

Marketing Expenses of Indonesian Contractors

Krishna MOCHTAR, Indonesia

Key words: Marketing mix, Indonesian contractors

SUMMARY

In the 1960s, a “new” marketing concept known as “four Ps marketing mix” appeared and shifted the focus from the product to the customer. The objective of the new concept was not only profit, and the means of achieving the objective expanded to include the entire “marketing mix”: product, price, promotion, and place (channels and distribution). Expenditures of marketing in a company should be explored from these mixes, because each mix would have an impact on the total marketing expenditures. These four mixes are the main aspects of marketing and thus, should represent almost all expenditures in marketing in a company. From this research it is discovered that the responding contractors have only average efforts to improve or innovate their service, mostly using the latest construction methods and management approach. Correlated to their policy in the fourth mix (Place), they are still national oriented and not international oriented in marketing their services, this may lead to the big question of their survival; their motivation to innovate is only average while their target market is only national market. Their attitude to use more intensive “fees” policy rather than both product innovation and promotion is also interesting. Big percentage of the responding contractors assumes these “fees” are regular marketing practices. This attitude may be better to be stopped to make the construction industry practices be healthier. Attitude to use more product innovation and true promotion approach in marketing in construction must be encouraged systematically in the future, to improve competitiveness in the long term.

RINGKASAN

Pada tahun 60an, sebuah konsep pemasaran yang “baru” yang dikenal dengan “*four Ps marketing mix*” menggeser fokus pemasaran kepada pelanggan. Tujuan pemasaran yang baru tidak hanya keuntungan, dan cara untuk mencapai tujuan melebar kesemua *mix* pemasaran: ‘*product*’, ‘*price*’, ‘*promotion*’, dan ‘*place*’. Pengeluaran untuk pemasaran dalam sebuah perusahaan seharusnya dieksplor dari keempat *mix* tersebut, karena masing-masing tentunya mempunyai pengaruh kepada pengeluaran pemasaran. Dari riset ini, terungkap bahwa kontraktor besar Indonesia mempunyai usaha kurang maksimal untuk meningkatkan kualitas jasanya terutama melalui metoda konstruksi dan pendekatan manajemen yang tepat. Mereka masih berorientasi pada proyek nasional dan bukannya internasional yang dapat menjadi masalah kepada daya saing mereka selanjutnya menghadapi kontraktor asing. Mereka juga lebih mengandalkan ‘*fee*’ merketing kepada pengambil keputusan dari pada inovasi produk dan promosi. Praktek-praktek ini sebaiknya dihentikan, dan digantikan secara lebih sistematis di waktu mendatang dengan cara inovasi produk dan promosi yang sesungguhnya, supaya industri konstruksi di Indonesia bisa lebih sehat dan lebih kompetitif.

Marketing Expenses of Indonesian Contractors

Krishna MOCHTAR, Indonesia

1. INTRODUCTION

The marketing practices are well developed in the manufacturing industry and have been continually redefined and adjusted to marketplace changes in recent decades. For example Rosenberg (1977) describes marketing as a matching process, based on goals and capabilities, by which a producer provides a marketing mix (product, services, advertising, distribution, pricing, etc.) that meets consumer needs within the limits of society. Marketing encompasses a wide range of activities such as environmental analysis and marketing research, consumer analysis, product planning, distribution planning, promotion planning, price planning, international marketing, and marketing management (Evans and Berman, 1987). Marketing is defined as a phase of human activity that produces economic want-satisfaction by matching consumers' needs and the resources of business firms (Enis et.al., 1991). From the firms' point of view, consumer satisfaction is the result of its marketing strategy. Strategy is based on marketing philosophy and is derived from the analysis of consumers and their functional interrelationships with such market forces as economic conditions, competitors' actions, institutional change, and other environmental factors (Enis et.al., 1991).

In construction, due to the low profit margin in the business, most contractors' marketing expenditures are very low compared to companies in other industries. However, according to Mochtar (2001), most Indonesians spend relatively high percentage of their annual contract value for marketing expenditures: most (60%) Indonesian respondents spend over 2% of their annual contract value (Mochtar, 2001), while their counterparts in the U.S. are only 14.3% of respondents in similar survey (Mochtar, 2000). The objective of this paper is to explore the extent of current marketing practices and its expenditures of Indonesian contractors.

