

BCG

BCG Potential Test

<http://mconsultingprep.com/>

Management Consulting Prep

Introduction

The BCG Potential Test Sample: During a BCG recruiting process, you will go through a BCG Potential Test (or BCG Online Test, BCG Reasoning Test). The first part of this document consists of some sample questions provided by BCG.

The MCP Practice Package: In order to supplement the limited Potential Test samples offered by BCG, our team at MConsultingPrep has designed another set of questions that closely reflect the official format as well as content – complete with keys and explanations for every question. You will find this practice test in the second part of this document.

The screen is divided into two parts:

- On the left, you will find the questions and the multiple choice answers
- On the right, you will find the documents to which you have access during the case

To answer the questions: The questions ask you to find the most appropriate answer to the problem as described using only the information presented. You should select one and only one answer to every question.

Evaluation: Your score is calculated by +3 points for every right answer, 0 points for no answer and -1 point for a wrong answer.

Good luck and have fun!



On-line Case

Example for distribution

THE BOSTON CONSULTING GROUP

Candidate briefing

The Online Case: During our recruiting process you will go through a BCG on-line case. Like case interviews, it is an opportunity to better grasp the kind of issues we address at our clients and test a number of key skills like logic, analysis and business sense. You will find enclosed some sample questions which will allow you to get prepared for that experience and be familiar with the navigation.

The sample: You will find enclosed a hard copy sample that consists of **4 questions** and should last **8 minutes**. The purpose is to help you get prepared for the actual on-line exercise, which lasts **45 minutes** and consists of **23 questions**.

The screen is divided into 2 parts:

- on the left, you will find the questions and the multiple choice answers
- on the right, you will find the documents to which you have access during the case

To answer the questions: you can click on one or more answers depending on the question. You will be able to move onwards and backwards from question to question and change your prior answers if needed. At the end of the 45' period you will need to quit the case.

Evaluation: In calculating your score you get +3 points for every right answer, 0 points for no answer and -1 point for a wrong answer

Good luck and have fun!

Question 1 / 4



Doc 1

Doc 2

Doc 3

What is approximately the average gross margin?

- 5.9%
- 6.3%
- 6.7%
- None of the above / we lack sufficient information at this stage

Pricing Strategy – "ExpensiveOil" Company

Case overview

For the past twenty years the government has set the retail price of gasoline for cars

Under the recent increase in oil prices, the government has decided to allow the gasoline distribution companies to set the retail price themselves

The market leader – ExpensiveOil – has hired us to advise her on an appropriate strategy for pricing in the country

Current situation

Previously, the price changed on a weekly basis to ensure that the distribution companies make €0.10 per liter in gross profit

There are three types of gasoline: Fast, High and Regular differentiated by the level of octane and the degree to which the fuel is unleaded

Client sales are 30% in the €1.7 per litre price range, 40% in the €1.60 price range and 30% in the €1.50 price range. For all types gross profit is approximately €0.10

Question 2 / 4



Doc 1

Doc 2

Doc 3

What is the price per litre the company should charge to maximize profits on gasoline sales?

(Assume for simplicity reasons that the company is selling only High gasoline)

- €1.5
- €1.6
- €1.7
- €1.8

Maximize gasoline profits

Inelastic consumers

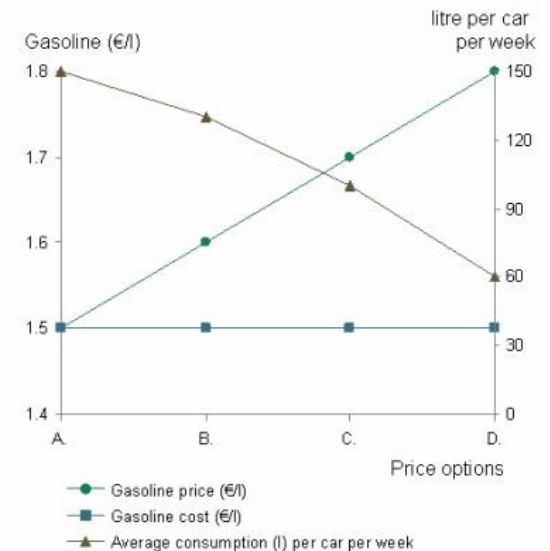
After the liberalization of the retail price of gasoline our client will have to select the price per litre

A market study indicated that consumers were price inelastic across a broad range of prices, but do select service stations based on price, convenience and ancillary services

However, it should be noted that if prices increase too much, consumers may prefer using other means of transportation which would reduce the average consumption per car

Currently, gasoline sales have been growing 5% per annum as more people live in suburbs and commute by car to work.

