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9B18N008

yates control systems: will the bank make the loan?

David House wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

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In early April 2017, Emily McLoud, the newly-appointed business account manager at the Confederation Bank of Canada’s branch in London, Ontario, was reviewing her most recent loan request. Katherine Yates, president of Yates Control Systems (YCS), an engineering company focused on providing automation solutions for manufacturing companies, had requested a CA$1,500,000[[1]](#footnote-1) loan to fund the purchase of a new facility as part of a strategic expansion plan.

Yates had been a client of the bank for many years and was expecting a decision to be made about the loan within the next few days; otherwise, YCS’s expansion could be delayed. However, granting the loan would have to be financially feasible for the bank. McLoud noted that YCS had a line of credit of $50,000 from the bank that had not been used in several years. She would need to ensure this credit limit would still be sufficient.

THE INDUSTRY

Control systems engineering was an area of technology typically studied in electrical engineering. It used various sensors to measure outputs and provided feedback by applying mathematical models to control a range of devices. Control systems were used virtually everywhere in the modern world, including in in-home heating and air conditioning, car engines, factory automation, and nuclear power plants. The worldwide control systems market had been growing at a rate of 3.9 per cent, with total revenues anticipated to be US$27 billion by 2019.[[2]](#footnote-2) The industry consisted of many large and small players that often focused on a specific application where they had developed expertise. Some of the larger companies in the industry included ABB, Emerson Electric Co., Honeywell International Inc., and Siemens AG.

The Canadian economy as a whole was expected to grow by less than 3 per cent in 2016 and 2017. Manufacturing was enjoying increased demand from the United States due to a relatively low Canadian dollar. There was some uncertainty in future growth due to low oil prices and a plan by Canada’s largest trading partner, the United States, to renegotiate the North American Free Trade Agreement. The United States’ plan to exit international environmental agreements also created future uncertainty for the Canadian economy.

COMPANY BACKGROUND

Yates Control Systems

Yates graduated in 1998 from McMaster University in Hamilton, Ontario with a degree in electrical engineering. After graduation, Yates began working for RWC Solutions, a small engineering company in St. Catharines, Ontario that designed, installed, and serviced automation for small and medium-sized manufacturing companies. She found the work hectic but enjoyed working with the various customers and being involved in a wide variety of projects. It was an excellent learning experience. After four years, Yates had gained enough experience to obtain a licence to practise professional engineering, which allowed her to do engineering work without supervision.[[3]](#footnote-3)

Soon after receiving her licence, Yates began to think about starting her own business. With financial help from her family and an equity investment from Brandon Wood, a friend from university, she launched YCS in Mississauga, Ontario. The company focused on providing control systems and automation for manufacturing companies. The first few years of the business were tough. Yates had ethical concerns about pursuing the clients she had worked with at RWC Solutions and found that obtaining new clients was more difficult than she had anticipated. At the outset, Yates and one technician were the only employees of YCS. In 2012, the company received a loan of $750,000 from the Confederation Bank of Canada to purchase additional equipment.[[4]](#footnote-4) By 2016, the business had grown to 45 employees and had almost $10 million in annual sales. See Exhibits 1 to 5 for historical financial statements.

As the business grew, Yates found it difficult to recruit experienced employees and decided it was more financially viable to hire recent university engineering graduates because of their lower salary expectations. As a result, many of the employees at YCS had been with the company their entire careers. They were young, energetic, and creative. The company worked only one shift, but overtime was often expected to ensure projects were completed on time.

The company’s marketing was based on direct sales, and during the early years of the company, Yates did all sales in addition to engineering work. As YCS’s customer base grew and more engineers were hired, Yates found herself almost exclusively involved in the marketing portion of the business. Over the years, YCS had developed a reputation for excellent quality and outstanding service, which created positive word of mouth. As a result, sales had grown significantly.

YCS’s customers were typically located in the Greater Toronto Area and in the cities of Kitchener-Waterloo, Cambridge, and Guelph in Southwestern Ontario. Most were manufacturers looking to improve efficiency through automation and better control of their processes. Typically, several engineering controls companies bid on the work. To get their business, YCS needed to provide competitive pricing and above average, ongoing service.

Current Situation

With its focus on continuous improvement in engineered systems, YCS had been successful at providing clients with technical solutions. Yates reflected that things had not always gone as well administratively. A lack of focus in business systems had led to disorganized accounting systems, which in turn had resulted in several late payments to utilities and suppliers. Although payment terms were 60 days, customer invoices were often slow to be issued after projects were completed, and action was seldom taken if customer payments were late.

