

## UNIVERSITY OF REGINA CLUB: FINANCIAL STATEMENT ANALYSIS

*Professors Nourhene BenYoussef, Walid Busaba and Saqib Khan wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.*

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The University Club at the University of Regina was in financial distress. The club had been losing money for several years and was being subsidized by the University of Regina. However, due to budget cuts by the Saskatchewan government, the university was no longer in the position to subsidize the operations of the club. The club's board members had to make some tough choices, but they needed a detailed analysis of the financial statements to make an informed decision. Loraine Taylor, the accounting professor who had recently joined the club's board, suggested performing ratio analysis to assess the problem areas.

### THE UNIVERSITY CLUB

The University Club was a formal dining facility located on the campus of the University of Regina and was structured as a non-profit, membership-based corporation. A board of directors, comprised of 10 board members elected from the general membership, was responsible for the governance of the club.

The club's main objectives as stated in the constitution were the following:

- To promote communication, fellowship, and goodwill among individuals working within or associated with the University of Regina.
- To provide quality food services, lounge facilities, recreation, and entertainment for members of the club.

The University Club was incorporated in 1965 and had been housed in its current location since 1974, when the University of Regina became an autonomous institute. Up to the 1990s, the club was referred to as the Faculty Club, at which time the name changed to the University Club. The University Club was an upscale facility on campus and was the preferred venue to entertain university guests, faculty, and staff recruits, and to conduct special events. Although such services were available not far from the campus, the club was the only facility on campus, which made it convenient for the faculty and other university community members, especially in the cold winters. As the whole university was connected internally,

people from anywhere on campus could walk to the club without needing to put on their coat or boots in the coldest winter days—a huge benefit in Regina.

While the location was advantageous for those working on campus, it was not so for anyone from outside campus. The restaurant was located on the second floor in College West in an obscure location, making it difficult for outsiders to find. Parking was not free, and the paid parking lot was also quite far away. Restaurant space was also limited, with no room for expansion, and the kitchen space was tight and became hot when the stoves and the dishwasher were operating. Both the furniture in the dining area and the equipment were aging and would need to be replaced soon.

## THE FINANCIAL POSITION

As the statement of financial position and the income statement for the years 2007 through 2016, indicated, Taylor was concerned that net income was negative in seven out of these 10 years (see Exhibit 1). The university valued the services that the club provided to its faculty, guests, and the professionals working at several private organizations housed in the research park on campus. Therefore, the university subsidized these losses by writing off the accounts payable. The most recent write-off occurred in 2009, when the university wrote off all outstanding debts owed to it by the club. However, the Saskatchewan government's budget deficit of over \$1.5 billion<sup>1</sup> reduced university funding by 3.5 per cent. With this financial crunch, the university was no longer able to subsidize the club's shortfalls.

Taylor noted that the gross income in these 10 years ranged from \$500,000 to \$700,000. This seemed to be an anomaly to Taylor—negative net income despite a sizeable positive gross income. She wanted to dig deeper by performing a detailed ratio analysis.

## FINANCIAL RATIO ANALYSIS

Financial ratios were calculated from the financial statements of a business and provided a picture of the financial health of the company. These ratios could be divided into several categories based on the type of information they provided.

### Liquidity Ratios

Liquidity ratios, which provided information about the ability of the business to meet its short-term liabilities, included the current ratio and the quick ratio.

#### Current Ratio

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

If the current ratio fell below 1, the business did not have enough short-term resources to meet its current liabilities and was insolvent.

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<sup>1</sup> All currency in Canadian dollars.

### Quick Ratio

$$\text{Quick ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

Since the inventory was the most illiquid current asset, a more conservative liquidity ratio could be calculated by excluding inventory from the current assets. The quick ratio for any business would always be lower than the current ratio.

### **Activity Ratios**

The activity ratios, which provided information on how well the business was managing its assets, included the total asset turnover ratio, the receivables turnover ratio, and the inventory turnover ratio.

### Total Asset Turnover

$$\text{Total Asset Turnover} = \frac{\text{Total Operating Revenue}}{\text{Average Total Assets}}$$

This ratio depended on the asset configuration of the business. If the business had a higher level of fixed assets, the ratio would be low and vice versa.

