

Intermediate Management Accounting Project Details

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PROJECT DETAILS

“Adding time to your day” is the slogan of Holzmann Cleaning Services (HCS). The company was started by Gretel, who began offering cleaning services to support herself while she was in university studying for a business degree. At the age of 21 she was determined to be known as more than a simple labourer who needed to fund her education. She researched different cleaning products and methodologies to deliver a fast and thorough service to her clients.

Ten years later, the business has grown in size and has expanded throughout the city and local rural areas. Gretel is the majority shareholder of the private corporation with two other shareholders. The company consists of a full-time staff of three operations managers (one for commercial operations and two for residential operations), an administrative staff of three, and part-time cleaning staff of over 200 university students, called cleaning agents. Not only is Gretel able to provide high-quality cleaning services to her clients, but she is also able to offer university students part-time work, reducing the need for student loans.

The company also owns a fleet of three vans that are used to transport cleaning agents to and from work sites. A fourth van is available for the operations managers to make site visits if necessary.

Gretel’s training regimen is thorough as potential hires are trained in the areas of cleaning products, effective cleaning methods and acceptable deportment when entering a client’s residence or place of business. Through this training process, which Gretel carries out herself, she is able to hire only those individuals she feels would provide the high-quality service that keeps clients coming back.

Recently, Gretel engaged Martine, a CPA and a local consultant, to review the latest operating statement. Gretel is discouraged with the 20X6 profit margin (Exhibit 1). Additionally, she is concerned with the cash flow as there are seasonal fluctuations in the work, with more work in the months of March and April when many homeowners request more hours for spring-cleaning chores. As such, Gretel must ensure that there is enough cash on hand to build cleaning supplies inventories and pay for training of any new recruits required to handle the extra work. Other than springtime, cleaning supplies inventory on hand is minimal.

She is hoping that Martine will provide some guidance that will help the company attain its profit margins. She has called a meeting with Martine, Sam, the operations manager of commercial operations and Ling, one of the operations managers of residential operations.

GRETEL: I thought we had a pretty good year; sales were up, and we've had great reviews. Yet when I look at the bottom line, the profit margin is only 9%. I was hoping for at least 12%. According to industry statistics, the profit margins should be at least 25%. The other issue is that we were short on cash in the late summer.

MARTINE: Have there been any significant changes in the operations in the past year?

LING: I've noted that we're taking on more residential clients outside the city. I've had to make sure that we schedule in more travel time to reach the destination on time.

SAM: And don't forget that at the request of a majority of our commercial clients, we've included more eco-friendly cleaning products. It helps boost their image of being socially responsible.

MARTINE: I can imagine that this has increased both your travel and cleaning supplies costs. How do you currently cost out your services and how do you arrive at a charge-out rate?

GRETEL: We treat the wage costs of our cleaning agents as direct costs. The cost of cleaning supplies, transportation and operations managers' salaries are considered overhead. We apply the overhead at \$10 per direct labour hour and add on an additional 60% to arrive at our charge-out rate.

MARTINE: Have you ever taken an activity-based approach to costing your services? Besides the increase in cleaning supplies' costs, are there some other significant differences in the costs consumed by your commercial clients versus the costs consumed by your residential clients?

LING: Well, I've had a bit of free time on the residential side so I've helped Sam out on occasion with the commercial side. I've noted that most of the commercial clients are clustered around the downtown core. So it takes less time to travel there.

GRETEL: Because our commercial clients have in-house accounts payable departments, we usually only bill them once per month. While our more recent residential clients are on monthly billing, we still have some that are on weekly billing. However, you should note that we spend almost three times more hours training cleaning agents who work for our commercial clients than training those who work for our residential clients. Part of the reason is that eco-friendly products require more application knowledge.

MARTINE: So I understand that the operations managers are not that busy on the residential side? What's the breakdown between residential and commercial clients?

GRETEL: We have about 120 regular commercial clients. They account for 60% of the revenue, even though they amount to less than half of the clients. As for the residential side, I'm not sure we require both full-time operations managers. Alex has gone home early on some days because there was a shortage of work.

MARTINE: And are your cash disbursements pretty much in line with your revenues?

