency and transparency. Independent analysis by WB's Doing Business project has recorded an improvement in trading across the indicator, as Pakistan has moved 60 places in the ranking of 180 economies, from 171 to 111. With the rollout of comprehensive PSW in 2021, it is certain that further improvements will be recorded.
- (ii) Development of PSW clearly indicates that homegrown reform projects are the better alternative to conceiving technology-driven reforms that seek foreign loans and implementation consultants, both in terms of project outcomes as well as costs. Public policy practitioners must learn to prefer challenges of the former as against administrative convenience of the latter option which comes at huge cost.

8. Lessons Learnt

Certain lessons have been learnt both in terms of what was done right and contributed to success of the project, and also things which did not go as intended or caused delays.

(i) Personal

One personal lesson learnt was that selection of an appropriate person to lead the project on long-term basis is crucial. Tahir's success in this regard ultimately proved to be most critical factor in completion of project. One big omission was Tahir's inability to develop an institutional linkage between the PSW and PM Office. This could have been done by nominating JSEA on NSC of PSW. The link was personal, and with change of government and his transfer, that vital support was lost and led to many delays. Thirdly, the course chosen by Tahir to resolve turf rivalry between FBR and Ministry of Commerce (para 5.4) led to the loss of precious time. Instead of calling for a summary with views of both divisions, it would have been better to call a meeting

¹⁹ The provision for setting up a not-for-profit association i.e. one that applies its profits or income in promoting its objects only and prohibits the payment of any profits, income, dividend or proceeds to its members.

of both and request the SPM to decide the matter. This would have saved a few months at the critical inception stage.

(ii) Organizational/External

For organizations, one major lesson is internalization of reform processes for harnessing benefits of ICT. Digital approaches in governance hold promise, and actualization of the same depends on creating ownership and leadership of reform initiatives within the department. The Customs Department was able to develop a core team of officers who worked on the project for four years till its completion. One important organizational omission that led to a lot of problems in PSW was absence of outreach and advocacy. The FBR and project team could not do that effectively, leading to increased resistance from other departments accustomed to long traditions of manual work. Moreover, Customs could have expedited the implementation of the project by allowing use of GDF early. A huge amount was available with department while it was grappling with financing challenges. It was done at a much later stage. A decision by the FBR that led to delay in software development for NSW was deputation of software developers from PRAL. The company was apprehensive of NSW, as in their view this would have ended the monopoly of PRAL on FBR automation. Instead of deputing its existing staff, it started a hiring process that took months.

9. Recommendations

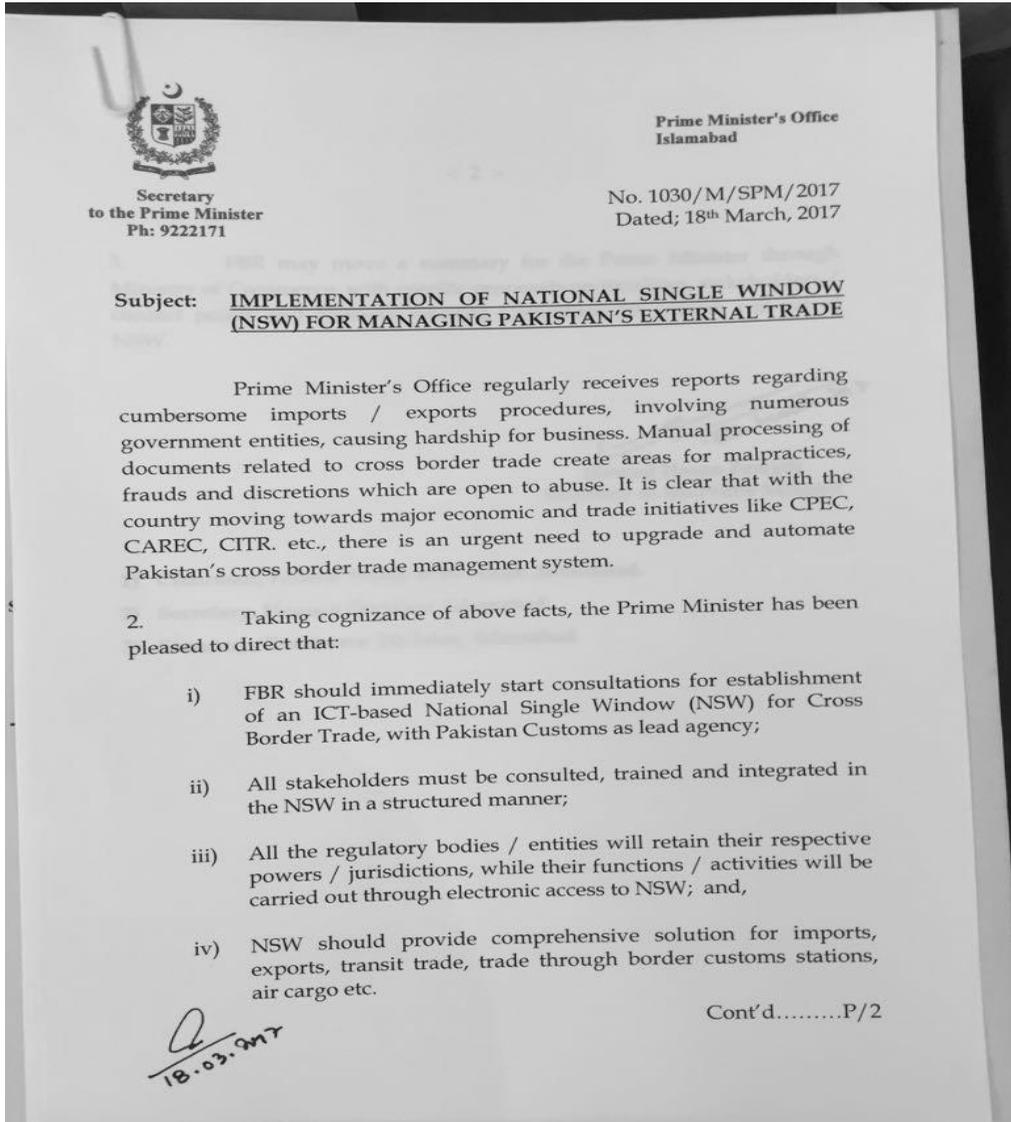
- (i)** While ICT-based governance reforms have an immense potential for improving service delivery through integration of fragmented functions, success of such initiatives will depend on creating ownership of all, as well as strong leadership roles within the public sector. The current approach of outsourcing reform initiatives to donors, with consultants in lead roles and departmental project directors being changed frequently, leads to waste of expensive loans and low efficiency yields for the stakeholders. This can be achieved through following steps:
 - (a)** Developing reform champions within relevant departments/service groups;
 - (b)** Including project management training in mandatory training programs;
 - (c)** Development of reform vision by relevant public policy practitioners as against consultants; and
 - (d)** Assigning public sector project managers to work during the whole project lifecycle
- (ii)** The practice of signing loans for projects of limited utility, without extensive stakeholder consultation, must be curtailed. Increasingly, loans in foreign

