

## **CASE STUDY: QAYZ HOLDINGS (M) SDN BHD**

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### **SYNOPSIS**

This case is about a few small business enterprises in the construction industry that were operating in one of the district in Selangor. In their regular acquaintance in the district, the five owners decided to jointly set up a holding company, with 5 subsidiaries, and the fifth one being the new brick manufacturing plant (churning out interlocking bricks). Most of them had not being formally trained in business. They faced some difficulties in the management of a holding company where they had to be more aware of what is required of being Board members and managing the subsidiaries. They are now jointly responsible not only for their own subsidiary but also the others under the Holding structure. With the new interlocking brick manufacturing factory, life had become a bit more challenging and this case reflects the difficulty of working as board members and managing the 5 subsidiaries. While they had climbed into a higher level of technology usage (IBS as compared to the normal brick and mortar technology), their management was still individualistic in nature and this case will demonstrate these common weaknesses through the financial problems that they had to endure.

### **PROLOGUE**

Amrulqays, the CEO of QAYZ Holding (M) Sdn Bhd (Qayz H) was seating quietly in his office, after the Friday prayer and lunch break on the last week of December 2014. He knew that the IBS manufacturing factory had started its operations three (3) months ago. (Acronym IBS is recognised universally and stands for interlocking brick system and photographs of some of the different shapes of the bricks are shown in Attachment 1). But until this date, he was not aware of the latest production and financial situation of the new factory. He wanted to know about the latest development and thus had called all the five partners cum senior managers for a discussion at 5 pm. He looked forward to getting some information on the factory especially on its production activities and financial performance. As the overall manager of the holding company Qayz H had to start paying RM50,000 monthly from January, for the RM1.5 million loan the company took from a Small-Medium Enterprise (SME) Bank, which was operating under a Shariah compliance mode. The repayment was to start three months after the completion of the test runs.

*And that will be a month from today! Does Qayz H has the capability to start as well as sustain the payment? What information should I have to answer all those questions? I better list them down to prepare for the meeting, exclaimed Amrulqays quietly within himself.*

He had asked the CEO of the IBS factory to present the required data during the meeting. And according to Amrulqays, before the establishment of the Holding company each partner was running its own business quite in isolation. But this has to change and the responsibility and the reporting system was now quite different than before. He exclaimed silently,

*“All the shareholders need to be informed on this and what are the things that need to be told? I will get these ready before the meeting”* with a sigh.

## **ORGANIZATION FACTS**

Qayz H was located at Jalan Air Hitam, Sg Merab Luar, 43650 Bandar Baru Bangi, Selangor, Malaysia.

It had four subsidiaries under its wing namely:

- a. Warisan Muafakat Sdn. Bhd. (construction)
- b. Bina Bata Enterprise (bricks manufacturing)
- c. Qayz Enterprise (trading and consultancy)
- d. IBS Bros (M) Sdn. Bhd. (IBS bricks manufacturing), established in 2013

## **HISTORY**

Qayz H was incorporated in September 2012. Before this, the five shareholders were running their own operations separately under the banner of their own company. They were all active directly or indirectly in property development and house construction. In 2012, they agreed to work together and form a holding company, each having equity participation and made their respective companies as subsidiaries of Qayz H. In this holding company the six major shareholders at that time were:

- Amrulqays bin Maarof
- Dr Muklis bin Ahmad Azam
- Faris Husaini bin Johari
- Muhammad Tariq bin Ahmad Shahidan
- Muhammad Ali bin Baharom
- Muhd Hanafi

The subsidiaries under Qayz H were established at different times but the six individuals were operating in the same business sector and were operating around the same vicinity. Thus they got acquaintance with one another and met regularly to discuss about the industry and the problems that they were facing. During one occasion, Amrul, one of the shareholders said,

*“We realized that the business we are in, needed a different approach as the costs of building a house kept increasing and our services still depend on the raw materials and labour whose costs are not within our control”.*

And in the discussions that they had, cost cutting was their major concern. The costs of labour and raw material (cement, sand and steel rods) kept increasing and all were required to find ways of handling this. Finally, they all agreed to cooperate and work together and agreed to jointly adopt the technology and techniques of the ‘interlocking building system’ (IBS), (same acronym is interchangeable with ‘international brick system’ technology). It was different than the traditional or conventional methods of using a high percentage of mortar, sand and bricks. The IBS that they chose was the use of interlocking bricks in the building of houses. They had to buy the IBS bricks from a local manufacturer initially, but later agreed to set up Bina Bata Enterprise (BBE), almost 5 years ago to manufacture the IBS bricks for their own consumption. BBE manufactured the IBS

bricks with the use of many workers. These IBS bricks was not common and rarely used by the building contractors. (Attachment 1A and 1B give some idea of the products).

