

Talian Darussalam 123: Brunei Darussalam's National Non-Emergency Call Centre

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Abstract

One of the most significant changes in the last five years in Brunei Darussalam's public administration is the introduction of the national non-emergency call centre, Talian Darussalam 123 (TD123). From the initial 181,000 calls the centre received in the first nine months of its operation in 2014, it is now receiving over 300,000 calls annually from the members of the public. This paper is a descriptive qualitative case study on TD123, a successful e-Government initiative in the small country of Brunei Darussalam, which has a population of 442,200 people. The significant number of calls to the centre reflects public's knowledge of the service; where 30% of the population has called the centre at least once. From the data received, majority of Brunei Darussalam's public complaints were due to water and electricity supplies. As TD123 is just an intermediary, it is not mandated to take action on departments which did not reply to public complaints as seen in other countries, therefore this is also one of the challenges of the system. The data collected from the public is valuable information can help the government to plan its social and economic development as seen in major cities with a similar system, therefore expanding the system can help the country achieve its smart city and nation initiatives in the future.

Keywords:

Brunei, e-government, non-emergency, call centre

Introduction

It is now difficult to think governments operating or delivering public services without the use of information communication technologies (ICTs) (OECD, 2008; Gil-Garcia, Dawes and Pardo, 2017). The use of technology to help governments improve their governance gives rise to the study of e-Government. The literature on e-Government or e-Gov defined by the United Nations Economic and Social Affairs (UN DESA) as the "... use of ICTs to more effectively and efficiently deliver government services to citizens and businesses" (UN E-Government Knowledgebase, 2019), is over two decades old (Gronlund and Horan, 2005). Advances in ICTs in general, have improved significantly governments' efficiency,

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effectiveness, transparency and accountability in delivering public services (Nam and Pardo, 2014; Chatfield and Reddick, 2018). One of the initiatives under the e-Gov umbrella is the introduction of a national non-emergency call centre (NECC) that can assist public inquiries and complaints, first used in China in 1983 but made popular in United States since 1996. The service proved valuable that other countries such as Brunei Darussalam (henceforth Brunei) which also adopted the system, to consolidate its non-emergency services to one number where the public can easily remember the number, free of charge.

Advances in technologies have allowed governments and the public to interact digitally and 'on-air,' therefore the public no longer needs to make complaints directly to government offices, saving them time, effort and money (for transportation). Governments want to improve their services as they are concerned and want to improve citizens' experience and life (Aziz, 2015). This paper is a qualitative research on Brunei's NECC, called Talian Darussalam 123 or 'Abode of Peace' Line 123, an important improvement in public sector's complaint system in Brunei which adds to the literature on NECCs, which is currently under-researched (Nam and Pardo, 2014a; Chatfield and Reddick, 2018).

Non-Emergency Call Centre (NECC)

The history of the establishment of NECC in Western countries was aimed at reducing the abuse and overuse of the real emergency number of 911 (Nam and Pardo, 2014a;b; Wiseman, 2014). In 1996, the US Federal Communications Commissions created the toll-free number of 311 to stop the public from calling 911 for non-emergency incidents, as lives were at stake when emergency personnel had to attend to such calls. The city of Baltimore was the first city to adopt the NECC and to date over 300 American cities and small towns are using the system, freeing the 911 emergency calls from non-life threatening calls and saving lives of those who are in real emergencies (Nam and Pardo, 2014a; Wiseman, 2014). The success of the system saw its adoption in neighbouring Canada, where the city of Calgary was first to offer the service in 2005, followed by Latin American cities such as Panama, Puerto Rico and Costa Rica, where these countries also used the 311 code.

In European countries, Germany's NECC's code is 115 but in the United Kingdom (UK) and Sweden the scenario is different. The code 101 and 114 14 respectively, are allocated for 'non-emergency' numbers but the call is still answered by the police as the term

'non-emergency' in their context meant not needing *immediate* police intervention, for example, giving police tips about certain crime or damaged property (Police.UK, 2019), rather than to help citizens with information or complaints on public services (which is to be referred to their local councils).

In Asia, China is probably the first country in the world with a public complaint hotline, with the code of 12345, introduced since 1983. However, it was only in recent times that major Chinese cities began to take the hotline seriously, after nearly four decades of establishment, understanding that cities need to be more responsive to public complaints and concerns (The Economist, February 4th 2017) due to social media coverage which can reach up to its political elites (Wu and Alaimo, 2018). The effectiveness of the system in all of China's 300 cities is still open for debate ("J.P," 2017) and under-researched, specifically in the English language literature. Nevertheless, Chinese cities are now competing with their counterparts in other cities, to give better services to its citizens, for example in May 2019, Shanghai's 12345 started to provide sign language through a camera, in a city which has an estimated 200,000 people with hearing or speech impairment (China Daily, May 14th 2019).

