International Journal of Finance and Managerial Accounting, Vol.3, No.11, Autumn 2018

Pricing Approaches for Investment Companies

Fereshteh Mansourimoayyed
Assistant Professor, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran
(Corresponding Author)
f.mansouri@modares.ac.ir

ABSTRACT

The main business of an investment company is to hold and manage securities for investment purposes. In today competitive market Pricing and its methodology are complicated motions. It is very important to define a price that can prevail the competition in an open and free market. In order to define the price certain circumstances should be considered. In the academic arena there have been several strategic aims defined for pricing that each follow definite procedure. But in reality those course of actions are not competent for all the conditions. Therefore it is vital to develop a model that is based on academic research and past experience. One of the most growing markets in the developing countries is subcontracting big projects this is usually a very competitive market and it is done by putting to tender. It is obvious that the organizations which tend to join the bid have to provide two basic package. First the technical offer pack and second financial offer pack, these two packs are inter-related. In order to define a systematic procedure that help the organization to win the competition it is necessary to develop a model which coordinate both part to come up with a competitive offer.

In this article in order to help the organization to define competitive price academic pricing literature and past experience are both considered. This model will assist the organization to define strategy, approach and price that could win the tender.

Keywords:

Investment Companies, Pricing Approaches, Marketing of Financial Affairs

1. Introduction

The success of for profit enterprises is dependent on marketing presence of the company itself or its products. Especially for those which produces consuming products and some after sale services. Every company has to stabilize their market position or otherwise their customer creditability and reducing of market share (Mousaei, & et.al, 2006).

It should be kept in mind that one of the most important tools for manipulation and growth of firms in the market is price and the procedure that defines it. In another word price is the linkage of customer values to companies' profit (Edelman, 1996). Customer and company are two social entities that are separate and independent (Jobber, D & Hooley, 2011). Therefore it is very critical and also complicated to find out the exact points that assume the both side benefits. In this article it is tried to work on tendering process and clarify the procedure thus the pricing which is very important could be define base on required information.

Base on what was described above, a pricing model will be design that help companies to define a price for tendering a bid. This model is based on academic research and practical experiences.

2. Literature Review

2-1. The Process of Tendering

To set a right price in bids requires different types of financial and non-financial analysis that scan the environment and provide a report of relations among facts that are influencing the bid. It is believed that pricing in tenders is based on experience and personal judgments, but management and marketing experts' opinion is the mixture of science and experience which can increase the possibility of wining the competition (Kotler, 2013).

Generally using any methods for pricing has to consider three aspects that are shown in figure 1 this relationship is called pricing 3C (Kotler & Armestrong, 2015).

To increase the possibility of success in bid pricing, strategy should be define in first place, but it is required to clarify the bid tendering process and identify the position of pricing strategy. Thus in the figure 2 tendering process is shown.

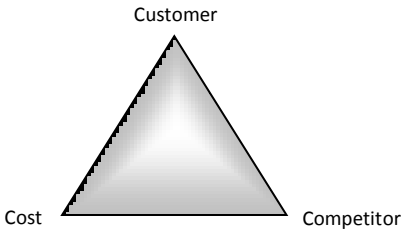

Figure 1 – three basic aspect of pricing

In the mentioned tendering process a conceptual framework for pricing was developed. In order to inject a practical view into the framework, it is required to develop a model for pricing.

General two basic approaches are indicated in the Figure 3 the method that is used for each are also remarked.

In the table 1, a brief analyzing of strengths and weaknesses of pricing approaches is defined.

Although base on the above comparison, analysis scientific approach is more approval approach but because of special limitations it is not intelligent to focus only on scientific approach. Therefore using experiments in term of mathematical model is a balanced approach (Jobber, 2012).

By using any approaches two basic limitations are set. First minimum line which only covers the firm costs and the maximum line which is the customer expected value for product or services the relationship among these two are indicated in figure 4 (Mathews, 1992).

