



The Modelling of Maximum Profit and Its Quantity with High Price in Stock Share on Economics II

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Abstract

The trend to higher price share is searched in this paper. It is found that the TR increases when Q increases. TR changes from 1,000 Yuan to 23,000 Yuan when Q becomes from 100 to 2200. Meantimes AR decreases from 22 Yuan to 16 Yuan. The PR and TC will increase when the Q increases. The PR changes to summit 16,000 Yuan at the Q being 2600 and TC becomes to 8,000 Yuan when Q becomes 2200..

Keywords: Maximum profit; Its quantity; Modelling; Economics; Modelling; TR(total revenue); TC(total cost); MR(marginal revenue); AR(average revenue) ; PR(profit) ; MC(marginal cost); High price

Introduction

The economics modelling of maximum and its quantity at higher price has been established in order to investigate their intrinsic relationship. Meantime it is important to estimate the maximum of them in an enterprise manufacture and finance. In this study the stock share is searched to try to find the intrinsic relationship. For the sake of modelling the maximum profit and quantity in stock market the data is arranged to solve the constant of linear and parabolic equation. Only we know the price and quantity can the share be certain to do investment correctly. The base data is important to determine the constant to model. It will be discussed in detail because of its scientific method. It will give us convenience and rapidness & correct result to help us to determine the investment. The higher price is the destination of this study for us to search further. In short the maximum profit and quantity on stock market is been built in this study. Only if they are calculated can the further other relationship be drawn to discuss further their relationship. The reasonable and scientific value can be solved and other information can be gained for

checking the right and more information. The higher price share has been investigated here to see the difference to low price [1-5].

Calculation Course and Discussions

When the condition has been given as 1000 share with cost 8.6 Yuan and price 21 Yuan the constant and equation will be completed which is exhibited below. According to the modelling equation the maximum profit and quantity will be calculated. 100~1100 and 100~3600 is defined as below Figure 1~Figure 6 to discuss in detail. The former is actual condition and the latter is the predicted. They are fit well to modelling equation. The coefficient a and b & a, b, c has been solved according to the modelling equation. In this study TR is total revenue; TC is total cost; MR is marginal revenue; AR is average revenue; PR is profit; MC is marginal cost; Q is quantity (Figure 1-3).

The Figure 1 & 2 shows TR, TC, TR, Pr, MR & AR tendency with different Q. TR increases when Q increases. TR changes from 1,000 Yuan to 10,000 Yuan when Q becomes from 100 to 1100 from Figure 2. Meantime AR decreases from 22 Yuan to 16 Yuan when Q becomes the same. At last MR maintains 21~11 Yuan. MC is the same value to MR. from Figure 1 it is known

that PR and TC will increase when the Q increases. The PR changes from 1,000 Yuan to 10,000 Yuan when Q is from 100 to 1000 and TC becomes from 1,000 to 8,000 Yuan when Q becomes from 100 to 1100.

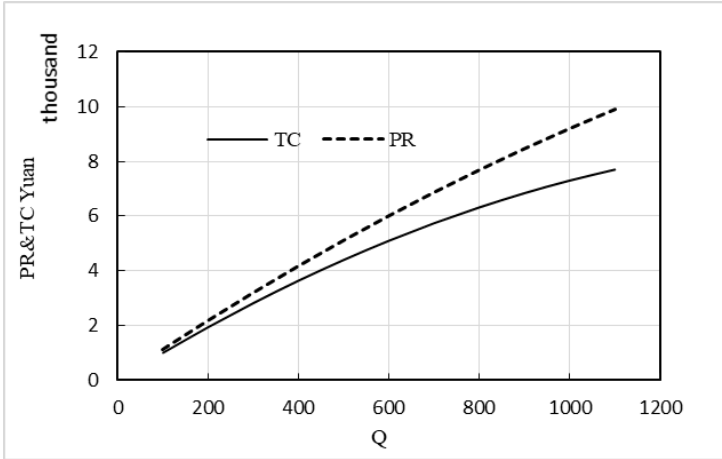


Figure 1: The graph of Pr and TC & Q=100~1100.

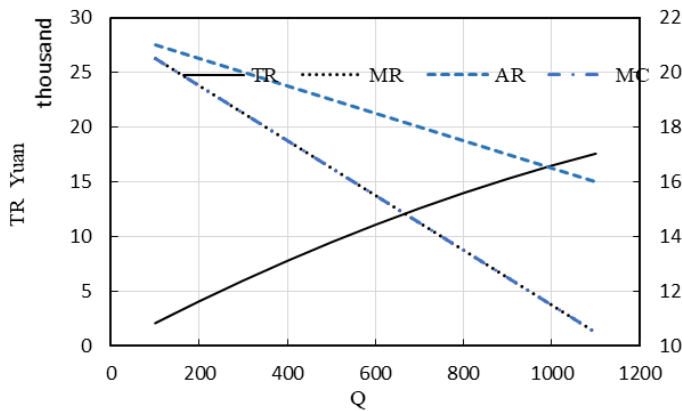


Figure 2: The graph of TR, AR, MR and MC & Q=100~1100.