Additionally, Yates and her silent partner Wood had often disagreed on the company’s strategic direction, which had led to some heated arguments, slowed decision making, missed bidding on at least one customer tender.[[5]](#footnote-5)

The Loan Request

YCS had outgrown its current rented premises. Yates located a property for sale that she believed had enough room to accommodate the company’s increasing sales, the associated equipment, and inventory requirements. The new location would also provide sufficient office space to house more staff. She planned to hire two more accounting employees to help improve the performance of company accounts receivable and payable. She expected this would add to administrative expenses by $105,000 annually.

The cost of the property was $2,000,000, comprised of $1,300,000 for the building—including the cost of some expected renovations—and $700,000 for the land.[[6]](#footnote-6) Yates planned to fund $500,000 of this by the business internally and to borrow the remaining $1,500,000 from the bank. Repayment terms were $200,000 each year, and it was expected that interest payments would increase by $80,000 above the current payments each year.

Financial Projections

Although sales were sometimes difficult to predict, Yates estimated YCS would grow by 10 per cent each year for the next two years. She believed a new agreement with some of her major suppliers would reduce the cost of goods sold to 2014 levels. This agreement was contingent upon making payments within 30 days.

Yates predicted that with the new accounting employees, YCS would be able to reduce the accounts receivable age to 60 days. Although she believed that allowing customers longer payment periods gave YCS a competitive advantage, Yates wanted to follow YCS’s contracted terms. To stay at the forefront in controls technology, Yates planned to increase spending on research and development to 5 per cent of sales, starting in 2018.

Yates also planned to increase the company dividend payments to $500,000 in each of the next two years. The increase was necessary as part of an internal agreement between Yates and Wood.

DECISION TIME

McLoud considered the information Yates had provided with the loan request. Yates was a long-time customer of the bank and had built a successful business. Still, this was the largest loan approval request McLoud had handled since her promotion to business account manager, and she wanted to ensure she made the best decision. With only a few days left, McLoud began a final review of the documents.

**EXHIBIT 1: YCS STATEMENTS OF EARNINGS, For the Years Ending July 31**

**2016 2015 2014**

Net Sales $9,581,949 $9,390,310 $9,296,407

Cost of Sales 6,426,582 6,225,776 6,117,036

Gross Profit $3,155,367 $3,164,534 $3,179,371

Operating Expenses:

Administrative $965,589 $966,981 $963,544

Miscellaneous 241,300 225,367 241,707

Research & Development 256,300 272,319 278,892

Sales & Marketing 377,380 369,833 381,153

Rent 160,854 160,854 160,854

Depreciation 111,855 99,934 99,934

Total Operating Expenses $2,113,279 $2,095,288 $2,126,083

Operating Income $1,042,088 $1,069,246 $1,053,288

Other Income $12,195 $6,387 $6,885

Interest and Bank Charges $38,517 $39,114 $40,811

Net Income before Taxes $1,015,766 $1,036,519 $1,019,362

Taxes 248,734 230,891 224,260

Net Income (Loss) $767,033 $804,339 $795,102

Note: All amounts are in CA$.

Source: Created by the case author using data from company files.

**EXHIBIT 2: YCS STATEMENTS OF RETAINED EARNINGS, For the Years Ending July 31**

**2016 2015 2014**

Beginning Retained Earnings $3,346,085 $2,881,812 $2,377,026

Add: Net Income 776,033 804,339 795,102

Less: Dividends 335,206 340,066 290,316

Ending Retained Earnings $3,777,912 $3,346,085 $2,881,812

Note: All amounts are in CA$.

Source: Created by the case author using data from company files.

**EXHIBIT 3: YCS BALANCE SHEET, As at July 31**

**2016 2015 2014**

**ASSETS**

Current Assets

Cash $12,306 $15,772 $33,205

Accounts Receivable 2,047,376 1,697,974 1,502,707

Inventory 1,563,464 1,552,180 1,424,515

Pre-paid Expenses 53,012 55,016 51,364

Total Current Assets $3,676,128 $3,320,942 $3,011,791

Fixed Assets

Equipment and Leaseholds $2,487,382 $2,254,618 $1,986,479

Less: Accumulated Depreciation 1,083,325 971,470 871,536

Net Fixed Assets $1,404,057 $1,283,148 $1,114,943

Intangible Assets $54,975 $54,975 $54,975

**TOTAL ASSETS** $5,135,130 $4,659,035 $4,181,679

**LIABILITIES**

Current Liabilities

Line of Credit ($50,000) $0 $0 $0

Accounts Payable 808,091 661,454 543,916

Customer Deposits 88,807 85,444 86,711

Accrued Expenses Payable 76,575 77,303 75,489

Current portion of LTD 105,003 105,003 105,003

Total Current Liabilities $1,078,476 $929,204 $811,119

Long-Term Debt $253,742 $358,745 $463,748

Total Liabilities $1,332,218 $1,287,949 $1,274,867

**EQUITY**

Capital, Brandon Wood $10,000 $10,000 $10,000

Capital, Katherine Yates 15,000 15,000 15,000

Retained Earnings 3,785,368 3,341,620 2,881,812

Total Shareholders’ Equity $3,814,833 $3,371,085 $2,906,812

**TOTAL LIABILITIES**

**AND EQUITY** $5,135,130 $4,659,034 $4,181,679

Note: All amounts are in CA$; LTD = long-term debt; the line of credit and long-term loan were secured using company assets

