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# COMPARATIVE STUDY OF TURNAROUND TIME FOR ONLINE DCRC SERVICES, 2020

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## SUMMARY

The Turnaround Time (TAT) is largely defined as time taken to complete an application or deliver a particular service. Tailored in the current context of the Department of Civil Registration and Census, it is defined as the time interval between the dates on which the application is processed and approved online by the Operator and Approver respectively in the Bhutan Civil Registration System (BCRS) upon receipt of the duly completed application from the clients.

The TAT is considered as a performance metric and yardstick to gauge the operational efficiency of an organization. It literally underpins that shorter the time taken for service delivery, the better it is for those availing of services. Thus, the success of the organization is hinged on its ability to dispense and deliver services in a timely manner.

As such, the paper reviews the existing TAT for various services provided through online BCRS during the last three consecutive years (2017, 2018, and 2019) and aims to revise and develop a standard TAT for dispensing Civil Registration and Census services. The TAT for all eleven services was found to have shortened significantly indicating the service delivery has improved over the years.

The study reveals noticeable delays in 2017 for some of the services-birth and death registration in particular, and the possible cause for the increased TAT is attributed to the CID/Special Resident CardRenewal Program that was underway in many Dzongkhags during that particular year.

Therefore, the revised standard of TAT for online DCRC services from the existing is being recommended considering the average TAT of two consecutive years, i.e. 2018 and 2019.

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## **Acronyms**

1. AFIS	Automated Fingerprint Identification System
2. BCRS	Bhutan Civil Registration System
3. BR	Birth Registration
4. CT	Census Transfer
5. DCRC	Department of Civil Registration and Census
6. DCRC HQ	Department of Civil Registration and Census Headquarters
7. DoB	Date of Birth
8. DR	Death Registration
9. G2C	Government to Citizen
10. HoH	Head of Household
11. MoHCA	Ministry of Home and Cultural Affairs
12. SDS	Service Delivery Standards
13. TAT	Turnaround Time

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Table 1: TAT for online DCRC services

Table 2: Proposed TAT for online DCRC services

## 1. INTRODUCTION

With increasing competition among organizations throughout the world, the significance of better administration and organizational performance has become a concern. Although different organizations evaluate their performance based on indicators such as return on investments, the number of sales and profit, TAT is also considered as one of the most visible signs of public service and is normally used as a fundamental indicator for enhancing the organizational performance.<sup>1</sup>

The TAT has been viewed by different scholars in many different ways and therefore does not have a specific definition. While TAT is a period of time required for completing a particular process or task from start to end,<sup>2</sup> in general, TAT is considered as a kind of performance metric. For instance, in the business world, a turnaround time strategy can be measured as the time right after the client places an order till its delivery of the order to the client and therefore, a firm's ability to generate cash flow from the disposal of the goods.<sup>3</sup> In another word, a TAT is a latency between the initiation and completion of a process. In the laboratory workflow, TAT is an important indicator of performance and is seen as an essential condition for trust between the patient and physician.<sup>4</sup> It is the time from receipt of the specimen until the time of availability of the result.<sup>5</sup> Consequently, delays in their results reporting would cause a delay in the diagnosis and management of patients.<sup>6</sup> Similarly, a delay in the process of any organization would then delay the services provided or delivered. Therefore, organizations are keen to find ways to avoid the delay in service delivery and achieve the shortest turnaround time. In a nutshell, all these

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<sup>1</sup>Robert Hawkins, "Laboratory turnaround time," *The Clinical Biochemist Reviews*, 2007, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2282400/>

<sup>2</sup>Dr.S, Gomathi, "Impact of change on Turnaround management 2," Vellore Institute Of Technology, 2014, [https://www.researchgate.net/profile/Gomathi\\_Drs/publication/262974429\\_Impact\\_of\\_change\\_on\\_Turnaround\\_management/links/0a85e5397f91191b82000000/Impact-of-change-on-Turnaround-management.pdf](https://www.researchgate.net/profile/Gomathi_Drs/publication/262974429_Impact_of_change_on_Turnaround_management/links/0a85e5397f91191b82000000/Impact-of-change-on-Turnaround-management.pdf)

<sup>3</sup>Schoenberg, R., Collier, N., & Bowman, C, "Strategies for Business Turnaround and Recovery: A Review and Synthesis," Emerald Group Publishing Limited, 2013, [https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/8495/Strategies\\_for\\_business\\_turnaround.pdf?sequence=1](https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/8495/Strategies_for_business_turnaround.pdf?sequence=1)

<sup>4</sup>Breil, Bernhard, Fleur Fritz, Volker Thiemann, and Martin Dugas. "Mapping turnaround times (TAT) to a generic timeline: a systematic review of TAT definitions in clinical domains." *BMC medical informatics and decision making* 11, no. 1, 2011, <https://link.springer.com/article/10.1186/1472-6947-11-34>

<sup>5</sup> Ibid.