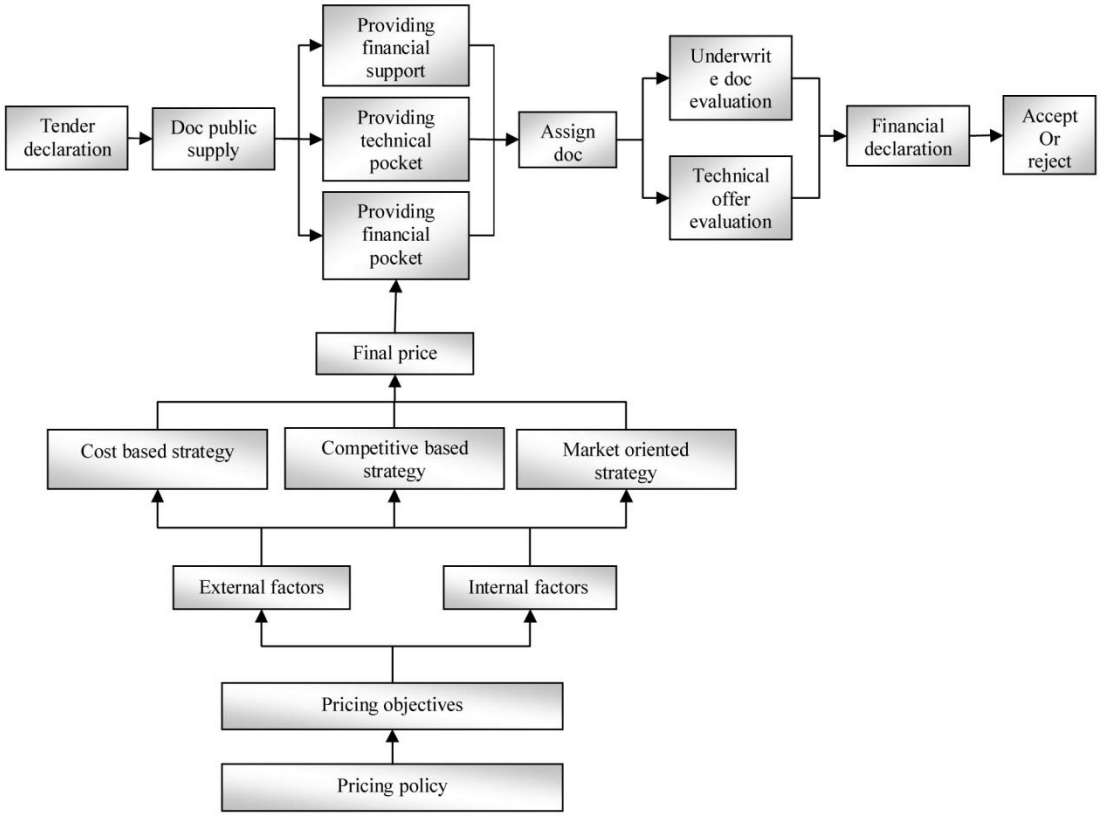

Figure 2 – General Tendering Process

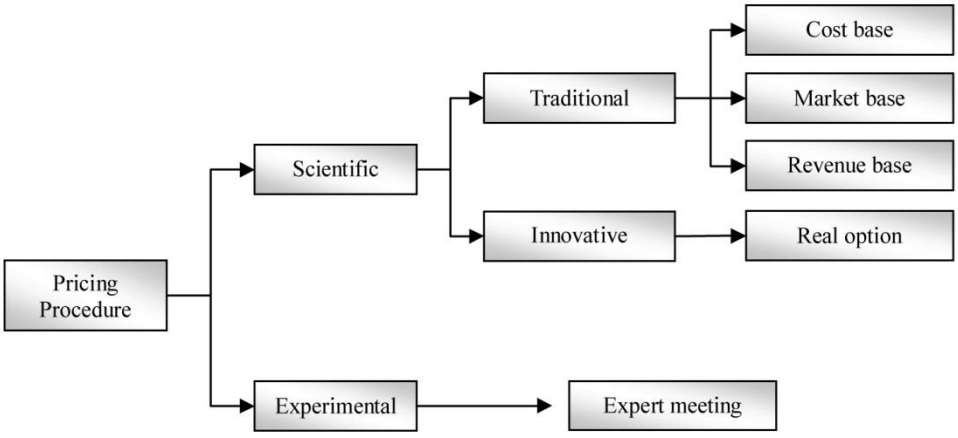

Figure 3 –different types of pricing methodology

Table 1 – Strengths and Weaknesses of Pricing Approaches

Experimental approach		Scientific approach	
weakness	**strengths**	**weakness**	**strengths**
High deviation Not easy to prove	Fast low-cost	educated and skillful HR, lot of consequence for modification, time and money consuming,	Estimation, accuracy, Useable, intelligence, modifiable,

