Week 6 Presentation

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Song(Alice) Zhang, Yilin Sun

Overview - The Analysis of Rural Business Performance

Objectives:

1. Exploratory analysis of the Rural Canada Business Profiles (RCBP) database.

2. Interactive dashboard**s** (**RCBP and Overview**).

3. Cross-analysis of RCBP with other public Statistics Canada data (open ended)

Research questions:

1. How does the Canadian rural business perform according to different dimensions/variables?

2. How can the RCBP data be connected with other StatCan data to produce valuable analysis?

Client Meeting

Wednesday June 1st 9:00am-10:00am

Presentation of RCBP Dashboards (Small business & Medium business)

Overview Dashboard Design Confirmed

Progress

1. Confirmed Overview Dashboard design:
    - Key indicators comprised — Group together
    - Design and layout — Group together
2. Completed Overview Dashboard development and deployment:
    - RCBP — Tingwen
    - Population and dwelling counts — Yilin
    - Employment — Song (Alice)
    - Unemployment rate — Bowen
    - Layout — Group together
    - Deployment — Bowen

Overview Dashboard

Rural Canada Business Profile from 2017 to 2019

The Rural Canada Business Profiles database (RCBP) provides data on counts and key financial indicators of small and medium sized businesses with a theme classification by rural and urban areas of Canada. The RCBP has a similar methodology to the Financial Performance Data (FPD). In contrast to the FPD, the RCBP notably features a rural and urban breakdown.

Key terms definition:

Net profit to equity ratio: This ratio is calculated as (net profit * 100) / (equity). This percentage indicates the profitability of a business. The higher the ratio, the relatively better the profitability.

Current debt to equity ratio: This ratio is calculated as (current liabilities * 100) / (equity). This percentage is a measure of liquidity, which indicates a firm's relative ability to pay its short-term debts. The lower the positive ratio, the more liquid the business.

Debt to equity ratio: This ratio is calculated as (total liabilities) / (total equity). This is a solvency ratio that indicates a firm's ability to pay its long-term debts. The lower the positive ratio, the more solvent the business.

Revenue to equity ratio: This ratio is calculated as (total revenue) / (equity). It provides an indication of the economic productivity of capital.

Total Number of Business: The count of businesses in each category

Total Revenue: It calculate as number of businesses * average revenue

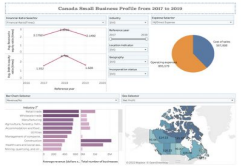
Expense Breakdown: Total expense in different categories

Direct Expense: Cost of sales

Indirect Expense: Operating expense

Net profit: It calculated as total revenue – total expense

Detail



Small Sized Businesses

The dashboard shows the general information of the small sized business in Canada from 2017 to 2019.

This group includes all businesses operating in Canada reporting total annual revenues between $30,000 and $5,000,000 (inclusive).

Filters applied:

Time period: 2017,2018 and 2019

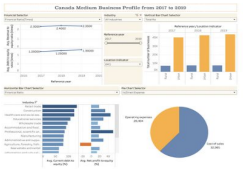
Location Indicator: Rural, Urban

Industry: Businesses are classified by industry using the business's North American Industry Classification System (NAICS) 201715 industry assignment on the BR.

Geography: Provinces in Canada

Incorporation Status: Incorporated, Unincorporated

*Not applied to financial ratios where this data is missing.
*Due to the data suppression, please use "All industries" in industry filter, "Canada" in geography filter to see the overall information.



Medium Sized Businesses

The dashboard shows the general information of the medium sized business in Canada from 2017 to 2019.This group includes all businesses operating in Canada reporting total annual revenues between $5,000,001 and $20,000,000 (inclusive). Owing to the lower counts of medium businesses, the RCBP only provides national level tables for such businesses in order to be able to protect confidentiality. Rural and urban breakdowns at the Canada level are provided for medium businesses, but no provincial/territorial breakdowns in order to protect confidentiality of identifiable businesses.

Filters applied:

Time period: 2017,2018 and 2019

Location Indicator: Rural, Urban

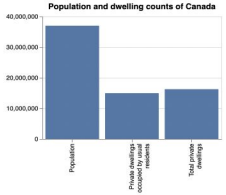
Industry: Businesses are classified by industry using the business's North American Industry Classification System (NAICS) 201715 industry assignment on the BR.

*Due to data suppression, please use "All industries" in industry filter.

Population and dwelling counts

Province: Canada

Area Type: All census subdivisions



Key Indicator: Population and dwelling counts

The data is from Census of Population in 2021. You can choose the provinces and the area types to see the population, total private dwellings and private dwellings occupied by usual residents in 2021.