### Receivables Turnover

$$\text{Receivables Turnover} = \frac{\text{Total Operating Revenue}}{\text{Average Account Receivable}}$$

Receivables turnover could be transformed into average collection period, measured in days. This more direct measure was easy to comprehend and compare.

$$\text{Average Collection Period} = \frac{\text{Days in Period (365 for annual)}}{\text{Receivables Turnover}}$$

The average collection period should have been close to the limit specified in the credit terms of the business. For example, if the credit terms of a business allowed 30 days' credit sales, the average collection period would be close to 30; if it was significantly higher than 30, it indicated a problem.

### Inventory Turnover

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Inventory turnover would have been high for a business like a grocery store and low for a business that sold specialized in farm equipment.

Inventory turnover could also have been transformed into a more direct and easily comprehensible measure called “days in inventory,” which was calculated as follows:

$$\text{Days in Inventory} = \frac{\text{Days in period (365 for annual)}}{\text{Inventory Turnover}}$$

### Financial Leverage Ratios

The financial leverage ratios provided information about the level of debt financing employed by a business and also its ability to service that debt. The leverage ratios that Taylor wanted to calculate and analyze included the debt ratio, the debt-to-equity ratio, and the interest coverage ratio.

#### Debt Ratio

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

If this ratio was high, the firm was highly leveraged and employed a relatively higher amount of debt financing. Higher leverage was associated with a higher level of risk because it increased the fixed cost in terms of interest payments.

#### Debt-to-Equity Ratio

$$\text{Debt-to-Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Debt-to-equity ratio also provided the same information as debt ratio and was high for highly leveraged firms.

#### Interest Coverage Ratio

$$\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Interest and Taxes}}{\text{Interest Expense}}$$

The debt ratio and debt equity ratio provided information about the level of debt financing employed by the business; however, the interest coverage ratio provided information about the ability of the business to fulfill its debt obligation in terms of making interest payments.

### Profitability Ratios

As the name suggested, the profitability ratios provide information about how profitable the business was, and included the gross and net profit margins.

### Gross Profit Margin

$$\text{Gross Profit Margin} = \frac{\text{Gross Income}}{\text{Total Operating Revenue}}$$

Gross income was calculated by subtracting the cost of goods sold from total operating revenues. This calculation provided an idea of the profitability of a business before accounting for overhead costs.

### Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Total Operating Revenue}}$$

Net profit margin provided an idea about what percentage of the sales revenue the business was able to convert into profits after covering all expenses and paying taxes.

### **Benchmarking**

The financial ratios above provided a set of numbers that needed to be benchmarked to provide useful information for deciding the future of the faculty club. Two types of benchmarks could have been used: cross-sectional and time series.

Cross-sectional analysis used the ratios of similar firms (firms within the same industry) as a benchmark at the same point in time. For example, a current ratio of 1.5 for the firm in question might raise a red flag if the ratio was 2.5 on average for the other firms in the same industry. The only comparable data available at the time were the average financial ratios of two other Canadian university clubs for the year 2015 (see Exhibit 2).

Time series analysis used the historical ratios of the same firm as the benchmark. For example, a current ratio of 1.45 could have been reason for concern if the firm's ratio had been around 2.2 over the previous five years.

### **Courses of Action**

The deliberations on the future of the club led the board to consider one of three courses of action. The first was to increase the membership fee. This would have been a reversal of a policy adopted a few years earlier, when the fee was reduced from a fixed percentage of salary to a fixed low monthly fee of \$10. The risk of this action was that more members would drop out, and total membership revenue would decrease. If the board chose to pursue this option, careful analysis would be required to come up with a fee figure that was sufficient to cover the club's losses.

The second course of action was to increase the number of members. A few years earlier, the board had attempted and failed to boost membership when it replaced the percentage-of-salary fee. Membership numbers could be increased if membership were made mandatory for all faculty members. However, such a decision required faculty union approval, and the board was reluctant to go that route.

The third course of action was the most difficult and painful. It was to close the club. This decision would result in layoffs of long-term employees, who had over many years developed personal relationships with the faculty through excellent service. It would also be negatively received by the membership and the faculty in general, because the club provided valuable services that were not available elsewhere on campus.