2. MARKETING BUDGETING

According to Kotler (1997) there are various approaches or methods in developing marketing expenditure budget. One is "percentage of sales approach" which is based on relatively fixed percentage of last year sales or next year prediction sales. This approach is simple, easy to understand, and give flexibility to the total expenditure of the company. Another approach is "affordable approach" which is based on company financial condition and affordability. This approach is usually effective in condition when the market is not predictable. But for long terms, this approach may cause difficulties in marketing planning. Next is "return on investment approach" which is based on ratio of expected return to desired return. In this approach, marketing expenditure is assumed as investment. The problem with this approach is the evaluation of effectiveness of marketing strategy is difficult, and the right expected return for the marketing expenditure is hard to decide. Finally the "competitive parity approach: based on prediction of company main competitor's marketing expenditure. Three assumptions of this approach are: marketing expenditure is directly correlated with market share, expenditure policy of competitor is a collective policy of an industry, and finally by maintaining similarity, marketing war is prevented.

2.1. Marketing Expenditures of Contractors

In terms of the famous marketing concept 4Ps: product, price, promotion, and place marketing expenditures of contractors can be described as follows:

- **Product:** construction is a service industry. Even though the end product in construction is constructed facility such as building, bridge, road etc., it can be said that the real product in construction is the service received by the owner/client. In contractor business, the technical proposal, as part of the bidding documents, may describe the quality of product (construction service) that a contractor delivers to its client including the new techniques and other innovations that a contractor has and intends to use in the project. Consequently, how a contractor would develop a technical proposal may describe how serious they intent to improve their product (service). The technical proposal may be developed either as a routine (by only copying other project proposals), or with little, some or even huge modifications. The modifications and innovations offered to the clients to improve the product (service) may include the latest and more efficient construction methods, the most modern equipment/tools (Rostiyanti, 2002), new software, new management approach (such as ISO 9000), and others. In other words, contractor may or may not use an excellent technical proposal as a strategy to win a bid. It depends on their marketing policy, and finally will be translated to their marketing expenditures.
- **Price:** as mentioned in the previous section, transactions and contracting in construction are conducted through the competitive bidding process, so that pricing mostly takes place in the bidding process. The evaluation systems used by clients should indeed determine pricing activity and strategy in construction. It is believed that most pricing used in construction is cost-based (Mochtar, 2001). The typical procedure in cost-based pricing involves estimating the project cost, then applying a markup for profit, traditionally subjectively. A bidder must first of all, develop a good estimate of the actual costs of construction, properly accounting for all uncertainties in the price of labor and materials, the quantities required, and the difficulties (deNeufville et.al., 1977, Asiyanto, 2003). Consequently, most pricing strategy models are basically trying to optimize markup, so that the bid price is not so high, this way avoiding failure to get the contract and losses of time and money spent on preparing the proposal; and the bid price is not so low, this way avoiding getting the contract, but undertaking it at a price far lower than what it is worth, leaving the money on the table. An optimum bid price will both allow for a decent profit and yet be fractionally less than any others (deNeufville et.al., 1977). Some bidding strategies (in terms of marketing approach) include: lobby with bidding committee and its project management, price competition, bid rigging, and bid collusion. Such collusion practices and probable relevant fees in Indonesia construction are often reported as the headline such as in *Konstruksi* July 2002 (Konstruksi, 2002). Consequently, there are fees for the bidding committee, project manager of bidding committee and his/her staffs, and commitment fee for “competitors” (collusion). In turn, it will also be added to markup components, beside the contingencies (risks), overhead and profit. This expenditures are in some degree controversial. Some (mostly moralists) believe this may be a form of bribery, because it is a gift (can be cash money or “in kind”) with intention to have a privilege to win the bid. Furthermore, according to Lubis (1992) and Lubis and Scott (1985), to prevent to be accused as bribery, the gift/fee to the authorized officer may be

postponed until he/she is retired. On the other hand, some also believe that this is a marketing fee or commission that is permissible and usual practice like in any product marketing activity, so that it is part of marketing expenditure of a company. This research tested such assumption.