Market study



Question 3 / 4



Doc 1

Doc 2

Doc 3

What is the price the company should charge to gasoline per litre to maximize sales from mini markets?

- €1.5
- €1.6
- €1.7
- €1.8

Maximize additional stream of revenues

Superior client performance

In addition to gasoline retail sales, the firms also engage in retail activities by co-locating mini-markets in the gas stations that sell items such as soda, cigarettes, snack food, etc.

Industry research shows that this area has been the area of fastest growth (10% p.a.) for the firms and yields a net margin of 15%.

However, our client due to its superior selection and perception has been growing by 20% p.a. with a net margin of 30%

Industry research

Gasoline price (€/l)	1.5 €/l	1.6 €/l	1.7 €/l	1.8 €/l
Cars buying from gas station per week	130	90	60	40
Average retail sales per car (€)	10	10	10	10

Question 4 / 4



Doc 1

Doc 2

Doc 3

What is the price the company should charge per litre to maximize combined profits?

- €1.5
- €1.6
- €1.7
- €1.8

Maximize additional stream of revenues

Superior client performance

In addition to gasoline retail sales, the firms also engage in retail activities by co-locating mini-markets in the gas stations that sell items such as soda, cigarettes, snack food, etc.

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Correct answers

Question 1

- 5.9%
- 6.3%
- 6.7%
- None of the above / we lack sufficient information at this stage

Question 2

- €1.5
- €1.6
- €1.7
- €1.8

Question 3

- €1.5
- €1.6
- €1.7
- €1.8

Question 4

- €1.5
- €1.6
- €1.7
- €1.8

Total score should be 12 !

Congratulations on completing the BCG Potential Test!

To try out another sample developed by MConsultingPrep with the added benefit of keys and detailed explanation for each question, please turn to the next page.

Good luck!

BCG

BCG Potential Test

MCP Practice Test

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Management Consulting Prep

Candidate briefing

The Online Case: During a BCG recruiting process, you will go through a BCG Potential Test (or BCG Online Test, BCG Reasoning Test). Like case interviews, it is an opportunity to better grasp the kind of issues a BCG team addresses with our clients in reality and test a number of key skills like logic, analysis and business sense. Enclosed, you will find some sample questions which will allow you to prepare for the test and be familiar with the navigation.

The Practice Package: Enclosed, you will find a hard copy sample that consists of **05 questions** and should last **no more than 10 minutes**. The purpose is to help you prepare for the actual exercise. Because BCG is still in the process of piloting the test, so the exact test format, number of questions, and time allotted can be different across different offices. Some people had **~50 questions in 50 minutes** while others had **~25 in 40 minutes**.

The screen is divided into two parts:

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Evaluation: Your score is calculated by +3 points for every right answer, 0 points for no answer and -1 point for a wrong answer

Good luck and have fun!

Question 1/5*:

If the Client League can manage its Other Costs as well as the NBA can, given that Players' Salary stays constant (measured by the per-dollar-of-revenue-generated basis), what would their Profit be?

