ROLE OF CO-OPERATIVES IN FACILITATING THE SUSTAINABLE DEVELOPMENT GOALS: AN EXPERIENCE FROM NOVA SCOTIA, CANADA

Yichen Shen (Presenter)
Dr. Peter Tyedmers
Dr. Michelle Adams
Dr. Louis Beaubien
BACKGROUND

- SDGs from global to local levels
  - Global indicators and reporting frameworks
  - Relevant local policies and strategies (FSDS)
  - How to address in a private organization?
- Co-operatives in advancing sustainability and the SDGs
  - Individual case studies
  - Methodologies and frameworks
  - How we know from a local perspective?
CHARACTERISTICS OF CO-OPS IN CANADA

▪ **Definition**
  “a legally incorporated corporation that is owned by an association of persons seeking to satisfy common needs” (Government of Canada, 2018)

▪ **Member-owned & -governed**
  consumer/producer/worker/multi-stakeholder-based

▪ **Value-based and principle-driven**

▪ **Legislation**
  non-financial/financial

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**Co-op Values & Principles**
- Voluntary & Open Membership
- Democratic Member Control
- Member Economic Participation
- Autonomy & Independence
- Education, Training & Information
- Cooperation Among Cooperatives
- Concern for Community

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**Cooperative Values & Principles**
- Democracy
- Social responsibility
- Caring for others
- Honesty
- Self responsibility
- Equality
- Openness
- Self help
- Equity
- Solidarity
CO-OPERATIVES IN NOVA SCOTIA

- History of community embeddedness
  - Antigonish Movement: the British Canadian Co-operative Society, 1861
- Current engagement
- Provincial Legislation (for non-financial co-ops)
  - Nova Scotia Co-operative Act (c. 98, RSNS 1989)
- Membership structure
  - Consumer/Producer (incl. worker)

- Total population $N = 279$ (Registry of Joint Stock Companies - Government of Nova Scotia, 2016)
- Sampled population $n = 179$

RESEARCH OBJECTIVES & QUESTIONS

❑ To what extent do mission statements of Nova Scotia-based co-operatives align with the SDGs in a local context?

❑ Are there any differences in the extent to which SDGs are supported between different co-operative sectors?

How to interpret SDGs at a local level?
INTERPRET SDGS AT A LOCAL LEVEL

- Federal Government Sustainable Development Strategies (Canada)
- SDGs (Global)
- Related government regulations and reports

Localized SDG Framework
(including localized SDGs, coding categories, and inner-textual linkages)

Textual Content Analysis
SDGS AT A LOCAL LEVEL

1. **No poverty**
   - 1.4
   - 1.5

2. **Zero hunger**
   - 2.1
   - 2.3
   - 2.4
   - 2.5

3. **Good health & well-being**
   - 3.4
   - 3.5
   - 3.8
   - 3.9

4. **Quality education**
   - 4.2
   - 4.3
   - 4.4
   - 4.5
   - 4.7
   - 4.a

5. **Gender equality**
   - 5.1
   - 5.3
   - 5.5

6. **Clean water & sanitation**
   - 6.1
   - 6.2
   - 6.3
   - 6.4
   - 6.5
   - 6.6
   - 6.b

7. **Affordable & clean energy**
   - 7.1
   - 7.a

8. **Decent work & economic growth**
   - 8.5
   - 8.10

9. **Industry, innovation & infrastructure**
   - 9.1
   - 9.3
   - 9.4
   - 9.5
   - 9.c

10. **Reduced inequalities**
    - 10.2

11. **Sustainable cities & communities**
    - 11.1
    - 11.2
    - 11.4
    - 11.6
    - 11.7
    - 11.a

12. **Responsible consumption & production**
    - 12.2
    - 12.4
    - 12.5
    - 12.6
    - 12.8
    - 12.b

13. **Climate action**
    - 13.3

14. **Life below water**
    - 14.1
    - 14.2
    - 14.3
    - 14.b

15. **Life on land**
    - 15.2
    - 15.4
    - 15.8
    - 15.a
    - 15.b

16. **Peace, justice & strong institutions**
    - 16.6
    - 16.7

17. **Partnerships for the goals**
    - 17.17
<table>
<thead>
<tr>
<th>Coding categories (including SDGs, sub-targets and specific codes)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDG 1: No Poverty</strong></td>
</tr>
<tr>
<td><strong>1.4</strong></td>
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<tr>
<td>1.4.1 Inclusive access to basic services</td>
</tr>
<tr>
<td>• affordable and quality education;</td>
</tr>
<tr>
<td>• affordable food;</td>
</tr>
<tr>
<td>• affordable health-care services;</td>
</tr>
<tr>
<td>• clean water and sanitation;</td>
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<tr>
<td>• affordable and accessible housing services;</td>
</tr>
<tr>
<td>• natural resources and energy;</td>
</tr>
<tr>
<td>• public transit</td>
</tr>
<tr>
<td>1.4.2 Inclusive access to economic resources</td>
</tr>
<tr>
<td>• accessible technology;</td>
</tr>
<tr>
<td>• affordable financial services and investment;</td>
</tr>
<tr>
<td>• ownership and control over land &amp; properties</td>
</tr>
<tr>
<td>1.4.3 Other accessible and affordable services and resources</td>
</tr>
<tr>
<td>• affordable publications;</td>
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<tr>
<td>• accessible and affordable artworks and art-related facilities;</td>
</tr>
<tr>
<td>• affordable funeral services</td>
</tr>
<tr>
<td><strong>1.5</strong></td>
</tr>
<tr>
<td>1.5 Resilience of the poor and the vulnerable to climate change, and other economic, social and environmental shocks</td>
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</tbody>
</table>
TEXTUAL LINKAGES AMONG LOCALIZED SDGS AND TARGETS