As their business grew, the five decided to form a Holding Company incorporating the existing QAYZ enterprise and BBE as its subsidiaries. The holding company was to be their strategic vehicle for planning future operations. Qayz H steady growth made the team realized for the need to increase production and the existing BBE did not have the capacity to increase production because of the small space and adding 2 or more manually operated brick manufacturing units were only incremental. This was when a bold decision was made to set up a totally new manufacturing plant to manufacture IBS bricks for the future. This was the birth of IBS Bros (M) Sdn. Bhd (IBS Bros) a new subsidiary under the Holding company. Project teams were formed and several field visits were made in identifying feasible location as well as to seek possible financing sources.

The estimated funding required was RM 2.5 million and getting this amount from internal sources was not possible at that particular time. All of them had never experienced external funding and this amount was quite big and had to be from financial institutions. All Board members were requested to see their respective banks for possible funding and all gave positive feedback. All the four banks gave Qayz H choices of financing through the conventional or syariah system. (Most banks in Malaysia have both system for the clients to choose). Qayz H Board members were split on the choice until two of them insisted the funding must be through syariah system. Finally, they agreed but stalled on the types of Shariah funding to choose.

At one particular time they were briefed on Shariah funding: Tariq and Ali who had exposures on Islamic Finance while studying in the Middle East had to give a short briefing before they decide on which option to take. Briefly they explained on the equity financing component (as debt financing was quite irrelevant according to both of them). Tariq and Ali explained two types of equity financing that are relevant. *Al-Mudarabah* basically is trustee profit sharing where the financiers do not interfere but agree on almost a 100 per cent funding, and a certain per cent of profit sharing according to an agreed schedule. The other type is *Al-Musharakah* (or joint-venture profit sharing) where the financier will contribute some percent of equity financing but are involved in the management of the company in a manner agreed by both parties. At the end of the 1 hour briefing session they all agreed to go for the *Al-Mudarabah* funding.

Finally, by October 2014, after a year since the new land acquisition was finalised and financing through SME bank, it was ready for full operations.

## **ORGANIZATION CHART**

At the main office, the following charts show the various governance structure. **Figure 1** shows the overall structure. There is the Board of Directors that oversees the holding company. Mr. Amrul himself was the Chief Executive Officer as well as the Chief Operating Officer. The other positions and designation are as shown in the three figures and **Table 1**.

