



**INDUSTRIALISED BUILDING SYSTEM (IBS)
IN MALAYSIA: A SURVEY ON MARKETING
AND PROMOTION**

AZEANITA SURATKON



**PROSIDING KEBANGSAAN AWAM 2007
29 – 31 MEI 2007
LANGKAWI KEDAH**

Industrialised Building System (IBS) in Malaysia: A Survey on Marketing and Promotion

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Abstract

Since 1998, Construction Industry Development Board (CIDB) has been actively promoting the use of Industrialised Building System (IBS) in the local construction industry. Seven years into this programme, it is timely to perform this study which was undertaken to identify the success of marketing and promotion of IBS in Malaysia that has been carried out amongst construction industry players. Using questionnaire survey distributed to consultants (architect, quantity surveyor, civil and structure engineer), contractors, developers and manufacturers, this study revealed that the level of knowledge on IBS is still low amongst respondents. This phenomenon resulted from low participation in IBS promotion activity such as road show, seminar/conference and competition organized by CIDB and lack of ownership of IBS publications produced by CIDB. The preference of promotion and marketing of IBS in Malaysia was surveyed in term of type of activity and publication, frequency, medium and location of promotional activity in order to suggest better strategies on marketing and promotion of IBS in Malaysia based on preferences of local construction industry players in the future.

Key words: Construction Industry Development Board (CIDB), Industrialised Building System (IBS), marketing, promotion

1.0 Introductions

1.1 Overview of Industrialized Building System (IBS)

IBS may be defined as “construction systems in which components are manufactured in a factory, on or off site, positioned and assembled into a structure with minimal additional site works” (CIDB News Bill No. 2 (2004)).

Based on structural aspects, IBS can be divided into five major types (CIDB News Bill No. 1 (2003)):

- Type 1: Pre-cast Concrete Framing, Panel and Box Systems
- Type 2: Steel Formwork Systems
- Type 3: Steel Framing Systems
- Type 4: Prefabricated Timber Framing Systems
- Type 5: Block work Systems

Through the industrialization of construction, huge amount of work is shifted offsite, resulting in less site labour, material and wastage; and leaving the construction sites tidier and cleaner. Simplifying and speeding up the processes, IBS disassociates the industry from the 3-Ds or 3-Ks tag: Dirty (Kitanai), Difficult (Kitsui) and Dangerous (Kiken). With IBS, the quality of projects is also easier to control; thus reducing rectification works and lowering the total cost of construction.

The concept of IBS is not new and can be traced back to as early as 1624 when panelised timber houses were shipped from England to the new settlements in North America (Jurutera Bil No. 6 (2003)). While steel structures of road and railway bridges were common in pre-independence Malaya, the use of pre-cast concrete in the local construction industry arrived much later.

In 1996, the Malaysian government launched two pilot projects – the Pekeliling Flats in Kuala Lumpur and the Rifle

Range Road Flats in Penang; both using pre-cast concrete elements to build these high rise low cost flats. Following these pilot projects, Perbadanan Kemajuan Negeri Selangor (PKNS) acquired pre-cast concrete technology from Praton Haus International, Germany and built numerous housing projects ranging from low cost houses to high cost bungalows from 1981-1993 (Henderson et. al, 1994).

The success of pre-cast, steel and hybrid construction contributed to the rapid creation of numerous beautiful and quality structures; particularly during the period of 1995 to 1998. These include the construction of the Bukit Jalil Sports Complex and Games Village, the Petronas Twin Tower and the LRT lines and tunnels. IBS's benefits inherit in the beautiful structures of the Putrajaya precincts and in the projects to improve Kuala Lumpur's infrastructure. Others include the construction of elevated highways using pre-cast concrete box girders as well as the monorail lines utilizing arched pre-cast concrete beams (IBS Digest, 2005).

However, even after nearly four decades of introducing, it appears that the usage of IBS in Malaysia is still low compared to that of other developed countries such as Japan, UK, Australia and US. It is a loss for the local industry players as IBS offers solutions to the issues previously identified, which would definitely exert a major impact on the industry-productivity, quality, health and safety, and the environment (Nally Haineen Harun, 2004).