- **Promotion:** Arditi and Davis (1988) conclude that there are seven categories of current construction marketing activities. First, information services that provide information aimed toward a select group of clients on a regular basis. Developing local contacts with parties in industry, local development groups, and local governmental agencies can augment these information services. Second, advertising that is a very important part of marketing consumer goods. However, it is not as important for construction marketing whose objective is to increase awareness of or gaining recognition for the company's name and capabilities. Advertising seems to be justified since not all projects are open to public bids. Third, publicity, a process of obtaining editorial coverage of the company and its products in the various media read, heard or seen by clients and prospective clients. Examples may include major projects that are started or completed, implementation of new technology, management innovations, participation in professional activities, and assistance with civic and cultural organizations and events. It is also essential to combat negative publicity such as those associated with major accidents, environmentalist movements, or anti-development forces. Fourth, brochures and publications, that is a common way of demonstrating a contractor's past projects, capabilities, services, and expertise. Preece and Male (1997) found that the promotion function in construction is underdeveloped. There is a gap between the perceptions of construction firms and their principal audiences in terms of the messages that are being conveyed. The empirical evidence compiled by Preece and Male (1997) suggests that there are clear differences between what the company is promoting, the messages they are conveying, and what clients and their advisers seek from promotional activities. Care must be taken to make the brochure distinctive and to make sure that it communicates the capabilities, expertise, and significant accomplishments of the company in the most effective manner. Fifth, corporate identity program, that is the system of symbols, names, and mottos that appears on forms, letterheads and other stationery items. Sixth, the education, support and participation of all employees in the marketing plan, that is important to marketing success. And finally, price strategy, modified contracts, and additional services, that are means to obtain a contractor to modify a proposed contract to give the company a competitive advantage (Arditi dan Davis, 1988). The policy of which activities and in what rate the companies would use in their promotion program will determinate the marketing expenditures.
- **Place:** How easy a prospective client to assess a product is very important. In construction, because the constructed facility is in certain location and not portable, there are ways to do the business. Some contractors would only send his staffs and other resources to the location to do the job. If the job were more frequent in a certain location, the company would develop either a branch office or a network/cooperation with local company. This way the operation may be more efficient and easier to manage. The company may be more effective to win a job in such locations, and in turn the market share and profit should be improved. The policy of developing and maintaining branch

office or company networks or not would eventually be translated to marketing expenditure of the company.

3. METHODOLOGY

3.1. The Survey

As part of the study presented in this paper, a survey instrument was developed as a questionnaire. The questionnaire was sent to 50 presidents/CEOs of Indonesia Contractors Association (Asosiasi Kontraktor Indonesia- AKI) active members construction companies. The objective of the instrument is to obtain three types of information. First, company's characteristics in the last one year are sought. These characteristics are company's internal variables that highly affect the marketing expenditures: type of most projects pursued, geographic location of most projects, work subcontracted on average job, annual contract value, marketing orientation in most projects, market segment in which respondents operate, policy on equipment. Furthermore, the first part of the instrument also assesses how the respondent's marketing practices in terms of marketing expenditure budgeting, and in terms of the level of organization that handles marketing programs. The second part of the instrument is to assess respondent's marketing practices in the last one year in terms of marketing mix 4Ps concept: product, price, promotion, and place. This way, the percentage of each of the 4 Ps marketing expenditures can be assessed, so that the total marketing expenditure is also discovered. Using this total expenditure data, the hypotheses developed are tested. The last part of the questionnaire is assessing any comments concerning marketing expenditures in construction. It may include respondent's belief, experience or critics of research approach, and others. The findings of impact of these company characteristics on marketing expenditures are reported in Mochtar (2004) and not discussed in this paper. In line with the objective, this paper focuses on findings related with the second part of the questionnaire that is respondent's marketing practices in the last one year in terms of marketing mix 4Ps concept: product, price, promotion, and place.

3.2. Data Analysis

The characteristics of the company of respondents and their marketing practices in terms of 4Ps marketing expenditures are analyzed using simple statistic analysis, namely frequency analysis. By using this analysis, the percentage of all respondents to any question in the questionnaire is found, and then interpreted.