In Southeast Asia, the Philippines is the first country in Southeast Asia (See Table 1) to offer a NECC system called Contact Center ng Bayan (CCB) in 2012. Citizens can call hotline number 1-6565, send texts to 09088816565 or email their complaints. However, the system did not run 24/7 until President Duterte introduced the President's Hotline 8888 on August 1st 2016, where CCB was mandated to manage the hotline. By July 2019, the 8888 hotline has its own television programme (Ranada, 2019). Authorities have to take actions on the complaints made through CCB within in 72 hours timeframe. In 2016, there were 106,839 'transactions' or citizens' contacts, received by CCB, and 51% of it came from 1-6565 and 8888 hotlines while 46.8% were from Short Messaging Service (SMS). Most of the complaints in 2016 were focused on the country's Social Security System (SSS) as well as the Land Transport Office (LTO) (CCB, 2016). By 2018, of the 109,136 'transactions' received from the public, 93% of the complaints were received through SMS while only 0.25% were used the 8888 hotline. Most of the calls to the system were due to inquiries (47.5%) while complaints made up 33.5% of the total contacts made. Most of the complaints were focused on the LTO (33%) and SSS (15%) while the agencies with the highest resolution rate at 100% were the Bureau of Internal Revenue and the Land Bank of the Philippines (CCB, 2018). There is a lack of literature to explain the sudden drop in the number of complaints through the

hotline and why SMS is popular, therefore future research on CCB should be encouraged to gauge its effectiveness.

Table 1.
Non-Emergency Call Centres in 6 ASEAN Countries

Country	Total Population	Non-Emergency Call Centres	Year Established	Number	Other Applications
Brunei Darussalam	442,200	Talian Darussalam 123	2014	123	Instagram, Facebook, Website, Email, WhatsApp, Twitter, Mobile Application i-tegur (Mobile App)
Malaysia	31,660,700	Nil	2018	-	
Thailand	67,454,700	Nil	-	-	-
Indonesia	258,705,000	Jakarta Smart City	2014	6281112 72206	Qlue (Mobile App), Facebook, Website, Email, SMS, Twitter Walk-in, Mail, Email ,Short Messaging Service (SMS), Hotline Walk-in, Mail, Email ,Short Messaging Service (SMS), Hotline, Television Show OneService (Mobile App)
Philippines	103,242,900	Contact Center Ng Bayan (CCB)	2012	1-6565	
		President's Hotline 8888	2016	8888	
Singapore	5,607,300	Nil	2015	-	

Source: Author's Compilation; ASEAN (2019)

In Indonesia, specifically in the capital Jakarta, one of the world's most densely populated cities of 10 million people, the mayor's office had invested and utilised smart technologies in managing the city. In 2014, the mayor introduced mobile applications Qlue (from the word, 'Keluhan' which means complaint in Indonesian language) and Crop (Cepat Respon Opini Publik or faster response to public opinions) where the latter is used by public officials. Rather than introducing a hotline for the public voice their complaints, as part of the Jakarta Smart City initiative, the mayor focused on mobile applications to be used by city residents and city officials to monitor and held officials accountable for public complaints as complaints can be tracked (Dachlan, 2016). Qlue allows citizens to submit geo-tagged complaints and photos to the city government and updating them when they get a response.

In 2016, with over half and million people downloading the app, Qlue received about 40,000 reports per day from the public (The Jakarta Post, June 22nd 2016) but now Qlue received only about 500 reports a day; public complaints solved from 300 hours to 28 hours on average (Andapita, 2019). Earlier Putra and Sarinastiti (2017) claimed Qlue managed to resolve public complaints within four to eight hours! In 2019, Qlue won Best M-Government Service Award in Public Empowerment at the World Government Summit in, beating NYC 311 and Pakistan's Citizen Portal (Jakarta Post, 21st February 2019).

Indonesia has also introduced a complaints application that focused on federal level services known as Lapor (which means 'Report'), in 2011 and complaints will be directed to the government agency. The system allows citizens to text 1708 or via its website, mobile application or twitter, facebook and a tracking identity for each report and a notification when an official response. Agencies are supposed to respond within five working days and if not, Lapor team will call the agency's liaison officer. If there is still no progress, then a report will be sent to a senior official and if that doesn't work, the agency can be reported to Ombudsman of Indonesia which will then investigate the ministry (Basu, 2015). As Lapor aims to cover all level of government by 2019, there are still local governments which have not fully support or adopt the system (Basu, 2015; World Bank, 2016; Akbar, Kania, Ulumudin, Aggadwita, Harmanto and Alamanda , 2018).