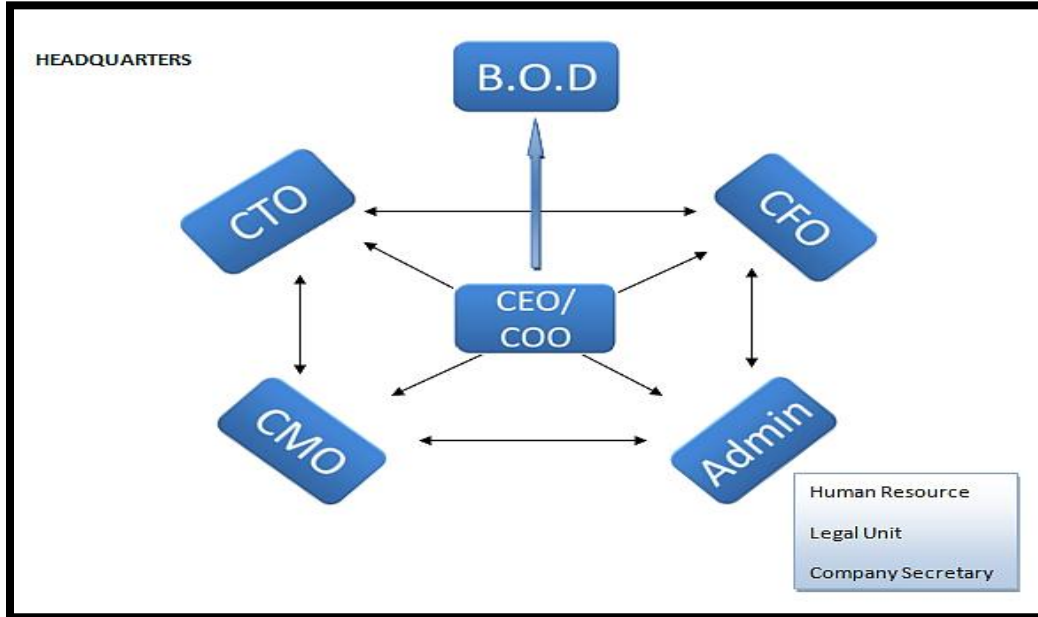


Figure 1: The overall company structure

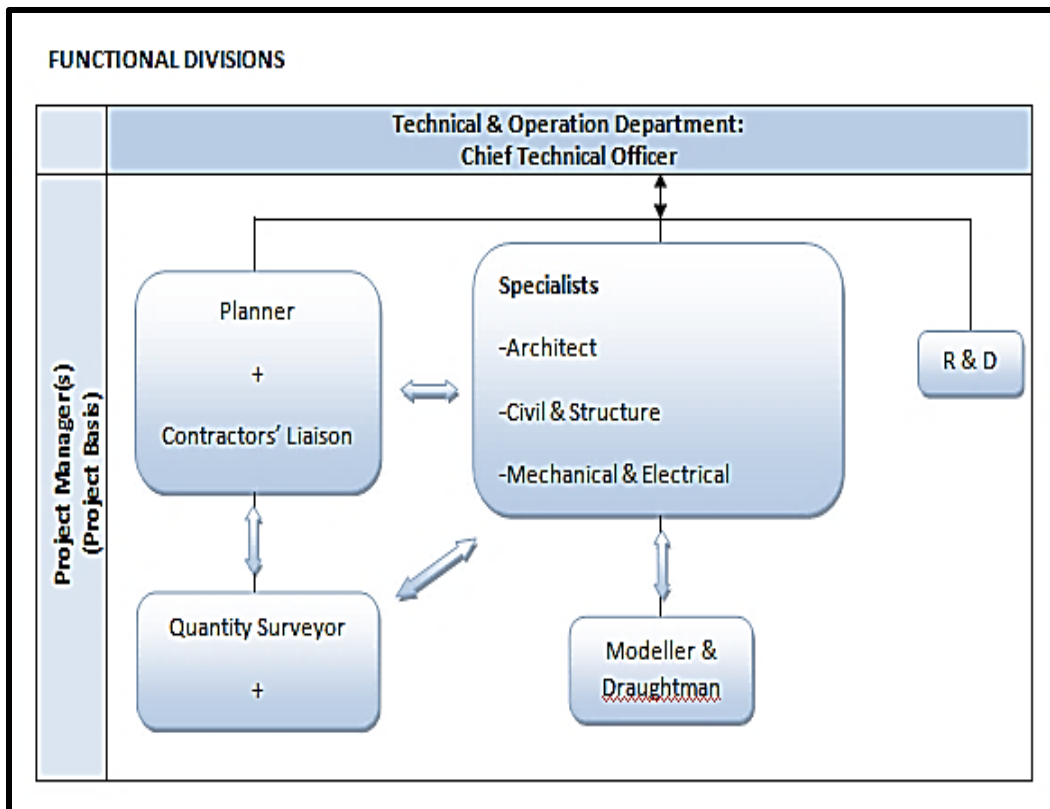


Figure 2: The three functional divisions

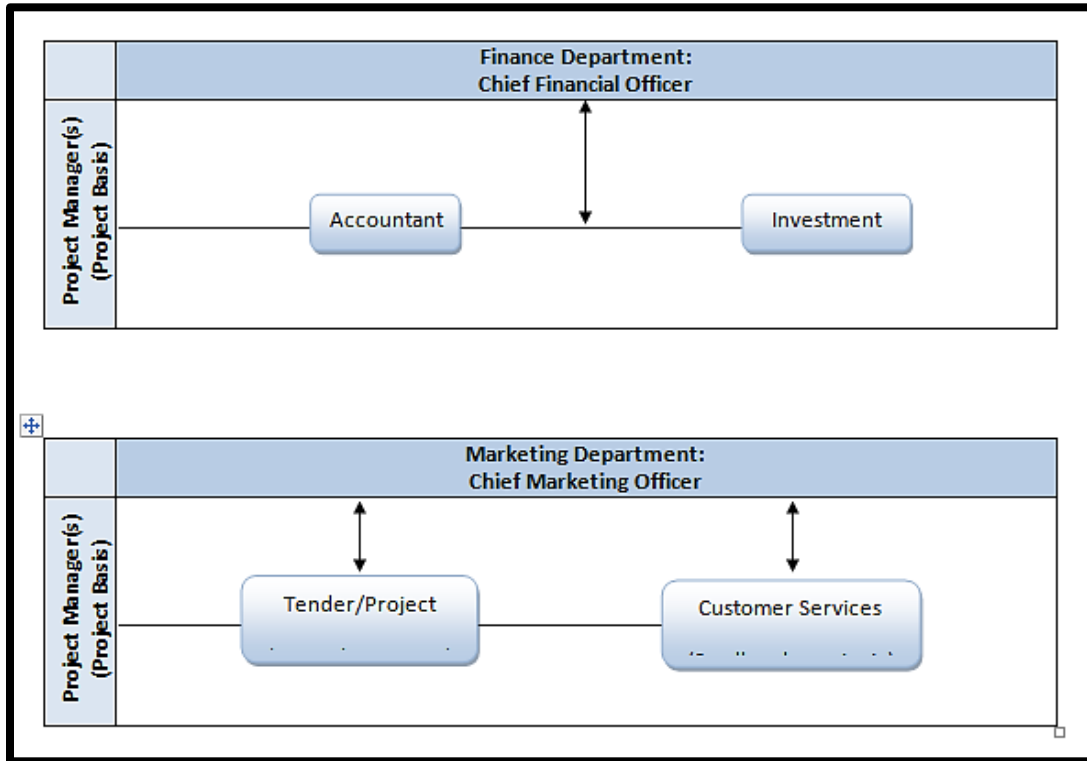


Figure 3: Finance and marketing department

## DIRECTORS OF THE COMPANY

Table 1: The directors and share-holders of Qayz H with their respective qualification and designation

1	Amrulqays bin Maarof (Chem Eng. UK)	CEO and Chief Operating Officer
2	Dr Muklis bin Ahmad Azam (MBBS UKM)	Chief Financial Officer
3	Faris Husaini bin Johari (Mech Eng, UNITEN)	Chief Technical Officer
4	Muhammad Tariq bin Ahmad Shahidan	Chief Marketing Officer
5	Muhammad Ali bin Baharom	Admin (Chief of Office)
6	Muhd Hanafi (aircraft maintenance, UNIKL)	CEO IBS Bros (M) Sdn Bhd

Qayz H had six (6) shareholders, each owning different per cent of the equity. The latest to enter the company was Mr Muhd Hanafi who came in as the CEO of IBS Bros. **Table 1** shows their respective designation.

## DIRECTION OF THE HOLDING COMPANY

“Since our incorporation, we have followed our intended direction closely. It is as shown on the wall”, explained the CEO as he pointed at the wall.

**Company's vision:** "To engineer sustainable future and provide innovative house with affordable price"

**Company's mission:** "To manage and build individual houses and housing development project and sell it with lower price than market value."

**Figure 4:** Vision and mission of Qayz H

### **SERVICES PROVIDED**

Qayz H offered services in various fields of housing development, construction and engineering. These included:

- a. Construction; which covered various aspect of building works including civil and structural construction
- b. Infrastructure; which included work to make roads, drainage and also landscaping for housing and other areas.
- c. Engineering; including metal wilding, installation and maintenance wiring and piping, including swimming pools.

### **ACCREDITATION OBTAINED**

The Holding company was registered as 0120140206-SL154998 and received its accreditation from the government's Construction Industry Sdn Bhd (CIDB). It is licensed to run a business as a contractor under the categories mentioned in the chart below. The main category is the G class (1-7) and Qayz H is licensed in the 3<sup>rd</sup> category both for the mechanical and electrical contractors. The B alphabets are the breakdown of the mechanical work (which is a long list and are obtainable from the CIDB office). Similarly, the CE alphabets are the breakdown of the electrical works.

