



The Modeling of Shares and High Parameter of the Best Condition in Stock Market with High Investment on Economics III

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Abstract

It is found when the best capital is 3.75 the number of shares are 50 thousand with the intersection of 5 RMB which is turnover point in the $Pl \& Pk = 30,000 \& 80,000$. When the best capital is 1RMB the best quantity will be 30 thousand shares with labor being 0.3. The value is 50 thousand with laobr being 0.35 too. Meantime the biggest total share will happen which attains from 2,000 to 16,000 thousand when the total cost is 250,000Yuan. It is higher than that of 100,000 Yuan. The smallest shares cost will be 100,000 Yuan in the condition of labor with low $Pk = 30,000$. It is observed that it is higher than low Pk respectively. For example, $Pk = 300,000$ is higher value than 1500.

Keywords: Modelling; High investment; Shares; Stock market; Economics

Introduction

The investment and shares is a behaviour with investing much money and requiring revenue from investment and shares in stock market. This process includes buy and sale shares in order to form the profile of shares, so it is a process which completes these two functions in whole process. The profit is calculated through revenue and shares which is an important factor in this process. In this paper the revenue has been computed and drawn from their relationship with cost. The revenue and AC, AVC & AFC which is shares is investigated for searching their change in these processes. For the better benefit it must be studied further it can gain the profit use. Since the stability is key as for this procedure. How we can define stable and low-cost parameter is significant matter. For the inference the different drawing between profit cost and quantity is made to analyze the change and low-cost situation in this study. The constant labor L & capital K is defined to fit to cost value for this process [1-3]. The least total cost has an important role with the quantity & labor. Because the least one is evaluating the cost per labor under the best labor and capital on economics. If the cost is big it will increase cost burden. Only if

the least cost can decrease the cost price and the reasonable choose may be used in determining the total cost [4,5]. Because of its availability it may be chosen for other factor such as the random price promotion. In this paper the revenue is adopted from higher value to check the piece and the cost value. So as to higher revenue the low-cost value and low pieces is necessary. For the sake of the least total cost the best labor and capital has been established firstly and then determined the least total cost equation with quantity and labor [6,7]. In the study the detail research has been completed with low investment of 1000 shares Now we discuss the detailed search with high investment of 100,000 in this paper. We looke forwards to finding more reasonable one by this study. Through parameters of shares and cost the destination with low cost and the least cost will be hoped to find.

Modelling and Discussions

The Investment and shares have been established according to modelling with economic equations that has a certain role in stock market. So, Cobb-Douglas function is used to complete the

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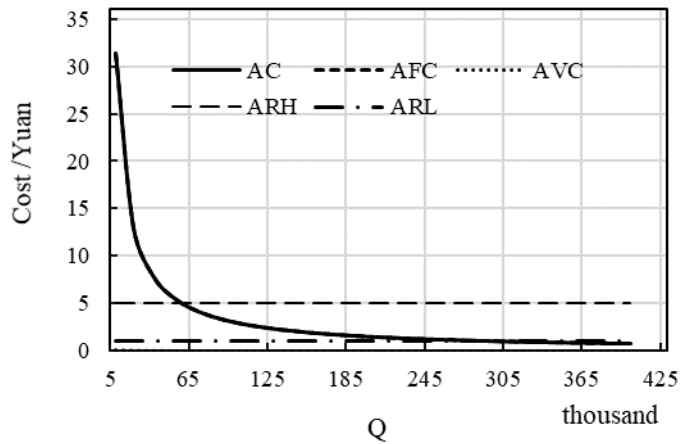
modelling. The detail establishment and modelling is as related literature.

