2020 update on the Statistical Business Register (SBR) of Myanmar from the Central Statistical Organization (CSO)

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ACRONYMS

ADB	Asian Development Bank
CDC	City Development Committee
CSO	Central Statistical Organization
DAO	Development Affairs Organization
MOPF	Ministry of Planning and Finance
MSIC	Myanmar Standard Industrial Classification
MBEI	Myanmar Business Environment Index
NPTDC	Nay Pyi Taw Development Committee
NRC	National Registration Card
SBR	Statistical Business Register
UN ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
YCDC	Yangon City Development Committee

I. Executive Summary

1. The 2019-20 version of the CSO SBR is a dramatic improvement on the 2018-19 CSO SBR. It has grown to 477,148 business up from 227,903 businesses. This has been driven by improvements to the collection process and not by growth in the number of businesses in Myanmar. The register is now twice the size of any other business list in Myanmar. All 477,148 were operational at some point in 2019-20 financial year.

2. The CSO SBR has been used for Myanmar Business Environment Index (MBEI) and MBEI COVID-19 surveys (linked in appendix). The COVID-19 survey has provided valuable information on the effectiveness of government policies on supporting businesses and identified areas where further intervention is needed.

3. There has been substantial improvement in the quality and coverage of address, contact information and sizing variables. The MEBI survey needed to attempt to survey 41,609 businesses from the 2018-19 CSO SBR to reach the required number of businesses. Under conservative estimates the same result could be achieved with less than 16,000 businesses from the 2019-20 CSO SBR.

4. These quality improvements have been driven by the hard work of the CSO SBR team supported by UN ESCAP and the Asian Development Bank. These included running a workshop with Township and State and Region DAO officers, and CSO regional staff, and run a national training session for CSO regional staff and an official launch event for the CSO SBR.

5. There are still substantial gaps in the CSO SBR. Most notably coverage of rural Myanmar is quite poor as Township DAOs do not register businesses in rural areas. Given the substantial interest in rural Myanmar from an economic development perspective this is an issue that will need to be further investigated.

II.   2020 CSO SBR Results

6. The CSO SBR now contains 477,148 businesses: making it the largest list of businesses in Myanmar and more than twice as large as any other source. The CSO SBR in 2019 had 227,903 businesses.

Table 1. Counts of Businesses by Source, CSO SBR 2019 and 2020

State / Region	Business License 2020	Market Businesses 2020	Total 2020	Business License 2019	Difference
Kachin	9,461	6,534	15,995	9,604	-143
Kayah	2,515	300	2,815	2,664	-149
Kayin	6,306	2,970	9,276	6,490	-184
Chin	2,552	357	2,909	2,133	419
Sagaing	25,388	14,747	40,135	21,312	4,076
Tanintharyi	9,320	4,121	13,441	5,600	3,720
Bago	19,367	17,030	36,397	8,954	10,413
Magway	19,526	11,054	30,580	13,097	6,429
Mandalay	47,837	30,053	77,890	43,002	4,835
Mon	12,662	5,734	18,396	13,765	-1,103
Rakhine	6,388	6,835	13,223	5,052	1,336
Yangon	60,777	55,294	116,071	56,530	4,247
Shan	24,294	22,594	46,888	18,865	5,429
Ayawarwaddy	24,247	17,959	42,206	16,644	7,603
Nay Pyi Taw	5,404	5,522	10,926	4,191	1,213
Total	**276,044**	**201,104**	**477,148**	**227,903**	**48,141**

7. The growth in businesses is from three main causes; growth in actual businesses, increased urbanisation of Myanmar, as townships only register businesses in urban areas and the addition of businesses in markets; who generally do not require business licences and thus weren't captured in the 2019 CSO SBR.

8. As such the growth in the number of businesses on the CSO SBR or growth in the number of businesses with business licences should not be considered as the growth rate of businesses in Myanmar but primarily a function of improvements in quality of the CSO SBR and Myanmar government administration.

9. The figure below shows the number of businesses per 1,000 residents, by State and Region, using the 2014 population census. Due to townships only registering businesses in urban areas there is a clear relationship between the % of urban population and the number of businesses per capita.