Leveraging ICT for Integrating Regulatory Functions for Cross-Border Trade

currencies are signed for balance of payment consideration, with no tangible project utility. In case of PSW, there is a massive difference in project cost indicated by consultant and actual cost incurred through innovative financing strategy. Hence there is a need to undertake:

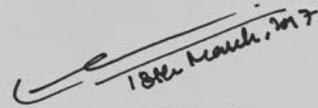
- (a)** Capacity-building of officers to work out financing options, including grant windows of development partners and locally available resources within and outside PSDP
 - (b)** Development of a foreign loan policy, prohibiting project loans for balance of payment purposes
- (iii)** Based on experience with PSW, a reform initiative for investment facilitation is recommended. One major obstacle to investments are manual processes for regulatory approvals, utility connections, land acquisition, etc. As an international best practice, ICT can be leveraged to provide virtual one window to prospective investors for all types of business inquiries and approvals through the federal Board of Investment. This can be done by:
- (a)** Initiating a project (modelled on PSW) to integrate investment related functions of all federal and provincial ministries
 - (b)** Have prospective investors submit all relevant information through a single interface of BoI, which will automatically be disseminated to all relevant entities (SECP, FBR, relevant industrial zones, gas suppliers and electricity utilities, etc.), with time stamp of requests. Stipulate that all entities be bound to respond within the required period
 - (c)** BoI may charge service fees to maintain and upgrade system

Annex A



-: 2 :-

3. FBR may move a summary for the Prime Minister through Ministry of Commerce, with specific proposals on timelines, stakeholders / contact points and National Steering Committee for smooth roll-out of NSW.



(Fawad Hasan Fawad)
Secretary to the Prime Minister

- 1) Chairman, Federal Board of Revenue, Islamabad.
- 2) Secretary, Finance Division, Islamabad.
- 3) Secretary, Commerce Division, Islamabad

Annex B

PRIME MINISTER'S OFFICE
ISLAMABAD

Subject: IMPLEMENTATION OF NATIONAL SINGLE WINDOW (NSW) FOR MANAGING PAKISTAN'S EXTERNAL TRADE

10. Prime Minister has seen and been pleased to observe as follows:
- i. The need for a National Single Window(NSW) for managing Pakistan's external trade in efficient and transparent way was deliberated upon in detail, and a conscious decision was taken to give FBR a lead role keeping in view pivotal role of Customs in implementation of trade regulations;
 - ii. FBR owns and operates the automated clearance system, which will now form the backbone of National Single Window;
 - iii. FBR has the requisite manpower, IT infrastructure and legal powers to develop and operate integrated trade solutions at the border areas, ports and airports;
 - iv. Most of the reforms for establishing NSW relate to customs procedures and processes; and,
 - v. Commerce Division and all other trade related facilitation and regulatory Ministries/Organisations will retain their respective regulatory jurisdictions, as was clearly mentioned in Prime Minister's directive dated March 18th, 2017.
11. Keeping above in view, Prime Minister has been pleased to approve proposal in Para 5 of the summary, with the following stipulations:


13.10.2017

- i. All the Federal Divisions/Ministries/Entities (detailed in Annex-III) to provide complete assistance to FBR in formulation of National Single Window Document which will outline the required procedural reform along with specific timelines for definitive outcomes for improved governance of cross border trade;
- ii. A NSW focal person shall be nominated by each Ministry/Division, not below the rank of Additional Secretary, for coordination with NSW Project Management Office;
- iii. Once the document is prepared, Revenue Division shall initiate a summary for the Prime Minister for approval of a National Steering Committee with an appropriate representation; and,
- iv. Keeping in view the fact that significant time has passed since earlier orders were issued on the subject, FBR must complete the exercise for finalizing NSW document within thirty days positively.

[Handwritten signature]

(Fawad Hasan Fawad)
Secretary to the Prime Minister
13-10-2017

Chairman, FBR

No: 2657/28/17

Cc: Secretary Commerce
Secretary National Food Security & Research