- \$3 million
- \$5 million
- \$7 million
- \$9 million

Doc 1

Doc 2

Doc 3

Doc 4

Revenues among sports leagues

Case overview

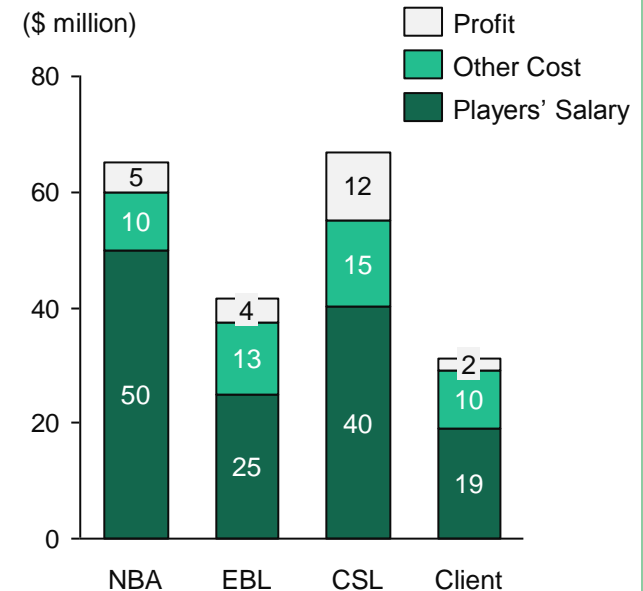
Our client is a professional basketball league in Germany. The league operates on a sporting business franchising model. Each team in the league has to pay an annual fee to the league and will manage itself by hiring players, selling tickets, managing administration costs...

Some direct and indirect competitors of the Client League are:

- US professional basketball league (NBA)
- Euro Basketball league (EBL)
- Country 's Soccer league (CSL)

The chart below measures revenue and its components **on the average-per-team basis**.

Market study



Question 2/5***:

Suppose that there are 5 College Teams in the league. How many teams are there in the Major City Teams group?

- 2 teams
- 3 teams
- 4 teams
- 5 teams

Doc 1

Doc 2

Doc 3

Doc 4

Segmentation of Client League

Team segmentation

Based on its revenue (**on the average-per-team basis**) in the previous chart, we then go on to search for problems within the Client League.

The client then prepares a segment breakdown of all 18 teams. There are three main representing groups:

- College Teams
- Small City Teams
- Major City Teams

The segmentation along with some basic information is summarized in the table to the right.

Data

	Historical Winning Percentage	Revenue (\$US)	Profit (\$US)
College Teams	35 (%)	20 mil	2.2 mil
Small City Teams	50 (%)	25 mil	0.5 mil
Major City Teams	75 (%)	70 mil	6.5 mil

Question 3/5**:

The owners of SG Taxi are putting pressure on management to generate over \$185 thousand in daily revenue. Which of the following, if being implemented along, will help SG Taxi achieve that?

- Acquire Taxi 54
- Raise the average fare price to \$2.5/ km
- Add 50 new vehicles to the team
- Increase Vehicle usage (km driven) by 25%

Doc 1

Doc 2

Doc 3

Doc 4

Maximize daily EBITDA

Case overview

Our client, the SG Taxi Group, is a medium sized taxi company operating in Singapore.

Like all other taxi companies in the area, SG Taxi operates on the "taxi franchise" model. The company manages vehicles, call centers, pricing, and other administration processes. Drivers are responsible for gas, their own work schedules, and their own strategy to get the most income.

Currently, SG Taxi Group's profitability is below the market average and needs help from us. The team is provided with this basic initial information.

Industry research

	Taxies owned	Daily Km driven total	Daily Revenue (\$US)	Daily EBITDA (\$US)
CP Taxi	1,000	270,000	484,000	382,360
Airport Taxi	500	131,900	237,500	201,875
SG Taxi	550	88,200	150,000	105,000
Taxi 54	50	7,500	13,500	11,000

Question 4/5*:

What is the maximum amount of time that translators have to finish translating to make it worth it to switch to our idea?

- 3650 hours
- 3500 hours
- 4000 hours
- 3000 hours

Doc 1

Doc 2

Doc 3

Doc 4

Lower cost of translation

Case overview

Imagine Learning is an English learning software provider for children. All the instructions, texts, and audio are translated into many different languages and inserted into the software.

A market study compared the cost of the Spanish product line versus that of Korean.

We propose an idea to self-translate Korean products by hiring new Korean translators, **replacing both the Translation Company and the programmers**. Assume that the average wage for programmers and translators are \$25 and \$15 per hour, respectively.

Market study

	Total Cost (\$US)	Cost from Translation Company (\$US)	No of defect found	Cost of fixing Defect* (\$US)
Korean Line	60,000	10,000	230	45,000
Spanish Line	25,000	15,000	17	2,000

*by programmers

Question 5/5***:

What is the best estimation of Cash Inflow of PTS in 2013?

