The social-political embeddedness of import clearance: 20 years of digital transformation at Tema, Ghana

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Abstract

Social structures embed technologies, which people use in the implementation of national single window digital platforms. We argue that stakeholder interests determine digital transformation – with people being the key to understanding how digital platforms change or do not change the environments into which they are introduced. In our multicase studies based in the port of Tema, Ghana, stakeholders have divergent opinions about technology, which causes conflicts. Our empirical findings reflect the interpretive flexibility that moderates the traditional dichotomy between technological determinism and social constructivism. By employing the theory of sociotechnical systems, we identify the frictions and interlinkages of non-technological factors.

1. Introduction

Customs throughout the world has digitalised many of their operations for efficiency and transparency. However, if efficiency is relevant to all stakeholders, why is there a lack of commitment to make the system work most effectively? Based on an analysis of a series of successive cases from Ghana import clearance, we argue that the procurement of new digital systems is highly politicised. This reflects the social embeddedness of technology, which can explain why systems may be more or less successfully implemented regardless of their immediate utility. For political and other reasons, people may not engage with or support the implementation of new systems and, therefore, obstruct or lessen the potential positive impact. Key users may also fail to see the benefit of yet another system procured, which requires investments of time and money unproportioned with the perceived benefit.

1.1. Background

The port of Tema, Ghana, is a leading port in west Africa and a gateway for the landlocked countries of Burkina Faso, Mali and Niger. With a new container terminal opened in June 2019, the port aims to secure for itself the position of the preferred port of call for large vessels bound for west Africa. Following a worldwide trend of digitalisation of port operations and trade facilitation, the port is central in public discourse concerning the introduction of new digital platforms changing the *modus operandi* of the port authority, government agencies and other stakeholders. In September 2017, the vice-president's office announced the introduction of a paperless port system by the government of Ghana to curb corruption without mentioning that plans and projects to digitalise import clearance had been ongoing since 1998. During the last two decades, a chequered story of successes and failures in implementing digital technologies has spurred public interest because of high expectations to digital transformation in customs clearance procedures.

This study traces and analyses this protracted process of digital transformation in Tema. Our starting point is that digital transformation occurs within sociotechnical systems in which social reality is coproduced in the interface of technological hardware and the social attributes and interests of people (Leonardi, 2012). Applying Pinch and Bijker's (1984) social constructivist idea of interpretive flexibility, as modified by Sahay and Robey (1996), we analyse cases representing technological interventions in the customs clearance process since 1998. Our aim is to understand how stakeholder interests affect decisions and outcomes in the introduction of digital platforms and we argue that the vigorous stakeholder politics played out around digitalisation run counter to the public discourses that narrate digital solutions as nonpolitical drivers of port transformation in Tema. This discourse has reinforced the perception that the reason for digitalisation is to eliminate the human factor. Based on our findings, we argue that even if digital technology may potentially eliminate the human factor, humans are an integral part of the politics of procurement, which affects the success of the implementation.

1.2. Digitalisation in customs clearance and the Ghana national single window

In customs clearance, the single window concept gained popularity in the new millennium. The World Customs Organization (WCO) defined it as 'a facility that allows parties involved in trade and transport to lodge standardised information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements' (United Nations Centre for Trade Facilitation and Electronic Business [UN/CEFACT], 2005, p. 7). The argument is that if the information is electronic then individual data elements only need to be submitted once, which has the potential to save users time, which is a key measure of efficiency. According to the WCO, countries reap fuller benefits using information and communication technology (ICT) and dataset standards commonly accepted by the relevant public and private stakeholders (World Customs Organization [WCO], 2012). Blockchain technology is now emerging as the next key technology to improve trade facilitation, as in the case of Maersk's TradeLens platform (Milne, 2018) and CargoX offering digital shipping documents.

For the sake of security and trade facilitation, many ports have moved from manual processes to digital processes, employing powerful scanners to detect contraband goods and false declarations. De Wulf and Sokol (2004) present case studies showing a common motivation for the digitalisation of customs processes. In the Philippines, Turkey, Uganda, Morocco, Mozambique and Peru, digitalisation happened as part of customs reforms. In Turkey, besides reforms, there was also the need to bring customs legislation and administrative structures in line with European Union (EU) standards. From 1998, Ghana pursued customs reform to complement an initial trade reform meant to improve the investment climate, which posted results below expectations. What is common among the countries mentioned is the fact that politicians insisted on these reforms, primarily, to curtail corruption in the customs authority that led to the loss of revenue.