GRETEL: For the most part. Our major expenses are cleaning supplies and transportation, which mostly fluctuate with revenues, except for annual preventive maintenance on our vans, which takes place in the slower months of July and August. Oh, and one more thing: I would really like a solid way of giving a potential client a quote before we begin a contract with them. Right now, I measure the square metres and estimate how many hours it will take to complete the work. I multiply that by the direct labour hourly rate and then add on our \$10 overhead factor per direct labour hour and 60% for profit. Any ideas?

MARTINE: Let me work on this and get back to you with a full report.

In the week following the meeting, Martine spent time with Gretel, the operations managers and the administrative staff. She developed the following:

- cost pools for indirect costs related to cleaning services along with the cost driver for each pool and activity breakdowns for residential and commercial clients (Exhibit 2)
- regression analyses summary results (Exhibit 3) to determine the statistical relationship between:
 - direct labour hours and transportation costs
 - direct labour hours and cleaning supplies costs
- details regarding expected growth for 20X7 (Exhibit 4)
- details regarding a typical commercial and residential client that could be used to develop quotes (Exhibit 5)
- details relating to cash collections and disbursements (Exhibit 6)

Exhibit 1

EXHIBIT 1							
Holzmann Cleaning Services – Report on Operations							
REVENUES AND EXPENSES	20X5	20X6	20X6 Budget	Variance from 20X5 actual		Variance from 20X6 budget	
Total revenue	728,910	819,000	778,050	90,090	12%	40,950	5%
Cost of sales							
Wages and benefits	233,747	292,184	277,575	58,437	25%	14,609	5%
Cleaning supplies	66,406	88,541	67,291	22,135	33%	21,250	32%
Transportation costs (including fuel, insurance, depreciation and maintenance)	23,619	30,281	25,890	6,662	28%	4,391	17%
Salaries of operations managers	116,000	120,000	118,000	4,000	3%	2,000	2%
Cost of sales (direct expenses)	439,772	531,006	488,756	91,234	21%	42,250	9%
Gross margin	289,138	287,994	289,294				
Operating expenses							
Administrative labour (training and billing)	175,750	185,000	166,500	9,250	5%	18,500	11%
Depreciation (excluding transportation vehicles)	2,703	2,350	2,303	(353)	(13%)	47	2%
Repairs and maintenance (excluding transportation)	881	890	872	9	1%	18	2%
Utilities and telephone/telecommunication	4,712	4,620	4,528	(92)	(2%)	92	2%
Rent	10,320	10,320	10,114	0	0%	206	2%
Interest and bank charges	998	1,050	1,029	52	5%	21	2%
Business fees	4,200	4,200	4,116	0	0%	84	2%
Advertising and promotion	1,890	2,520	2,470	630	33%	50	2%
Insurance (excluding transportation)	2,594	2,730	2,675	136	5%	55	2%
	204,048	213,680	194,607	9,632	5%	19,073	10%
Net operating profit/loss	85,090	74,314	94,687	(10,776)	(13%)	(20,373)	(22%)
	11.67%	9.07%	12.17%				

Exhibit 2**Cost pools and activities for activity-based costing analysis**

	Cost driver	Cost pool	Total activity	Commercial activity	Residential activity
Cleaning supplies commercial	Square metres	\$ 70,833	664,054	664,054	
Cleaning supplies residential	Square metres	\$ 17,708	442,703		442,703
Billing	Number of invoices	\$ 129,500	3,054	1,062	1,992
Transportation	Number of kilometres	\$ 30,281	53,124	15,937	37,187
Training	Number of hours	\$ 55,500	554	416	138
Operations management	Number of managers	\$ 120,000	3	1	2
Total expenses		<u>\$ 423,822</u>			

Exhibit 3**Summary results of regression analyses****Analysis of transportation costs and statistical relationship with direct labour hours
(Based on monthly information)**

TRANSPORTATION ANALYSIS USING LABOUR HOURS			
<i>Regression Statistics</i>			
Multiple R	0.370106959		
R Square	0.136979161		
Adjusted R Square	0.050677077		
Standard Error	205.6109076		
Observations	12		
<i>ANOVA</i>			
	<i>df</i>	<i>SS</i>	<i>MS</i>
Regression	1	67100.46346	67100.46346
Residual	10	422758.4532	42275.84532
Total	11	489858.9167	
<i>Coefficients</i>			
	<i>Standard Error</i>	<i>t-Stat</i>	
Intercept	2006.01049	414.9577567	4.8342523
Labour hours	0.280500299	0.222646934	1.25984353