In the three other Southeast Asian countries, there is no dedicated number for NECCs. For example, in Singapore, it was reported that the police hotline of 999 saw 1.2 million calls being made but only 33% of the calls were about actual emergencies (Leong, 2017). In Malaysia, its 999 hotline received more than 25.5 million calls in 2014, but only 2% of them were genuine while 67% were 'silent calls'; 19% dropped calls and 8% being crank calls (Chin, 2015). Four years later, as the number of calls to the emergency hotline has significantly decreased, to 13.3 million calls, or 36,500 per day and only 5.7% were categorised as NECCs. Most of the emergency calls were for health-related emergencies (Yuen, 2019) but to date, there is lack of research in Malaysia on the successful reduction of NECC to its emergency call hotline. In 2018, the Malaysian government reintroduced 'i-tegur' mobile application (replacing the name i-kephoh), for the public to complain to their local authorities on issues affecting their residential areas (Khor, 2018; Bernama, December 10th 2018). In Thailand, emergency calls are still separated into police (191), ambulance

(1554), fire-brigade (199), crime (1195/1111) and tourist police (1155) and the government plans to use the code 191 as the national emergency number by 2020 (Bangkok Post, December 5th 2018). There is still no dedicated number for the public to call to complain about public services in general.

While there seemed to be a need for a NECC system in Singapore due to a high number of 'misdirected' calls to the 999 hotline, however, the government has yet to introduce or see the need to have it. Nevertheless, Singapore's OneService system introduced in 2015 is used for public complaints on municipal issues and informs the public on neighbourhood's happenings. The public can also view the status of their complaints from the application as well on OneService website and by 2018, the app helps residents to find parking and pay for it (Heng, 2018; <https://www.oneservice.sg/home>). In 2015, OneService won Special Achievement in Geographic Information System award at the Sri User Conference in USA (Municipal Services Office, 2015). In Malaysia, it seemed that the number of people who called the 999 numbers had reduced significantly, however; the data reported in the media need to be scrutinised to as well as research to be done to understand how Malaysia was successful to reduce NECs to its 999 hotline. Thailand is still using different numbers for different emergencies, although there are moves to consolidate the emergency lines, there are none so far for NECs. Brunei too still maintains the emergency numbers of 991, 993, 995 and 998 for ambulance, police, fire services and search and rescue respectively. The call number 9 is allocated for emergency services, while those with 1 are designated for non-emergency services.

From the six Southeast Asian countries, it is clear that Indonesia and Singapore have harnessed technological innovations to improve public service delivery for non-emergency services, to achieve their smart nation vision and initiatives. In other countries, their sprawling territories (except Brunei), citizens' level of education and income as well as existing public sector culture (World Bank, 2016) determines how the public services innovation and improvement can be effective. It seemed peculiar that despite having one of the highest social media usages in the world, Bruneian residents still prefer to call rather than use the existing application to report on non-emergency services. To date in Brunei, the success of NECC's in improving public service delivery has not been researched therefore this paper hopes to fill in the literature gap.

Case Study: Brunei Darussalam

Brunei is a small absolute monarchy, located in the Island of Borneo in Southeast Asia with a total land area of 2,226 sq km, with a population density of 77 people per sq km, where 20% of the population made up of expatriates (JPKE, 2019a; Pang, 2019). A British Protectorate State in 1888, Brunei achieved independence in 1984. Wealth from petroleum resources discovered since 1929, are shared, where citizens enjoyed many social welfare benefits. The government provides citizens with subsidised healthcare, education (where citizens received allowances to study in universities), housing, fuel, water, electricity and rice. Brunei has no income tax while companies tax are minimal. In the 2018 updated United Nations Human Development Index report, Brunei was ranked 39, together with Saudi Arabia as having a very high 'human' development index of 0.853 (UNDP, 2018). The index was aimed to focus on human development indicators rather than just focusing only on economics data, and in the case of Brunei, it is clear the government has utilized the country's resources for the betterment of her population.

The public sector and government-linked agencies are the largest employer of the country. The huge public sector is bloated and inefficient (Saim, 2000; Yapa, 2014; Jones 2016). Under the National Vision 2035, the government hopes to 'build a modern and effective civil service that facilitates national development; streamlining government procedures and regulations to enable prompt decision-making, minimising of red tape' (JPKE, 2007: 19). In the 25th Civil Service Day held in 2018, the Sultan also highlighted the need to have civil service efficient and effective (Mohammad, 2018) and free of corruption (Mohamad, 2019a). As Brunei also aspires to be a smart nation, therefore, the government's introduction of NECC's TD123, is one of the building blocks to help the government realise that vision and hence the focus of this paper.