Source: Created by the case author using data from company files.

**EXHIBIT 4: STATEMENT OF YSC CASH FLOWS, For the Years Ended July 31 (in CA$)**

**2016 2015**

**OPERATIONS**

Net Earnings $ 767,063 $ 804,339

Adjustment to Cash Basis:

Depreciation $ 111,855 $ 99,934

Accounts Receivable (349,402) (195,267)

Inventory (11,284) (127,665)

Pre-paid Expenses 2,004 (3,652)

Accounts Payable 146,637 117,538

Customer Deposits 3,363 (1,267)

Accrued Expenses Payable (728) 1,814

**Net Cash Flow from Operations** $ 669,508 $ 695,774

**FINANCING**

Line of Credit - -

Long-Term Debt $ (105,003) $ (105,003)

Dividends (335,206) (340,066)

**Net Cash Flow from Financing Activities $** (440,209) $ (445,069)

**INVESTING**

Fixed Assets & Leasehold Improvements $ (232,764) $ (268,139)

**Net Cash Flow from Investing Activities $** (232,764) $ (268,139)

Net Cash Flow $ (3,465) $ (17,434)

Beginning Cash, August 1 15,771 33,205

Ending Cash, July 31 $ 12,306 $ 15,771

Note: All amounts are in CA$.

Source: Created by the case author using data from company files.

**EXHIBIT 5: RATIO ANALYSIS**

**2016 2015 2014** **Industry**

**PROFITABILITY**

Vertical Analysis

Sales 100.0% 100.0% 100.0%

Cost of Sales 67.1% 66.3% 65.8%

Gross Profit 32.9% 33.7% 34.2% 29.9%

Operating Expenses:

Administrative 10.1% 10.3% 10.4%

Miscellaneous 2.5% 2.4% 2.6%

Research & Development 2.7% 2.9% 3.0%

Sales and Marketing 3.9% 3.9% 4.1%

Rent 1.7% 1.7% 1.7%

Depreciation 1.2% 1.1% 1.1%

Total Operating Expenses 22.1% 22.3% 22.9% 20.6%

Other Income 0.1% 0.1% 0.1%

Interest and Bank Charges 0.4% 0.4% 0.4%

Tax 2.6% 2.5% 2.4%

Net Income 8.0% 8.6% 8.6% 6.6%

Return on Equity 20.1% 23.9% 27.4%

**LIQUIDITY**

Current ratio 3.41:1 3.57:1 3.71:1 1.29:1

Acid test 1.91:1 1.84:1 1.89:1 0.87:1

Working capital (in CA$) $2,597,652 $2,391,738 $2,200,672

**EFFICIENCY**

Age of Accounts Receivable in Days 78 66 59 65

Age of Accounts Payable in Days 46 38 32 52

Age of Inventory in Days 89 91 85

**STABILITY**

Net Worth/Total Assets 74.3% 72.4% 69.5%

Interest Coverage 27.4× 27.5× 26.0×

**GROWTH 2015–2016 2014–2015**

Sales 20.4% 10.1%

Net Income (4.6)% 1.2%

Total Assets 10.2% 11.4%

Equity 12.8% 11.4%

Source: Created by the case author using data from company files.

1. All currency amounts are in CA$ unless specified otherwise; CA$1 = US$0.7515 on April 1, 2017. [↑](#footnote-ref-1)
2. “Research and Markets: Global Control Systems Industry Guide 2014,” *Investment Weekly News*, December 20, 2014. [↑](#footnote-ref-2)
3. In addition to an engineering licence, a Certificate of Authorization from Professional Engineers Ontario was required for a business to offer engineering services to the public. [↑](#footnote-ref-3)
4. This loan was secured against company assets. [↑](#footnote-ref-4)
5. A tender was a written invitation from a buyer to potential suppliers of a product or service to bid on a job by providing pricing, timelines, and other relevant information. [↑](#footnote-ref-5)
6. Building and renovation costs depreciated over 15 years. [↑](#footnote-ref-6)