<sup>6</sup>Shiferaw, M. B., & Yismaw, G, "Magnitude of delayed turnaround time of laboratory results in Amhara Public Health Institute, Bahir Dar, Ethiopia," *BMC*, part of Springer Nature, 2019, <https://link.springer.com/article/10.1186/s12913-019-4077-2>

above definitions emphasize that TAT is very crucial in determining the organization's efficiency and success.

### **1.1. Consideration of TAT for Department of Civil Registration and Census**

While the definition of TAT varies from each service provider and organizations, for the purpose of this report, TAT in our organization (DCRC, Ministry of Home and Cultural Affairs) is defined as the total days required to process and complete an application. It is the interval between the dates on which the application is processed and approved online in Bhutan Civil Registration System upon receipt of the duly completed application from the clients.

The DCRC,MoHCA provides fourteen core online services, out of which the eleven critical services that require evaluation and re-appropriation of the TAT are being selected for review and analysis. Meanwhile services such as Issuance of Household Information and Nationality Certificate are excluded from scope of the study since these services are being delivered instantaneously on receipt of the application.

In this study, the time taken for procedures i.e. online submission of the application, online verification of the submitted application, resubmission of the application, and approval of the application are included in the TAT. However, the other procedures such as verification of the documents, the rejection of the application and the printing, collection and disbursement of the cards in case of processing of CID/Special Resident Cards are excluded from the TAT.

This study anticipates contributing for a better understanding of TAT and developing a standard TAT to deliver Civil Registration and Census services. The TAT for the past three years (2017, 2018, and 2019) will be compared and discussed to set a standard TAT, which shall be used as the basis to revise the existing TAT in the G2C Service Delivery Standards.

### **1.2. Objectives:**

- To revise the Turnaround Time (TAT) in the current DCRC Service Delivery Standards (SDS).
- To develop a standard Turnaround Time (TAT) for dispensing Civil Registration and Census services.

## 2. RESULTS

The DCRC provides fourteen online services, however, as elucidated above, the critical services that require evaluation and re-appropriation of the TAT are being selected for review and analysis as tabulated in Table 1 below.

The TAT for the past three years (2017, 2018, and 2019) are compared and analyzed below. The study has shown that the TAT for all the eleven online services has reduced over the years and has thus progressed in terms of timely delivery of service to the people. The results are further discussed in the following:

**Table 1: TAT for online DCRC services**

Sl. No	Online Service	Average TURNAROUND TIME in days		
		2017	2018	2019
1	Registration of Birth	180	28	17
2	Processing of New CID/Special Resident Card	62	5	1
3	Processing Census Transfer	7	3	3
4	Processing Name change and Correction of Date of Birth	7	2	0.3
5	Registration of Death	137	18	7
6	Updating Naturalization & Regularization cases	9	1	0.1
7	Updating Census Status	3	0.3	0.2
8	Processing of Replacement/Lost/Renewal of CID/Special ResidentCard	75	10	0.3
9	Updating Individual Information of Citizen/Special Resident Card Holder	2	2	1
10	Updating Head of Household	6	2	1
11	Updating Spouse Information	1	0.1	0.1

### 3. DISCUSSIONS

#### ***3.1. Registration of Birth***

The registration of birth undergoes four phases identified as Operator Level,<sup>7</sup> Level 1,<sup>8</sup> Level 2<sup>9</sup> and Approval Level<sup>10</sup> and therefore is the only service requiring the application to pass through four levels as a citizen enters into BCRS during its first demographic stage within a year from the date of delivery. According to the study, the TAT for Birth Registration has significantly decreased over the recent years. While the entire process of BR from the date of submission of duly completed application has taken 180 days in 2017, it has decreased to 28 days in 2018 and 17 days in 2019. However, in comparison to the 30 days TAT mentioned in the SDS and the TAT of the most recent year i.e. in 2019, the department has achieved a significant improvement over the recent years.

#### ***3.2. Processing of New CID/Special Resident Card***

The processing of New CID/Special Resident Card undergoes three phases identified as Operator Level, Approval Level, and Printing Operator.<sup>11</sup> From the submission of a duly completed application(excluding the time required for the printing, collection and disbursement of the cards), the average TAT for processing new CID/Special Resident Card in 2017 was 62 days while in 2018 and 2019, the TAT for the same service had remarkably decreased to 5 days and 1 day respectively. As per the SDS, the TAT for processing new CID/Special Resident Card is 2 days from the submission of a duly completed application, however the findings of the study had shown that the TAT has improved substantially over the years.

