

Markup

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Introduction

The basic rule of a successful business model is to sell a product or service for more than it costs to produce or provide it. The Markup or markon it's the difference between the cost of a product or service and its sale price and can be calculated in your local currency or as a percentage of either cost or selling price.

One coffe cost and it's markup

```
one_coffe_cost <- 800
one_coffe_sell <- 1000
one_coffe_ratio <- 200
one_coffe_markup <- one_coffe_ratio/one_coffe_cost*100

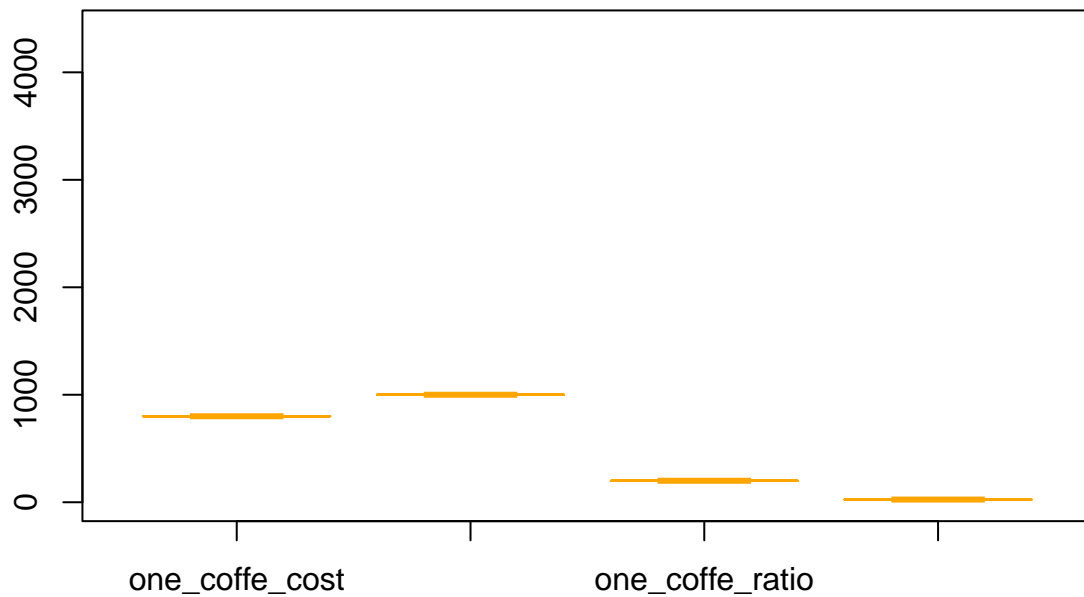
per_coffe_markup <- data.frame(one_coffe_cost = c(800),
                              one_coffe_sell = c(1000),
                              one_coffe_ratio = c(one_coffe_sell-one_coffe_cost),
                              one_coffe_markup = c(one_coffe_ratio/one_coffe_cost*100))
per_coffe_markup
```

	one_coffe_cost	one_coffe_sell	one_coffe_ratio	one_coffe_markup
1	800	1000	200	25

Plotting the coffe markup

This is the one coffe markup, reduce costs per coffe to obtain a major markup, now the strategy for this situation is how to do that, good negotiations or extended contracts are just of many options that can be evaluated.

```
boxplot(per_coffe_markup, notch = TRUE, border = "Orange", ylim = c(0,4400))
```



****p*q price per quantity****

The formula for revenue is $p \times q$ and here are some vectors of one coffee values:

```
c <- 800 # cost (one_coffe_cost)
p <- 1000 # p price (one_coffe_sell)
q <- 5500 # q quantity or revenue
```

Weekly sales

Now the week sales situation it's 5500 coffees were sold, now this is the gross profit and week markup

```
COGS <- q*c # Cost of goods sold 4.400.000
COGS
```

```
[1] 4400000
```

```
revenue <- p*q # 5.500.000
revenue
```

```
[1] 5500000
```

```
Gross_Profit <- revenue - COGS # 5.500.000 - 4.400.000
Gross_Profit
```

```
[1] 1100000
```

```
Gross_Profit/COGS # This is the week markup
```

```
[1] 0.25
```

The week markup

Now the data it's well ordered in the week, obtaining a 25% markup, that's a good markdown

```
week_markup <- data.frame(c_cost = c(800),
                          p_price = c(1000),
                          q_quantity = c(5500),
                          COGS = c(q*c),
                          revenue = c(p*q),
                          gross_profit = c(revenue - COGS),
                          weekmarkup = c(100*(revenue-COGS)/COGS))
week_markup
```

	c_cost	p_price	q_quantity	COGS	revenue	gross_profit	weekmarkup
1	800	1000	5500	4400000	5500000	1100000	25

Ploting the markup week

Now this is the markup visualization sales week

```
boxplot(week_markup %>% select("COGS", "revenue", "gross_profit", "weekmarkup"),
        notch = T,
        border = c("Blue", "Green", "Yellow", "Red"),
        main = "Week Summary : 25% of Markup",
        ylab = "length",
        xlab = "Concept",
        ylim = c(0,44000000), notch = T, las = 1, names = c("Cost of Goods", "Revenue", "Profit", "Marku"))
```

Week Summary : 25% of Markup