## CONCLUSION

Taylor realized that the decision was not strictly financial. However, she strongly believed that the ratio analysis would reveal whether the club was viable, or could be made viable, without university subsidy. She was hopeful that she might identify issues hidden in the numbers, which if addressed properly, could help revitalize the club. With that conviction, she pulled all the numbers in her Microsoft Excel spreadsheet and set out to work.

## EXHIBIT 1: UNIVERSITY CLUB 10-YEAR STATEMENT SUMMARY OF FINANCIAL POSITION AND INCOME STATEMENT RESULTS

| Current Assets                                     | 2007            | 2008            | 2009           | 2010           | 2011           | 2012           | 2013           | 2014           | 2015           | 2016           |
|----------------------------------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Cash                                               | \$ 6,852.09     | \$ 31,086.99    | \$ 20,191.39   | \$ 86,280.23   | \$ 19,693.77   | \$ 22,587.26   | \$ 68,690.04   | \$ 19,413.71   | \$ 100,904.43  | \$ 25,070.41   |
| G.S.T. Paid                                        | \$ -            | \$ 65.93        | \$ 16.68       | \$ 86.34       | \$ 45.59       | \$ 17.07       | \$ (4.00)      | \$ 52.02       | \$ (52.10)     | \$ 12.78       |
| Accounts Receivable                                | \$ 96,868.09    | \$ 78,020.13    | \$ 56,204.26   | \$ 19,313.54   | \$ 123,343.67  | \$ 110,080.57  | \$ 107,439.61  | \$ 93,001.76   | \$ 65,713.22   | \$ 38,968.40   |
| Inventory *                                        | \$ 16,700.69    | \$ 17,807.14    | \$ 19,775.74   | \$ 22,865.45   | \$ 24,576.39   | \$ 24,943.24   | \$ 27,487.93   | \$ 22,186.18   | \$ 22,188.27   | \$ 19,946.68   |
| Others                                             | \$ 4,003.93     | \$ 12,209.62    | \$ 15,141.45   | \$ 14,852.12   | \$ 14,852.12   | \$ 14,852.12   | \$ 14,852.12   | \$ 51,182.24   | \$ 51,182.24   | \$ 51,859.06   |
| Total Current Assets (including Cash on hand)      | \$ 124,424.80   | \$ 139,189.81   | \$ 111,329.53  | \$ 143,397.68  | \$ 182,511.55  | \$ 172,480.25  | \$ 218,465.69  | \$ 185,835.90  | \$ 239,936.06  | \$ 135,857.32  |
| Fixed Assets                                       |                 |                 |                |                |                |                |                |                |                |                |
| Total Furniture Assets                             | \$ 66,104.65    | \$ 67,268.65    | \$ 74,805.99   | \$ 81,385.87   | \$ 86,135.89   | \$ 86,135.89   | \$ 87,342.26   | \$ 84,727.16   | \$ 84,727.16   | \$ 84,727.16   |
| Accumulated Depreciation - Furniture Assets        | \$ (66,104.65)  | \$ (67,268.65)  | \$ (71,846.23) | \$ (77,274.11) | \$ (82,282.48) | \$ (84,423.18) | \$ (86,503.39) | \$ (84,727.16) | \$ (84,727.16) | \$ (84,727.16) |
