

# Which Social Sector Has Higher Efficiency for Achieving SDG 3.3

Yining Liu

Beijing National Day School, Beijing, China

Email: angelaliu1234@outlook.com

**Abstract**—The purpose of the current study is to understand the relationship between three different social sectors: private sectors, public sector, and non-profit sector, and SDG 3.3 (communicable disease) by analyzing data from case studies, using KPIs or social impact metrics to find out how well they accomplish the goal. This paper provides a clearer understanding of how different social structures are functioning when they are solving the social health issues, whether they are creating valuable impact measurements, and how effective they are improving the social health conditions within the community or the country. Embedding this approach will be critical in keeping stakeholders accountable and tracking progress of different sectors to help developing countries to achieve the SDG 3.3 and solve different kinds of communicational diseases issues. Eventually find out which social sector people can trust or deserves investment under today's pandemic.

**Index Terms**—SDG 3.3, social structures, communicational diseases issues, efficiency

## I. INTRODUCTION

After going through several stages of different periods of pandemic of health worldwide, diseases are still on its evolution with every revolutions people have done in the society. The 2020 new pandemic pushes the issue of communicable disease to its climax again. Despite the significant progress overall in the decline of communicable diseases globally, lots of developing countries still missed out several important targets or goals both in the Millennium Development Goals (MDG) era and Sustainable Development Goals era [1]. But there are many social sectors formed within the society, whether they are led by government, individuals, or partnerships, doing their best to come up with different solutions to fight against diseases.

Under the SDG era, Edouard and Bernstein (2016) admitted and concerned that there are challenges for measuring progress towards the SDG [2] and it is imperative to ensure it is effective in reporting the social impact data. Our study solves their concerns by forming the right KPIs or impact metrics for their data. Lorren (2019) proves the contribution that private sectors have for SDG3 in general. This paper will develop further under SDG3 and expand to more sectors.

However, there is still little known for how other sectors are performing or contributing to SDG3, less about SDG3.3 specifically, and none about the combination of SDG, social sectors, and metrics.

The purpose of the current study is to understand the relationship between three different social sectors: private sectors, public sector, and non-profit sector, and SDG 3.3 (communicable disease) by analyzing data from case studies, using KPIs or social impact metrics to find out how well they accomplish the goal. More specifically, this research is to find out: Which social structures are doing the best for reaching SDG3.3.

This paper provides a clearer understanding of how different social structures are functioning when they are solving the social health issues, whether they are creating valuable impact measurements, and how effective they are improving the social health conditions within the community or the country. Embedding this approach will be critical in keeping stakeholders accountable and tracking progress of different sectors to help developing countries to achieve the SDG 3.3 and solve different kinds of communicational diseases issues. Eventually find out which social sector people can trust or deserves investment under today's pandemic.

## II. METHODOLOGY

### Hypothesis:

1. Social structure of private and public coordination is doing the best for reaching SDG3.3. (Which social structures are doing the best for reaching SDG3.3.)
2. Whether the method of scoring can differentiate the three sectors
3. Whether there is an inverse correlation between tools and resources? Will lower instrumental and strategic indicators result in higher indications for resource usage?

### Describe the Basic Techniques Used:

Use the subjective tools to look at social impact metrics and KPIs provided by agencies in the case studies collected.

The study is essentially proposing a novel inventory instrument for identifying and scoring the efforts of social enterprise. As an academic tool, it enables differentiation and analytical organization of social enterprise interventions. It could enable better definition and understanding of tactics, and even correlate with efficiency

**Explain How the Samples are Gathered:**

Case studies are collected from online news reporting provided by Solution U.

The data and further information are collected from the website of each organization in the news

**Why Use These Samples and How They Relate to the Problem:**

All of them show successful records for solving communicable diseases in developing countries, the contents correspond to the goal of SDG 3.3

It includes different examples from all three sectors, which is easy for later comparison.

**Explain How the Data Was Analyzed:**

Categorize the case studies into the three sectors, each sector with 4 social structures equally: depict the full picture of the general data source, show each sectors' function and difference to provide the base for further analysis within this context

Explain each sectors characteristics) (Mumbai sees record low in the number of deaths from rabies City authorities partnered with NGOs, In Defense of Animals India (IDA India) and Welfare for Stray Dogs (WSD)) [3]

-Compare and contrast each sector

-Look into each organization within each sector and use tools to evaluate KPIs and social impact metrics, implying for each organization's efficiency (see table I, II, III)

**How Measurements Made :**

We use five subjective scales as evaluation to indicate or give implications of higher efficiency. The scales are listed below:

1. Actionable: whether the method that each organization is using is easy to apply or use
2. Direct benefit: whether there are steps in between/whether the process between the start of the application to the end is too long/whether the method is directly applying to the patients instead of going through other parts of the process
3. Quantifiable: whether the organization uses numbers to show their result or
4. Instrumental: whether the treating or solution to the disease is downstream.
5. Strategic: whether there is any innovation or creative methods involved instead of merely exploiting resources and use massive resources.