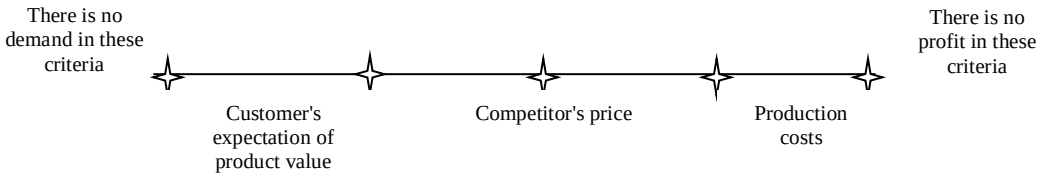

Figure 4 – Pricing Limitations

2.2. Bid Pricing Model

Organizations that call for tenders have objectives, rules and functions, but generally organizations in any tender are after following goals:

- Selecting an advance and capable consultant
- Creating a quality base competition environment to enhance consulting services.
- Quality assurance of consulting services.

Thus those who want to join the bid should recognize the goals and provide the offering package in coordinated with the above mentioned goals.

It is very critical to know that choosing any bid pricing methodology which provides the maximum profit for the organization requires accepting risks and possibility of loosing the bids. Base on possibilities the prices which includes highest amount of profit has minimum possibility of wining the bid (Reinhardt, 2014).

The advantage of using possibility theories in bid's pricing is when the organizations have the chance to attend many bids will increase the possibility of wining at least one of the opportunities. The pricing concept in bids comes from the competition perspectives. Therefore the estimation of competitors' price is very critical. Base on this discussion the pricing strategy is competitive base. Thus organization has to compare the internal process with competitors in order to assume the competitors limit of pricing. Limit of pricing is the minimum level of price that covers only the costs and under that quantity it will have pressure on organization. It is obvious that every organization have to overcome two different problems, competitors' price estimation and its own price limitations. To solve these problems a procedure called bid's expected profit[1] can be used. This procedure is executed by the following formula:

Formula 1- bid's expected profit

BEP = Profit × Probability of Wining

Base on the regulation there are four kinds of tenders which are:

- Quality and cost selection
- Quality based selection
- Selection under a fixed budget
- Simple procedure

The framework used in this article is based on quality and cost selection which is applicable for any kind of consulting services. In this procedure two major steps are done:

- Technical evaluation of consultants
- Financial evaluation of consultants

Base on the rules tender providers has to evaluate technical proposal of every attendants then they should announce the results to tenders. After that they could open financial package. The winner will be identified

only after of both evaluations. The most important consideration is the point that not always the lowest cost is the winner but the winner is consulting firm that deliver the most qualitative proposal with lowest cost.

3. Methodology

3.1. Technical Evaluation

In this stage technical section of the proposal will be evaluated by weighted point methodology. In this method all the weighted should be equal to 100%. Each consultant company will achieve a point between zero to hundred then it will be multiple by the weights and all the results will be added up (Mathews, 1992). The minimum acceptance point is 60 which have to be mentioned in the RFP.

The main indices in technical evaluation and their importance weight are as follow:

A. Methodology → 30%
B. Personnel → 10-40%
C. Special Experience → 20%
D. Training and Technology Transfer → 5%
E. Local Consultant → 5%

All these main indices are calculated by some sub indexes that are mentioned in table 2 to 6. The weights of all indices should be mentioned in RFP[2].

It is very important to estimate the client evaluation result by the help of related experts. In this stage the client will evaluate all the consultants that have applied for the bid and those who have achieved higher point than accepted rate will move on to the next stage.