The Cobb-Douglas function is

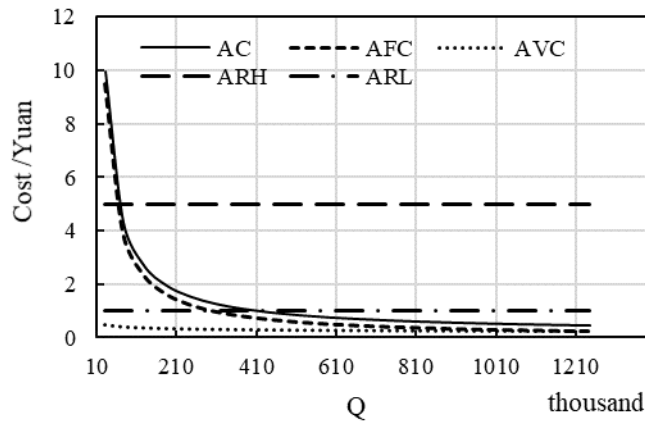
$$Q = \gamma L^\alpha K^\beta \quad (1)$$

Here Production quantity Q ; γ is technique coefficient; α is producing labour; β is capital elasticity. K is capital; L is labour; AFC is average fixed cost; AVC is average variable cost; AR is the average revenue; TR is total revenue. The calculated constant is $\gamma=106086$; $\alpha=1.25$; $\beta=-0.2$ respectively. The parameter Pl is labor price and Pk is capital price. They are from 20,000 to

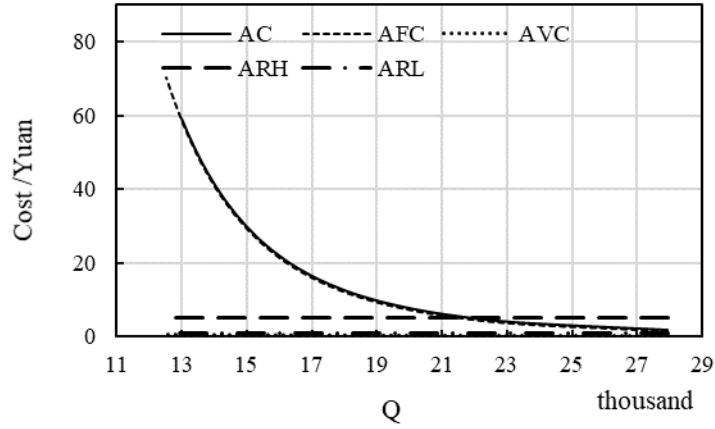
30,000 and from 30,000 to 80,000 Yuan respectively. Turnover is in terms of 5Yuan per share and Q is piece of shares. Table 1 shows the parameter of constant value with labor and capital & quantity. It is chosen that 10groups value to acquire average ones. The detail narration is expressed as below. TP is the total product and AP is the average product. MPK is capital marginal product and MPL is labor marginal product in this study (Table 1) (Figure 1).