-Conclude within each sector for the overall general impact and effects

-Compare and contrast the general sectors impact

**Limitations:**

Different sectors may solve different diseases in developing countries, but the serious level for each diseases are different in different developing countries, so the treating result may vary from country to country. To limit this concern, we only analyze by using subjective scales and giving indications. Objective scales are not used in this study since there are too many situational and agency variables, which makes all organizations distinctively different from each other. Thus, it is probably not possible to use to measure or compare outcome efficiency.

Instead of analyzing the results or data of each company's reports, the study focus entirely on evaluation or implication of its higher efficiency in order to avoid the problem of including variables about company's using massive resource deployment, which exclude the high number changes or outcomes that have exclusively used resources. We also assume that the different treatments that different sectors used are all scientific, resulting in no effects on the effectiveness of all treatments for the patients.

**III. RESULTS**

We use the five subjective tools as an evaluation in order to indicate the efficiency and the inner relationships between these measurement tools. Since the ratings that we give range from 6-10 subjectively, we convert this into 1-5 based on the range, giving readers a clearer and more direct understanding about the distinction in between and making every small difference more obvious. In this way, readers can clearly identify themselves which score indicates for higher ratings compare to other scores. We not only scored for each agencies or organization within each sectors, but also did a general summary data for each sectors by adding score from each tools that used on all agencies within the sector and get the average score. This allows us to compare the data both within each sectors, each agencies, and between sectors.

TABLE I. EVALUATION ON EACH AGENCY OR COMPANY WITHIN EACH SECTOR

PRIVATE				
Earthenable	Earthenable: replacing dirt floors	Matlab	Drones delivering blood	Community conversation
indicators	Ratings	Ratings	Ratings	Ratings
Actionable	10	10	8	10
Direct benefit	9	9	8	6
Quantifiable	10	10	9	6
Instrumental	7	7	6	10

Strategic	9	6	8	9
<b>PUBLIC</b>				
	Mosquito data collection	Mosquito discussion	Cervical cancer in Australia	Rwanda building hospitals
indicators	Ratings	Ratings	Ratings	Ratings
Actionable	6	10	9	9
Direct benefit	6	6	8	10
Quantifiable	6	6	9	8
Instrumental	7	8	6	7
Strategic	9	7	6	6
<b>PARTNERSHIP</b>				
	Malaria No More	Rabies	He survives ebola	Cows and goats
indicators	Ratings	Ratings	Ratings	Ratings
Actionable	10	10	9	7
Direct benefit	8	8	8	7
Quantifiable	8	10	8	6
Instrumental	10	8	9	9
Strategic	6	6	6	10

TABLE II. SUMMARY EVALUATION FOR EACH SECTOR BY USING THE SCALE OF 1-5 BASED ON THE ORIGINAL SUBJECTIVE SCALE OF 6-10

	Private sector	Public sector	Partner-ship
Actionable	4.5	3.5	4
Direct benefit	3	2.5	2.75
Quantifiable	3.75	2.25	3
Instrumental	2.5	2	4
Strategic	3.5	2	2

TABLE III. SUMMARY OF WHICH SECTOR SCORE THE HIGHEST FOR EACH TOOL

Actionable	Private
Direct benefit	Private
Quantifiable	Private
Instrumental	Partnership
Strategic	Private

The results we found out can be concluded as the following five:

1. Private sectors are scoring the highest for actionable, direct benefit, quantifiable, and strategic: scoring the highest for four out of five tools we used
2. The private-public partnership scores the highest for instrumental.
3. Public sectors score the lowest for every tools used
4. There is an inverse relationship between Direct Benefit and Instrumental for 7 out of 8 agencies in private and public sectors, but there is no clear correlation in the private-public partnership sector.
5. Private sectors score extremely high on strategic compare to public and private-public partnership, especially for social enterprises.

#### IV. DISCUSSION

The three social sectors: private, public, and private-public partnership play different roles in the society. As shown in the results, they achieve different effects for solving communicational diseases.