The Ghana National Single Window (GNSW) is an online portal that provides a comprehensive set of services to the trading community. It is a secure trade platform that facilitates the exchange of information between the Government of Ghana and the logistics community. The platform reduces the need for data to be entered multiple times – instead, it can be exchanged and re-used electronically, achieving faster, more accurate results and making it easier to comply with Government of Ghana requirements.

The GNSW consists of TradeNet Services, eTax services and eRegistrar Services. TradeNet permits the logistics community to exchange trade-related documentation electronically with all agents involved in trade-related processes. eTax allows taxpayers to register for a tax identification number, manage their profile, submit tax returns online, and make electronic payments to settle liabilities. A tax identification number is required for all importers wishing to bring goods into Ghana. eRegistrar allows investors

to register their businesses online and pay associated fees electronically. During business registration, the new company automatically receives a tax identification number – a requirement for all importers wishing to bring goods into Ghana. Also, integrated into the GNSW is a module, named eMDA, that connects shippers with the Ministries, Departments and Agencies (MDAs) electronically, as well as the Ghana Integrated Cargo Clearance System (GICCS). eMDA allows online submission, processing, approval and distribution of a wide range of trade-related documentation by ministries, departments and agencies. GICCS, on the other hand, has modules that allow submission of the manifest and payment-related processing. The logistics module has cargo tracking, container transfer, delivery order submission and tracking features.

1.3. Theory: interpretive flexibility and stakeholder interests

The latest scholarly publication on digitalisation at the port of Tema is by Amankwah-Sarfo et al. (2018) who analyse the paperless port as a boundary object. Their findings show that digitalisation of import clearance procedures can improve efficiency in customs clearance, increase government revenue, and reduce port-related corruption. This narrative is not new and is a widely accepted ability of digital technology as applied in ports, including e-governance systems, e-management, e-services and e-democracy (Al-Shbail & Aman 2018, Asogwa 2013, Imam & Jacobs 2007). However, Amankwah-Sarfo et al. (2018) focus only on the Tema narrative promoted by the implementing authorities. Their claims represent that of a section of the producers of the digital hardware artefact and the implementers; however, they do not represent other stakeholders, such as those deciding on acquisition and procurement.

To allow us to include other stakeholders, we draw on the social constructivist theory of technology (SCOT), which provides us with two key concepts that we use to explore the interface between digital platforms and stakeholders. The first is the concept of 'interpretive flexibility'. Interpretive flexibility expresses the idea that cultural assumptions among and between the relevant social groups shape different interpretations of technological artefacts such as digital platforms. Interpretive flexibility underscores human agency in the sense that the meaning of a given technology is never fully fixed. It is a well-known empirical fact that identical technologies have different impacts depending on social and cultural contexts. The notion of interpretive flexibility serves to explore the dynamic interface between technology and social context (Fulk, 1993; Bijker et al., 1993).

The second concept we employ is the notion of 'relevant social groups,' which consist of 'all members of a certain social group [who] share the same set of meanings, attached to a specific artefact' (Pinch & Bijker, 1984, p. 30). The relevant social groups are those groups whose agency give meaning to a given artefact. At its most basic, it is the producers and users of a given technology, but within those broad categories, subgroups exist, for example competing producers as well as users with different political or socio-economic status and interests. Focusing on relevant social groups offers a way of identifying and analysing competing stakeholder interests in the interface between digital platforms and social context. Assessing the impact of digital platforms in import clearance requires attention to the fact that such technologies are embedded in social processes, therefore, we explore the interface between digital platforms (the hardware) and the people. Our analysis seeks to unravel and identify stakeholder interests among the relevant social groups at the port of Tema paying attention to interpretive flexibility and its limits (Klein & Kleinman, 2002; Sahay et al., 1994).