4. FINDINGS AND DISCUSSION

In this section the result of a survey to the presidents/CEOs of Indonesia Contractors Association (Asosiasi Kontraktor Indonesia-AKI, an organization of large construction companies) members is presented. Even though the research was conducted in 2004, similar condition still exists for it is believed that marketing is not much changed and developed in construction from 2004 up to current time in Indonesia. Fifty questionnaires are sent out to fifty active members of AKI and seven are returned and duly filled out, making the rate of return is 14 percent. Fourteen percent-rate-of-return is a relatively high percentage for construction surveys in Indonesia, especially considering such sensitive issue of "marketing expenses" surveyed.. From now on, those responding contractors are called "respondents".

4.1. Marketing Practices and Expenditures

Table 1 (in Appendix) presents data regarding marketing efforts in terms of the first P:Product of 4Ps marketing concept. It appears that no respondents develop their proposal as a routine (by merely copying other project proposals and without serious efforts) or with special efforts and huge modification. 57.1% modified their proposals with little efforts and 42.9% modified it with many efforts. This finding is exactly in line with level of innovations and how often they put innovations in the proposal. The modifications and innovations offered to the clients to improve the product (services) may include the latest and more efficient construction methods (71.4%) and new management approach (such as ISO standards implementation) (85.7%). Indeed construction methods and management approach innovations are the most effective and affordable means because it stresses mind innovations. On the other hand, no respondents innovate with the most modern equipment/tools, and new software. The reason may be the costs of this kind of innovations are expensive. In other words, contractor may or may not use an excellent technical proposal as a strategy to win a bid. It depends on their marketing policy, and finally will be translated to their marketing expenditures. From data collected, averagely, they spend in average 1.9% of annual contract value for this product improvement as their marketing strategy.

As presented in Table 2 (in Appendix), price competition is used often to always (score: 3.57 where 1=never and 4=always) by respondents as their bidding strategy. This finding is rather surprising, considering high collusions and corruption cultures in Indonesia as claimed by Konstruksi (2002) and Lubis (1992). Surprisingly respondents admit only never to sometimes (score: 1.14) use “bid collusions (namely “tender arisan”, tender with ‘take turn’ commitment among the contractor participants) and use of more than one company names in the same group as their bidding strategy. This somehow contradicts with other finding that there is averagely 0.6% of annual contract value (relatively high) commitment fee for collusion spent as marketing expenditure. On the other hand respondents admit that sometimes (score: 2.14) they use strategy of lobbying bidding committee/project leader, even though theoretically and ethically this kind of action should never be done, so that no potential for collusions and bribes; this theory and ethics are confirmed by data that there are average percentage fees for bidding committee 0.5%, for project leader 0.6%, and others related 0.7% of annual contract value as the result of the lobbying strategy. Totally, respondents spend in average 2.4% of annual contract value for these fees. Furthermore, interestingly, as assumed, big part of respondents (42.9%) considered these fees as usual marketing expenditures, not as bribes. On the other hand, there are 57.2% (each 28.6% for “No” and “No comments” responses) of respondents that might consider this as not a marketing expenditure so that it is unethical practices or even bribes. This finding is in line with findings of similar survey to small contractors in Yogyakarta, Indonesia (Arifin, 2003).

Table 3 (in Appendix) presents data that concerns respondent companies' third mix P: promotion practices, both in terms of percent of respondents, and average scores of each type of action. Table 3 indicates that the two most popular types of promotion actions are "brochures" and "manual/company profile (printing)" with average scores of 3.83 and 3.67 (almost always) respectively. Indeed the use of brochures as marketing tools is very popular in any industry, including construction industry. In construction, brochures are the common

way of demonstrating a contractor's past projects, capabilities, services, and expertise. However, because of economic reasons, a different brochure cannot be printed for the specific needs of each potential client (Arditi and Davis, 1988). Brochures are very easy to distribute because its simple form yet information dense; it can be distributed directly to the prospective clients in the exhibitions, and any public events. The aim of brochure is to inform the existence of the company or its product(s); the information is very short yet important and thus any, interested party should contact the company to further information (Allen, 1990). Nevertheless, it seems that contractors always use this simple form of marketing tool to promote their business to the public, making it the most popular tool.

The second most popular promotion practice is to print manual/company profile. This is categorized by Arditi and Davis (1988) as corporate identity program that includes system of symbols, names and mottos that appears on forms, letterhead and other stationery items, clothing and accessories, construction offices, equipment, and including company profile/manual.