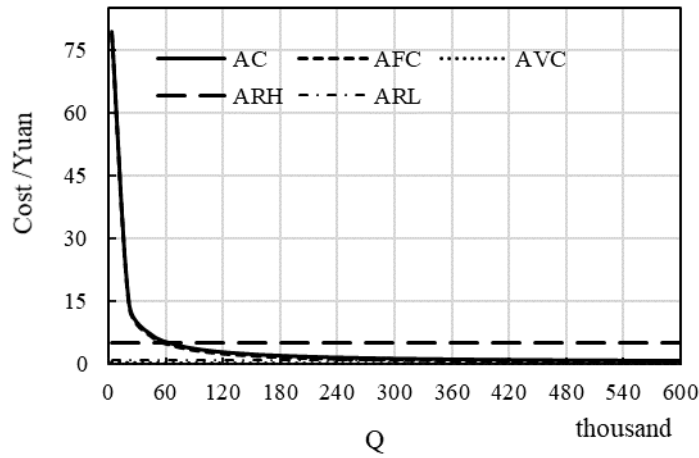
(a) $K=375$; $Pl \& Pk=300 \& 800$



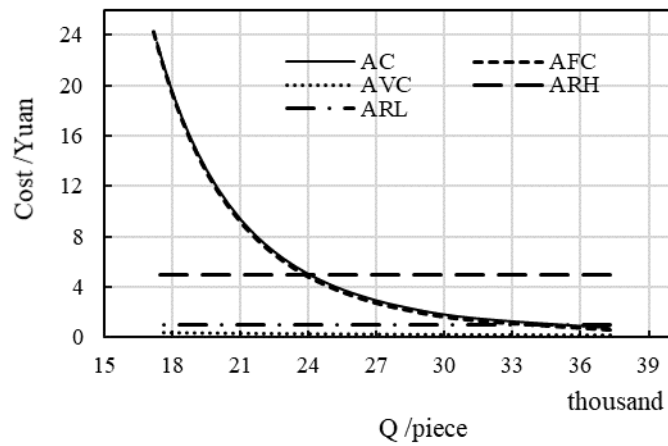
(b) $K=3.75$; $Pl \& Pk=30,000 \& 80,000$



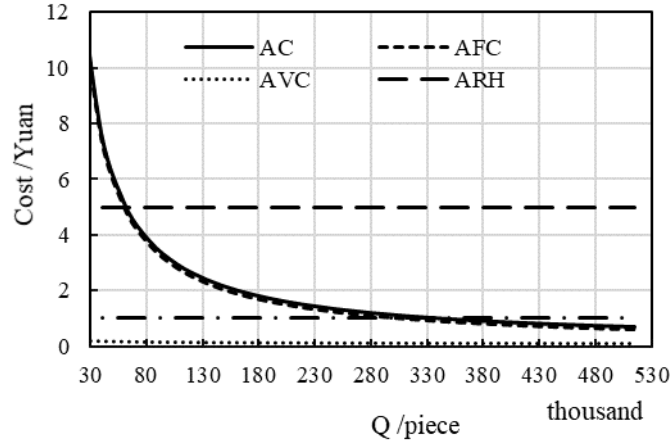
(c) $L=0.3$; P_1 & $P_k=30,000$ & $80,000$



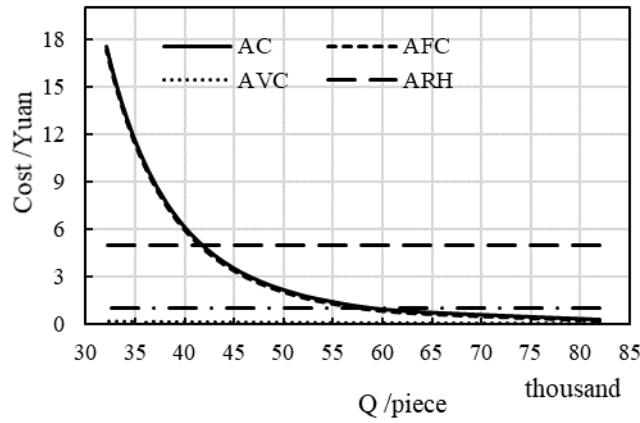
(d) $K=4.99$; P_1 & $P_k=20,000$ & $60,000$