For our analysis, we used the sources mined from the LexisNexis database, conducted semi-structured interviews with key stakeholders at the port, and data generated from a stakeholder's workshop at the University of Ghana in Accra, Ghana, in 2019. The focus group had representation from Ghana Standards Authority and Ghana Shippers Authority (shippers' representatives), West Blue Consulting (one of the digital solutions providers to the state), and Meridian Port Services (the only private

on-dock terminal operator). Also present was Amaris Terminal (an off-dock terminal operator), the Chartered Institute of Logistics and Transport (a professional body), and the Maritime and Dockworkers Union. The plenary session had other representative groups such as journalists, an advocacy group, private consultants, and state agencies such as the Ghana Maritime Authority, who also contributed to the discussion of the digital solutions to import clearance. Moreover, for two months, we conducted semistructured interviews with key stakeholders such as customs, the port authority, and freight forwarders. Furthermore, we attended selected lectures at the Regional Maritime University and the Ghana Institute of Freight forwarders (GIFF) to gain a better understanding of the background of the stakeholders and the issues relating to the GNSW in the port of Tema. We will now zoom in on three specific cases to demonstrate the workings of stakeholder politics.

2. Evolution of digital transformation in Tema

The World Bank and other interested parties reviewed Ghanaian trade reforms introduced in the 1990s and found that they needed the support of reforms of other sectors to achieve their objectives. This gave birth to the project dubbed the Ghana Trade and Investment Gateway Project, referred to hereafter as the Gateway Project. The project sought to transform and improve the operational efficiency of frontline agencies such as the Ghana Ports and Harbours Authority, Ghana Immigration Service, Customs Excise and Preventive Service, Ghana Investment Promotion Centre, and Ghana Free Zones Board that interact with trade, businesses, and people entering or leaving the country (De Wulf, 2004). The aim was to make Ghana the Gateway to West Africa and the preferred destination for investments into west Africa, a vision which still permeates government policies in Ghana to date. A notable result of the Gateway project was the reform of the Port Authority from a service port to a quasi-landlord port that allowed increased private participation in port operations and the creation of the GCNet.

GCNet is a joint venture company with shareholders consisting of SGS (Société Générale de Surveillance) (60 per cent), Customs Division of the Ghana Revenue Authority (20 per cent), the Ghana Shippers Council (10 per cent), and two local banks (each 5 per cent). GCNet operates under a service agreement with the Ministry of Trade and Industry, under which they installed and operate the Electronic Data Interchange system called TradeNet and the Ghana Customs Management System (GCMS) (De Wulf, 2004). GCNet rolled out a system modelled after Singapore's famous TradeNet, a single window platform where all stakeholders, both state agencies and private service providers submit and access information. According to De Wulf (2004), many customs and import processes were automated, simplified, and improved, which contributed to cost savings to businesses, better collection of customs revenues, and speedier processing of container traffic through the port of Tema.

GCNet marked the beginning of the digital transformation in the import clearance processes in Ghana. However, the digitalisation of customs processes was not all rosy. As De Wulf (2004) points out, changes in government around the time of incorporation, change in legislation to accommodate automation in customs operations, as well as commitment issues on the part of the newly formed government and customs leadership meant that the project was delayed until 2002, when the government had settled and given its blessing to the project. GCNet linked the systems of several other government agencies involved in the clearance process using its eMDA platform. It was the harbinger of the current single window system. However, they faced challenges of non-cooperation even from some of its shareholders, but they continually invested in the system and built capacity.

In September 2015, the Government of Ghana contracted West Blue Consulting. Their introduction was met with opposition within both government ranks and other stakeholders due to alleged procurement breaches. Here, the changes in the interpretations of single relevant social groups and diversity of interpretations among different social groups determine the outcome of the implementation process. After West Blue was contracted (by the Ministry of Finance) to take over the functions

of Destination Inspection Companies (DICs) the company operated hand-in-hand with GCNet (under contract with the Ministry of Trade and Industry) as a technology solutions provider for Ghana Customs. They have since introduced new modules to improve the import clearance process. Whereas the two companies try to convince the public that their softwares work seamlessly in delivering the GNSW platform, some stakeholders have often referred to it as 'Single Windows'; some in jest, but others quite seriously when they encounter problems with the system.

West Blue has proven their mettle, but they have had to justify their introduction into the import clearance at various forums. This statement by the CEO of West Blue is one of them:

> This 2nd phase of the single window system takes the project much further by extending the National Single Window automation and integration approach to all government agencies and private sector operators involved in international trade, utilizing existing systems and infrastructure wherever this is efficient and effective. A key feature of the 2nd phase is the fully automated and paperless 'single entry point' to facilitate the single submission – by businesses – of the required trade information for processing by government agencies and private sector operators, and the receipt of the relevant responses through a seamless and easy to use service. (Organisation for Economic Co-operation and Development [OECD], 2017, p. 2)

The reference to a second phase had never surfaced in any discourse when GCNet was the single service provider of technology to customs. Apart from the suspicion of procurement breaches by government, the initial opposition to West Blue's contract partly reflects a section of the relevant social group interpreting this as a replacement of GCNet with West Blue. Some held that GCNet could be improved if the authorities did not frustrate their effects. Others preferred the status quo and did not want to rock the boat after years of co-creating solutions at the port with GCNet.