1.2 Marketing and Promotion of IBS in Malaysia

Marketing is defined as the process of creating, distributing, promoting, and pricing goods, services, and ideas to facilitate satisfying exchange relationships with customers in a dynamic environment (Bradley, 2003). The core concepts of marketing are needs, wants and demands which directly affect the identification and selection of relevant customers values reflected in products, services and ideas that the organization provides, communi-

cates and delivers in the form of exchanges to build long-term satisfactory relationship with customers (Wilmshurst, 2002).

Promotion is communication that builds and maintains favourable relationships by informing and persuading one or more audience to view an organisation more positively and to accept its products. While a company may pursue a number of promotional objectives, the overall role of promotion is to stimulate product demand. A considerable amount of promotion by CIDB focuses on creating IBS awareness among the main industry players and others. CIDB create awareness by organizing Road Shows and seminars to promote IBS in Malaysia.

When the organisation is the first to introduce an innovative product, it tries to stimulate primary demand, which is a demand for a product category rather than a specific brand of a product through pioneer promotion. Pioneer promotion informs potential customers about the product like, what it is – the advantages and disadvantages, what it does, how it can be used, and where it can be purchased. Pioneer promotions is used in the introductory stage of the product life cycle, which means there are no competing brands, it neither emphasizes brand names nor compare brands. By using this objective, CIDB has organised Road Shows and showcase to show what IBS is – its advantages, development and usage.

Several promotional methods can be used to communicate with individuals, groups and organisations. When an organisation combines specific methods to manage the integrated marketing communications for a particular product, that combination constitutes the promotion mix for the product. The four possible elements of a promotion mix are advertising, personal selling, public relations, and sales promotion. The promotion mix that has been used by CIDB to promote IBS in Malaysia is as follows:

- a) Road Show

Throughout the year 2005, three Road Shows were held for the Eastern Territory for the States of Terengganu, Sabah and Sarawak. It was aimed at attracting involvement from agencies, consultants, contractors and manufacturers as the implication of the direct involvement of the state government.

b) Seminar

In the year 2005, four Awareness Seminars with the co-operation of related NGO was organized where it was aimed at attracting interest from businessman, architects and engineers. The seminars were co-organized with the collaboration from UK Trade and Investment, *Dewan Perniagaan Melayu Malaysia Melaka* and PAM which attracted 900 participants.

Apart from that, 29 briefing sessions and talks regarding IBSA were held for government agencies, NGO's and construction companies which had the participation of 1,700 individuals.

c) Awards

Several projects were given the recognition through awards. The Malaysian Construction Industry Award 2005 was given to projects which had IBS features in them. The award was categorised into several categories such as below: -

- Best Building Project Award
- Best Engineering Project Award
- Best Small Project Award
- International Achievement Award

d) Media Promotion

- Articles were published in local newspapers on the 7th (THE Star) and 8th of January 2005 (New Straits Times and *Utusan Malaysia*) regarding levy exemption.
- News about the IBS Seminar CIBD-UKTI in NTV 7 on the 18th of January 2005 and another piece of news about IBS in RTM on the 3rd of February 2005.

- Live interview in the *Selamat Pagi Malaysia* program on the 3rd of February 2005.
- Article on the dependency on foreign workers in THE Star and *Utusan Malaysia* on the 3rd of May 2005.
- Monthly article in *Berita Arkitek*.
- Production of posters and the revealing of IBS Corporate Video and IBS Case Study Project of *Akademi Bina Malaysia Utara*.

e) Showcase

f) Round Table Conference

g) Advertisement

h) Competition.

(*Laporan Kemajuan IBS*, Disember 2005)

Apart from promotional programs, CIDB is also involved in a lot of other efforts to ensure the success of IBS in Malaysia in accordance with the Roadmap. Other relevant efforts undertaken by CIDB are as below:-

- Preparation of Materials, Documents, Resource, and Reference Centre for IBS.
- Development of Skill and Specialization.
- Registration, Evaluation and Certification Program.
- Development of *Bumiputera Entrepreneur*.
- Enforcement
- Encouragement and Incentive Scheme

(*Laporan Kemajuan IBS*, Disember 2005)

CIDB strongly supports the use of labour-reducing systems in order to reduce the dependency on foreign labour in the local construction industry. Besides increasing the outflow of Ringgit to foreign economies, dependency on foreign labour brings about several negative impacts to the nation within the social and cultural contexts. Programmes have been organized with numerous parties in educating the industry on the various benefits of IBS. In enhancing the global competitiveness of Malaysia contractors, CIDB has

deployed large funds for researches, standards development as well as various training and promotion programmes. CIDB has been sponsoring numerous research and development programmes to develop innovative IBS applications. Workers are not only being trained in the basics of conventional construction methods, but also in the installation of IBS components and IBS site management.