Figure 1. Business counts per thousand populations by State and Region CSO SBR 2020
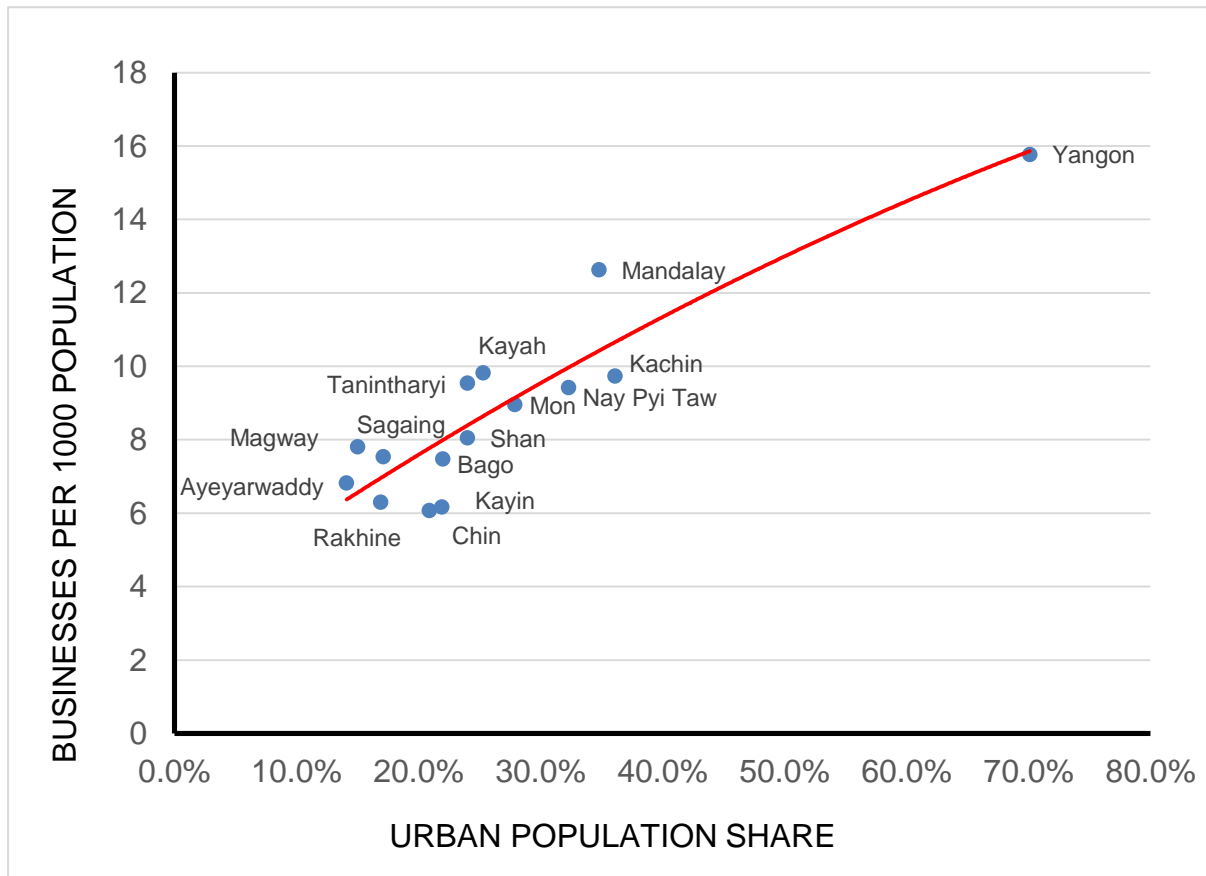
10. While the 2020 CSO SBR has issues with under coverage of rural Myanmar – that is an issue with all other possible sources of businesses lists for surveys in Myanmar. As such, the 2020 CSO SBR is the largest and most comprehensive list of businesses in Myanmar and the best source for economic survey frames.

III. CSO SBR Improvements in 2020

11. The 2019 CSO SBR was the first attempt of the CSO to compile a national business database and the first attempt to collect lists of businesses from all townships in Myanmar. Issues or problems were to be expected. The 2020 CSO SBR was based on the second collection and as such was able to address many of the issues with that initial collection.

A. Adding Market Businesses to CSO SBR

12. As shown in Table 1, the 2019 CSO did not include but the 2020 CSO SBR does include businesses that operate in markets. This includes markets such as modern shopping centres in Yangon as well.

13. These market based businesses, outside of some markets in Kachin, Kayah and Kayin (who's decline in counts of businesses between 2018 & 2019 is explained by some moving to the market list and not a decline in businesses) do not need to "register" or pay the annual business licence fees as the market owner pay a fee for the entire shopping centre. They do, however, must pay rubbish, cleaning and other fees to the township DAOs. As such the township DAOs do have lists of these businesses maintained.