##### Private Sector

Private sector includes companies or agencies that are not under the direct control of the government. All of the four case studies under this sector show great results on “actionable”, “direct benefit”, “quantifiable”, and “strategic”: three companies show the full score of 10 for actionable while one score for 8; except for the “Community conversation company,” all of the rest score

8 to 10 for both direct benefit and quantifiable; and 3 out of the 4 companies score over 8 for strategic. (see Table I) All of these indicates that private sectors companies tend to have easily applied health solving method and directly application to the patients, while plenty of clear data are provided under the process and implementation, which makes their impact and results more clearly to be measured, resulting in more possible investments in the future. In addition to all the good features, they keep innovation and making renovation: instead of exploiting resources, those companies in the private sector use different creative ways to solve communicable disease, scoring high on strategic. The company in the case study of “community conversation” are actually deploying resources, spreading the knowledge to everyone through deep conversations, giving individualized or mental support to patients, and even helping to establish the foundation for their future needs. This high score successfully implies for the high efficiency.

All of the analysis provided above may get their benefits from the structure of this sector: since they are no longer controlled by the government, companies have more freedom and space provided to design their own operational strategy and experimenting with new methods, resulting in better and more direct implementation that does not need many tedious restrictions, plus the creative ways for problem solving.

And the Private sectors score extremely high on strategic compare to public and private-public partnership, 3 out of the 4 companies score over 8, while public sectors and public score extremely low for strategic, only one agency got over 8 (see table I).

Private organizations that are guided by a coherent strategic framework tend to execute even the finest details of their mission in a coordinated fashion. [4]

#### **Public Sector**

From all the case studies, companies under the public sector scored the lowest in general compared to companies either from private sector or private-public sector. They did not stand out from any of the five tools used. And even worse, 50% of them score extremely low as 6 for both strategic and direct benefit, which forms a strong contrast with companies within the private sector. However, they still show a relatively stable trend for “instrumental”, where they score between 7 and 8.

This is probably because of the lack of inner incentive for all the companies. Instead of being self-driven as those private companies, public companies are directly controlled by the government and obey the orders given by the government. Thus, if there is not strong willingness or supports given by the government, it is hard for company to produce better effects. Moreover, those companies tend to use basic methods such as vaccines to solve all the problems, which is nothing innovative but indicates for exploiting massive resources.

#### **Private-Public Partnership**

Private sector can collaborate with the government in a public-private partnership to jointly deliver a service or business venture to a community. Combining the characteristics from both the private sector and the public

sector, all of the five tools except for “instrumental” score in the middle between private and public. They did not perform as great as the private sector, but they are doing much better than the public sector alone. With this cooperation, companies cannot only have their own space to create and operate by themselves without too much limitations, but also gains the support from the government who can help them to enlarge the scale they are implementing and put their targets into more population and aspects. This results in the extremely high score in general for “instrumental”. All the companies in the private-public partnership show great downstream effect. For example, in the Malaria No More, workers not only provide local people with vaccines and direct treating equipments, but also care and solve for other related issues like finance, hygiene, environment, and they even mobilize the political commitment national wide. This thorough process penetrate deep into every aspect of the communicable disease. By waling through every corner of the disease aiming to eradicate it completely, these companies will make a huge change in long term by accumulating their continuous small and elaborate steps.

#### **New Findings**

Inverse relationship between “Direct benefit” and “instrumental” in private and public sector but not in private-public sector.

Within private and public sectors, whenever the score for either Direct Benefit or Instrumental goes high, the other one goes down. This inverse correlation is probably because that if companies take more steps to implement their methods and without targeting directly to the audience, which results in low direct benefit, they are more likely to spend the efforts around the subject, helping patients with the supplemental needs. In this way, they can still solve the problem, even though they are not acting directly, they spread their efforts to cover more aspects, and vice versa. However, this phenomenon does not occur within private-public partnership, probably because the two forces combine together have more power and resource to cover more aspects, including the direct targets and indirect targets altogether. They are solving all aspects of an issue, scoring high on “Direct Benefit” and even higher for “Instrumental”.

Social enterprises score extremely high on strategic and instrumental, while research or academic agencies show the exact opposite.

Social enterprise is a really effective structure within the private sector, it is self-supporting and beneficial by earning profits and creating social impacts at the same time. The evaluation for them all scored high on strategic and instrumental, and they are correspondingly showing great effectiveness. For example, in the case study of Dirt floors can kill you, they create the new method for constructing new floors by just using the most available dirt and sand locally. This clean and waterproof floor will not only improve the environment and reduce possible diseases like diarrhea, parasitic infections, and anemia, but also improve children’s cognitive development, better behaviors, and improved economic conditions since their

living conditions are improved in general from lots of aspects. The community conversation in On AIDS: Three Lessons From Africa show similar effects. [5]

However, academic or research agencies score really low on strategic and instrumental, because they only use the most traditional method, like using medicine, vaccines or screening, to treat patients, exploiting great resources while focusing only on solving the specific target of the virus or disease without caring for other aspects. The two cases studies provided above, which are In Bangladesh, a Half-Century of Saving Lives with Data [6] and Australia set to 'eliminate' cervical cancer by 2028 show great examples. They did long term research and data collection just to find out how to eliminate the single type of disease, without truly carrying well-rounded implementations and create downstream effect.