(e) $L=0.35$; P_1 & $P_k=20,000$ & $60,000$

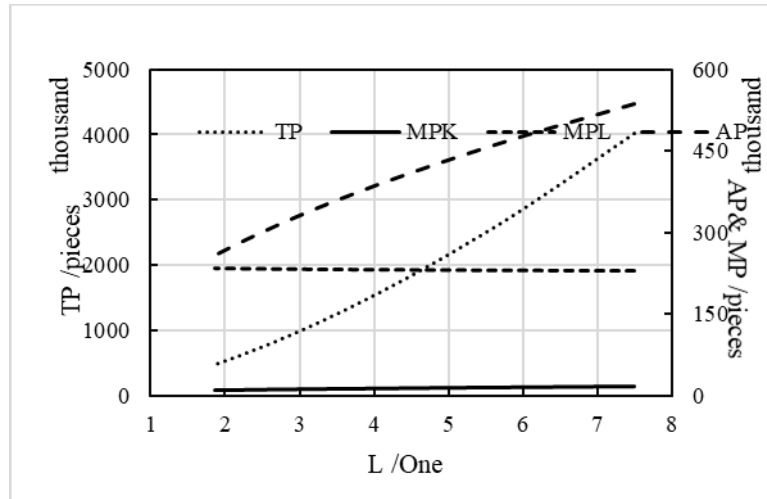


(f) $K=10; P_l \text{ \& } P_k=10,000\&30,000$

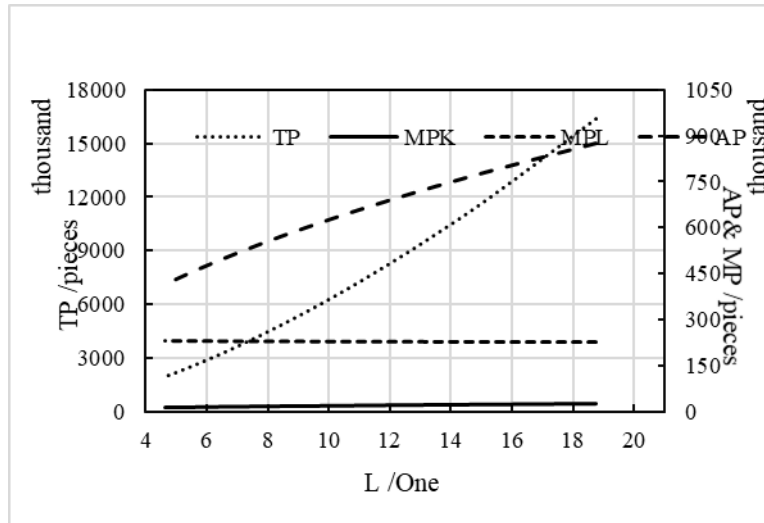


(g) $L=0.7; P_l \text{ \& } P_k=10,000\&30,000$

Figure 1: The relationship between cost and number of shares according to different conditions.