14. The addition of markets added a further 201,104 business to the CSO SBR and improved the coverage of the retail and services sector of the CSO SBR. As such, with market locations been well known, store numbers provided for every record and fees based on the size of the store it should be easy to effectively find these businesses for surveys and make estimations on their business size from their market fees.

B. Business Size Variables

15. The biggest weakness of the 2019 CSO SBR was poor coverage stratification or sizing variables. That is data which indicates how big a business is which is critical for targeting

economic surveys. The CSO SBR has three possible types of sizing variables; the number of employees, the license fee (which is based on the size of the business as determined by the Township) and the amount of capital invested (measured in Kyats).

16. Table 2 shows the counts of sizing variables are available for each business on the CSO SBR by each state or region. This is replication of Table 5 from last year's report. The count of businesses with no sizing variables available has declined from 125,439 to just 771 for the 2020 CSO SBR. There was employment data on 9,040 businesses in 2018-19 compared to 90,626 businesses now.

Table 2. Counts of Sizing Variables by State and Region for business licences

State / Region	None	One Sizing Variable	Two Sizing Variables	Three Sizing Variables	License Fee	Employees	Capital Investment
Kachin	34	9,037	390	0	9,427	407	17
Kayah	3	865	1,646	1	2,515	1,647	1
Kayin	1	6,305	0	0	6,306	0	0
Chin	11	1,686	801	54	2,543	551	360
Sagaing	65	14,177	5,798	5,348	25,311	10,907	6,100
Tanintharyi	3	8,609	708	0	9,320	708	0
Bago	109	4,355	13,566	1,337	19,342	14,929	1,483
Magway	5	8,104	4,034	7,383	19,519	9,488	9,347
Mandalay	244	28,542	6,047	13,004	47,123	18,097	14,428
Mon	10	7,714	3,993	945	12,651	4,939	945
Rakhine	10	3,122	2,643	613	6,379	3,163	707
Yangon	237	33,439	26,848	253	60,494	929	26,480
Shan	38	9,414	7,168	7,674	24,245	11,800	10,756
Ayeyarwady	1	15,517	3,579	5,150	24,247	8,069	5,810
Nay Pyi Taw	0	412	4,992	0	5,404	4,992	0
Total	771	151,298	82,213	41,762	274,826	90,626	76,434

17. For the market-based businesses the results were similar – despite no records with capital investment recorded. There were only 3,722 businesses without any sizing variables out of 201,104 records with 196,673 business having fee details recorded and 48,019 having their counts of workers recorded.

18. This improvement is critical for making the CSO SBR effective for users. With greater detail on businesses size and sample sizes can be smaller, yet yield higher accuracy, as survey designers can be more confident at including all critical businesses. This is especially important for surveys that only wish to survey businesses of a certain business size.

C. Address Data

19. The 2018-19 data request template initially used only had one column for address detail. Different townships responded very differently to this template with many not providing sufficient detail for businesses to be found. Many townships only provided the name of the township in question making it difficult and or impossible for businesses to be found.

20. This was rectified for the 2019-20 request with examples of correctly populated fields and a breakdown of the address field as shown in Table 3 below this has resulted in a much-improved coverage of address data.

Table 3. Counts of Address Records by State and Region for business licences

State / Region	Total	Ward	Village	Street	Building Number
Kachin	9,461	8,119	1,296	203	1
Kayah	2,515	2,348	167	965	494
Kayin	6,306	5,545	832	5,063	4
Chin	2,552	2,537	0	2,196	0
Sagaing	25,388	22,061	2,398	6,006	623
Tanintharyi	9,320	7,013	2,066	8,574	223
Bago	19,367	15,724	1,679	16,056	2,411
Magway	19,526	18,243	1,248	16,465	1,492
Mandalay	47,837	28,381	4,360	34,452	603
Mon	12,662	8,353	4,430	7,917	425
Rakhine	6,388	6,325	75	6,336	11
Yangon	60,777	59,629	1,044	59,375	54,149
Shan	24,294	22,203	1,981	13,285	4,691
Ayawarwaddy	24,247	19,900	3,953	20,918	1,047
Nay Pyi Taw	5,404	4,903	429	4,826	939
Total	**276,044**	**231,284**	**25,958**	**202,637**	**67,113**

21. Initially there was substantial concerns with only 67,113 units of the 276,044 having provided building or street numbers. For example, there was one address shared by 471 businesses – making life very difficult for an enumerator to find the 1 out of 471.

