Proposition of Critical Aspects Framework for the Brazilian Border Management

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Overview of the presentation

- Introduction
- Methodology
- Critical aspects discussion (1, 2, 3 and 4)
- Framework presentation
- Conclusion & possible actions
- References
Some structural changes must occur in Brazil to allow trade’s growth, one of which is to decrease bureaucracy and modernize border management.

- The Brazilian foreign trade has mainly evolved after 1990, with seaport operations accounting for approximately 90% of trade flow.

- The country’s share of global imports and exports - this one tends to stay around 1%, whereas other countries such as the USA or China account for 20% of the global trade each (UNCTAD, 2011).

Introduction

• As per World Bank data, imports in Brazil demand in general about 15 days to occur, while exports take about 12 days. In contrast, operations in Singapore are completed in 3 days, while in Hong Kong they are completed in 4 days (WORLD BANK; IFC, 2012).

• Besides these averages, Brazilian trade operations present high uncertainties in terms of time and cost, which is undesirable as it reduces trade competitiveness.

• As put by Arvis et al. (2010), "even more than time and cost, logistic performance depends on the reliability and predictability of the supply chain. [...] A high degree of uncertainty means that operators have to adopt costly hedging strategies [...] that can be larger than the direct costs".
Methodology

- An exploratory research was conducted in order to foster understanding of current trade operations in Brazil and possibly identify the most critical aspects of border management.

- Multiple interviews were performed with customs brokers, professionals from public and private companies, including dry ports and institutions of maritime terminals, in order to collect their experiences and opinion.

- The framework adds value as it proposes valid interrelationships between critical aspects identified through field research in an important developing economy.

- The research aims to aid trade facilitation measures and be used as a knowledge resource for further discussions.
CA 1: The bureaucratic flow of customs procedures is highly dependent on the cargo physical flow, and vice versa: it curbs continuous cargoes flow

Examples of flows inter-relationship: i) occurrence of container retention while the processing and analysis of import licensing is still on-going. This may last from 5 to 25 business days, with a maximum of 60 days, which in turn significantly contributes to creating uncertainties in imports; ii) occurrence of container retention while documents are being prepared, delivered and analysed by authorities.
CA 1 also includes the phenomenon of sequencing and chaining of bureaucratic steps, which interrupts the cargo flow multiple times

- As reported by Booz & Company et al. (2012), “the architecture of the Brazilian customs procedure imposes precedences for customs clearance, which inhibits a single intervention.

- De Wulf and Sokol (2005) describe this phenomenon as a set of interlocking processes that need to be adapted to changing trade practices and modern management approaches in order to be efficient and effective. In this sense, Escap (2010) highlights that several countries in Asia have revised, amended or completely changed their customs laws in order to recognize the need for modernization, as [...] customs laws are often one of the oldest laws in most countries as they regulate the movement of traded goods that has been going on for centuries.
CA 2: Lack of operational coordination between agents, what reduces processes’ speed and induces repeatability throughout trade transactions

- Jain (2012) states that excessive delays at border crossings can be due to many reasons, but is mostly aggravated by the lack of coordination and cooperation between border agencies.

- The Brazilian trade structure is decentralized; Restricting to only those that directly interfere in port logistics, they consist of 21 authorities within 13 Ministries or Secretariats.
Agents responsible for import or export licensing also influences on cargoes flow as this procedures occur approximately in 20% of total imported container flow.

- 15 agents from 10 different ministries.

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Agents</th>
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<tbody>
<tr>
<td>Ministry of Health</td>
<td>National Agency for Sanitary Vigilance (ANVISA)</td>
</tr>
<tr>
<td>Ministry Agriculture, Livestock and Supply (MAPA)</td>
<td>International Agriculture Surveillance (VIGIAGRO)</td>
</tr>
<tr>
<td>Ministry of Environment</td>
<td>Brazilian Institute for the Environment and Natural Resources (IBAMA)</td>
</tr>
<tr>
<td>Ministry of Mines and Energy</td>
<td>Brazilian Electricity Regulatory Agency (ANEEL)</td>
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<tr>
<td></td>
<td>National Agency of Petroleum, Natural Gas and Biofuels (ANP)</td>
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<td></td>
<td>National Nuclear Energy Commission (CNEN)</td>
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<td></td>
<td>National Department of Mineral Production (DNPM)</td>
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<tr>
<td>Ministry of Development, Industry and Foreign Trade (MDIC)</td>
<td>Foreign Trade Operations Department (DECEX)</td>
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<td></td>
<td>Manaus Free Zone Superintendence (SUFRAMA)</td>
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<tr>
<td></td>
<td>National Institute of Metrology, Quality and Technology (INMETRO)</td>
</tr>
<tr>
<td>Ministry of Justice</td>
<td>Federal Police Department (DPF)</td>
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<tr>
<td>Ministry of Defence</td>
<td>Controlled Articles Inspection Directorate of the Brazilian Army (DFPC)</td>
</tr>
<tr>
<td>Ministry of Culture</td>
<td>National Agency of Cinema (ANCINE)</td>
</tr>
<tr>
<td>Ministry of Communications</td>
<td>Brazilian Post and Telegraph Corporation (ECT)</td>
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</tbody>
</table>