<b>G3 for mechanical (&lt; 1million ringgit of housing works)</b>	<b>B</b>	<b>B04</b>	<b>B28</b>
<b>G3 for electrical (up to 1million ringgit value)</b>	<b>CE</b>	<b>CE21</b>	

**Figure 5:** Construction licence accredited

### **OPERATIONS**

According to Amrul,

*"with an accumulated total of almost 20 years of experience amongst the six of us, the amount of hardship that we went through as well as the knowledge that we collected are invaluable. Thanks to Allah that we are able to survive and be where we are in now. As mentioned, our major concern is the ever increasing costs of which we have very weak control. Of course the suppliers are also reasonable if we are a good paymaster to their bills and also if our clients are good to their promises. If our accounts receivables are healthy, so will our accounts payable".*

Looking at the standard operating procedure of building a house, (which is easily available in the company's office), the flow chart looks quite straight forward as shown in **Table 2**.

*"Everything on paper looks clean and smooth and even the charts are ideal. But on the ground it is a different scenario altogether. You will meet all types of personalities and each one of them are different. So there is no one approach of handling them the right way. They are the land owner and ultimately owned the house. Trying to document what happened during the discussion and handling*

*them during the construction process is probably too much to be noted”, said Mr Farais Hussein who was the technical*

Director while describing the flow chart. And according to him, the pre architectural drawing phase was the most critical, time consuming and difficult as that is where the concepts had to be agreed upon. When the design is finalized, the costs will be worked through, agreed upon and agreement signed.

**Table 2:** The various steps in house construction

PRE REQUIREMENTS	CRITICAL ACTIVITES for MAIN BUILDING	OTHER PERIPHERIES
Permit issued	Land owner consent Building concept finalised Finalized and agree on architectural drawing plus approval. Excavation	electric supply to site  Temporary storehouse and toilets
Check footers	Form footers Pour footers	Drainage system
Check foundation	Form foundation Pour foundation Build framing	Driveway paved  Install roofing
Frame checked	Install rough plumbing	Install ceiling
Check plumbing	Install rough electrical	
Check electrical	Install wall finishing	
Check insulation	Install doors and windows Apply interior paint Install surroundings Final flooring Cabinets and counter tops? Carpets?	Doors and windows  Garage if in plan  Driveway
Final inspection Handover & guarantee period	Clean up Touch-ups and repairs	

**ADOPTING THE IBS TECHNOLOGY**

Qayz H was formed to consolidate the various activities of the associate companies run by the other Board members. But they also agreed to get away from the conventional method of the mortar and brick construction methods after agreeing to adopt the interlocking brick system as the final total costs would be lower in the long run.

*“Convincing the potential house owners extracted from our probable sales list to accept the new method were not easy either. It was a matter of them not being well-informed, but after some demonstration, we are usually successful. The selling point is the overall costs, the shorter time taken and its aesthetic value will finally prevail. But we had to show them the two costs (conventional too), After 2 years into it, we manage to gather enough experiences and be good at it and now have*

*enough testimonials, pictures and videotapes as well as show houses if they want to inspect. But now that the demand is increasing we face a new set of challenges”, said Mr Faris with a sigh.*

Qayz H got their supply of the interlocking bricks initially from a few suppliers in Klang Valley. Its Associate company BBE was producing the conventional bricks and when the company change to using the IBS technology, it revamped the manufacturing process to produce the interlocking bricks. But somehow it was found that the manual process was not enough to meet even its own needs. At its best, 500 units were being produced daily and had to be supplemented from external sources. It could not expand further because of the limited space available. So, IBS Bros (M) Sdn Bhd, (IBS Bros) was then established to cater for the increasing need and manufactured the interlocking bricks associated with Qayz H. The main business was thus to manufacture for its own needs as well as for other construction companies who were in need. This company also provided the logistic service for delivery of bricks to customers.

### **SALES AND MARKETING**

The Sales and Marketing unit is relatively small and headed by Muhammad Tariq. According to him all the five had the obligation to play the role of a marketer and promote the available services to whoever they meet.