22. However, detailed investigation has shown that it was not an issue with the collection but an accurate description of Myanmar itself. Most of the country does not yet use street or building numbers. This was confirmed in follow up conversations with Township officers and confirmed against other business lists (including online self-provided lists – for which businesses pay to be listed and are thus motived to help people find them). Without street numbers people use other descriptors such as 'near the university' to assist people in finding the businesses. We intend to investigate if it is possible to collect this further detail.

D. Other Data quality improvements

23. An NRC code is a unique ID given to every Myanmar citizen and except for Yangon (which has its own unique business ID) is the only efficient way to match business records between collections or years. In 2018-19, only 86,708 NRC codes were collected from 8 states and regions (51,208 of which from Yangon). The 2019-20 collection collected 159,042 unique related to 182,308 businesses from 14 of the 15 states and regions.

24. Key to using the NRC codes to link records between times is the improvement in the collection of registration status. In the 2018-19 collection only 24,772 businesses had their registration status provided compared to 231,658 in the 2019-20 collection. The registration status is either new or continuing and with the NRC code allows us to know which records can be matched and the code to match them with.

25. The improvement in the quality of these two data items will enable the development of basic business demographic statistics and will reduce processing time.

IV. Key Developments Activities

26. This section covers key events and outputs that have supported the development of the CSO SBR since the 2018-19 collection. These activities demonstrate the commitment of the CSO to ensuring that the CSO SBR is sustainable and the best source for conducting economic surveys.

27. On the 18-20 of September 2019, UN ESCAP and the CSO hosted a workshop in Yangon involving 47 people from 23 Township and State and Region DAOs. The DAO officials are the ones responsible for licencing businesses in Myanmar. Photo of several participants below.

28. The purposes of this workshop were:

- To develop a better understanding of the business licence processes of the townships

- To establish mutual understanding between the CSO and the township officers

- To test and revise the new collection template and briefing document

29. The workshop, based on evidence from the 2017-18 data collection, was a resounding success. The revised template and briefing note were much more successful in collecting higher quality data more efficiently and quicker than in the 2018-19 collection.

30. The critical reason for this improved effectiveness was the development of mutual understanding. As township officials understood the reason behind the request; they were much more comfortable in providing key data items such as licence fees paid. They understood what we wanted under each data item as they understood how we intended to use it.

31. This workshop also demonstrated the CSO's commitment to the process and project. The township officials were able to see the data being used and compiled. This improved their willingness to put in greater effort in compiling the data.

32. It was the DAO officials who recognised a key weakness of the existing request; that businesses operating in markets and shopping centres were not included as they aren't required to register for a business licence. This is because the business licence is not actually a business licence but really an annual commercial property tax and the markets are collected separately. As such a separate new "market template" was created which identified an additional 201,104 number of businesses.

33. The CSO also enhanced their understanding of the various township processes. Some generalised details of the townships processes are:

- There are approximately 1,500 DAO officials involved in registering business licences.

- All DAOs maintain a similar schedule with an October to September financial year.

- Approximately 80 to 90% of licences are issued in the field by DAO staffs. The DAO official complete the form for the business while in discussion with them. They conduct regular "patrols" to identity new business to issue them a licence (and collect fees).

- These annual business licence fees account for approximately 30% of revenue or tax collected by the township DAOs.

- Information storage varies substantially. Yangon has an integrated database with online registration possible. Other townships have mobile applications enabling DAO staff to register businesses on their phone. However, most townships still use standard paper forms and maintain paper records.

- The situation is improving, with more and more township DAOs transitioning to electronic registration and data storage systems.

- DAO township officials only register businesses in "urban" areas where businesses receive services from that township. As such businesses in rural areas will be missing from the township lists.

34. With an improved understanding of the DAO processes we can know more confidently collect and process the CSO SBR data. With business activity descriptions being populated by DAO staff while in front of the business in question we can have confidence in the accuracy and consistency of descriptions. With a confirmation of the financial year we can confidently send out our data requests in October and be confident of getting consistent data. With regular patrols we can be confident that new businesses will be covered.

35. On the 14-15 November 2019, UN ESCAP and the CSO hosted a two-day national training event in Nay Pyi Taw involving 38 CSO regional office staffs. Image from the training below.

Figure 3. National Training of CSO Collection Officers

36. It is the CSO Regional office staffs who collect the data from the State and Region DAO offices. These staff support and provide guidance to township officials in populating the templates and assist in cleaning the data before it is sent to the CSO SBR team in the head office.