Seven years into this programme, it is shown that CIDB should be now conducting a study on the trend of IBS usage in the local construction industry. This will test the effectiveness of its current programmes and lay the foundation to formulate new strategies.

2.0 Objectives, Scope and Methodology of the Survey Research

2.1 Objectives of the Survey Research

This study "IBS in Malaysia: A Survey on Marketing and Promotion" was undertaken to:

- Identify the marketing and promotion of Industrialised Building System (IBS) in Malaysia that has been carried out previously, currently, and in future, where previously is in the year of 2003, 2004 and 2005, currently is in the year of 2006 and in future is the respondents preferred preference.
- Suggest the strategies on marketing and promotion of IBS in Malaysia.

2.2 Scope of Research

The scopes of this research are:

- The general view of IBS and its applications are based on literary study on IBS from journals, seminar papers, magazines and thesis.
- A survey conducted using questionnaire on the extent of IBS marketing and promotion based on the users' perceptions and suggestions.
- The respondents identified for the survey were those involved in the us-

age of IBS which are consultants (architect, quantity surveyor and civil and structural engineer), contractors, developers and manufacturers throughout Malaysia.

2.3 Research Survey Methodology

The questionnaire survey method is used for data collection. The questionnaire is formulated based on extensive literature review on IBS promotion activities by CIDB.

The questionnaires are divided into four (4) parts. There are as follows:

- a) Part 1: Respondents Background
In this part, respondents were asked about their company's name, address, the respondents' position in the company and the respondents working experience.
- b) Part 2: Generally about IBS
In this part, respondents were asked about their knowledge on IBS, such as, do they know what IBS is and how they know about IBS.
- c) Part 3: Marketing and Promotion of IBS in Malaysia – Current.
In this part, the respondents were asked about the promotions that have been done by CIDB and their view currently that is in the year of 2006.
- d) Part 4: Marketing and Promotion of IBS in Malaysia – Future.
In this part, the respondents were asked about the preference of promotion and marketing of IBS in Malaysia in future that is in the year of 2007 and above.

Quantitative data is produced from the questionnaires to the stated respondents. The data from the questionnaires collected using Statistic Program for Social Science, Version 10 (SPSS) software. Then, suitable data is converted into the form of percentage or shown in the form of tables, charts or graphs.

Apart of the questionnaire, interview with CIDB officer was done to obtain better idea on the promotion and marketing

of IBS in Malaysia. As a result, the researcher also obtained more or less the view, perceptive and experience of the officer generally about IBS indirectly. The data obtained from the interviews is analyzed as qualitative.

3.0 Results and Analysis

3.1 The Rate of Response

All respondents was given roughly a period of two months to return their questionnaires either by mail or fax based on the date of postage. The process of posting 705 pieces of questionnaires' began early April 2006 and the dateline of acceptance was 30th of June 2006.

131 companies replied which forms 19% of feedback. This percentage can be considered better if compared to the percentage of feedback CIDB received for a similar survey conducted in the year 2003.

Table1: Response rate of the research

Quantity Sent (Number)	Quantity Received (Num., %)	Valid Responds (Num., %)	Invalid Responds (Num., %)
705	131 (19%)	120 (92%)	11 (8%)

All analysis carried out was based on the 120 numbers of the valid responds and all data was of June 2006.

3.2 Respondents' Background

Based on the breakdown of respondents (Figure 1) according to their company type, contractors were the most active participants in this survey followed by Government / Semi – Body agencies and tied in third place are the Architect and Quantity Surveying companies. The large number of reply from contractors could have been because of the factor that the largest number of questionnaire (144) posted were to the Contractors out of the total number posted. The least interested in this survey was the manufacturers' who

formed only 8 % of the total breakdown. All the responds processed were valid responds, invalid responds was not taken into account.