#### ***3.3. Processing Census Transfer***

Processing Census Transfer undergoes two phases identified as Operator Level and Approval Level. From the date of submission of a duly completed application, the whole process for CT has taken an average TAT of 7 days in 2018 and 3 days each in the

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<sup>7</sup> CC operator or any civil registration officials performing the task of operator in the Drungkhag/Dzongkhag/Thromde/DCRC HQ

<sup>8</sup> Dzongkhag/Thromde Civil Registration and Census Officer

<sup>9</sup> Identified officials at the DCRC HQ

<sup>10</sup> Designated Civil Registration and Census Officer at the DCRC HQ

<sup>11</sup> Identified officials at the DCRC HQ

succeeding years. Similarly, the TAT for processing CT in the SDS is 3 days from the date of submission of a duly completed application.

#### ***3.4. Processing Name Change and Correction of Date of Birth***

Processing Name Change and Correction of Date of Birth undergoes two phases identified as Operator Level and Approval Level. According to the SDS, TAT for processing Name Change and Correction of DoB is 1 day on submission of duly required documents which are not inclusive of time for printing/collection/disbursement of the Cards. However, the study shows that the average TAT of three succeeding years for Name Change and Correction of DoB are found to be 7 days for 2017, 2 days for 2018 and 0.3 days for 2019.

#### ***3.5. Registration of Death***

The Registration of Death undergoes three phases identified as Operator Level, Level 1, and Approval Level. Although the entire process for Death Registration took about an average of 137 days in 2017, the same service has taken 18 days in 2018 and 7 days in 2019. While the SDS states that the TAT for processing of DR is 30 days from the date of submission of a duly completed application, the study result for the most recent year shows a marked improvement in the service.

#### ***3.6. Updating Naturalization & Regularization cases***

Updating Naturalization and Regularization cases undergo two phases identified as Operator Level and Approval Level. Unlike the other DCRC services, this service is one of the services which is available only in the DCRC HQ and is not commonly availed service because the registration of individuals irrespective of the Demographic stages is processed only upon the receipt of Citizenship Kasha. While the whole process of updating Naturalization and Regularization cases from the date of submission of a duly completed application has taken an average of 9 days in 2017, it is found to have taken only 1 day in 2018 and less than a day in 2019.

#### ***3.7. Updating Census Status***

Updating Census Status undergoes two phases identified as Operator Level and Approval Level. This is also one of services, which is available only in the DCRC HQ and a service not commonly availed as census status is assigned only upon the receipt of Citizenship

Kasho/Letter of the Department/Ministry. While the entire process of updating census status from the date of submission of a duly completed application has taken an average of 3 days in 2017, in 2018 and 2019, the average TAT has decreased to less than a day.

### ***3.8. Processing of Replacement/Lost/Renewal of CID/Special Resident Card***

The Processing of Replacement/Lost/Renewal CID/Special Resident Card undergoes three phases identified as Operator Level, Approval Level, and Printing Operator. From the submission of a duly completed application (excluding the time required for the printing, collection and disbursement of the cards), the average TAT for Replacement/Lost/Renewal of CID/Special Resident Card in 2017 was 75 days while in 2018 and 2019, the TAT for the same service had considerably reduced to 10 and 0.3 respectively. However, the TAT for the same service as per the SDS is 2 days from the submission of a duly completed application. Although the service was delayed in 2017 with regard to the TAT, the study shows that it has improved dramatically in the succeeding years. The study shows that it had not taken even a day to dispense the service in 2019.

### ***3.9. Updating Individual Information of Citizen/Special Resident CardHolder***

Updating Individual Information of Citizen/Special Resident CardHolder undergoes two phases identified as Operator Level and Approval Level. According to the findings of the study, it shows that the average days taken for the said service was 2 days in both 2017 and 2018 from the date of submission of a duly completed application. Nonetheless, it has decreased to 1 day in 2019, which is the same as reflected in the SDS.

### ***3.10. Updating Head of Household***

Updating the Head of Household undergoes two phases identified as Operator Level and Approval Level. As per the SDS, the TAT for Updating HoH is 1 day from the date of submission of a duly completed application. Similarly, the average days taken to update HoH in the recent year i.e. 2019 is also found to have taken 1 day, although it had taken 6 days and 2 days in 2017 and 2018 respectively.

