Finance Elective - Sample Examination Question - SOLUTION

## CASE \#1

## MARKING GUIDE THE GENTLEMAN'S QUARRY ASSESSMENT OPPORTUNITIES

## Assessment Opportunity \#1

The candidate prepares the semi-annual cash forecast and calculates the required cash call.
The candidate demonstrates competence in Management Accounting.
3.2.2 - Prepares, analyzes or evaluates operational plans, budgets and forecasts (Core Level A)
5.2.1 - Evaluates the entity's cash flow and working capital (Core Level A)

Semi-annual cash forecasts are prepared to determine if there are cash calls required to fund operations for the upcoming six months. The forecasts are as follows:

${ }^{1}$ We have assumed that sales generated in one quarter are paid in the following quarter (essentially averaging a three-month collection period). This is consistent with the prior quarter. Alternative reasonable assumptions could also have been made.
${ }^{2}$ We have assumed that accounts payable remain constant at $\$ 40,000$ over Q3 and Q4. Alternative reasonable assumptions could also have been made.

## Assessment Opportunity \#2

The candidate discusses the assumptions and concepts that underlie the cash flow forecast.
The candidate demonstrates competence in Management Accounting.
3.2.2 - Prepares, analyzes or evaluates operational plans, budgets and forecasts (Core Level A)
5.2.1 - Evaluates the entity's cash flow and working capital (Core Level A)

The following are some of the key assumptions and items to include in the forecast preparation.

## Revenue

Although Pike has a "gut feel" that there is going to be a $30 \%$ increase in sales in the next two quarters, there is no strong argument to justify this. The retail industry tends to slow down after the Christmas season, and there is little indication that attending trade shows will directly result in increased sales. Although higher sales would result in less funding required from Tarick, we should use a more realistic figure: the average of the first two quarters, given Q2 was influenced by the sales increase from the Christmas season.

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Q1 sales: $33,125
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Q2 sales: $\$ 41,875$
Average - assumed for Q3 and Q4: \$37,500

## Additional Costs

Pike is going to be incurring additional travel costs for trade shows. In addition, he plans to refresh the brand lines that his store offers, which would increase merchandise costs by $15 \%$.

Pike is also suggesting hiring one full-time and one part-time sales staff to increase the level of customer service at the store. Based on current labour costs for the three part-time staff, we would expect the additional part-time labour costs to be $\$ 1,750$ per quarter and full-time labour costs to be $\$ 10,500$ per quarter. Since there is no current sales manager overseeing the team, it is reasonable to continue to include Pike's salary as part of the cash forecast.

## [Note to Markers: Additional valid assumptions could be made for the cash flow effects of $A / R$ and/or $A / P$.

## Excluded Costs

Depreciation is a non-cash item and should not be included in the cash forecast.

## Cash Call Requirement

Based on the Q3 and Q4 cash forecasts, GQ would need approximately \$96,000, which includes a $10 \%$ cushion. This is substantially more than the $\$ 50,000$ that was invested at inception.

## Assessment Opportunity \#3

The candidate assesses the viability of the acquisition offer.
The candidate demonstrates competence in Finance.

### 5.4.2 - Applies appropriate methods to estimate the value of a business (Core Level B; moves to Level A in the Finance Elective)

Mr. Cocobas has offered to sell his business to Pike and Tarick at a figure equating to five times EBITDA. A quick calculation based on the financial statements presented by Mr. Cocobas indicates that this amount would total $\$ 375,000$ :

|  | FY2014 |  |
| :--- | ---: | ---: |
| 31-Dec-14 |  |  |$|$| Net income | 50,000 |
| :--- | ---: |
| Add: Interest | 10,000 |
| Add: Depreciation | 15,000 |
| Add: Taxes | 0 |
| EBITDA | 75,000 |
| Multiple | $\times 5$ |
| Purchase price | $\$ 375,000$ |

## Potential Adjustments

A multiple of five times EBITDA appears to be reasonable, although this is likely on the upper end of the range for a private business of this size. Esquine has been in business for 30 years, and it has been noted that its sales have stagnated recently. Therefore, we can assume that sales will be fairly consistent going forward.

However, there are a couple of "normalization adjustments" that should be considered when negotiating with Mr. Cocobas:

- Labour - Esquine had three full-time staff for its operation, and the total compensation appears to be $\$ 100,000$. The summary financial information indicates that a full-time staff member would cost $\$ 42,000$. Therefore, a more reasonable number for labour may be $\$ 126,000$.
- Security - Security costs amounting to $\$ 500$ per month will be incurred on an ongoing basis. As well, additional insurance costs of $\$ 2,700$ will be incurred ( $\$ 3,000$ less $10 \%$ ). Therefore, on an ongoing basis there will be an additional $\$ 8,700$ in related costs. Note that it may be possible to reduce the "shrinkage" expense of $\$ 25,000$ (which appears excessive) on Esquine's financial statements as a result of these expenditures. No reduction in these expenditures has been considered because we do not have enough information to assess the impact.
- Theft - The theft of $\$ 5,000$ is not expected to occur every year and, thus, should be added back to EBITDA. Given the information provided, one can assume that any shrinkage provisions have already been built into the figures provided by Mr. Cocobas.