Table 2- methodology and project management

No.	Technical evaluation indexes	Importance weight	Consultant score	Consultant weighted score	description
1	Technical procedure				
2	Quality assurance system				
3	Information management system				
4	Documentation and reporting procedures				
5	Technical and executive options				
6	Time schedule				
Result	Methodology and management				

Table 3- special experiences

No.	Technical evaluation indexes	Importance weight	Consultant score	Consultant weighted score	description
1	Experiences in related field				
Result	special experiences				

Table 4- key human resources

No.	Technical evaluation indexes	Importance weight	Consultant score	Consultant weighted score	description
1	Education				
2	General training				
3	Specific training				
4	Past experiences				
5	language				
6	Special skills				
7	Past responsibilities				
8	Familiarity with standards				
Result	Methodology and management				

Table 5- training and technology transfer

No.	Technical evaluation indexes	Importance weight	Consultant score	Consultant weighted score	description
1	Client personnel training				
2	Documentation preparing				
3	Information services				
4	IT services				
5	Training experiences				
6	Suggestion of technology transfer				
Result	Training and technology transfer				

Table 6- localization of consultant

No.	Technical evaluation indexes	Importance weight	Consultant score	Consultant weighted score	description
1	Local consultant				
Result	Localization of consultant				

3.2. Financial Evaluation

After the technical evaluation the client will evaluate the financial proposal. Base on regulation if the evaluation process is base on price and quality therefore the financial proposal will be evaluated by balanced pricing model. The following formula is used in this model.

$$L = \frac{100 \times C}{100 - [i \times (100 - t)]}$$

L = Balanced Price
C = offered Price in Proposal
i = Technical Score Coefficient
t = Technical Score

In this formula technical score coefficient is in the range of 0.6 to 0.9 which should be defined in RFP documents. Technical score coefficient is a constant amount that will be applicable for all consultants.

To gain success consultants have to estimate the balance price in order to set the accurate offered price. To calculate balance price by the above mentioned formula the Technical Score Coefficient is identified by the client and technical score will be calculated by the tables mentioned in technical evaluation section. The only index that is not known is offered Price in Proposal.

3-2. Calculation of offered Price in Proposal

It was mentioned that the highest amount of profit has lowest wining probability. Therefore there is reverse relationship among offered price and wining probability. This is indicated in figure 5.

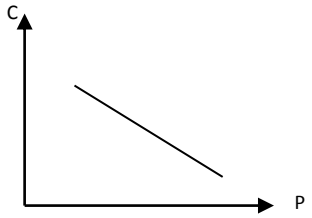

Figure 5 – The relationship Suggested Price and Winning Probability

Where C is the suggested price and P is winning probability. Therefore the following formula indicates the relation between balanced price and probability of wining.

$$L = -a\,P + b$$

Based on this formula the consultant that offer the lowest price will win by the probability of 100% and the consultant that offer the highest price has no chance to win the tender. The following example will clarify the procedure.

If in a bid the lowest accepted quality is 60% and the highest is 100% and lowest possible price for the project is 100 units and the highest possible price is 500 unit, therefore:

Table 7- estimation of general balanced price

Price (C)	Quality (t)	Balanced Price (L)	Wining Probability (P)
100	100	100	1
500	60	694	0

If the technical score of the consultant predicted to be around 70% thus:

Table 8- estimation of balanced price in the example

Price (C)	Quality (t)	Balanced Price (L)	Wining Probability (P)
79	70	100	1
548	70	694	0

Based on the table 8 the price has to be set between 79 and 548 units. To drive a curve between two point Lagrange methods can be used. Base on Lagrange methods if certain point of a line is identified then by help of Interpolation method the line formula could be calculated. It is obvious that increasing of the identified point of line will increase the line formula accuracy.

In the mentioned example two points of line are defined, (1, 79) and (0, 548) by Lagrange Interpolation method winning probability of any price can be identified.

When two points of line are known, then:

i	x	y
0	X_0	F_0
1	X_1	F_1

Lagrange formula is:

$$L_k(x) = \bigcap_{i=0}^{n} \frac{(x - x_i)}{(x_k - x_i)}, i \neq k$$

Now to calculate L_0 and L_1:

$$L_0 = \frac{x - x_1}{x_0 - x_1}$$

$$L_1 = \frac{x - x_0}{x_{\ 1} - x_0}$$

Thus the line formula is always as follow:

$$P(x) = \frac{x - x_1}{x_0 - x_1} f_0 + \frac{x - x_0}{x_1 - x_0} f_1$$

In the last example the formula for the (79 , 1) and (0 , 548) can be calculated as follow:

i	ρ	C
0	1	79
1	0	548

The line formula is:

C = -469P + 548

4. Results

Base on this formula probability of any offered price can be calculated. This is indicated in the table 9

Table 9 – wining probability of offered prices

Wining probability	Offered prices
0	548
0.1	501
0.2	454
0.3	408
0.4	361
0.5	314
0.6	267
0.7	220
0.8	173
0.9	126
1	79

If the consultant cost is 200 units, the table 10 will show the profit of consultant.