Talian Darussalam 123

TD123 is the one-stop national call centre for non-emergency services. It started its operation in March 2014 and aim to handle public complaints on non-emergency services and to provide reliable information to the public. Before the establishment of TD123, there were three major telephone lines used by the public to complain about service disruption, electrical department services (114), services under Ministry of Development (140) and land transport (119), however, there was no record on its efficiency and effectiveness in managing

the systems. Throughout the two years of operation, TD123 expanded its mode of services, exposing its services to the public through mass and social media. For example, in 2014, only the hotline 123 and email address (info@123.com.bn) were provided, but by 2016, other online services such as social media contact – Facebook, Instagram, mobile application and live chat at (WhatsApp +6738333123) were added to the service. Following the success of the three organisations which were initially included in the service, by 2019 the Public Service Department (PSD) under its recruitment section, Ministry of Health, Maritime and Port Authority, Darussalam Enterprise, Labour Department, Prisons Department and Municipal Services also joined the call centre (See Table 2).

Table 2.
More Services Added to TD123

Year	Services Added
2014	Department of Electrical Services, Ministry of Development, Land Transport and E-Darussalam Services
2015	Public Service Commission Recruitment
2016	OneBiz Services; Ministry of Health, Maritime and Port Authority
2017	Darussalam Enterprise (DARE); Labour Department
2018	Prisons Department; Content Advisory Council (Social Media Hotline); Municipal Department
2019	Competition and Consumer Affairs Unit

Source: E-government National Centre, Prime Minister’s Office, Brunei Darussalam.

As more and more people are aware of TD123 services, there is a dearth of research on its impact on public sector administration since its introduction. After all, TD123 aim was to be one-stop agency for public complaints. This is not to say that Brunei does not have a public complaints agency before, it does; for example, the Management Services Department (MSD) which is under the Prime Minister’s Office. However there is limited literature on how MSD manages public complaints (Aziz, 2015). Since the establishment of TD123, the system used is able to capture as many public complaints as possible, centralising as well as providing data when requested, which is useful for further research, not only in academia but also in national development planning.

Methods

The research is a preliminary study, a case study on Brunei’s TD 123. The research used descriptive qualitative case study analysis for this research. Emails and personal

interviews were carried with the officer in charge of the TD123 system. The contracted private agency, Comquest Sdn. Bhd., which manages the call centre, established in 2012, is a joint venture company between Sultanate of Oman’s Bahwan CyberTek and Telekom Brunei Berhad (Telbru), a Brunei government corporatized telecommunication company (www.comquest-brunei.com). A site visit to TD123 call centre was made on 14th September 2019 and a questions and answers session was held after the briefing on the call centre with the officers of the call centre. Correspondence with TD123 officer occurred between August to October 2019. All data provided by E-government centre (Egnc) and Comquest has to be verified by the Egnc management before it could be used for this research.

Results

TD 123 is Popular

Since TD123 started, there are now more than 300,000 calls received per year since 2015, an average of 25,000 calls per month from the public (see Table 3). In 2018, it recorded the highest number of calls at 379,737 calls. This is significantly large compared Jakarta Indonesia, where Qlue now received just about 500 complaints monthly despite having a population of 10million people in the city while in the Philippines, where the capital has a population of about 12 million, where CCB just received about 9,000 monthly ‘contacts’ in 2018.

Table 3.
Total Number and Nature of the Calls to TD123, 2014-July 2019

Year	2014	2015	2016	2017	2018	Jan-June 2019
No of Calls	181,627	303,876	349,521	333,204	379,737	206,416
Nature of calls						
Complaint%	20.29	41.66	45.40	47.79	49.84	51.02
Enquiry%	17.04	30.43	21.80	21.80	23.23	20.70

Source: E-government National Centre, Prime Minister’s Office, Brunei Darussalam.

Majority of the people who contacted TD123 called to complain while less than a quarter of the calls were on enquiry. Based on Table 3, nearly 50% of the contacts made to TD123 were about complaints, and less than 25% were on enquiry. This is different from the Philippines example where 47.5% of calls to CCB were to ask about something while 33.5% were to complain about a service. There is no data available currently to show the difference with Qlue.

Based on the information provided by Egnc, the data were organised based on the list decided by the departments involved in the TD123 services and they decide how it should be compiled for their own usage, however, as a reviewer of the data, there seemed to be a duplication in the listing for complaints and inquiries. A clearer data is needed, to be organised in such a way, which shows which department and the types of complaints or services are being enquired about. How fast is the resolution of the service based on the issues highlighted by the public was also not included in the data as TD123 is not informed by the respective department and ministries when problems are solved on their end, hence TD123 have to do call back to check and once resolved, they can ask their level of satisfaction of the service.