Other state agencies have added more providers and platforms since 2015. Amidst heavy resistance from freight forwarders and shippers, in 2015 the Ghana Shippers Authority first introduced the Advanced Shipment Information (ASHI) policy, which is an electronic platform to receive pre-arrival cargo information in advance. The protestors argued that it is costly for the shipper. The Ministry of Transport later suspended the policy with the view that further capacity building is required to give the protestors a good understanding and, hence, acceptance. However, in an interview with *The Chronicle* (2016) newspaper, the CEO of Ghana Shippers Authority stated: 'Due diligence and stakeholder consultation was made before the introduction of the policy, hence, I cannot fathom why the severe objection exhibited by a cross-section of players within the industry.' This statement indicates a mixture of problems including wrong targeting and socio-political underpinnings.

However, a change in government following the 2016 election saw the policy resurface in another form called Cargo Tracking Note (CTN) – very popular in many parts of Africa. This time, it was to be in the realms of the Ghana Revenue Authority, but to be implemented by a private company called CTN Ghana Limited. The government's justification for its introduction and rebuttal for the issues raised by other stakeholders was that those opposing it were nation wreckers who were apprehensive that their illegal activities such as under-invoicing would be blocked by the introduction of CTN. The proponents of CTN alleged that the nation was losing too much money due to these irregular activities. However, the GIFF, the main users affected by the new systems, insisted that the statistical reports from the Single Window platform showed otherwise. GIFF (Ghana Institute of Freight Forwarders [GIFF], 2018) stated in a position paper that:

> It should be noted that GIFF is in no way kicking against the established objective of the Cargo Tracking Note. What we find difficult to understand is the parallel path being charted, the legality of the scheme and the needless cost that it comes with. We present this piece to enhance the conversation at norming a system that will deliver at the optimum ensuring a win-win situation for the State and Citizenry. (p. 4)

As it stands now, CTN is an anomaly in the single window import clearance process because it is a stand-alone system. The United Nations Economic Commission for Europe (UNECE) defines single window as 'a facility that allows parties involved in trade and transport to lodge standardised information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once' (UN/CEFACT, 2005). The vice-president's office suspended the CTN implementation twice in 2018. In principle, the ASHI/CTN offers rather simple technical solutions that had been tried and tested in other countries. However, competing interpretations over what the technical solution is and what problem it is intended to address – to stop 'nation wreckers' or intentionally add a costly layer to the clearance process – created conflicts among relevant social groups and frustration over a situation which the GIFF report (GIFF, 2018) describes as a 'parallel path being charted'.

We see how stakeholder interests and digital transformation are intertwined. GCNet was formed to modernise customs by the provision of IT infrastructure and systems. The core functions of customs were also handled by the DIC contracted to use their technology and databases to provide the service. GCNet collaborated with the DICs until 2007 when a new government awarded a contract to Bankswitch Ghana Ltd to deliver the services the DICs were providing. The state news portal Graphic Online (Abbey, 2015) reported Bankswitch to have convinced the government that they would be able to collect more revenue for them with its system than the DICs were doing. This generated the debate as to why Customs was not allowed to perform its functions, but rather pay a share of the country's revenue to third parties to offer the service. It is widely quoted that the WCO frowns upon the practice of countries contracting core customs services to private companies. It simply means the country does not need its customs administration so it must disband it (Abbey, 2015). Bankswitch piloted its system through 2008. However, in 2009, another government came into power and abrogated the contract of Bankswitch citing non-performance and a duplication of the activities of GCNet and the DICs (The Ghanaian Chronicle, 2015).