### ***3.11. Updating Spouse Information***

Updating Spouse Information undergoes two phases identified as Operator Level and Approval Level. The average TAT for the said service is found to have taken 1 day in 2017. Likewise, the TAT for the same service as per the SDS is also 1 day from the date of submission of a duly completed application. However, the study shows that the average days taken to update spouse information had slightly decreased to less than a day in both 2018 and 2019.

#### **4. POSSIBLE REASONS FOR DIFFERENCE IN TAT**

According to the findings of the paper, there is an evident difference in the average days taken to deliver the same service during the last three consecutive years.

While there are various factors that may have caused the delay in service delivery in 2017, the possible causes for the increased TAT could be due to the following reasons:

- Mass CID/SRP card Renewal Program that was underway in many Dzongkhags during that particular year, which may have impeded delivering the other services.
- Since the TAT also depends on the number of applications received, the study found out that the number of applications received in 2017 in general was comparatively more than 2018 and 2019.
- Technical issues such as poor and erratic internet connections especially in the Community Centres, Dzongkhags and Thromdes could have caused delays in dispensing the services.
- One of the likely causes for the delay in the service delivery could also be due to the officials failing to clear their online task when they are transferred to another place. This is because the work jurisdiction of the officials change as they move to a new workplace and thereby, disabling them to check and clear their resubmitted applications.
- Additionally, one of the issues could be the time taken to approve the applications which are repeatedly resubmitted owing to various reasons such as missing documents, mismatch of information in the document and the BCRS online system, incomplete formalities etc.

On the other hand, the study shows a significant improvement in the service delivery in the recent years through reduced TAT. For services such as Processing of new CID/Special Resident

Card and Processing of Replacement/Lost/Renewal of CID/Special Resident Card, the possible reason for the shortened TAT in the recent years could be as a result of introducing AFIS (Automated Fingerprint Identification System) in the headquarters and few other Dzongkhags. AFIS is a biometric identification methodology that uses digital imaging technology to obtain, store, and analyze fingerprint data and facial recognition. The operation of AFIS has not only eased the process in many ways but also shortened the duration for processing the application. Furthermore, the increased number of employees especially for the Approval Level in the Headquarters could have helped in shortening the TAT for all online services.

## **5. Recommendations**

To develop a standard TAT for dispensing Civil Registration and Census services, following could be considered:

- Consider the average TAT of two consecutive years i.e. 2018 and 2019 because if the average TAT for three consecutive years is considered, the TAT would increase from the existing TAT in the SDS.
- Consider the existing TAT of SDS for those services where the TAT had increased while taking the average of two consecutive years i.e. 2018 and 2019.

Following table illustrates the existing TAT in the SDS, the average TAT of three consecutive years (2017, 2018, and 2019), the average TAT of two consecutive years (2018,2019) and the proposed TAT that shall be adopted henceforth, for the reference:

**Table 2: Proposed TAT for online DCRC services**

Sl. No	Service	SDS (TAT in days)	Average of 3 consecutive years (2017, 2018, 2019) in days	Average of 2 consecutive years (2018, 2019) in days	Proposed TAT in days
1	Registration of Birth	30	75	22.5	21
2	Processing of New CID/Special Resident Card	2	22.6	3	2
3	Processing Census Transfer	3	4.3	3	3
4	Processing Name change and Correction of Date of Birth	1	3.1	1.1	1
5	Registration of Death	30	54	12.5	13
6	Updating Naturalization & Regularization cases	N/A	3.4	0.5	1
7	Updating Census Status	N/A	1.1	0.2	1
8	Processing of Replacement/Lost/Renewal of CID/Special Resident Card	2	28.4	5.1	2
9	Updating Individual Information of Citizen/Special Resident CardHolder	1	1.6	1.5	1
10	Updating Head of Household	1	3	1.5	1
11	Updating Spouse Information	1	0.4	0.1	1

## **CONCLUSION**

The TAT being a key performance indicator, must be streamlined and monitored carefully. Daily TAT reports can be monitored closely to evaluate the solutions that were implemented. Furthermore, TAT numbers can be posted daily so that employees could visually see their achievements and discuss what went wrong if the goals were not met.

The TAT is very crucial in determining the organization's efficiency and success. Therefore, every employee should take this as a challenge and try to work with as a team to avoid the delay in service delivery and achieve the shortest TAT.

This paper has sought to provide an overview of the change in the TAT in the three consecutive years. In particular, it has focused on how the TAT has improved over the past three years. In view of this, the study concludes that although there is a huge difference in the average days taken to dispense the services in the past three years, it was learnt that service delivery in general has far improved and progressed over the years measured in terms of TAT.

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