Majority of the Complaints Received were Related to Water Department

The majority of the complaints received in the past four and a half years were related to water supplies. Data on Table 4 shows that electrical supply issues might top the chart of the complaints (the data compiled in such a way as requested by the department concerned); however, if the data were to be merged based on service complaints, Water Department overshadows the complaints on electrical services by half of the complaints received. For example, in 2018, of the 379,737 complaints received, 27.1% of the complaints were based on electrical supply while 52.9% of all the complaints were related to water issues, hence complaints on Water Department services (see Table 4).

Table 4.
Types of Complaints Received

Types of Complaints	2015	2016	2017	2018	Jan-July 2019
Electric Supply Related	29.5%	33.0%	32.4%	27.1%	25.4%
Maintenance Services	12.9%	16.7%	17.7%	22.7%	19.9%
Tanker Request	11.1%	9.7%	6.3%	11.3%	14.7%
Water Pipes	13.3%	11.5%	10.8%	9.0%	11.4%
Water Meter	10.8%	11.0%	11.9%	9.9%	8.9%

Source: E-government National Centre, Prime Minister's Office, Brunei Darussalam.

In the past few years, the complaints on Water Department seemed high based on the issues being highlighted in the social media as disruptions of supplies would be informed to the public via social media statements. The Ministry of Development, which Water Department falls under, acknowledges the problem in their 2018-2023 Strategic Plan

2018-2023 that Brunei water usage not only the highest in Southeast Asia; outstanding water bills are not being paid on time. In 2016, the unpaid bill was estimated to about B\$39 million and the reason cited was due to meter reading issues (Ministry of Development, 2018). The Ministry also acknowledges that there is a high leakage of water at 45% which is equivalent to 90 million cubic meter of water lost annually, due to (old) pipe leaks, tank overflow, metering inaccuracies and illegal tapping of water.

As Brunei water supplies are owned by the government, its sole operator and distributor; Brunei water is also highly subsidised, where domestic use is charged at B0.11 per cubic meter for the first 54.54 cubic meters and the actual cost of production, is at B\$0.90 per cubic meter (Bandial, 2018); the cheap cost of water supplied (commercial areas charged B0.66 cents per litre) though the pipes have also lead to the proliferation of companies in Brunei producing more bottled water for sale in the country (Pang, 2019). Even though more services have been included in TD123, however, consistently water related issues received the most complaints rather than the other services.

Majority of the Enquiry Related to Electrical Supply Related

In terms of enquiry related issues, in 2018, based on the data provided, about 20% of the calls were related to electrical supply however if both misdirect and invalid calls were to be combined; it amounted to 31.9% of the total enquiry calls (see Table 5), therefore constituting the most 'enquiry' received.

Based on the interview and information received from Egnc personnel, misdirect calls are identified as any call that is not within the scope of TD123. For example, since the services from the Ministry of Primary Resources and Tourism are not part of the system yet, hence TD123 personnel could not answer the Ministry's behalf on issues brought up by a client. Furthermore, if clients wrongly call TD123 to ask about telephone directory number, it would also fall under misdirected call. For example, from 2016 to 2018 about 10% of the misdirected calls were due to the people calling TD123 thinking it was TelBru, Brunei's only landline and broadband internet service provider. For those looking for phone directory contact number, the number to call is 113, which is no longer a toll-free number. Nevertheless, even though TD123 is not supposed to give phone numbers as they are not telephone directory service lines since TD123 mission is to try their best to anyone who calls in if they know the number, they would still help inform the caller.

Based on data in Table 5, the issue on electrical supplies tops the list of the public asking about supply issue while water issues are also significant as the public do call to ask about the lack of water supply in their area. In the data provided by Egnc, there is also a section on ‘pipe water leaks and water tanker’ requests which would fall under Water Department, constituting about 2.4% of all the data of inquiry from the public, hence it is clear that Electrical and Water Departments still receive the most ‘enquiry’ about it supply to respective houses, similar to the number of ‘complaints’ about those services to TD123.

Table 5.
Types of Enquiry Received

Year/Service	2014	2015	2016	2017	2018	Jan-July 2019
Electric Supply Related	51.8%	17.6%	20.6%	17.2%	19.56%	19.8%
Misdirect Call	-	25.7%	20.6%	21.5%	17.9%	18.9%
Invalid Call	-	21.2%	22.0%	19.5%	14.0%	13.4%
Maintenance Services	-	10.7%	10.5%	8.1%	12.1%	14.3%
Meter	9.3%	0.04%	-	2.2%	5.5%	5.6%

Source: E-government National Center, Prime Minister’s Office, Brunei Darussalam.