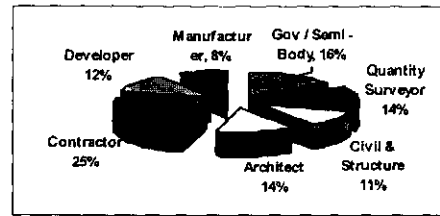


Figure 1: Category of respondent's

On the other hand, 69% of the respondents had experience working in the industry for more than 10 years. This particularly shows their maturity to participate in survey involving the construction industry itself. Basically, the breakdown is in the ascending manner (Figure 2).

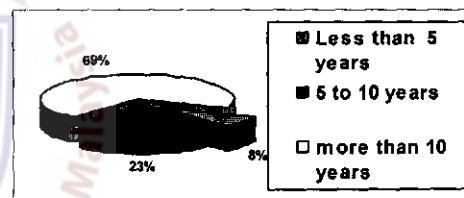


Figure 2: Respondents' working experience in the construction industry

Majority of the respondents have never been involved in any construction projects dealing in IBS; which ultimately forms 64% of the total percentage (Figure 3).

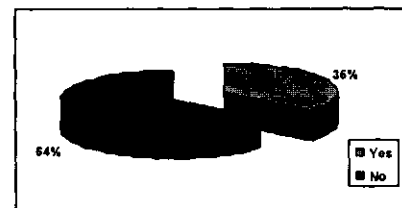


Figure 3: Experience in dealing with IBS construction

3.3 Knowledge on General Information of IBS

Based on the feedbacks, 42 % of the respondents acknowledged that they definitely know about IBS whereby 18 % were not sure about the whole idea of IBS (Figure 4).

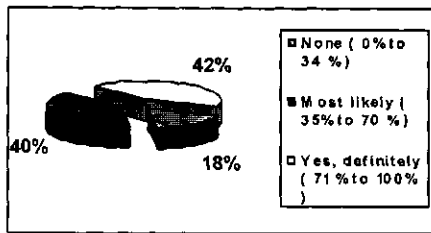


Figure 4: Level of knowledge about IBS

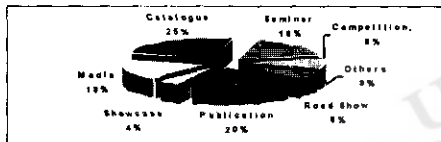


Figure 5: Source of information on IBS

Printed material such as catalogue plays a major role in spreading the information about IBS whereby in this survey 25 % (Figure 5) tend to know about IBS through catalogues.

On the other hand, only 54 % (Figure 6) of the respondents are aware about the levy exemption plan announced by our Prime Minister Dato' Sri Abdullah Ahmad Badawi for those who utilises IBS in their projects.

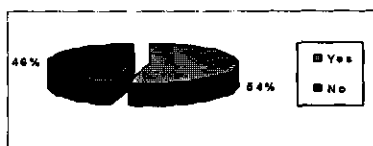


Figure 6: Awareness of levy exemption

Out of the 120 valid responds, only 21 % (Figure 7) have participated in IBS promotion activity organised by CIDB

where else a majority of 79 % have never done so.

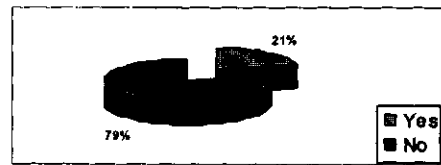


Figure 7: Participation in IBS promotion activities

3.4 Promotion and Marketing of IBS in Malaysia

Based on Figure 8, it can be observed that only 15% of respondents have ever participated in any Road Show organised by CIDB to promote IBS. At the same time, the latest Road Show last year was the most participated by the respondents who did so.

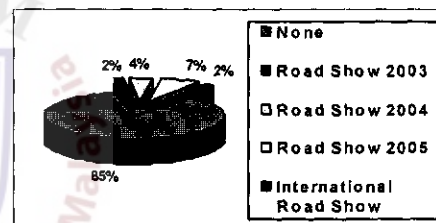


Figure 8: Participation in road show

59% of the respondents were not aware of the articles, which were published in the newspaper regarding IBS (Figure 9).