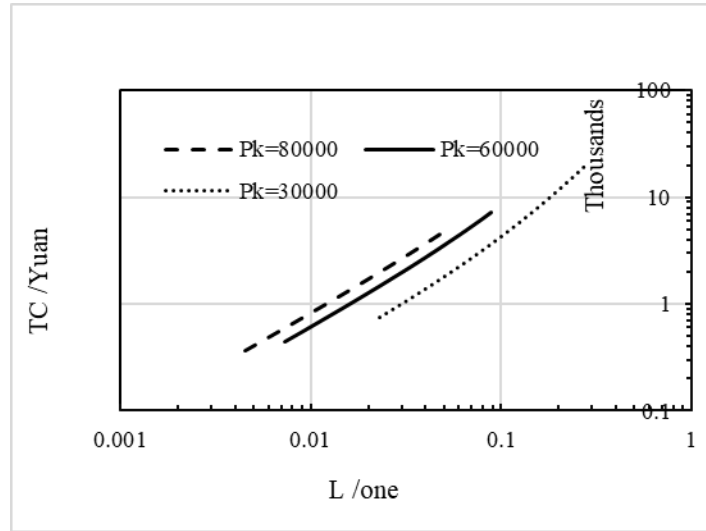


(a) $L; TC=100,000$

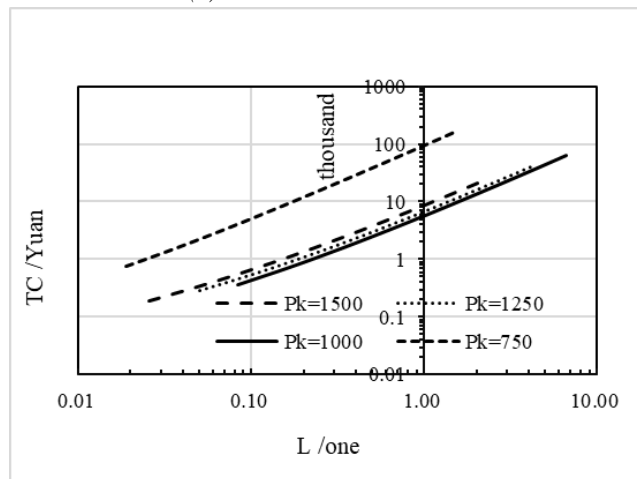


(b) $L; TC=250,000$

Figure 2: The relationship between maximum and marginal production and number of capital and labor.



(a) $P_k=30000\sim 80000$ Yuan



(b) $P_k=750\sim 1500$ Yuan

Figure 3: The minimum cost with labor quantity and 100,000 pieces under different P_k .

It is found when the best labour is from 0.3 and 0.35 to 0.7 the number of shares are from 30 thousand and 50 thousand to 60 thousand respectively with the intersection of 1 RMB in Figure 1(c, e & g) with K parameter which is turnover point from Figure 1 (a ~ d) according to the PI and Pk from 20,000 to 80,000. It explains that labour with 0.3 is the minimum cost which is 30 thousand. When the best capital is 3.75RMB the turnover point is 50 thousand of the number of shares with the 5 RMB in Figure 1. So, the balance value is 5RMB which could be satisfactory with both situations because the average revenue 1RMB can't be intersected with average cost line in the case of the one higher than labor of 3.75 for example 4.99 and 10. The intersection with 1RMB is more than 300 thousand in the above two cases. It exceeds big the 100,000 so the 1RMB is insufficient which needs

to be promoted. The bigger one which accounts for the turn with more than 5RMB is available. It is expected that the revenue has been increased so that the share decreases to normal level. Meantime the labor is somewhat higher according to the Cobb-Douglas function than capital. In Figure 1(b & d) the normal share value exhibits the normal one will be formed in this study. The same value is from 50 to 350 thousand with 5 RMB and 1RMB respectively at $PI = 30,000$ and $Pk = 80,000$. Therefore, because the intersection with 1RMB is higher than 100 thousand shares and promoting revenue is necessary for the sake of sale. To say more if labor increases share will increase. The share will increase from 50 to 60 thousand when the capital is from 3.75 and 4.99 to 210 respectively.

Table 1: The conditions of original parameters and coefficient.

Parameters No.	l	K	Q	α	β	γ
1	0.1	0.1	10, 000	-	-	-
2	0.2	0.2	20, 000	-	-	-
3	0.3	0.3	30, 000	1.69	-0.41	141391
4	0.4	0.4	40, 000	1.41	-0.29	111396
5	0.5	0.5	50, 000	1.29	-0.22	104575
6	0.6	0.6	60, 000	1.22	-0.18	102107
7	0.7	0.7	70, 000	1.18	-0.15	101010
8	0.8	0.8	80, 000	1.15	-0.13	100461
9	0.9	0.9	90, 000	1.13	-0.12	100166
10	1	1	100, 000	1.12	-0.11	100000
11	1.1	1.1	110,000	1.11	-0.10	99904
12	1.2	1.2	120,000	1.10	-0.09	99849
Average	-	-	-	1.24	-0.18	106086

As seen in Figure 1 (a & b) the average cost decreases from 32 Yuan to 10 Yuan and quantity decreases from 65 thousand to 50 thousand intersected with 5RMB when the PI and Pk increases from 300&800 to 30,000&80,000 respectively, meantime the one from 250 thousand to 350 thousand intersected with 1RMB in this situation. It expresses that more PI and Pk has better cost and quantity decreasing than less besides the one with 1RMB. The cost will decrease with labor increasing for example as seen in Figure 1(c, e & g). here cost is 75,24 and 18 the labor turn is 0.3, 0.35 and 0.7 respectively (Figure 2).