| Total Kitchen Assets (net of Depreciation)         | \$ 6,086.84     | \$ 6,361.98     | \$ 3,078.05    | \$ 2,891.27    | \$ 3,573.01    | \$ 5,767.02    | \$ 3,541.65    | \$ 12,044.14   | \$ 13,270.45   | \$ 5,802.99    |
| Total Other Equipment (net of Depreciation)        | \$ 1,372.75     | \$ 0.05         | \$ 552.57      | \$ 22,860.35   | \$ 24,234.35   | \$ 17,330.73   | \$ 11,916.48   | \$ 4,214.69    | \$ 2,392.38    | \$ 545.20      |
| Total Leasehold Improvements (net of Depreciation) | \$ 17,779.85    | \$ 10,238.13    | \$ 17,952.58   | \$ 10,405.80   | \$ 63,145.32   | \$ 54,706.91   | \$ 46,643.06   | \$ 41,155.70   | \$ 36,018.11   | \$ 29,322.46   |
| Uclub Van (net of Depreciation)                    | \$ 8,767.23     | \$ 14,123.45    | \$ 10,592.47   | \$ 7,061.54    | \$ 3,499.91    | \$ -           | \$ -           | \$ -           | \$ 916.95      | \$ -           |
| Inactive                                           | \$ (202.95)     | \$ 1,033.62     | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           |
| Total Fixed Assets                                 | \$ 33,803.70    | \$ 31,757.23    | \$ 35,135.44   | \$ 47,330.72   | \$ 98,306.00   | \$ 79,517.38   | \$ 62,940.06   | \$ 57,414.53   | \$ 52,597.89   | \$ 35,670.65   |
| Total Other Assets                                 | \$ 11,007.17    | \$ (541.69)     | \$ (1,976.81)  | \$ (8,065.76)  | \$ (704.58)    | \$ 6,456.55    | \$ 5,541.02    | \$ 4,332.53    | \$ 10,990.99   | \$ 11,359.98   |
| Total Assets                                       | \$ 169,235.67   | \$ 170,405.35   | \$ 144,488.15  | \$ 182,662.63  | \$ 280,112.97  | \$ 258,454.18  | \$ 286,946.77  | \$ 247,582.96  | \$ 303,524.95  | \$ 182,887.95  |
| Liabilities                                        |                 |                 |                |                |                |                |                |                |                |                |
| Total Current Liabilities                          | \$ 296,053.86   | \$ 310,082.75   | \$ 16,775.24   | \$ 58,706.94   | \$ 171,680.62  | \$ 159,622.29  | \$ 149,142.03  | \$ 148,168.43  | \$ 244,463.16  | \$ 166,970.29  |
| Total Liabilities                                  | \$ 296,053.86   | \$ 310,082.75   | \$ 16,775.24   | \$ 58,706.94   | \$ 171,680.62  | \$ 159,622.29  | \$ 149,142.03  | \$ 148,168.43  | \$ 244,463.16  | \$ 166,970.29  |
| EQUITY                                             |                 |                 |                |                |                |                |                |                |                |                |
| Total Equity                                       | \$ (126,818.18) | \$ (139,677.40) | \$ 127,712.91  | \$ 123,955.69  | \$ 108,432.35  | \$ 98,831.88   | \$ 137,804.74  | \$ 99,414.53   | \$ 59,061.78   | \$ 15,917.66   |
| Total Liabilities and Equity                       | \$ 169,235.67   | \$ 170,405.35   | \$ 144,488.15  | \$ 182,662.63  | \$ 280,112.97  | \$ 258,454.18  | \$ 286,946.77  | \$ 247,582.96  | \$ 303,524.95  | \$ 182,887.95  |