The 2021 Census population counts for a particular geographic area represent the number of Canadians whose usual place of residence is in that area, regardless of where they happened to be on Census Day. Also included are any Canadians who were staying in that area on Census Day and who had no usual place of residence elsewhere in Canada, as well as those considered to be non-permanent residents.

The dwelling counts refer to total private dwellings and private dwellings occupied by usual residents in Canada.

For the area types, CMA refers to a census metropolitan area, and CA refers to a census agglomeration. A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the core. A CA must have a core population of at least 10,000.

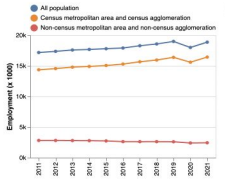
Reference: Statistics Canada. Table 98-10-0016-01 Population and dwelling counts by the Statistical Area Classification

Detail

Employment

Start Year: 2011

End Year: 2021



Key Indicator: Employment

The employment is the number of persons who, during the reference week, worked for pay or profit, or performed unpaid family work or had a job but were not at work due to own illness or disability, personal or family responsibilities, labour dispute, vacation, or other reason. Those persons on layoff and persons without work but who had a job to start at a definite date in the future are not considered employed. Estimates in thousands, rounded to the nearest hundred.

The line chart on the left side shows the changes of the employment in selected time period. (Default: 2011 to 2021)

For overview purpose, only all population, Census metropolitan area (CMA) and census agglomerationare (CA), Non-census metropolitan area (Non-CMA) and non-census agglomeration (Non-CA) are shown here. You can find more detailed information and apply more filters on the detail page.

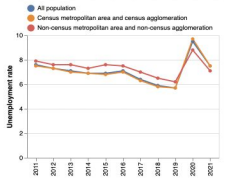
Reference: Statistics Canada. Table 14-10-0375-01 Employment and unemployment rate, annual

Detail

Unemployment Rate

Start Year: 2011

End Year: 2021



Key Indicator: Unemployment Rate

The unemployment rate is the number of unemployed persons expressed as a percentage of the labour force. The unemployment rate for a particular group (age, sex, marital status, etc.) is the number unemployed in that group expressed as a percentage of the labour force for that group. Estimates are percentages, rounded to the nearest tenth.

The line chart on the left side shows change of the unemployment rate in selected time period. (Default: 2011 to 2021)

For overview purpose, only all population, Census metropolitan area (CMA) and census agglomerationare (CA), Non-census metropolitan area (Non-CMA) and non-census agglomeration (Non-CA) are shown here. You can find more detailed information and apply more filters on the detail page.

Reference: Statistics Canada. Table 14-10-0375-01 Employment and unemployment rate, annual

Detail

Compare to original plan

5 (01 – 07 June)	Dashboard	Develop the dashboard, debugging

Developed a new Overview Dashboard ✔

Completed the Dashboard debugging and improved them ✔

We are on the track of our original timeline in order to finish the project tasks.

Team Minutes

Meeting: Team + Clients 9.5 hr

1. 5/31 Team: Discuss the Overview Dashboard design 2 hr
2. 6/01 Client: RCBP Dashboards presentation 1 hr
3. 6/01 Instructor meeting: Discuss about Midterm presentation 1.5hr
4. 6/03 Team: Review Overview Dashboard components and layout 2 hr
5. 6/06 Team: Prepared weekly presentation 1 hr
6. 6/06 Team: Discuss Cross-Analysis research 2 hr

Individual Logs

Tingwen: 28 hr + 9.5 hr (team)

1. Description Written: 10 hr
2. Paper review: 5 hr
3. Format Editing: 5 hr
4. Presentation slides and preparation: 2 hr
5. Email writing: 1 hr
6. Research Reading: 5 hr

Individual Logs

Bowen Yang: 30 hr + 9.5 hr (team)

1. Prepare presentation: 2 hr
2. Implement RCBP dashboard HTML page: 4 hr
3. Midterm presentation: 4 hr
4. Implement overview dashboard: 17 hr
5. Deploy overview dashboard: 3 hr

Individual Logs

Song(Alice) Zhang: 24 hr+9.5 hr (team)

1. Develop Overview Dashboard (5.5h)
2. Cross-Analysis research(10h)
3. Update the analytical paper (4.5h)
4. Update weekly slides (3h)
5. Take minutes and personal log(1h)

Individual Logs

Yilin Sun: 24 hr + 9.5 hr (team minutes)

1. Overview Dashboard: 14 hr
2. Cross Analysis materials research: 7 hr
3. Update personal logs and team minutes: 1 hr
4. Prepare presentations: 2 hr

Next Week Plan

Discuss the Overview Dashboard with client

Conduct the Cross-Analysis

Improve the RCBP Dashboards according to the feedbacks