These normalization adjustments should be discussed with Mr. Cocobas. Assuming that these adjustments are accepted, than the revised purchase price would be as follows:

|  | FY2014 <br> 31-Dec-14 |  |
| :--- | ---: | ---: |
| EBITDA - original | $\$ 85,000$ |  |
| Less: Additional salaries |  | $(26,000)$ |
| Less: Additional security | $(8,700)$ |  |
| Add: Theft | 5,000 |  |
| EBITDA - revised | 45,300 |  |
| Multiple | $\times 5$ |  |
| Purchase price | $\$ \quad 226,500$ |  |

## Assessment Opportunity \#4

The candidate calculates key financial ratios and compares them against competitor information.

The candidate demonstrates competence in Finance.

### 5.1.1 - Evaluates the entity's financial state (Core Level A)

Esquine is a prime example against which to compare GQ's key financial ratios due to two factors:

1) Esquine has been identified as a model retail store.
2) Esquine sells the same type of merchandise as GQ and is in the same market from both a demographical and a geographical standpoint.

## Current Ratio

The current ratio measures a company's liquidity or working capital by identifying the amount of current assets available to cover current liabilities. This is used by organizations to determine whether their short-term assets are readily available to pay off their short-term liabilities.

| GQ | Esquine |  |
| :--- | :--- | :--- |
| Q2 2013 | Q1 2013 | FY2013 |
| 2.44 | 1.96 | 3.49 |

## Quick Ratio

The quick ratio further refines the current ratio by measuring the amount of the most liquid current assets available to cover current liabilities through exclusion of the inventory balance.

| GQ | Q1 2013 | Esquine |
| :--- | :--- | :--- |
| Q2 2013 | 1.38 | FY2013 |
| 1.63 | 2.36 |  |

## Inventory Turnover

This is a ratio showing how many times a store's inventory is sold and replaced over a period. The higher the turnover amount, the more often the merchandise is being sold, a key measure for retail stores that have seasonal merchandise.

| GQ | Qsquine |  |
| :--- | :--- | :--- |
| Q2 2013 ${ }^{1}$ | Q1 2013 $^{1}$ | FY2013 |
| 3.15 | 5.86 | 2.09 |

${ }^{1}$ Because these numbers relate to quarterly figures, the amounts have been annualized to allow for comparison.

## Accounts Receivable Turnover

This is a performance measure used to quantify a company's effectiveness in collecting debts. By extending credit through accounts receivable, companies are essentially extending interestfree loans to their customers, and a higher figure indicates a quicker collection of these interestfree loans.

| GQ | Esquine |  |
| :--- | :--- | :--- |
| Q2 2013 |  |  |
|  |  |  |
| 3.87 (94 days) | Q1 2013 | ¹ |
| 1.71 (64 days) | FY2013 |  |

${ }^{1}$ Amounts are calculated based on annual sales of $\$ 150,000$, which represents twice the actual sales for the first two quarters of operation.

## Gross Margin Percentage

This represents a company's markup on its products. In the case of GQ and Esquine, there are no direct labour costs involved in producing the goods, so merchandise costs are the only component of the cost of goods sold.

| GQ | Esquine |  |
| :--- | :--- | :--- |
| Q2 2013 | Q1 2013 | FY2013 |
| $39 \%$ | $23 \%$ | $58 \%$ |

## Sales per Square Foot

This measure is a common sales metric used in the retail industry. Sales per square foot is the average revenue a retail store creates for every square foot of sales space.

| GQ |  | Esquine |
| :---: | :---: | :---: |
| Q2 $2013{ }^{1}$ | Q1 $2013{ }^{1}$ | FY2013 |
| \$558.33 | \$441.67 | \$687.50 |

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## Assessment Opportunity \#5

The candidate analyzes the key financial ratios and compares them against competitor information.

The candidate demonstrates competence in Finance.

### 5.1.1 - Evaluates the entity's financial state (Core Level A)

## Current Ratio

The metric shows that GQ has enough short-term assets to cover its short-term payables, and there has not been significant movement quarter over quarter. GQ is not in as comfortable a working capital position as Esquine. A significant portion of GQ's working capital is tied up in accounts receivable due to its policy of extending credit. Therefore, it may not be as liquid as it appears.

## Quick Ratio

Excluding inventory from the ratio, we can see that GQ's working capital gets tighter, meaning it could be at risk of not paying off its short-term liabilities when they become due. GQ's management should be concerned because this can lead to unnecessary interest costs, less-than-positive relationships with current vendors, and poor credit when applying with new vendors. However, the ratio is still above 1.0, which is positive.