Difficulties in promoting collaboration between agents

- CONAPORTOS (The National Commission of Ports Authoritie): created in 2012 to stimulate the operational coordination between public agencies and port entities.

- PROHAGE (Harmonization Program of the Authority Agents in the Ports activities): launched in 1997 with the intention for operations harmonizing; it experienced several failures over the years. Currently, it is active only in small port operations: at the port of Espírito Santo, port of Belém and at the port of Manaus. According to customs brokers, the PROHAGE program was unfeasible at the Port of Santos due to the high cargoes flows.

- Booz & Company et al. (2012) concluded that reorganization at ministerial level was necessary in order to deepen alliances and promote higher alignment between stakeholders.
CA 3: Existence of multiple and partial IS and incidence of unsuccessful IT projects: repeatability and inefficiencies in the operations management

- In the Brazilian case, there are several IT systems running trade operations, though these present low inter-operability they are also insufficient when managing all trade transactions (RUSSO FILHO, 2006; BOOZ & COMPANY et al., 2012). The literature argues that this IT environment was common in the years 2000s and lead to limited management capabilities and poor content analysis (MCLINDEN; WIDDOWSON; DOYLE, 2011). It was also the consequence of an agency specific approach, whose main goal was to substitute paper into electronic documents of a specific agent. An approach towards process reengineering was not the focus of such systems.

- The most relevant systems found in operations include: SISCOMEX, by SRF, for customs clearance; SISCOMEX CARGA, also by SRF, for data related to cargo and its transit; SED and DT-E, by ABTRA (Brazilian Association of Port Terminals), to assist the cargo information transactions and its transfer to other areas within the Port of Santos or its proximity; SIGVIG, by ANVISA, for sanitary control; MERCANTE, by the Marine Authority, for vessel tarriff (AFRMM) payment.

- However, there is a current trend to promote IT integration in order to achieve a single interface for multiple parties.
The experience on single window project actually encompasses different projects over time

• **Ministry of Transport, 2006**: failed attempt to develop an integrated system for seaport operations - SISPORTOS, the Integrated Ports System. Used as a basis for the 2011 project conducted by SEP.

• **SEP, 2011**: announced a single window implementation named "Projeto Porto Sem Papel", Paperless Port Project.
  - The project’s goal was to serve as a single window platform for information management and the exchange of documents related to cargoes and vessels at seaports (SEP, 2014).
  - The project also aimed to reduce paper transactions for border management.
  - This experience resulted in limited benefits for the community, as it became another system for operations, not achieving the ambitious goal of becoming the central system. Currently, its scope encompasses some transactions regarding vessels’ traffic at the port zone.

• **SRF, SECEX, 2014**: announcement of a single window project, "Single Portal for Foreign Trade", after the 2013 Bali meeting. It is expected integrate existent information systems and to become a single interface for customs clearance.
CA 4: Occurrence of physical inspections in multiplicity and in excess; some also last for long periods, increasing import time

<table>
<thead>
<tr>
<th>Physical inspection</th>
<th>Agent</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import licence (after-boarding)</td>
<td>Agents from Table 1</td>
<td>5 - 25 days, max 60 days</td>
</tr>
<tr>
<td></td>
<td>and SRF</td>
<td></td>
</tr>
<tr>
<td>Pest control</td>
<td>VIGIAGRO and SRF</td>
<td>2 - 5 business days</td>
</tr>
<tr>
<td>Importers’ request (optional)</td>
<td>SRF</td>
<td>--</td>
</tr>
<tr>
<td>Customs clearance (only red or gray channels)</td>
<td>SRF</td>
<td>4 – 7 business days</td>
</tr>
<tr>
<td>Customs clearance</td>
<td>SRF</td>
<td>1 business day</td>
</tr>
<tr>
<td>Output from customs facility</td>
<td>SRF</td>
<td>1 business day</td>
</tr>
<tr>
<td>Output from customs facility to dry port (DTA)</td>
<td>SRF</td>
<td>1 – 2 business days</td>
</tr>
</tbody>
</table>