- \$2.5 million
- \$21 million
- \$25 million
- \$50 million

Doc 1

Doc 2

Doc 3

Doc 4

Cash inflow

Case overview

The state of Texas has a unique taxation system where most of its revenue comes from property tax instead of income tax like many other states in the US. The property tax rate in Texas is 2.5%.

Property Tax Service (PTS) is one of the biggest property tax consulting firms in Texas, United States.

In 2013, PTS's total calls received are 135,000 and the average value of properties signed up is 110,000.

Current situation

The operation flow of PTS is as follows:

- Clients **call** to ask about the services, S% of those **sign up** their properties.
- Of those who sign up, PTS will **represent** clients to bring their cases to the appraisal district.
- Of those represented, PTS gets A% of them **agreed and approved** by the districts.
- Of those agreed and approved, V% of their **value** is reduced.
- Of those successfully reduced, F% of owners pay their **fee**.
- At the end, all tax savings is split by half between the client and the company.

The historical S, A, V and F percentage in 2013 are:
S% = 72%, A% = 89%, V% = 19%, F% = 92%

Correct answers

Question 1 – C (\$7 mil)

Note: *Don't always try to be a calculating machine. In addition to calculating hard, calculate smart!*

With this question, a few simple tricks can help you get through it very fast. Here is how we would do it.

By looking at the graph, notice how the Client League and the NBA have about the same value for Other Costs.

Also notice the fact that the NBA has twice the revenue of the Client League.

So if the Client League is as good as the NBA, they will cut Other Costs in half, which is a \$5 million cut.

That additional \$5 million along with the current \$2 million will make profit worth \$7 million.

Correct answers

Question 2 – B (3 teams)

General strategy: Do a weighted average problem reversed. You have the overall weighted average in the previous chart. You have the value of each group. You need to find the size of each group.

Shortcut: It is possible to use revenue and profit to solve this problem. However, using the historical winning percentage is a much quicker way. We all know that basketball is a zero-sum game, meaning that if there are wins, there are losses. The Historical Winning Percentage of all 18 teams in the Client League has to be 50%.

You already have the Small City Teams' winning percentage equaling 50%. Therefore, the number of teams in the Major City Teams group (X) must satisfy the following equation:

$$\frac{5 * 0.35 + X * 0.75}{5 + X} = 0.5$$

→ X = 3 teams

Correct answers

Question 3 – D (Increase Vehicle usage by 25%)

A: Acquiring Taxi 54 will increase SG Taxi's daily revenue by \$13,500 (current Taxi 54's daily revenue), which is not enough.

B: Raising the price will create unpredictable results in revenue. Of course we get more for each km driven. But there will be less km driven, especially in a market where everybody charges the same price.

C: 50 vehicles are too few to create any economy of scale. 50 new vehicles will generate about the same revenue-per-vehicle. Specifically, those 50 vehicles will generate $\$150,000 / 550 * 50 =$ about \$13,600. This is not enough.

D: An increase of Vehicle usage by 25% brings a 25% increase in revenue as well. This will bring SG Taxi's revenue to a little over \$185 thousand.

Correct answers

Question 4 – A (3650 hours)

Note: you should ignore the \$25 programmers wage in this question.

If the self-translating process is used, no Cost to Translation Company and Cost of fixing defects will be needed. Instead, the only cost is to pay for the translators. To break even, the maximum number of hours would be:

$$\begin{aligned} \text{(All current costs) / translator hourly wage} &= (\$10,000 + \$45,000) / \$15 \\ &= \text{roughly 3650 hours} \end{aligned}$$

Correct answers

Question 5 – B (\$21 million)

Cash inflow will be:

$$\frac{(\text{Number of Calls} * \text{Sign up \%} * \text{Agree \%} * \text{Value \%} * \text{Fee \%} * \text{Average Property Value} * 2.5\%)}{2}$$

This equals about \$21 million

More practice

The BCG Potential Test is just a different version of the
McKinsey Problem Solving Test

72% people tried this BCG practice test improved themselves
more with McKinsey PST practice!

Get yours here:

<http://mconsultingprep.com/problem-solving-test-product/>