## Inventory Turnover

GQ has done a good job of moving its inventory, compared with Esquine. It may also be possible that GQ is actually losing sales due to a lack of sufficient inventory on-hand, assuming that Esquine's inventory levels are appropriate.

## Accounts Receivable Turnover

Esquine is clearly outperforming GQ in collecting its debts and is more on par with what the turnover figure should be for a retail company. GQ's low ratio (high number of days) implies its management should reassess its credit policies in order to ensure the timely collection of sales. Note that although GQ's policy stipulates 60 days, it is clear that customers are not paying within this time frame, since the actual "days sales" in accounts receivable is over 90 days at the end of December. Although GQ has done this to differentiate itself in the customer service space, the practice is not common in the retail apparel industry and has resulted in reduced liquidity. A higher cash-on-hand balance may also alleviate some of the pressure on Tarick to provide cash calls.

## Gross Margin Percentage

This potentially indicates several things:

1) GQ may not be efficiently managing its merchandise in the sales process.
2) GQ may be underpricing its goods relative to Esquine and the industry.
3) GQ may be purchasing its merchandise at costs higher than those of its competitors. This would not be surprising, given the company's short time in the market and its inability to build vendor relationships during that time.

## Sales per Square Foot

Without knowing the exact price points of the apparel that each store sells, it may not be appropriate to use this comparison. However, given that the two properties are within the same vicinity and selling the same type of merchandise, we may expect similar figures between the two stores. If that is the case, we can see that GQ is not managing its sales space to create sales as efficiently as Esquine.

Overall, GQ does not appear to be operating as efficiently or as profitability as Esquine. Of particular concern is the money that is tied up in accounts receivable, which GQ does not seem to be managing appropriately given its credit policy.

## Assessment Opportunity \#6

The candidate identifies that GQ is a financially troubled entity and provides long-term recommendations for recovering the business.

The candidate demonstrates competence in Finance.

### 5.2.1 - Evaluates the entity's cash flow and working capital (Core Level A)

5.6.2 - Advises a financially troubled business (Core Level B; moves to Level A in the Finance Elective)

From the development of the semi-annual cash forecast and a review of operations during the first two quarters, it is evident that GQ is in a financially difficult situation. Even if we assumed Pike's optimistic $30 \%$ sales increase to be accurate, this would not be enough to bring the cash flows to a positive figure for the first year. After reviewing these figures, we determined that Pike needs to make several business decisions to ensure GQ does not run into further financial difficulties in its second year and beyond.

## Forego Acquisition Offer

As determined earlier, the purchase price of the acquisition would be somewhere between $\$ 225,000$ and $\$ 375,000$, which is too much right now for GQ to justify. Given it is in its first year and under tight cash management, the last thing it should be doing is including another store in its portfolio to manage. GQ should focus on getting its initial store stabilized before making any large decisions, and even then, it should visit the various financing alternatives that may be available for it, should Pike decide to further explore opportunities such as this.

## Track Key Performance Metrics

There are typical small retail industry ratios that GQ can start to track to measure how well it is performing and whether any changes are required. Note that financial ratios alone are not sufficient indicators of performance, but they provide a foundation that should be maintained to track trends and manage financial resources. Some of the key performance metrics have already been discussed, and it is important for GQ to use a relevant benchmark with which to compare them. Usually a similar company in terms of industry, size, geography, and demographics is a good place to start to find comparative data.

Implement a Stronger Collection Policy
Currently the collection of accounts receivable is abysmal. In the retail apparel industry, there is no need to extend sales to 60 days. This may not be necessary since most customers will pay via credit card and, therefore, will already be purchasing goods on credit (in other words, GQ can use credit card companies to finance these amounts from customers). Although GQ has implemented this policy to improve customer service, it has tracked no key metrics to identify whether this has been effective. We can already observe from the financial data that this policy has had a significant negative effect on cash flows. In addition, the infancy of the operations does not lend itself to implementing this type of policy since GQ is still learning about its customers and who it can and should extend credit to. We suggest collecting any outstanding receivables and discontinuing this policy so that GQ has more cash at hand to pay any immediate payables and bills.

## Cut Down on Unnecessary Costs

Pike seems to have lots of ambitious plans in the second half of the year, without too much consideration of the financial implications of those plans. He is planning to attend two trade shows for upwards of $\$ 12,000$. This seems excessive because they are essentially networking events with little concrete return afterwards. If anything, Pike should reconsider the show in Orlando and perhaps attend just the show in Las Vegas to manage costs.

There is also a suggestion to increase the staffing in a store space of 300 square feet to meet a best practice ratio of customer service. At this point, GQ should focus more on operational efficiency through cost savings, and later, once mature, it should focus on customer service and more intangible aspects of its store. However, for now it should limit the need for additional staff and use their current experience to assist in the staffing duties as much as possible.