Those applicable to a large portion of containers, where only a small portion shows irregularity.
Critical Aspects Framework

1: The bureaucratic flow of the Brazilian customs procedures is highly dependent on the physical flow of the cargoes and...
Physical inspections classification

• **Group a – Inspections with extended deadlines**
  - For import licensing; applicable to ~20% of total imported containerized cargo flow; has a maximum of 60 days to occur.

• **Group b – Excessive physical inspections**
  - The VIGIAGRO intervention for pest control could be considered in this group. According to Furlan and Pinto (2013), approximately 70% of the imported containers are physically inspected by this authority, from which circa 3% show irregularities and are submitted to fumigation.
  - It was also observed that, compared to the global rate, the customs authorities also conduct superior interventions in the physical flow. According to Ng, Padilha and Pallis (2013), the green channel of the Brazilian customs clearance appears in 80 to 85% of the cases, whose global rate is 90 to 95%.

• **Group c - Multiple physical inspections**
  - Multiple physical inspections are exclusively performed by the customs authority.
  - Some other inspections occur in duplicity as they aim to double-check, e.g. one performed for customs clearance completion and another at the moment the container is about to exit the customs facility.
Triangular base: CA’s 1, 2 and 3 inter-relations

Contributes for the existence of CA 2, whose standardized and sequenced steps curbs mutual and collaborative actions between players.

Cargoes are then subjected to highly standardized procedures (lack of risk management due to poor IT intelligence, CA 4).

Lack of mutual engagement on a singular IT platform. Leads to IS low interoperability and IT uncover of all trade procedures and information exchange.

Lack of collaboration between agencies; other matters contribute to this CA, such as the institutions’ lack of engagement in the logistics.

Multiple IS and unsuccessful IT projects
Differently, CA 4 only receives influence of other CA’s. Then, its solution depend previously on the solution of the first three CA’s.
Framework further analysis: internal or external forces from border procedures

- The framework was conceived based on the interrelationships between the four issues, regardless of their theme or operational level. This then allows some further analysis;

- Differently from CA’s 1 and 3 that exploit structural and architecture issues on border management, CA’s 2 and 4 relate to external issues involving agents from different governmental institutions and their fiscalization process.

<table>
<thead>
<tr>
<th>CA’s 1 and 3</th>
<th>internal constraints from border procedures, their architecture and structure</th>
</tr>
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<tbody>
<tr>
<td>CA’s 2 and 4</td>
<td>engagement, collaboration and intervention of agents in the trade flow</td>
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Conclusions & possible actions

- CA’s 1, 2 and 3 require a combined and systematic approach for the overall management solution that should be previously solved. This would positively influence CA 4.

- Reduce the dependence between the bureaucratic and the physical flows; Deep changes in the current IT systems would be necessary to allow document preparation and a broader information exchange.

- Foster an operational architecture with fewer pre-requisites to enable conciliation of activities, e.g. physical inspections.

- Promote greater collaboration between agents involved in border management; This would be beneficial to the IT improvement and would contribute to decreasing the excessive physical inspections. However, efforts in this regards would fail if improvements in the structure of border procedures (issues stated under CA 1) do not occur.
Conclusions & possible actions

- Create an IT solution based on a single window interface for information and document exchange. Although there are some ongoing projects for IT development and current systems integration, a single window interface is still intangible. A divergent use of the term "single window" was indeed observed;

- Countries should evaluate their projects and facilitation measures with a global standard definition of terms. Therefore, we would recommend that international consultants and researches conduct local evaluations in order to investigate the countries' efforts and classify them into a global pattern. This would help global organizations follow the countries' actions in developing measures for trade facilitation;

- Multiple and excessive physical inspections are a complex and deep problem within border management. Therefore, it is suggested to firstly focus on the first three critical aspects to then proceed with finding a solution for CA 4.

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References

References