Company profile/manual is relatively more expensive than brochure, because it has more information of the company such as narration of special completed projects and experiences, and also the philosophy (vision, mission, mottos) of the company. The aim of this tool mainly is to inform serious prospective clients the excellences of the company, so that it is hoped they will seriously consider inviting the company to the next step of the project under process.

Interestingly, the least popular promotion tool in construction is audio-visual advertisements, such as television and radio advertisements, with average score of 1.17 (almost never). As opposed to other industries where the use of this kind of tool is highly intensive, construction companies almost never use it. This may be caused by the nature of its product. The product nature in construction is service and is not frequent needed and thus, repeat buying is not likely to happen. Even, some clients are one time buyer in their entire life. Furthermore, the price of the service is relatively very high (thousands of dollars) compared to consumer goods, so that use of such advertisements is not as effective as in other industries as also believed by Arditi and Davis (1988).

Finally, it is discovered that overall budget of promotion activity is averagely 1.43% of their annual contract value, which is relatively a large number. It may be caused by fierce competition in Indonesia due to economic crisis that highly affect number of construction project available in the market that becomes a very small number. This situation may force companies to make promotion programs more aggressively that make promotion costs increase. On the other hand, the annual contract value may be decreasing due to the crisis; the final result is relatively high percentage of annual contract value promotion activity.

Table 4 shows the marketing practices and expenditures in terms of the fourth P: Place. Average number of branch office that respondents have is 10 offices in 10 cities in 10 provinces. It seems that respondents have one branch office per province where they have branch office. The total number of provinces in Indonesia is 32. It means that they operate in about 30% provinces in Indonesia. No contractors have branch office outside Indonesia. It seems that even though the market in Indonesia is decreasing due to economic crisis and there are huge potential markets outside of Indonesia, marketing policy of Indonesian contractors is still national oriented rather than international oriented. This may be caused that changing

Table 4. The fourth P: Place

Types of Place	Average
1. Branch Office	
- Inside of Indonesia	
Number of office	10
Number of cities	10
Number of provinces	10
-Outside of Indonesia	
Number of office	0
Number of cities	0
Number of countries	0
2. Company networks	
- Inside of Indonesia	
Number of office	3
Number of cities	2
Number of provinces	2
-Outside of Indonesia	
Number of office	1
Number of cities	1
Number of countries	1

policy to international market is not that easy, because it needs huge preparation such as management, law, human resources and cultures consideration as well as huge capital investment. On the other hand networking inside Indonesia is not as popular as branch office approach. Respondents have only averagely 2 to 3 company networks inside Indonesia. However networking approach outside Indonesia is more popular than branching approach.

Averagely respondents have 1 network in 1 city in 1 country, implying they have only one network per country.

From data collected it is also found that the effectiveness of this strategy in terms of market share is 38.71% and in terms of profit is averagely 32.41% resulting overall effectiveness score of 2.29 (1=not effective; 5=very effective). The responding companies budget averagely 3.2% of annual contract value for this strategy, the highest among other P's budget.

In summary as can be seen in Table 5, Indonesian construction company respondents averagely expense 1.9%, 2.4%, 1.43%, and 3.2% of annual contract value for marketing purposes in terms of 4Ps marketing mix: Product, Price, Promotion, and Place respectively, making the total sum of marketing expenditure of 8.9% of annual contract value.

Table 5. Summary of Marketing Expenditure

4P Mix	Average % of Annual Contract Value
Product	1,9
Price	2,40
Promotion	1,43
Place	3,2
Total	8,9

The average 8.9% total marketing expenditures confirms Mochtar's (2000) finding that 60% of Indonesian contractors expense over 2% of annual contract value for marketing purposes. On the other hand, Mochtar's (2000) finding that only 14% of US contractors spend over 2% of annual contract value for marketing purposes needs to be reconfirmed. One possible reason might be that "marketing" term here is interpreted as "promotion". If this interpretation is used in this research, Indonesian's average expenditure for promotion purposes of 1.43% (< 2%) explains this phenomenon.