Table 10 – profitability of offered price

Wining probability	Consultant profit (π)	Offering price (C)
0	348	548
0.1	301	501
0.2	254	454
0.3	208	408
0.4	161	361
0.5	114	314
0.6	67	267
0.7	20	220
0.8	-27	173
0.9	-74	126
1	-121	79

To calculate the best price for offering in the tender the consultant profit should be multiply to the winning probability. In this example table 11 will indicate the offering price calculation.

Table 11 – calculation the best offering price for the tender

Expected profit(φ)	Wining probability	Consultant profit (π)	Offering price (C)
0	0	348	548
30.1	0.1	301	501
50.8	0.2	254	454
62.4	0.3	208	408
64.4	0.4	161	361
57	0.5	114	314
40.2	0.6	67	267
14	0.7	20	220
-21.6	0.8	-27	173
-66.6	0.9	-74	126
-121	1	-121	79

Base on the table 11 the best offering price is 361 for the quality of 70%, because the highest accepted profit is 64.4 which will win by the probability of 40%.

5. Discussion and Conclusions

In this article, among briefly reviewing the pricing literatures and its strategies, as well as the considerations of tender a bid, I tried to develop a model for increasing the effectiveness of pricing decisions for tender a bid.

For developing such a model, I utilized both valuable personal experiences and theoretical and scientific principles of pricing as well.

In other words, it has been tried to choose a mutual and innovative methodology of knowledge and experience, to propose a new model for competitive pricing. This model will assist the organization to define strategy, approach and price that could win the tender.

References

1) Atkinson, K. A. (1985). Elementary Numerical Analysis, John Wiley & Sons.
2) Blum, E. K. (1987). Numerical Analysis & Computation: Theory and Practice.
3) Cortese, Amy E. (1998). Good-Bye to Fixed Pricing, Business Week, No.4, pp.71-84.
4) Curtis, F., Gerald, Patrick O., Wheatley (1994). Applied Numerical Analysis 5th Edition,
5) Edelman, F. (1996). Art & Science of Competitive Bidding, Harvard Business Review. July-August
6) Edelman, F. (1965). Art & Science of Competitive Bidding, Harvard Business Review. July-August, PP. 53-66.
7) Jobber, David. (2012). Principles & Practice of Marketing, Mc Graw-Hill,
8) Jobber, D & Hooley, G.J. (2011). Pricing Behavior in the UK Manufacturing Industries, Managerial & Decision Economics, No.8, PP.167-171.
9) Kotler, Philip, (2013). Marketing Management: Analysis, Planning, Implementation & Control, New Jersey: Englewood Cliffs, Prentice-Hall Inc., 13th ed
10) 10) Kotler, Philip & Armstrong, Gary (2015). Principles of Marketing, New Jersey: Englewood Cliffs, Prentice-Hall Inc.
11) Mathews, J. M. (1992). Numerical Methods for Mathematics, science and Engineering, Prentice-Hall.
12) Mousaei, A, & et.al. (2006). Developing a model for technology commercialization of petrochemical products: a case study for knowledge-intensive industries, International Journal of Technology, Policy and Management (IJTPM) , Vol. 6 No. 2. (In Persian).

13) Nagle, Thomas T. & Holden, Reed K. (2017). The Strategy & Tactics of Pricing, Upper Saddle River, NJ: Prentice-Hall Inc., chapter 4.
14) Nakamura, S. (1992). Applied Numerical Methods, Prentice-Hall.
15) Reinhardt Andy (2014). Pentium: The Next Generation, Business Week, No.12, pp.42-43.
16) Shapiro, B.P. & Jackson, B.B. (1978). Industrial Pricing to Meet Customer Needs, Harvard Business Review, Nov.-Dec., PP. 119-127.
17) Schwartz, David J. (2016). Marketing Today: A Basic Approach, New York: Harcourt Brace Jovanovich, p. 271.
18) Shipley, D, (1981).Pricing Objectives in British Manufacturing Industry, Journal of Industrial Economics, No.29, PP.429-443.

Note

[1] Bid's Expected Profit (BEP)
[2] Request For Proposal (RFP)