37. The training focused on improving their understanding of the Township licence process and the purpose of the CSO SBR. With a better understanding of both topics, they are better able to communicate with the Townships on how to populate the template and better understand the CSO SBR team.

38. As part of the workshop / training session the CSO regional office staff who were involved in the previous year collection were able to contribute to the redesign of the collection template and briefing note based on their experiences from communicating with townships and cleaning the data. They were especially effective at providing examples of "incorrect answers".

39. This training was a key reason why the 2019-20 data collection and data cleaning was completed quicker than in 2018-19 despite the impact of COVID-19 on staffing which affected the data cleaning processes. The CSO SBR team reported that the initial files were of a much higher standard and level of completeness than of the previous year. This result in substantial efficiency gains in processing the data as well as gains in the quality of the data itself.

40. The CSO SBR was officially launched during the World Statistics Day celebrations in Nay Pyi Taw by CSO with Vice President Mr. Henry Van Thio in attendance. A photograph of him reviewing the report is below.

Figure 4. Official Launch of CSO SBR

41. The primary purpose of the launch was to raise the profile of the CSO SBR with future users; other ministries in the Myanmar government and other development partners who are supporting economic surveys in Myanmar.

42. The launch includes Presentations from:

- The Asia Foundation (TAF) on the Myanmar Business Environment Index (MBEI) which intends to use the CSO SBR in their upcoming survey.

- UNU WIDER on their Myanmar Micro, Small and Enterprise Survey which had to put a substantial amount of work developing the survey frame for which the CSO SBR would make unnecessary in the future.

- CSO and UN ESCAP jointly presented on the development of the CSO SBR over the past three years.

A. New Collection Templates and Briefing Note

43. A key focus for 2019 was the re-development of the collection template and the development of the briefing note to incorporate all key learnings from the 2018-19 collection and stakeholder collections.

44. The feedback from Township DAOs is that the 2017-2018 template quite difficult to complete. Some fields, while possible, took substantial effort to populate. One example being business start data where some townships manually identifying when a business first registered by manually reviewing historical records, year by year and business by business. Such substantial efforts on some fields also meant some townships put less effort into more important fields.

45. As such there was a focus on re-designing the process to reduce the burden on the township DAOs. A less is more approach. The excel template was changed significantly, the date fields were removed, and township DAOs were only asked to identify if the business was continuing from last year or newly registered; which most townships already had available or could quickly check by checking last year's list. The address field was expanded to make clearer the level of detail required.

46. A dummy answer sheet showing many examples of correct and incorrect answers, based on examples from the previous year's collection, was included in the package. This was designed to assist townships in interpreting the template correctly and was suggested by both the township DAOs and the CSO regional office staff.

47. During the workshop in Yangon, the townships identified a key missing gap in the collection process. That retail and other businesses operating in markets did not need a business licence. There was one notable exception the region of "Kayah" where these businesses were required to register as well. This explained a key outlier result from the 2018-19 collection; why Kayah had the highest count of businesses per capita in

Myanmar. As such a new market template was developed to capture these businesses as well.

48. A briefing note was created which succinctly explained the purpose of the CSO SBR, the collection and how the data was to be used. This template also helped explain which data items were critical and which were less critical. It was stressed that it wasn't expected for townships to go out and collect additional information – to only provide what was available.

49. The outcome of new collection template and briefing notes has been resoundingly positive. The coverage and quality of key data items has improved substantially. The response times has improved. Less work was required to clean the completed templates and feedback from CSO regional office staff reported that the new collection templates and briefing notes were much better received than in 2018-19.

B. Development of an MSIC Auto-coder

50. The current process to maintain the CSO SBR requires the CSO SBR team to MSIC code over 500,000 business per annum. This is the most time-consuming task in processing the data and if not substantially automated would almost require the entire CSO SBR team to be dedicated for this purpose.

51. As such the MSIC Auto-coder was developed, which uses text matching with the business activity description, to provide an MSIC code for businesses with a matching description. The remaining businesses need to be manually coded.

52. Key to the MSIC coder is a library of descriptions linked with a valid MSIC. This library was based on the 2017-18 collection, which was manually coded, and includes over 1583 descriptions from that year and another 25 descriptions added from the 2019-20 collection. The descriptions were selected if they appeared over 10 times and were coded to the same MSIC at least 97%.

53. The MSIC Auto-Coder coded 279,924 out of the 477,148 (58.7%) businesses on the CSO SBR. It saved the CSO SBR team an approximated 333 days of work assuming a coding time of 30 seconds per unit.