*“We do not have a big marketing set-up as all of us are doing our own promotion and seek clients on an individual basis and report back when there is a potential client for the necessary personnel to do the follow ups. So far we are managing well and our production of the IBS bricks has been supplied satisfactorily by our BBE subsidiary company and we are producing what is needed”.*

But with the new IBS factory already three months in production Mr Muhammad Tariq (the CMO), said that he has yet to make some strategic decisions as what need to be done with regards to sales and marketing. While IBS technology is quite widespread in the North, in the south of the Klang Valley the level of awareness is still low. Mr M Tariq continued,

*“From my little knowledge on economics, I would class it as phase 1 of the product life cycle where demand is still to be picked up, costs can be high, low profit margin, low awareness level, limited product choice, price can be high, distribution is concentrated and advertising is still specialised.*

### **PRODUCTION**

From the factory (IBS Bros) the following data were available.

**Table 3:** The Production capacity for one shift

Capacity	Volume of Bricks Produced		Rate	
	Daily	Monthly	Hours/day	Day/month
Minima	4000	100000	8	25
Maximum	8000	200000	16	25

The production process was 80 per cent automated (engineering details are easily available in the internet). In IBS Bros Company, two stages of work were carried out. First was the mechanical act of combining all the ingredients through crushing and grinding and then filtering them before being sent to the second stage which was the shaping process (using standardised mould). The various



types of interlocking bricks need to be specially shaped through a moulding machine or extrusion before being cut to the appropriate sizes by the rotating cutter, dried to remove the moisture (to prevent cracking), then sent for firing in the ovens and set aside and allowed to be air-cooled. Finally, they are de-hacked and sent to the packing department. All together nine workers looked after the automated process flow at different crucial points especially at the input stage and the final extrusion and moulding stages. Another set dealt with the drying process. Once completed they would be brought out and sent to the packing areas, automatically stacked, wrapped with plastic, held together by steel bands and made ready for sales and scheduled delivery.

### **FINANCIAL POSITION**

Most of the financial data made available were mainly on the costs of running the new manufacturing company IBS Bros. The engineering, construction and property development activities were considered to go on as usual as they had been carrying out their normal activities. What changed was the manufacturing of their own IBS bricks which were 7-8 times more than its original volume of the manual production produced by BBE.

*“The overall revenue of the Holding company was however fluctuating between 2-2.5 million per year, while the other major income earner was the IBS Bros which generated about 1.3-1.5 million a year. If we consider 60 per cent as costs of operations then we are left with a gross of RM520,000 for IBS Bros and RM800,000 for the Holding company. The edited account was not available yet. Thus, that is what we have left to cover the fixed expenses”*

This was where the CEO wanted to bring the detail financial situation to the Friday evening meeting. He was concerned as he thought,

*“If the revenue remains the same how can the financial payment be met?”*

The financial data available were mainly from the manufacturing subsidiary (**Table 4** and **Table 5**). The Holding company had secured loans totalling 2.5 million from Shariah compliance fund providers. These were used to finance the new factory (1.2 million needed to cover the costs and installation of the machines and equipment).

**Table 4:** Fixed costs of IBS Bros (M) Sdn Bhd

<b>Types of fixed cost</b>	<b>Daily</b>	<b>Monthly</b>
Management staff (salary)	480	12000
Water & electric	-	400
Loan & financing	-	24220
Others	740	18500
<b>Total</b>		<b>55120</b>

**Table 5:** Variable costs of IBS Bros (M) Sdn Bhd

<b>Types of variable costs</b>	<b>Daily</b>	<b>Monthly</b>
Material	3080	77000
Direct salary	324	8100
<i>Zakat</i>	200	5000
Other	312	7800
<b>Total</b>	<b>3916</b>	<b>97900</b>

The sales price for IBS bricks was put at RM1.55 per unit. This was the same price that IBS Bros charge to others. According to Muhammad Ali the manager in charge of Administration,

*“that is .05 cents lower than the market price as that is what we wanted to be in the first place (to be in line with the mission statement) No one knows how this was derived except for a technical/engineering derivation. Whether we will experience any net revenue after considering all other costs is anybody’s guess!”* He ended with a sigh.