In 2015, the same government in its second term of office (but under a new president after the demise of the first term president) contracted West Blue Consulting to provide technical assistance to Customs to take over their core function of classification and valuation (The Ghanaian Chronicle, 2015). This, effectively, ended the operations of the DICs. Subsequently, the two major IT solution providers (that is, West Blue Consulting and GCNet) became the joint operators of the Ghana National Single Window system. The mandate of West Blue Consulting is from the Ministry of Finance to work for the Customs Division of the Ghana Revenue Authority, while GCNet derives their mandate from the Ministry of Trade and Industry. The official narrative had been that the two are collaborating well in providing the service, but as noted, stakeholders have described the Single Window as 'Single Windows', because they face problems transacting business seamlessly. Concerning the two service providers, GIFF (2017) alleges that:

> Compromising to deliver that integration has the element of rendering one of them redundant on certain fronts. A case in point was when the Import Declaration Form (IDF) module had to be plucked off the GCNET platform unto [*sic*] Ghana's Trading Hub (PAARS) [of West Blue]. Another classic case is the call of Manifests onto the PAARS platform [of West Blue] creating anxiety within GCNET who used to house the manifests. The two scenarios above 'justifies' [*sic*] the turf war because one can only survive if their bargaining chips are intact, but whiles [*sic*] they are at it, trade facilitation as well as port efficiency suffers with its attendant cost! (Systems Integration section, paras 3–5)

The new and increased cost is a key complaint among users of the system(s), however, the duplication of functions appears to be equally problematic.

In March 2018, the Ministry of Trade and Industry awarded a new provider, *Ghana Link Network Limited*, a USD$40 million 10-year single window contract to provide paperless services at the port. The new system, known as UNIPASS, was, apparently, an adaptation from the Customs UNI-PASS International Agency (CUPIA) of Korea whose benefits have been enumerated by (Choo & Nam, 2016). Headed by the vice-president, the Economic Management Team (EMT) had scheduled the implementation of the UNIPASS Single Window System to commence on 1 January 2019, however, it suspended implementation after stakeholders registered their disapproval. Shippers contend that the UNIPASS deal was costly. To support this response from the stakeholders, a prominent news portal in Ghana (Acquah-Hayford, 2019) reported that UNIPASS would be more costly to the shipper than GCNet and West Blue combined. Freight forwarders interviewed in Tema in February 2020 were suspicious of any new contract for technological services insisting it would increase their costs due to bad contracts and duplication of services. Moreover, Acquah-Hayford (2019) reported that after a UNIPASS system demonstration, participants were not convinced that the system differed from that offered by GCNet and West Blue. Subsequently, West Blue has sued the operators of UNIPASS for cloning their software and redirecting social media links in the demonstration of the UNIPASS platform (Business and Financial Times, 2019). Ghana Ports and Harbours Authority officials interviewed had the opinion that further improving the combination of GCNet and West Blue is a feasible option.

3. Eliminating the human factor

The cases reveal the stakeholder politics involved in the protracted introduction of single window technologies. What are the implications of this for how we understand digital transformation processes in Tema? Firstly, it is important to note that this insight into stakeholder politics runs counter to widespread discourses on digitalisation, which tout digital platforms as an 'agent of change' independent of the politics of local contexts. As the historian of technology David Nye rightly points out, technology is misleadingly seen as something 'that comes from outside society, like a meteor, and has an immediate effect, almost like a natural force' (Nye, 2007, p. 234). In the case of digitalisation in Tema, meteor-type claims about the impact of digital platforms flourish as when the Bolloré and MPS Terminal operators insist that the Tema Port expansion and the new ICTs introduced will 'bring a host of upgrades within the systems and information teams, which is a huge boost to the Ghanaian talent pool. This transfer of knowledge to Ghanaians will secure the future for generations to come' (Bolloré Transport & Logistics, 2016, 6:33). We need to treat such claims on the impact of digital platforms cautiously. Indeed, the statements significantly downplay the critical way, in which specific social contexts and stakeholder interests have shaped and continue to shape the implementation and use of ICTs in import clearance.

Relevant social groups confront each other and define meaning through their interpretations of digital solutions to perceived challenges. Most stakeholders at the port of Tema express a shared expectation of a technological-determined solution to curtail corruption in various forms and prevent political interference. For example, the Ghanaian Government touted the paperless port as a system that would, inadvertently, reduce corruption and increase government revenue. The claim illustrates the technological determinism adhered to by many stakeholders at the port of Tema. However, unmet expectations lead to conflicts and blame games among different social groups. For instance, when the Customs Division of the Ghana Revenue Authority was not able to meet revenue targets even after the introduction of the paperless system, the government blamed the customs officials and the customs officials, in turn, blamed the government. This resulted in a rift which has so far culminated in the staff holding a meeting to register their displeasure with government in 2019 (Ibrahim, 2019).