Type 1. Mutually supporting (n=5)

Type 2. Relying and supporting (n=34)

Type 3. Bidirectional enabling (n=27)

Type 4. Unidirectional enabling (n=40)
<table>
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<tr>
<th>Coding categories (including SDGs, sub-targets and specific codes)</th>
<th>Interlinked goals &amp; targets</th>
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<td>2.1 (food);</td>
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<td></td>
<td>2.3 (economic resources);</td>
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<td></td>
<td>3.8 (health-care);</td>
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<td></td>
<td>4.3 &amp; 4.5 (education);</td>
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<td></td>
<td>5.5 &amp; 10.2 (equal access)</td>
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<tr>
<td></td>
<td>6.1 &amp; 6.2 (clean water and sanitation);</td>
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<td></td>
<td>7.1 (energy);</td>
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<td></td>
<td>8.10 (financial services);</td>
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<td></td>
<td>9.1 (affordable infrastructure);</td>
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<td></td>
<td>11.1 (basic services);</td>
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<td></td>
<td>11.2 (transportation);</td>
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<tr>
<td>1.4.2 Inclusive access to economic resources</td>
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ANALYTICAL PROCESS

1) Any alignment between co-op statements and SDGs?
   - Co-op mission statements and localized SDG coding categories
   - Content analysis (Qualitative & Quantitative)

2) Any differences in aligning with SDGs between co-op sectors?
   - Co-op characteristics and frequencies of alignment with SDGs
   - Descriptive and Statistical analysis (Quantitative)
KEY FINDINGS
1 MISSION STATEMENT OF CO-OPERATIVES THAT ALIGN WITH SDGS
2 CHARACTERISTICS OF ASSESSED CO-OPS

**Industry**
- Service: 46
- Agriculture: 32
- Housing: 25
- Worker: 24
- Retail: 15
- Craft: 13
- Investment: 11
- Forest: 6
- Fish: 6
- Miscellaneous: 1

**Profit Status**
- Profit: 41%
- Nonprofit: 59%

**Membership Structure**
- Producer: 45%
- Consumer: 55%

**Age**
- 1-14 yr: 53%
- 15-30 yr: 22%
- ≥31 yr: 25%

**Level of Aligned SDGs**
- 0 SDG: 19%
- 1-2 SDG(s): 41%
- ≥3 SDGs: 40%
3 ASSOCIATION AMONG CO-OPERATIVE SECTORS

- Distribution of each pair of co-op characteristics is examined through chi-square tests.

- Most of the results are significant (at 0.05 level) except the association between age and profit status.

- Industry is associated with all other characteristics.
Frequencies of co-ops in each industry that aligned with the SDGs by each goal
4 DIFFERENCES OF SDG ALIGNMENT BETWEEN CO-OPERATIVE SECTORS

![Bar chart showing the differences of SDG alignment between non-profit and for-profit co-operative sectors. The chart is divided into sectors such as Agriculture, Craft, Fishery, Forestry, Worker, Investment, Retail, Service, Housing, and No alignment with SDGs, Few alignments with SDGs, Multiple alignments with SDGs. The chart visually represents the percentage of each sector's alignment with SDGs.]
CONCLUSIONS

▪ Most sampled co-ops do have purposes that align with the SDGs, although the alignment is highly variable across different co-op sectors; most environmental-oriented SDGs (esp. Goal 13) lack of concern by sampled co-ops.

▪ Global SDGs can be interpreted for practical use at a local scale; particularly, developing and further combing local policies is necessary to be referred to in the process of localization.

▪ It is essential to understand the textual logic behind SDGs especially when conducting qualitative analysis; multiple types of textual linkages have been identified amongst SDGs and targets.
RECOMMENDATION

- To enrich and generalize the results at a larger level, more co-operatives at other local scales in Canada and also other countries and regions need to be analyzed and compared.

- To elucidate the potential contribution that co-ops can make to achieving the SDGs, approaches to assessing co-op performance need to be developed at the practical level.

- This study only identified positive relationships among SDGs and targets, although the negative interactions among SDGs need to be further discussed in detail.
FURTHER RESEARCH

▪ Coherent frameworks and feasible decision-making process for local stakeholders in contributing to the SDGs.

▪ Integrated approaches to managing, assessing and reporting SDG performance for local organizations, especially co-operatives.

▪ More empirical insights for co-ops and other organizations in advancing and implementing the SDGs, especially in a collective, comparable and balanced manner.
ACKNOWLEDGEMENTS

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Dr. Michelle Adams;
Dr. Louis Beaubien

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REFERENCES


THANKS FOR LISTENING
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<tr>
<th>Characteristic</th>
<th>Degree of SDG alignment</th>
<th>Chi-square test</th>
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<tr>
<td></td>
<td>No alignments (n=33)</td>
<td>Few alignments (n=74)</td>
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<tr>
<td></td>
<td>n^1</td>
<td>%^1</td>
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<td><strong>Profit Status &amp;</strong></td>
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<tr>
<td><strong>Membership Structure</strong></td>
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<tr>
<td>Non-profit &amp; Consumer</td>
<td>6</td>
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<td>For-profit &amp; Consumer</td>
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<td>36.4</td>
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<td>8</td>
<td>20</td>
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<td>For-profit &amp; Producer</td>
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<td>17.1</td>
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<tr>
<td><strong>Age</strong></td>
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<td>Age ≤10 yrs.</td>
<td>13</td>
<td>16.3</td>
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<tr>
<td><strong>Industry</strong></td>
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