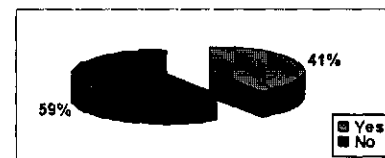


Figure 9: Awareness about IBS article in newspaper

88 of the respondents did not have any of the IBS catalogues distributed by CIDB (Figure 10).

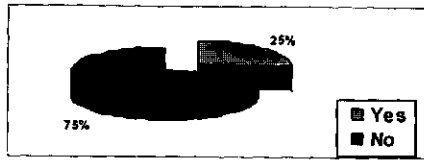


Figure 10: Ownership of IBS product catalogue by CIDB

Out of the total number who had such a catalogue, mostly had the Catalogue of Precast Concrete Components for Building Works 2004/2005 (35%) followed by the Catalogue of Precast Concrete Components for Infrastructure Works 2004/2005 (Figure 11).

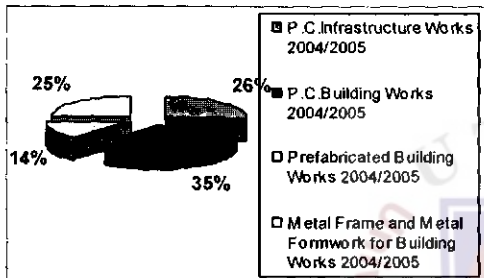


Figure 11: Breakdown of catalogues

Based on the survey, only 2% of the total respondents have attended the UK Trade & Investment IBS Seminar 2005 in the month of January 2005. The 2 companies which attended the seminar were Contractors (Figure 12).

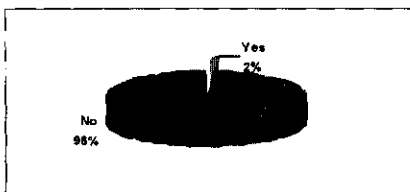


Figure 12: Attendance for the CIDB - UKTI seminar

Generally, 56% of the respondents were aware of Malaysian Construction Industry Excellence Award but only a

meagre 2% of the total respondents have ever participated (Figure 13).

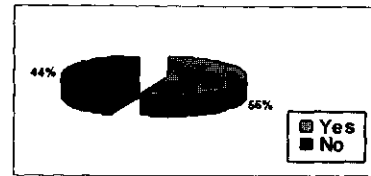


Figure 13: Awareness about MCIEA

Only 13 respondents had the IBS Roadmap 2003 – 2010 (refer Figure 14)

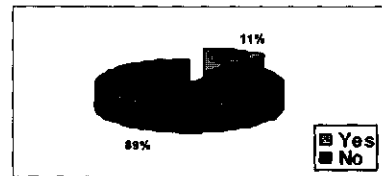


Figure 14: Ownership of Roadmap 2003 – 2010

The amount of respondents who did not have the IBS Survey Report 2003 were the same as those who did not attend the CIDB-UKTI Seminar where only 2 (Figure 15) respondents had the report with them.

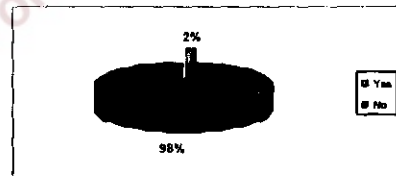


Figure 15: Ownership of the IBS Survey Report 2003

Similar in condition with the ownership of the IBS Survey Report 2003, 91% of the respondents did not have the IBS Digest (Figure 16).

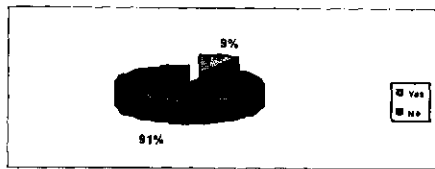


Figure 16: Ownership of IBS Digest

3.5 Preference of Promotion and Marketing of IBS in Malaysia

3.5.1 Road Show

Basically, 88 % of the respondents were in the opinion that Road Show is one of the activities which can be carried out to promote IBS (A1 in Table 2). At the same time, 48 % (A1, Table 3) of them felt that this kind of Road Shows should be held once a year where else 36% felt twice a year is a better idea (refer AC1, Table 3). Hotels (61%) were the favourite location for conducting the road show amongst the respondents followed by companies (16%) and beach resorts (13%).