Surprisingly, the promotion expenses are the smallest expenditures while expenses related to price (fees) are the second largest expenditures. It seems that efforts to find market rely on more to their approach to owner rather than rely on more ethical and scientific approach such as promotion programs. This can lead the industry to be more risky to corruption, collusion, and nepotism practices, a climate that is not healthy for business. Furthermore, their expenditure to improve their product (service) is ranked three of four mixes, implying that their efforts to advance their product are not prioritized. This attitude may lead worse competition level if foreign contractors enter Indonesia market in this global era. If this attitude is not altered, it is not impossible that markets will leave Indonesian contractors to find better products offered by foreign contractors.

5. CONCLUSION

From this research it is discovered that most Indonesian contractors have only average efforts to improve or innovate their service, mostly using the latest construction methods and management approach. It is confirmed that this "Product" mix only ranks the third priority of the four mixes. This attitude should be changed so that they would be more motivated to improve and innovate their service, particularly in the present global era of competition where in no time, foreign contractors will enter Indonesian market with better services and innovations. Furthermore, it is also discovered that their policy in the fourth mix (Place) is still national oriented and not international oriented in marketing their products. Combination of this attitude may lead to a big question of survival. Once better contractors from all over the world enter the market, they may loose their market.

Their attitude to use more intensive and prioritize “fees” policy rather than both product innovation and promotion is also interesting. Even though most respondents assume these “fees” are regular practice (while some moralists assume these are other forms of corruption, collusions, and nepotism), this attitude may be better to be stopped to make the construction industry practices healthier. The use of more product innovation and promotion approach in marketing in construction must be encouraged systematically in the future to improve competitiveness in the long term.

Duplication of this research to US contractors is needed and recommended to reconfirm and to test the possibility of “marketing” term is interpreted as only “promotion” in the US, not as 4Ps as in Indonesia.

REFERENCES

- Allen, P. “*Selling.*” Longman Group UK Ltd, 1990.
- Arditi, D. and Davis, L. “Marketing of Construction Services.” *Journal of Management in Engineering*, 4(4), ASCE, pp. 297-315, 1988.
- Arifin, Z. “*Bidding and Markup Strategy of Construction Project and its Relation with High Cost Economy in Yogyakarta.*” MS Thesis, University of Indonesia, Jakarta, 2003.
- Asiyanto “*Construction Project Cost Management.*” PT Pradnya Paramita, Jakarta, 2003.
- Enis, B.M., Cox, K.K., Mokwa, P.M. “*Marketing Classics A Selection of Influential Articles*” Prentice Hall, Eighth Edition, New Jersey, 1991.
- Evans, J.R. and Berman, B. “*Marketing.*” Macmillan Publishing Company, Third Edition, New York, 1987.
- Konstruksi No 311 “*Laporan Utama Tender atau Tender-Tenderan?.*” PT Tren Pembangunan, Jakarta, Juli 2002.
- Kotler, P. “*Marketing Management Analysis, Planning, Implementation, and Control.*” 9th edition, Prentice Hall, New Jersey, 1997.
- Lubis, M. “*Budaya, Masyarakat dan Manusia Indonesia Himpunan ‘Catatan Kebudayaan’ Mochtar Lubis di Majalah Horison.*” Yayasan Obor Indonesia, Jakarta, 1992
- Lubis, M., Scott, J.C. “*Bunga Rampai Korupsi.*” LP3ES, Jakarta, 1985.
- Mochtar, K. “*Market-Based Pricing in Construction.*” Ph.D. Dissertation, Illinois Institute of Technology, Chicago, 2000.
- Mochtar, K. “Pricing Strategy in the Indonesian Construction Industry.” *Dimensi Teknik Sipil Journal of Science and Application in Civil Engineering*, Vol 4(2), Petra Christian University, Surabaya, Indonesia, September, 2002, pp 85-93.
- Mochtar, K. “Impact of Company Characteristics on Marketing Expenditures in Construction.” *Journal of Civil Engineering*, Faculty of Engineering, Tarumanagara University, Jakarta, 2004.

de Neufville, R. and Lesage, Y., and Hani, E.N. "Bidding Models: Effects of Bidders' Risk Aversion." *Journal of the Construction Division, ASCE*, 103(1), pp. 57-70, 1977

Preece, C., Male, S. "Promotional Literature for Competitive Advantage in UK Construction Firms." *Construction Management and Economics*, 15, pp. 59-69, 1997.