Where we do register a convergence of opinion is in fact that the solution to efficient import clearance consists of getting rid of human interference, which reinforces the idea of a technological fix. The statement below illustrates the sentiment of the largest freight forwarding association, the GIFF, on the digital transformation process. Of a system that is termed paperless, they write:

> Solutions which have been delivered today still have a lot of human intervention and this allows for a lot of discretion. This is where the problem is, because this allows the 'system' to choose and pick which solution to give who [persons] is on the most 'favored list'. Why should two traders buying from the same source, on the same conveyance be handed two contrasting outcomes? This does not bode well for COMPLIANCE! (GIFF, 2017, Migraines with Automation Efforts section)

The founder of West Blue Consulting expressed a similar view in her application to the OECD for funds to support the GNSW: 'The GNSW also reduces, to the maximum extent possible, the human interface in trade transactions, allowing most processes to be undertaken automatically. This greatly increases transparency and reduces the possibilities for irregular interventions and payments' (OECD, 2017, p. 2). The two statements illustrate the shared expectations of a technical service provider and the users that good technology eliminates bad human influence. The statements by GIFF and the founder of West Blue Consulting describe human intervention as a problem, automatically fixed by a supposedly neutral technology.

The identification of the human factor as the underlying problem that technology must fix further amplifies the deterministic perception of technology as a force free of human interest. However, such macro-level expectations and explanations fail to capture the specific tensions among the relevant social groups that we identified at Tema. The interference of and deferment to political powers is evident. For example, TV3 of Ghana (a Ghanaian television network) recorded this statement made by one staff member, supported by her colleagues, at a staff meeting of the Customs Division of the Ghana Revenue Authority (GRA):

> They [referring to politicians/government] are creating enmity between us [staff]…there are some people who came through political appointment who have their children as clearing agents [Customs House Agents] and they use exemptions to clear goods. Is that not a conflict of interest? (Ibrahim, 2019)

The statement confirmed the role of politics in their work and the row that ensued between government and staff of GRA regarding shortfalls in revenue generation.

Observations made and confirmed by the interviews with stakeholders reveal that state agencies introduce systems to maximise their revenue and facilitate their work and trade, but, unintentionally, add to the overall cost of doing business at the port. In March 2019, stakeholders present at our focus group discussion explained that some government border agencies have been elevated from Councils and Boards to Authority status, weaning them from government budget and/or payroll and giving them the autonomous power to charge fees and generate revenue to sustain themselves. According to GIFF and the Ghana Ports and Harbours Authority, in a bid to generate funds for their operations, they cause undue delay and increase the cost of doing business by imposing fees (Ghana National Chamber of Commerce & Industry, 2017) which, clearly, expresses the concern of the shipping community. The point we emphasise here is not the legitimacy of the concern, but rather that digital solutions presented as neutral tools eliminating the human factor amplify tensions between stakeholders.

4. Conclusion: new providers in the old game

With the recent UNIPASS contract, digital transformation remains, at best, an unfinished business. Analysing the protracted process of digital transformation, we have focused on cases where new technologies and often new service providers have been engaged by the government of Ghana to illustrate the underlying politics associated with the GNSW. We have highlighted the interpretive flexibility that exists among the relevant social groups and their interests and how politics influence these interpretations. This interpretive flexibility and interest gerrymandering reflect turf wars among state agencies with the constant engagement of new service providers by changing governments and differing measures of resistance and support from shippers for new technological introductions/or companies. Our findings support the World Customs Organization's interpretation that outsourcing key functions to private companies undermines the legitimacy and effectiveness of the national customs institution to collect revenue.

In our introduction, we posed the question 'if efficiency is relevant to all stakeholders, why is there a lack of commitment to make the system work optimally?' Our findings propose the answer that, on the one hand, the state is suspicious of its citizens and, on the other, its citizens are suspicious of the state, which produces a situation where the elusive aim becomes to eliminate human interference through digital technology. Our analysis suggests, however, that any solution to ameliorate low revenue generation by Ghana Customs lies in, firstly, recognising the social embeddedness of the digital tools, which new providers have given far less attention than the purchase and implementation of new technologies.

Acknowledgments

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