The Telephone is Still the Main Form of Communication to TD123

Based on the mode of communications the public use to contact TD123, the majority of the public, over 95% still uses the telephone hotline, which is toll-free while LiveChat using WhatsApp application came at second at just over 4%. This is comparatively different from the Philippines where tops the most used application to contact CCB. For example in 2018, 93.8% of all complaints to CCB came from SMS while 3.5% came from emails (Contact Center Ng Bayan, 2018). In Jakarta, most of the complaints went through Qlue application (93.7%), however going to respective government office was also practiced, which saw about 2.8% of the people taking that initiative in August 2018 (Aqil, 2018). In Brunei, citizens could not go to TD123 directly to complain as there is no TD123 office to go to. There also would not be any data collected by departments or ministries if the public went to complain or enquire about their services in their respective offices.

WhatsApp messaging is Brunei’s most important messaging application where it is estimated that over 97% of Brunei’s population is using the application (Othman, 2017),

however, even with such high coverage, the use of WhatsApp to complain is not preferred, though it is slowly gaining popularity, from a mere 0.04% usage in 2015 to 4.7% by 2018 of total contacts to TD123. The reason for this ‘unpopularity’ is probably due to the public being conscious of using their WhatsApp contact, as their anonymity would be compromised (identification through their phone number), while one could perceive calling from a phone line might not have their anonymity compromised. However, there is a need for further research for the above assumptions can be made.

Table 6.
Mode of Communications Received from the Public, in %, 2015-July 2019

Year	Hotline 123	Live Chat (WhatsApp)	Email	Online Form TD123 Website	TD123 Mobile App	TD123 Social Media
2015	99.96	0.04	0.20	0.05	-	0.01
2016	98.13	1.04	0.68	0.06	0.3	0.06
2017	95.26	3.43	0.61	0.19	0.14	0.36
2018	94.15	4.72	0.66	0.16	0.03	0.28
Jan-July 2019	90.82	8.06	0.92	0.13	0.04	0.03

Source: E-government National Centre, Prime Minister’s Office, Brunei Darussalam.

Based on the data received from Egnc, there now 1,960 downloads of the TD123 mobile application through Android phones while another 4,540 downloads from Apple operating system phones since the app was launched in 2016 until June 2019. It can be said that the TD123 application is not as popular but slowly gaining popularity and Egnc has plans to roll out a new update to make it more user-friendly. From the data received by Egnc, TD123 and its social media received the lowest number of contacts from the public as the public is not keen to use the website and social media to air their complaints or enquiries.

Achieving the Target Set by Itself (Which is Benchmarked with International Standards)

Egnc determines the Key Performance Indicators (KPI) for TD123 service provider which follows international standards and practice for quality service. There are four main criteria set for TD123 to ensure its service quality. First, the average answer time for all calls must be answered within 10 seconds or less; second, at least 80% of the calls must be resolved in the first call; third, abandon call rate must be less than 5% of the total class up to more than 10 seconds and fourth and final criteria is to get a customer satisfaction on a 4.1 over 5 scale (See Table 7).

Data from Egnc shows that so far, all the KPIs for the TD123 have been achieved since the introduction of the call centre. Although the KPI of getting the calls answered within 10 seconds was not archived for the first half of 2019, however it is still at an acceptable level as more and more people are calling TD123 as shown in Table 3 than contracted. The contracted number of calls that Comquest, was supposed to handle was just 25,000 calls per month since 2015, but as it has exceeded to about by 27% for the year 2018 alone which saw an average of 31,900 calls per month being made to TD123. Based on this, it would be acceptable for TD123 not able to achieve its target due to the sheer number of calls to the centre, especially during sudden emergencies such as strong wind or flooding due to heavy rainfall.

**Table 7.
Service Quality**

Key Performance Indicators (KPI)	Standard	2015	2018	Jan-July 2019
Calls Answered Within 10 seconds or less	95%	95.09%	95.12%	91.56%
Over 80% of the Queries Resolved on First Call	More than 80%	89.16%	91.31%	91.51%
Abandon Calls	Less than 5%	1.82%	0.89%	2.85%
Customer Satisfaction	Not Less than 4.1/5 Scale	4.5	4.258	4.383

Source: E-government National Centre, Prime Minister's Office, Brunei Darussalam.

Similarly, when NECC first started, it was contracted to handle just 15,000 calls per month (based on previous call centres before it was merged under TD123), but the actual average is over 18,000 calls per month (27% more than the set capacity) in 2014 (Egnc, 2019). As more members of the public became aware of the service, more people are calling TD123 for many other enquires which may not be relevant for TD123 to answer.