Analysis of cleaning-supply costs and statistical relationship with direct labour hours (Based on monthly information)

CLEANING SUPPLIES COST ANALYSIS USING LABOUR HOURS			
<i>Regression Statistics</i>			
Multiple R	0.834454446		
R Square	0.696314222		
Adjusted R Square	0.665945644		
Standard Error	152.2094937		
Observations	12		
<i>ANOVA</i>			
	<i>df</i>	<i>SS</i>	<i>MS</i>
Regression	1	531207.6171	531207.6171
Residual	10	231677.2996	23167.72996
Total	11	762884.9167	
<i>Coefficients</i>			
	<i>Standard Error</i>	<i>t-Stat</i>	
Intercept	5922.619076	307.1846274	19.28032378
Labour hours	0.78922842	0.164820911	4.788399819

Exhibit 4**20X7 expected growth data****Change in dollars:**

Expected revenue growth (due to increase in charge-out rate to \$39 per hour)	8%
Expected increase in cleaning supplies costs due to increase in volume (residential and commercial)	7%
Expected increase in commercial cleaning supplies costs due to price increase	9%
Labour wage and benefit rate per hour	\$13.46
Expected increase in transportation costs	9%

Change in activity for ABC analysis:

Increase in overall square metres of cleaning	7%
Increase in number of invoices (commercial only, see option 2 below for residential)	5%
Increase total kilometres driven (30% of total kilometres relate to commercial clients)	8%
All other expenses will be unchanged.	

Cost reduction options:

1. Reduce operations management staff costs by putting one residential operations manager on half-time. This would reduce the total cost from \$120,000 to \$100,000.
2. Change all residential billing to monthly. This would reduce the number of residential invoices sent out by 10% from 20X6 activity.

Exhibit 5

Client data for contract quote development

According to Gretel, a cleaning agent is able to clean approximately 50 square metres per hour, on average.

Base the annual sales amount on 50 annual visits for commercial clients and a per-visit basis for residential clients. Use the following variable costs:

- Wages and benefits — see 20X7 budget and information in Exhibit 4 for hourly rates.
- Cleaning-supply costs — see 20X7 budget and information in Exhibit 4 for rate per square metre.
- Transportation costs — see 20X7 budget and information in Exhibit 4 for rate per kilometre.

Commercial client:

Typical commercial client details are as follows:

- square metres 1,950
- kilometres driven per visit (round trip) 20

Residential client:

Typical residential client details are as follows:

- square metres 232
- kilometres driven per visit (round trip) 25

Exhibit 6**Cash collection and disbursement activity**

	May	June	July	August	September	October
Sales revenue	\$85,100	\$62,900	\$67,155	\$49,210	\$50,875	\$68,265
Purchases of cleaning supplies	\$7,664	\$7,240	\$7,500	\$6,850	\$6,900	\$7,575
Transportation costs	\$2,022	\$1,904	\$2,323	\$2,377	\$1,327	\$1,475
Direct labour wages	\$30,360	\$22,440	\$23,958	\$17,556	\$18,150	\$24,354
Management salaries	\$25,417	\$25,417	\$25,417	\$25,417	\$25,417	\$25,417
General operating expenses	\$2,390	\$2,390	\$2,390	\$2,390	\$2,390	\$2,390

Cash collections:

Cash sales	25%
Credit collections:	
Amount collected in month of service	50%
Amount collected in month following service	30%
Amount collected in second month following service	15%
Uncollectable	5%

Cash disbursements:

Transportation	100%	Paid in month incurred
Cleaning supplies	60%	Paid in month incurred
	40%	Paid in month following
Direct labour	50%	Paid in month incurred
	50%	Paid in month following
Remaining expenses	100%	Paid in month incurred

Additional notes:

Depreciation included in monthly general operating expenses	\$ 196
Annual dividend payment to three shareholders, paid in August	\$8,000
Expected July 1 beginning cash balance	\$5,000