## V. CONCLUSION

Different social structures, including private sector, public sector, and private-public partnership, are all dedicating their efforts into solving communicable disease happening in developing countries, which belongs to the target and goal of SDG 3.3. Each of them plays different roles, so which social sector is doing the best cannot be analyzed from only one single perspective. Based on all the results collected and the analysis in the discussion, any of these three social sectors will do the best as long as they are utilizing their strongest feature and characteristics. Since every communicable disease can be categorized into three general stages, the start, where the virus just bust our, the climax, where it spreads quickly, and the end, where the trends slow down, different sectors can perform their best differently within these three stages. Public sectors may be put at the vanguard, because they will be the ones that first receive the message of the government and provide enough resources in a short time. After the disease has entered the climax stage, every aspect of the patients life need to be cared, so private-public partnership will stand out to directly targeting patients disease while provide for well-rounded services to get full control of the disease. Private sectors show strength on direct targeting and strategic, so they may perform the best during the last stage of the disease, where they have got enough time to innovate new methods, which are likely to produce high efficiency, and use them to specifically target the small and controllable versus that are left behind. Social sectors should be promoted by the society, since its efficiency is high as its instrumental and strategic scores are extremely high. All of these can be applied to our current COVID-19 pandemic, which can help the country to allocate each sector in different stage of the disease and increase the number of them based on seriousness and time. More research about how to objectively measure the impacts of each sector needs to be conducted to give us clearer and more definite thoughts on the use of the sectors to effectively achieve SDG 3.3.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## AUTHOR CONTRIBUTIONS

Yining Liu is the principal investigator of the project at hand. She reviewed sources, conducted research, and wrote this paper.

## ACKNOWLEDGMENT

I deeply appreciate Professor Robert Lyon for guiding me through every step of this project. Professor Robert is a clinical professor of management communications at NYU Stern School of Business, and he has shown the utmost dedication and passion towards helping me comprehend many concepts that were novel to me.

In addition to understanding books and articles and their implications to this paper, Professor Robert was also of immerse help during the drafting and editing phase. Many of my ideas came into shape with his guidance.

## REFERENCES

- [1] S. Kumara, A. Banke-Thomas, "Social return on investment (SROI): An innovative approach to sustainable development goals for sexual and reproductive health programming in sub-Saharan Africa," *African Journal of Reproductive Health*, vol. 20, no. 3, pp. 85-93, 2016.
- [2] L. Edouard and S. Bernstein, "Challenges for measuring progress towards the sustainable development goals," *African Journal of Reproductive Health*, vol. 20, no. 3, pp. 45-54, 2016.
- [3] Mumbai sees record low in the number of deaths from rabies . (n.d.). Retrieved September 08, 2020, [Online]. Available: <https://solutionsu.solutionsjournalism.org/stories/mumbai-sees-record-low-in-the-number-of-deaths-from-rabies>
- [4] R. Kreitner, *Management* (3rd Edition 1986), Houghton Mifflin Company, Boston.
- [5] T. Rosenberg, (2014, August 01). On AIDS: Three Lessons From Africa. Retrieved September 07, 2020, [Online]. Available: <https://opinionator.blogs.nytimes.com/2014/07/31/on-aids-three-lessons-from-africa/>
- [6] A. Yee, (2015, November 17). In Bangladesh, a Half-Century of Saving Lives With Data. Retrieved September 07, 2020, [Online]. Available: [https://opinionator.blogs.nytimes.com/2015/11/17/in-bangladesh-a-half-century-of-saving-lives-with-data?utm\\_source=Solutions Story Tracker](https://opinionator.blogs.nytimes.com/2015/11/17/in-bangladesh-a-half-century-of-saving-lives-with-data?utm_source=Solutions+Story+Tracker)

Copyright © 2021 by the authors. This is an open access article distributed under the Creative Commons Attribution License (CC BY-NC-ND 4.0), which permits use, distribution and reproduction in any medium, provided that the article is properly cited, the use is non-commercial and no modifications or adaptations are made.



**Yining Liu** is a Senior student of Beijing National Day School, China. She is passionate at Social Studies and Economics. She did a lot of great things for non-profit organization and got fruitful results. After her hard work in no-profit organization, she decided to do a research on Economics impact of non-profit organization.