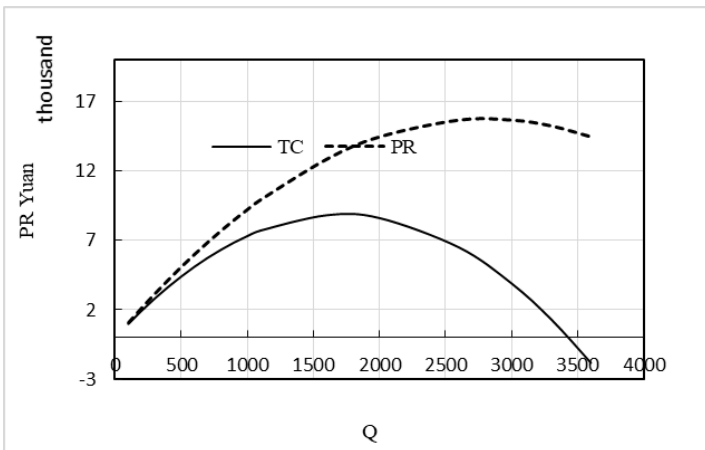


Figure 3: The graph of PR and TC, Q=100~3600.

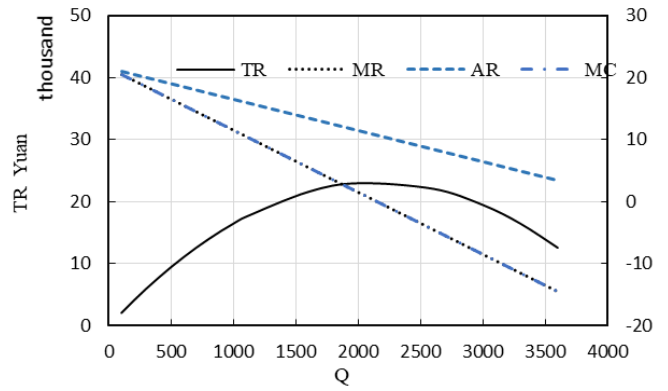


Figure 4: The graph of TR, MR, AR and MC & Q=100~3600.

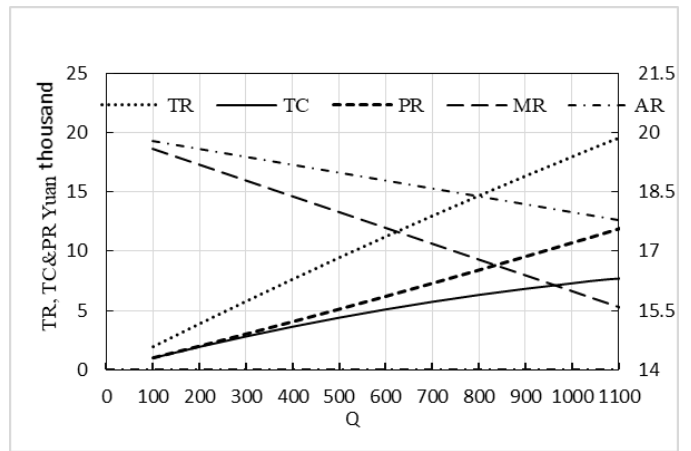


Figure 5: The graph of TR, TC, PR, MR & AR and Q=100~1000.

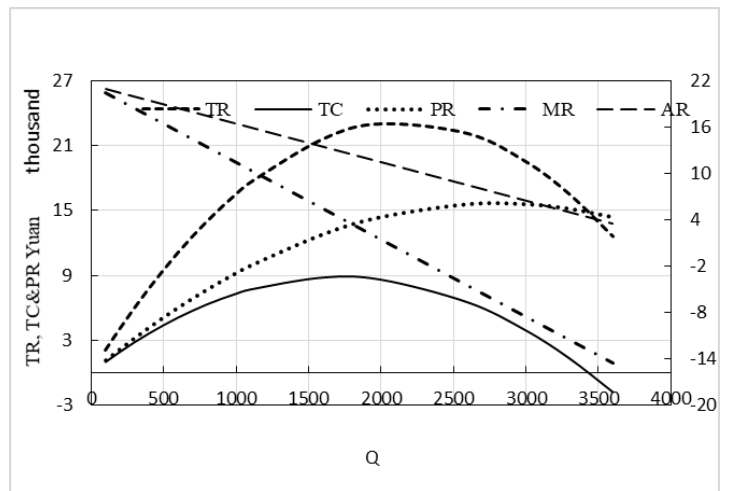


Figure 6: The graph of TR, TC, PR, MR & AR and Q=100~3600.

Figure 3 shows that the TC increases from 0 Yuan to 8,000 Yuan and finally 0 Yuan with parabolic according to Q from 0 to 3600. PR will increase from 16,000 at 2600 Q. Figure 4 shows when the Q scope is 100~3600 the TR will increase from 2000 Yuan to 23,000 Yuan and AR will decrease from 22 Yuan to 16 Yuan.



Figure 4 shows TR is parabolic which maximum is 23,000 Yuan with $Q=2200$ (Figure 4-6).

The Figure 5 shows that TR, TC and PR is from 2,000, 1,000, 1,000 Yuan to 20,000Yuan, 12,000Yuan, 7,000Yuan respectively. MR and AR decreases from 22, 22 Yuan to -14Yuan and 4Yuan respectively. They are all proportional line with Q. The Figure 6 shows that the relationship between TR, TC, PR, MR &AR and Q with the part of 0~1000 and 0~3600. It is known that when $Q=1700$ the TC will be 8,000 Yuan which is the highest result here. The extension curve TC, TR & PR will be summit at $Q=3,500$ with 8,000, 23,000 Yuan &16,000 Yuan respectively. The maximum price is 1,120 Yuan and the quantity Q is 12,540 according to modeling. It is included in this study conclusion however it must be pointed out to find. Here PR fits to these curves TR & TC well in this study.

Conclusions

The quantity is 1120 in maximum profit and the maximum profit is 12540 Yuan which is included in this study. However the PR changes from 1,000 Yuan to 16,000 Yuan when Q is 2600 which is higher than mentioned above. It is predicted that TC is parabolic which maximum is 8,000 Yuan with $Q=1600$.

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