Rosenberg, L.J. "*Marketing*." Prentice Hall, Inc, New Jersey, 1977.

Rostiyanti, S.F. "*Alat Berat untuk Proyek Konstruksi*." Penerbit Rineka Cipta, Jakarta, 2002.

BIOGRAPHICAL NOTES

- Experienced in teaching at universities (home based on Indonesia Institute of Technology-ITI), researching, and consulting (design, supervision and management) in construction areas
- Around 30 publications in various international and national journals and conferences on productivity improvement, pricing strategies, marketing expenditures, production management, and green construction issues.
- Member of National Construction Development Board (LPJKN), Indonesia Construction Experts Association (ATAKI), Indonesia Consultant Experts Societies (INTAKINDO)

CONTACT

Prof Ir Krishna Mochtar, MSCE, PhD
Indonesia Construction Experts Association (ATAKI)
JI Kair 33 RT 04/04 Ragunan
Jakarta 12550
INDONESIA
Tel. +62818730089
Fax + 62217560542
Email: kmochtar@yahoo.com
Web site: --

APPENDIX

Table 1. The First P: Product

Parameters	Respondents as percentage
In developing most technical proposals respondents would do it	
With no special efforts	0.0
With little efforts and with little modification	57.1
With many efforts and with many modification	42.9
With special efforts and with huge modification	0.0
No answer	0.0
Innovations respondents make in the last years to improve services to clients	
Latest and more efficient construction methods	71.4
Most modern equipment/tools	0.0
New software	0.0
Management approach	85.7
No answer	0.0
Innovations respondents would offer in most technical proposals	
No innovations	0.0
Little Innovations	57.1
Many innovations	42.9
Huge innovations	0.0
No answer	0.0
How often respondents use an excellent technical proposal as a strategy to win a bid	
Almost never (0%-10% of bids)	0.0
Sometimes (10%-50% of bids)	57.1
Often (50%-90% of bids)	42.9
Almost always (90%-100% of bids)	0.0
No answer	0.0

Table 2. The second P: Price

Types of Action	Respondents as percentage	Average score
Bidding Strategy		
Lobby with bidding committee/project leader		2.14
Never	28.6	
sometimes	42.9	
Often	14.3	
Always	14.3	
Price competition		3.57
Never	0.0	
sometimes	0.0	
Often	42.9	
Always	57.1	
Use of more than one company names (Bid rigging)		1.14
Never	85.7	
sometimes	14.3	
Often	0.0	
Always	0.0	
Bid collusions		1.14
never	85.7	
sometimes	14.3	
often	0.0	
always	0.0	

Note: 1=never, 4=always

Table 3. The third P: Promotion

Activities	Respondents as percentage	Average Score
Printed media advertisements (newspaper, magazine etc.)		2,00
never	0,0	
sometimes	85,7	
often	0,0	
always	0,0	
Audio-visual advertisements		1,17
never	71,4	
sometimes	14,3	
often	0,0	
always	0,0	
Direct mail		2,33
never	28,6	
sometimes	14,3	
often	28,6	
always	14,3	
Brochures		3,83
never	0,0	
sometimes	0,0	
often	14,3	
always	71,4	
Newsletter		2,17
never	42,9	
sometimes	14,3	
often	0,0	
always	28,6	
News Releases		1,83
never	57,1	
Sometimes	0,0	
Often	14,3	
Always	14,3	
Trade Show		2,00
Never	28,6	
Sometimes	42,9	
Often	0,0	
Always	14,3	

Note: 1=never, 4=always

Table 3. (Continued)

Activities	Respondents as percentage	Average Score
Client Relations (outside of bidding period)		3,29
never	0,0	
Sometimes	14,3	
often	42,9	
always	42,9	
Handbooks		1,33
never	57,1	
Sometimes	28,6	
often	0,0	
always	0,0	
Manual/company profile (printing)		3,67
never	0,0	
Sometimes	0,0	
often	28,6	
always	57,1	
Website		2,71
never	28,6	
Sometimes	14,3	
often	14,3	
always	42,9	
Event sponsorship		2,29
never	14,3	
Sometimes	57,1	
often	14,3	
always	14,3	
Seminars		2,17
never	14,3	
Sometimes	57,1	
often	0,0	
always	14,3	

Note: 1=never, 4=always