From Figure 2 the best total shares will increase when the L increases from 2 to 7.5 and from 5 to 19 in the total cost of 100,000 and 250,000Yuan respectively. It is under parameter with $PI = 1000 \sim 4030$ and $Pk = 1670 \sim 6730$. The average shares will increase too from 450 to 800 thousand too while capital increases. The best shares lie in from 500~4,000 thousand to 2,000~16,000Yuan in these two cases. It explains that the

increasing capital will increase the revenue. When the price of labor and capital increase the maximum number of shares will increase. It ranges from 2,000 thousand to 16,000 thousand shares when capital ranges from 5 to 19 in Figure 2(b). It expresses that increasing the price will cause maximum shares increase. MPL maintains 200 thousand level meanwhile MPK stays 20 thousand. As seen in Figure 2(a & b) the total TP and AP will evidently increase in TC to be 100,000 and 250,000. the TP ranges from 500~4,000 thousand to 2000~16,000 thousand and AP changes from 280~500 thousand to 450~800 thousand respectively in the two cases (Figure 3).

In Figure 3(a & b) it is expressed that the minimum cost will increase with the labor increasing. Meantime it increases when the Pk increases from 30,000 Yuan to 80,000 Yuan. The smallest shares will be in the condition of capital being 10,000Yuan with labor of 1 and Pk being 30,000 Yuan and 80,000 Yuan besides labor with high Pk of 80,000 which accounts for higher PI related



to Pk. It reaches the maximum value with total cost TC of 15,000 Yuan at labour of 1. If extending the curve, it is observed when lobar is one the minimum TC is 10,000 Yuan with Pk=30,000 Yuan. The one will be high with the Pk which reaches maximum. It explains the availability has been formed in this study. The one with Pk=30,000 Yuan is the smallest total cost wherein Pk=80,000 Yuan is the highest cost with 15,000 Yuan on the contrary. The middle one is 10,000 Yuan with Pk=60,000. The effective turn is Pk with $80,000 < 60,000 < 30,000$. Through comparing the two figures in Figure 3(a & b) the Pk=750~1500 has low total cost than Pk=30,000~80,000. That may be caused by the low Pk and parameter Pl.

Conclusion

It is found when the best capital is 3.75 the number of shares are 50 thousand with the intersection of 5 RMB which is turnover point in the Pl & Pk=30,000 & 80,000. When the best capital is 1RMB the best quantity will be 30 thousand shares with labor being 0.3. The value is 50 thousand with labour being 0.35 too. Meantime the biggest total share will happen which attains from 2,000 to 16,000 thousand when the total cost is 250,000Yuan. It is higher than that of 100,000 Yuan. The smallest shares cost will be 100,000 Yuan in the condition of labor with low Pk=30,000. It is observed that it is higher than low Pk respectively. For example, Pk= 300,000 is higher value than 1500.

References

1. Xu R, Economic modeling of profit and cost & quantity in forge process of screw, *South Asian Res J Eng Tech.* 2021; 3: 69.
2. Xu R. The modeling of total cost and revenue in stock market on economics. *Saudi J Engg Tech.* 2021; 6: 307-309.
3. Xu R. The modeling of shares and best conditions in stock market on economics, *East African Scholars J Eng Comput Sci.* 2021; 3: 146-149.
4. Xu R, Hur B. Modeling of economic cost distribution in screw thread. *J Econ Sci Res.* 2020; 3: 21-24.
5. Xu R. Economic modeling of profit and cost and quantity in forge process of screw. *South Asian Res J Eng Tech.* 2021; 3: 68-75.
6. Compilation group of economics textbook series. *Microeconomics.* Econ Sci press. 2013; 112-114.
7. Feng X, Yun H. *New Manual of Metall Materials.* An Hui Technology Science Press. 2017; 110.