In terms of customer satisfaction, the service met its target despite having to handle more calls. In 2018 for example, it received the sale of 4.2% satisfaction from the customers. It needs to be highlighted that since 2017, priority has to be made on those incoming calls as those would be more urgent compared to asking for feedback and this in itself provides more future avenue of research.

Cost Savings and Challenges Faced

Egnc highlighted that the cost savings of 53% were achieved by the government due to TD123 being set up. If other departments were to set up their own call centres, it would cost more money for the government, therefore since TD123 consolidates the non-emergency numbers, the government saves 53%. More can be done to the system as with other countries, especially on tracking the complaints as well using the available data used by the government to check on the performance of responsible agencies handling the complaints,

which would be useful for future reforms and policymaking when necessary. For this research, the information was not yet available.

In terms of the challenges faced by TD123, Egnc acknowledges, first, the high call volume which is currently contracted at 25,000 calls, but they received more than 30,000 calls per month; secondly, the resolution time by the ministries or departments as they have no jurisdiction at how fast the latter responds to a complaint and thirdly, the limitations on third-party tool, which is not owned by TD123 such as WhatsApp or Facebook as it has to follow their rules and policies hence they could not change the content to suit their preference.

As the system managed to create savings for the government in terms of operational costs and increase efficiency in managing public complaints based on Egnc's customers' feedback, the success of the system improves government and citizens' relationship as the professional call centre helps effectiveness can be judged with the number of calls to the call centre.

Discussion

It is clear that more Bruneians are aware of the NECC as the number of calls to TD123 has increased significantly throughout the past few years. Despite more services being included in the system, the complaints and enquires remained consistent through the years, namely water and electrical services issues. Data available in the Philippines and Indonesia major cities, though CCB and Qlue show that after a few years of its implementation, the number of people reported to the system has gone down but in Brunei the number of calls to the NECC had increased. It is possible that since Brunei is small, and as more people are aware of the system hence more people call in the toll-free number as water and electricity are basic necessities which households could not go without. Currently, there is no data to show how many are repeated calls, therefore future research could focus on this area.

Bruneians have a high social media usage globally, therefore, it was surprising that of the 90% calls made to TD123, only about 6% use complaints using Whatapp application, TD123 application or the social media medium to make complaints. The TD123 mobile app only shows just over 4,500 downloads therefore; the app is not particularly popular to be

downloaded by the public. One possible reason why the app is not popular is that 123 is easy to call and one does not have to type anything, just talk to the customer representative and they will take down/write the complaints. The public might not want to report through social media as they might not want their friends or families to know that they made a report to TD123 social media. However, perhaps unknown to the caller, the phone hotline 123 also have a telephone identification to show the caller's number and identification as the information may be necessary when they made call-back to check on the status of the complaints. Further research should be made before this generalisation can be made.

The data provided by Egnc shows that most of the KPIs set by the agency have been met, however further independent research, surveying the public could be necessary to check on the public's satisfaction on the service and areas of improvement can be made to the service need to be considered.

The data shows that the majority of the complaints are towards the water and electrical services. These are two major complaints of the Bruneian public. Water Department acknowledges that they are struggling with broken pipes and leakages and are in the process of replacing new pipes to feed all the four districts of the country. Similarly, with electrical department, where Brunei's electrical supplies come from gas turbines which burn the gas in the Belait District, power outages have happened a few times and the government has already renewed electrical towers and lines to feed the substations in the country. Constant breakdown of the services means there is a major issue that has to be looked at by the Ministry of Development as well as the Ministry of Energy (ME, the ministry renamed in November 2019) to make sure that these important services breakdown is not repeated often. Better planning and maintenance of these facilities are necessary to cut down on service disruption.

The constant breakdown of important services provides another discussion on the subsidised prices of these valuable services to the public. Both services are valuable necessities of modern life therefore understanding that these necessities need constant monitoring, servicing and parts replacement after several years of usage, therefore since all these are provided by the government on a subsidised rate, it is perhaps time to consider increasing the price of the utilities to unburden government's finances on its maintenance. Since 2011, Brunei has introduced prepaid electricity meters as it was revealed several years

ago when residents owed B\$163 million in unpaid electricity bills, made up of B\$124 million owed by the residential and B\$43 million by the commercial sector (Hab, 2016) and B\$39 million in water bills. Since water and electrical supplies facilities are aging and if subsidies are reduced, then the public not only understands the need to be prudent in usage and be more aware of how valuable the resources are, therefore will be more responsible in paying their bills on time. At the end of 2019, it is expected the Water Department to implement the prepaid system in stages for the whole country.