3.5.2 Media Exposure

1% more respondents preferred media exposure to Road Show (refer A2 in Table 2) where 80% (refer A2 in Table 3) wanted media exposure on a monthly basis compared to 16% of the respondents who preferred it to be a weekly affair. Majority of the respondents wanted all newspaper (63%) to be the medium of media exposure followed by Special TV Programmes (27%).

Table 2: Preference of promotional activities

Code	Types of Promotional Activities	Preference (%)	
		Yes	No
A1	Road Show	88	12
A2	Media Exposure	89	11
A3	IBS Catalogue	93	7
A4	IBS Showcase	84	16
A5	IBS Seminar / Conference	78	22
A6	IBS Competition	78	22
A7	IBS Survey Report	83	17
A8	IBS Magazine	90	10
A9	IBS Brochure	87	13
A10	IBS Manual	87	13
A11	IBS Book	86	14

Table 3: Preference of frequentness of the promotional

Code	Promotional Activities	Frequentness* Preference (%)				
		Y1	Y2	Y3	Y4	Y5
A1	Road Show	48	36	14	-	2
A3	Catalogue	24	27	49	-	-
A4	Showcase	40	36	22	-	2
A5	Seminar / Conference	84	15	1	-	-
A6	Competition	83	16	1	-	-
A8	Magazine	13	23	44	19	1
A9	Brochure	37	52	-	-	1
A10	Manual	64	34	-	-	2
A11	Book	63	33	-	-	4

activities

Notes:

*Frequentness:

Y1 – Once a year Y4 – Monthly

Y2 – Twice a year Y5 – Others

Y3 – 3 months once

Table 4: Preference of obtaining the publications

Code	Promotional Activities	Preference of Obtaining (%)			
		Free	Subscribe	Electronic Medium	Others
A3	Catalogue	72	6	21	1
A7	Survey Report	94	6	-	-
A8	Magazine	82	18	-	-
A10	Manual	82	18	-	-
A11	Book	99	1	-	-

3.5.3 Catalogue

IBS Catalogue was the most preferred promotional activity opted by all respondents where 93% (A3 in Table 2) were in that opinion. 49% wanted the catalogue to be published 3 months once (A3 in Table 3) and 72% of the respondents wanted it free. Only 6% wanted to subscribe to the catalogue (A3 in Table 4).

3.5.4 Showcase

IBS Showcase was third least preferred activity where 16% (A4 in Table 2) were not in favour of the idea. 82 of the respondents wanted the medium of promotion to be a Model of IBS Construction (Figure 17).

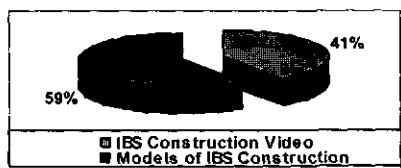


Figure 17: Preference of medium of promotion

Similar to other promotional activities, 40% wanted the activity to be held annually, where else 36% wanted it to be twice a year affair (A4 in Table 3).

On the other hand, 47% wanted the location of IBS Showcase to be held in every state where 24% wanted it to be a

regional affair. Least preferred is the idea of Institution of Higher Learning to be the location (refer Figure 18).

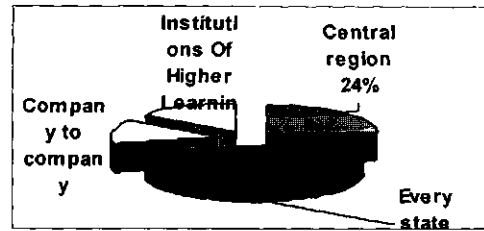


Figure 18: Preference of location of IBS Showcase

3.5.5 Seminar/Conference

IBS Seminar or Conference to be held in the international level was least preferred activity where only 78% (A5 in Table 2) wanted such event to be held. Similar to other promotional activity, most respondents wanted it to be a yearly affair (A5 in Table 3) and hotels were the preferred location (76%) compared to Institution of Higher Learning (24%).