## **EPILOGUE**

In the later phase of the Friday evening discussion, Mr Amrul conveyed his concern about the situation of IBS Bros (M) Sdn Bhd, the company that manufactured the interlocking bricks.

*“Although it is new, we know the capacity is quite big and we are producing more than the amount that are needed by our associate companies? We assume that we are charging right by using the price that we bought from the open market the last time. I think that is not right because we have not considered the capital expenditure on the new factory. Remember we have to pay back the loan and thus we need to know the volume that we should be producing to breakeven and whether our total sales exceeded this breakeven volume? I think our capacity is much larger than the internal demand.... Faris and Mukhlis, both of you have the expertise in look into this. Together, can the two of you get some feedback on how these uncertainties can be enlightened, and what should be done? We are meeting again on Tuesday and in 4-days’ time. Please do that. Some analysis is badly needed to tell us actually where we are financially? It is already late today and I guess you have to do it on Monday”.*

The meeting ended late that Friday evening, and Faris and Mukhlis walked back together to their respective rooms busy discussing the preparation that needed to be done. While pacing slowly they managed to agree on the need to know of the detail financial position, can the monthly payment to the bank be sustainable and what kind of marketing need to be done to prop up sales.

APPENDIXS

ATTACHMENT 1: Some of IBS products

A: A typical manual brick manufacturing equipment and different brick design.  
(Source: internet)



B. Example of an IBS house



**ATTACHMENT 2: Brief facts about the IBS technology.**

(Extracted and edited from Dr Kamarul Amar in Google)

**What is IBS?**

The term Industrialised Building System (IBS) is defined by the Construction Industry Development Board (CIDB) as construction technique in which components are manufactured in a controlled environment (on or off site), transported, positioned and assembled into a structure with minimal additional site works. The term is however, cover very wide scope which include the application of onsite systems and one cannot distinguished it properly with conventional practice. It is also a process used in making construction less labour-oriented and faster as well as fulfilling quality concern.

The industry must move towards greater mechanisation that has twin effects of increasing productivity and reducing labour requirement.

From IBS definitions (20 literatures from 1971 -2009), the characteristics of IBS are deliberated as follows:

- a. Industrialised production – *Interlocking bricks* is produce offsite using the machineries and industrial prefabrication. Industrial prefabrication for building products by way of industrial technique. This is in line with government aspiration to move towards mechanisation, automation and robotics.
- b. Transportation and assembly – *Interlocking bricks* is normally transported from factory to site for assembly.
- c. Fabrication and mass-production – Produce in a factory or offsite with superior quality control, accuracy in manufacture provides speed of construction & job site accuracy.
- d. Structured planning and standardisation - The use of *interlocking bricks* was in line with MC is a concept of coordination of dimensions and space where buildings and components are dimensioned and positioned in a basic unit or module known as 1M which is equivalent to 100 mm, as stipulated in MS 1064. Dimension accuracy up to  $\pm 1.5$  mm.
- e. Progress integration - The use of modular coordination and standard sizing allow flexibility to integrate with other IBS system thus encourage participation from manufactures and assemblers to enter the market, thus reducing the price of IBS components.

**Innovation attributes of Interlocking bricks:**

- a The tedious and time-consuming traditional brick-laying tasks are greatly simplified by the usage of these effective alternative solutions.
- b Interchangeability concepts which offers flexibility to integrate with other IBS system
- c The processes of producing the material incorporates the concept of mechanisation
- d The process generate only minimal material wastage meaning less cleaning-up at site.
- e The excellent heat & sound insulation products lead to environmental friendly and energy saving
- f Ease of renovation (DIY concept) construction and house extension works (not required crane)
- g The bricks can act as wall panel in combination form at factory (high IBS Score)

**General benefits**

- a Applying pre-cast construction, offers some sort of low cost IBS with low capital investment.
- b *Interlocking bricks* is the easiest way of adopting IBS and can easily penetrating construction market.
- c The engineering brick system depends on modular dimension at design stage, is also comparable to LEGO system.
- d The use of modular coordination and standard sizing allow flexibility to integrate with others
- e *Interlocking bricks* applies load bearing wall by incorporating the columns and beams as integral part of the wall for all types of houses (up to 5-storey in high).

*Interlocking bricks* give up to 3 times faster in construction of walls, columns & beams

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