The number of misdirected or invalid calls has reduced in the last two years compared to when the service was first introduced. Between 2015 and 2017, 40% of the calls were considered misdirected or invalid, in 2018, this has dropped to about 30%. Nevertheless, as the Egnc aims to bring in more services into the call centre, therefore there will be more calls made to TD 123 as it is an easy number to remember. To what extent this will be helpful to the contractor who looks after the system, needs further research.

The data received from the TD123 is useful, however to what extent the data is used for development planning for the country is still not understood and beyond the scope of this paper. If the data is shared amongst government departments, it encourages departments to more efficient in handling the complaints. However, understanding departments' own internal challenges to met with public complaints need to be understood and studied as well. Sharing ideas on how to improve public service delivery is not clearly highlighted by ministries and the recent surprise visit by the Sultan of Brunei to the Immigration Department on October 8th 2019, seemed to show how digitalisation of documents has not been successful, as pictures from the visit shows documents being stacked in several rooms of the department (Mohamad, 2019a; 2019b).

TD123's data is not open to the public, unlike in the United States or the Philippines where the report is freely downloadable on their website. Nevertheless, when requested for research purposes, Egnc has been helpful to give the data, although there are some data that are deemed sensitive and could not be shared. It is currently not known how much the government has spent on the system but the cost savings, according to Egnc is around 53%. This is a significant amount of savings on the government's funding, hence not only has the system managed to save the government money, but it also contributes to the government's better relationship to the people.

Being small, the vision of a smart nation would only work if information and data are interchangeable and collaborated between all sectors, between the residents, the private and government sectors to facilities participation in decision making and monitoring of service delivery (Nam and Pardo, 2014a,b). Nam and Pardo (2014a,b) highlights the possibilities of Internet of Things (IOT) killing 311 services in the US, where electronic sensors will be automatically triggered requesting service maintenance that feeds to the management system, which is now occurring in cars, however, the authors also highlight the costs of such project is not feasible in the current scenario.

Unlike the US where the 311 handlers are government employees, Brunei's TD123 are contracted out to the private sector to manage the system, which is also a government-linked entity. Under TD123 section in Egnc, there is only three personnel in charge of the system and they work closely with their contractor. As Brunei's public sector is considered bloated as there are too many public servants employed by the government (Pang, 2017), it is only right that government contract out the system to ensure the performance of the system is the responsibility of the contractor and failure to meet government's expectations can lead to the termination of the contract. It is a bonus to the government as it doesn't have to create tenured employment for the organisation.

Brunei's TD123 system does not allow the public to track their complaints as with Indonesia's Qlue and Singapore's OneService systems, as they have to physically call the complainer to update them. Since the technology is available for people to keep track of their complaints, it is the particular department or Ministry's responsibility to ensure that their service met public's expectations in terms of solving their complaints and inquires when they raised it with TD123. This is one area of the areas of improvement which TD123 can consider in the immediate future.

Another important contribution of this study shows that despite advances in technology, the technology might not be available to a certain segment of the population hence these parts of society are not aware of certain services offered by the government. The examples from the Philippines and Indonesia earlier show that despite millions of people living in the cities, yet, the complaints seemed small therefore there could be several reasons for that low number of complaints. Among the possible reasons could be, due to the segment of the population are not aware of the service; do not have the mobile

communication technology available to make use of the system; illiterate; do not bother to complain at all; or the services have significantly improved hence the reduction on the number of complaints as seen with Qlue in Jakarta. Further research needs to be made to see how everyone regardless of challenges they have are aware of their right in participating in improving public services. The Brunei example shows that having a toll-free number is important to engage the public to complain on non-emergency services.

Overall, advances in the technologies of the 21st century have significantly improved people's lives in general and governments are not far behind in adopting those changes to make them more responsive to citizens' concerns and expectations. A NECC may seem one of the 'old' innovations of the last century; however, for a small country like Brunei, it works. Despite having other mobile and social media applications that can help with public complaints, residents are more comfortable to call the toll free number to complain about non-emergency services in the country and this is reflected in the data compiled by the agency. The complaints made to the call centre might be seen as only those involving on utilities, however, further improvements can be made as the technologies are available now to complain beyond utility issues.

Conclusion

Talian Darussalam 123 has made a significant contribution to the improvement of public service delivery in Brunei. The public now calls 123 to complain about non-emergency services. The significant number calls to the call centre signify the public's knowledge and confidence in the system. NECC not only helps the government improve accountability and efficient delivery of public services, it also saves the government 53% in funding. There are several other improvements that can be made to the system to make it more interactive to the public such as allowing the public to track their complaints which makes government agencies more accountable and responsive to public complaints. The two-decade-old literature on e-Gov's success in improving public service delivery is significant although not much has been focused on NECC; this paper provides a case study of a small county with a small population in the literature on NECC.

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