## EXHIBIT 1 (CONTINUED)

|                                    | 2007          | 2008         | 2009          | 2010          | 2011          | 2012         | 2013           | 2014          | 2015          | 2016         |
|------------------------------------|---------------|--------------|---------------|---------------|---------------|--------------|----------------|---------------|---------------|--------------|
| Revenue                            |               |              |               |               |               |              |                |               |               |              |
| Total Club Sales                   | \$ 193,105.42 | \$248,106.33 | \$ 309,160.57 | \$ 264,835.75 | \$ 258,988.22 | \$229,233.48 | \$ 184,926.18  | \$ 151,291.97 | \$ 161,008.14 | \$156,105.07 |
| Total Off Premise Catering         | \$141,854.02  | \$175,610.38 | \$ 208,800.94 | \$ 286,271.28 | \$ 246,142.30 | \$361,937.01 | \$ 474,080.17  | \$ 395,901.39 | \$ 416,818.83 | \$427,929.18 |
| Total on Campus Catering Sales     | \$285,096.77  | \$248,373.49 | \$ 320,060.96 | \$ 236,570.55 | \$ 212,121.32 | \$210,987.31 | \$ 223,879.09  | \$ 180,299.02 | \$ 234,868.98 | \$222,414.63 |
| Total Catering Sales in Club       | \$ 34,197.53  | \$ 38,325.30 | \$ 26,146.17  | \$ 76,798.41  | \$ 91,249.42  | \$ 79,423.05 | \$ 88,307.50   | \$ 85,682.76  | \$ 104,890.59 | \$103,456.89 |
| Other Revenue                      |               |              |               |               |               |              |                |               |               |              |
| Members Dues Sales                 | \$ 57,492.03  | \$ 58,232.10 | \$ 60,311.22  | \$ 37,063.61  | \$ 38,109.98  | \$ 40,562.43 | \$ 39,014.57   | \$ 35,019.66  | \$ 33,433.71  | \$ 33,904.21 |
| Subsidy for Dues Shortfall         | \$ -          | \$ -         | \$ -          | \$ 8,531.98   | \$ 11,370.00  | \$ 10,581.27 | \$ 9,865.51    | \$ 11,370.00  | \$ 11,370.00  | \$ 11,370.00 |
| Liquor Tax Commission              | \$ 303.06     | \$ 228.04    | \$ 289.49     | \$ 335.21     | \$ 359.88     | \$ 393.17    | \$ 393.96      | \$ 305.97     | \$ 332.09     | \$ 340.33    |
| Other Income                       | \$ 2,803.50   | \$ -         | \$ 364.10     | \$ 34.11      | \$ -          | \$ -         | \$ 572.38      | \$ -          | \$ -          | \$ -         |
| Total Other Revenue                | \$ 60,598.59  | \$ 58,460.14 | \$ 60,964.81  | \$ 45,964.91  | \$ 49,839.86  | \$ 51,536.88 | \$ 49,846.42   | \$ 46,695.62  | \$ 45,135.81  | \$ 45,614.54 |
| Total Revenue                      | \$714,852.32  | \$768,875.64 | \$ 925,133.46 | \$ 910,440.90 | \$ 858,341.13 | \$933,117.74 | \$1,021,039.36 | \$ 859,870.77 | \$ 962,722.35 | \$955,520.31 |
| Total Cost of Goods Sold           | \$199,751.67  | \$206,920.11 | \$ 236,001.85 | \$ 230,585.91 | \$ 184,985.83 | \$214,445.82 | \$ 208,807.90  | \$ 183,851.73 | \$ 216,956.53 | \$215,505.47 |
| Gross Income                       | \$515,100.65  | \$561,955.53 | \$ 689,131.61 | \$ 679,854.99 | \$ 673,355.30 | \$718,671.92 | \$ 812,231.46  | \$ 676,019.04 | \$ 745,765.82 | \$740,014.85 |
| Expenses                           |               |              |               |               |               |              |                |               |               |              |
| Total Selling and General Expenses | \$101,614.14  | \$104,157.57 | \$ 129,375.92 | \$ 119,461.77 | \$ 127,393.66 | \$140,960.08 | \$ 145,315.42  | \$ 90,040.42  | \$ 130,133.12 | \$130,565.89 |
| Total Administration Charges Bonus | \$406,670.69  | \$462,463.66 | \$ 510,881.09 | \$ 565,598.86 | \$ 561,647.16 | \$587,312.31 | \$ 624,561.30  | \$ 624,368.84 | \$ 655,985.44 | \$652,593.08 |
| Total Operating Expenses           | \$508,284.83  | \$566,621.23 | \$ 640,257.01 | \$ 685,060.64 | \$ 689,040.83 | \$728,272.39 | \$ 769,876.72  | \$ 714,409.25 | \$ 786,118.56 | \$783,158.97 |
| Net Income                         | \$ 6,815.81   | \$ 4,665.70  | \$ 48,874.59  | \$ 5,205.64   | \$ 15,685.53  | \$ 9,600.46  | \$ 42,354.74   | \$ 38,390.21  | \$ 40,352.74  | \$ 43,144.12 |

Note: G.S.T. = goods and services tax; \* Inventory includes food and liquor. The numbers are fictional but representative.

Source: University of Regina Club Annual Reports.

**EXHIBIT 2: AVERAGE RATIOS FOR THE TWO OTHER CANADIAN UNIVERSITY CLUBS**

|                           | Average Comparable |
|---------------------------|--------------------|
| Current ratio             | 1.11               |
| Quick ratio               | 0.97               |
| Total asset turnover      | 1.50               |
| Receivable turnover       | 8.07               |
| Average collection period | 45.48              |
| Inventory turnover        | 13.10              |
| Days in inventory         | 27.86              |
| Debt ratio                | 0.31               |
| Debt-to-equity ratio      | 0.44               |
| Gross profit margin       | 0.67               |
| Net profit margin         | -0.02              |

Source: Financial statements of two other Canadian university clubs (provided to the authors in confidence); numbers have been altered to maintain privacy.