C. CSO SBR Used by Surveys

54. The Asia Foundation (TAF) has used the CSO SBR to run two surveys. The 2019 CSO SBR was used for the Myanmar Businesses Environment Index (MBEI) survey and some data from the 2020 CSO SBR was used to support the MBEI COVID-19 survey (links in appendix).

55. The MBEI COVID-19 survey was a phone-based survey for which the CSO SBR was able to provide updated phone numbers to TAF to support them completing the survey remotely and safely. The survey was used to inform government and general society on the impact of COVID-19 to businesses in Myanmar.

56. The MBEI main survey was conducted using the 2019 CSO SBR. Between September 2019 and February 2020; 41,069 business were attempted to be contacted with 4,405 successfully contacted and met all MBEI criteria. A success rate was 10.7%.

57. The biggest issue with the 2019 CSO SBR, from the opinion of TAF, with regards to the MBEI survey – was a lack of sizing variables (employment etc.). The survey only wanted to include businesses with four or more employees and 16,000 businesses successfully contacted were then excluded. This substantially increases the costs of running the survey.

58. The improvements to the 2020 CSO SBR should substantially address these issues. With 138,645 business now have reported employment counts and proxy employment estimates for nearly all remaining (with an estimated accuracy of 53.7% for identifying businesses with 4+ employment) a much more cost-effective sample can be extracted for the next MBEI survey.

59. Another key issue was the quality of the address information. 9,073 businesses were unable to be surveyed due to the inability of enumerators to find the business. While a proportion of those businesses were probably dead it was clear that the quality of the address data was poor for particular states and regions (Kachin, Magway and Mandalay being much worse than others with 22.2%, 21.5% and 17.9% of sampled businesses unable to be found compared to an average of 8.9% for the remaining).

60. The address issue was a known problem and measures were applied to fix it for the 2020 CSO SBR. As commented earlier in the report we have seen substantial, improvement. However, ground verification through surveys is the only reliable way to measure how substantial this improvement it. One positive is that it is unlikely to be an issue for the market-based businesses – as the location of the markets is well known and we have good coverage of the shop numbers within the markets.

61. The improvements in the quality of the CSO SBR between 2019 and 2020 have been substantial. Given conservative estimates, if using the 2020 CSO SBR a sample of less than 16,000 units, down from 41,069 would have been sufficient to achieve the same outcome.

V. Next Stages of CSO SBR Development

62. The CSO SBR has improved substantially each year. It is clearly the best source of information for conducting economic surveys in Myanmar. However, there are improvements that can still be made to improve the CSO SBR in the short to medium term (one to three years).

63. The current SBR doesn't include hotels, as they aren't required to register for a business licence, but at the Ministry of Hotels and Tourism instead. As such it is possible to engage with the ministry to add their list of hotels to the register.

64. A key weakness of using administrative data for the CSO SBR is the under coverage of rural areas. This is an issue with all available administrative data in Myanmar and not just with the DAO township data. A study needs to be undertaken to identify the size and scale of the under coverage. This could range from an economic census (most expensive) to a more detailed study on the coverage the township DAOs in Myanmar by area and population.

65. The CSO SBR needs to develop standardised processes and greater expertise in the development of survey frames; especially for users external to the CSO. Depending on the users this could include cost recovery, assistance in designing the frame, standardised legal processes for how data should be treated and involve CSO survey experts to deliver the highest quality survey's at best cost.

66. There is no common identification code in the business. Therefore the CSO SBR system cannot match two databases between years in order to classify the business registration status (continuing business or new business). If it has the common identification code, it is possible to systematically and efficiently match units between years. This functionality is part of the CSO SBR system, based on the ADB generic SBR, and will enable the production of business demographic statistics and reduce processing time.

VI.   References

[1]   This report is an update on a previous report which can be found in the following link:

https://www.unescap.org/sites/default/files/SBR_2019_report_Myanmar_english.pdf

[2]   The Myanmar language version is linked here:

https://www.unescap.org/sites/default/files/SBR_2019_report_Myanmar_Myanmar_language.pdf

[3]   The MBEI COVID report can be found here: https://asiafoundation.org/wp-content/uploads/2020/06/Myanmar-Business-Environment-Index-Covid-19-Impact-on-Businesses_EN.pdf

[4]   The MBEI 2020 report can be found here: https://asiafoundation.org/wp-content/uploads/2020/11/Myanmar-Business-Environment-Index-2020_EN.pdf