3.5.6 Competition

78% (A6 in Table 2) of the respondents wanted the MCIEA competition to be held within the industry players but 76 % preferred the competition shall be held in higher learning institutions as well. 83% and 77% of the respondents felt that it is suitable to have the competition once a year for the industry players (A6 in Table 3) and higher learning institutions respectively.

3.5.7 Survey Report

17% (A7 in Table 2) of the respondents did not prefer survey report publication as a necessary promotional activity, but for those who opted that it should be done, 76% were in the opinion that it should be a yearly event. As expected, 94% wanted it for free (A7 in Table 4).

3.5.8 Magazine

The preference for promotional activity in the form of magazine publication was high (90%); where 44% wanted the magazine to be published 3 months once compared to 13% who wanted it to be published with a longer gap of once a year (A8 in Table 3). The amount of respondents who wanted to subscribe was higher here where 18% was willing to subscribe to the magazine (A8 in Table 4).

3.5.9 Brochure

87% wanted the publication of brochures (A9 in Table 2). Majority of the respondents (52%) felt that brochures were apt to be published twice a year (A9 in Table 3).

3.5.10 Manuals

The preference for the publication of manuals was the same as brochures, where 87% (A10 in Table 2) wanted it to be done. 64% (A10 in Table 3) from them opted it to be published twice a year and 18% was willing to subscribe to the manuals (A10 in Table 4).

3.5.11 Books

Around 14% (A11 in Table 2) of the respondents did not favour the idea of publishing books as the method of promotion and for those who wanted it to be published, 63% (A11 in Table 3) wanted it to be a yearly affair. Nearly all of the respondents were not willing to subscribe to the book (A11 in Table 4).

4.0 Conclusion and Recommendations

4.1 Conclusion

The research was complimented with a thorough literature study and analysis of the outcome of the research. Based on the outcome, it can be concluded that:

- Contractors were the most active respondents (25%) and manufac-

turers were least interested in responding to the research (8%).

- In general, maturity level of respondents was reflected through the years of experience where the respondents with more than ten years of experience in the construction industry formed majority of respondents (69%). This phenomenon could be the result of their initiative of wanting to see changes in the construction industry.
- Consultants were more involved in dealing with IBS projects (collectively 53%) compared to others.
- Level of knowledge was very blur amongst respondents (only 18% were very sure of IBS). This could be due to the reason that only 21% who participated in IBS activities and 85% have never participated in Road Shows organised by CIDB. At the same time, less initiative was taken by industry players to know about the wave of changes. It can be explicitly noticed where only 46% knew about the levy exemption.
- The ineffectiveness of promotion and marketing by CIDB could be due to the reason that only 25% possessed IBS product catalogue published by CIDB. This is because more respondents knew IBS through catalogues compared to other information sources (25%).
- The trickling effect of ineffective marketing and promotion results in other promotional activities such as seminars and awards did not gain momentum. This is proven when only 2% attended the CIDB-UKTI Seminar and participated in competition under MCIEA.

- As only 89% of the respondents had the Roadmap 2003-2010, only 18% felt that the Roadmap could be the backbone. The least ownership of the Roadmap resulted in less positive answers for the related questions.
- Basically, all respondents preferred the idea of organizing all the promotional and marketing activities proposed. Respondents felt that media exposure (89%), IBS Magazine (90%) and IBS Catalogue (93%) are the most vital promotional tools.

4.2 Recommendations

- It is highly recommended that much more compatible questionnaire is produced with the collaboration of CIDB and it is made compulsory for all companies to respond to the questionnaire. Any company who fail to respond should be demerit on point basis.
- That CIDB should invest considerable amount of money to distribute IBS Catalogue to all industry players whom they expect can spearhead the usage of IBS in areas where IBS is not popular.

Acknowledgement

Special thanks to Mr. Yusmady Md. Junus from University of Technology Malaysia who initiated this research and Mr. Rofizlan Ahmad from Construction Technology Unit, Technology Development Division, CIDB Malaysia for his informa-

tion, knowledge and helps in accomplishing this research.

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