Gema Metal Ceilings (Far East) Pte Ltd v Iwatani Techno Construction (M) Sdn Bhd [2000] SGHC 37

Case Number : Suit 2151/1998

Decision Date : 14 March 2000

Tribunal/Court : High Court

Coram : Chan Seng Onn JC

Counsel Name(s) : William Da Silva (W P Da Silva & Co) and Lee Mong Jen (Leong Chua & Wong) for the plaintiffs; Danny Chua and Mohd Goush Marikan (Joseph Tan Jude Benny) for the defendants

Parties : Gema Metal Ceilings (Far East) Pte Ltd — Iwatani Techno Construction (M) Sdn Bhd

JUDGMENT:

GROUNDS OF JUDGMENT

1 The plaintiffs claimed the sums of S$143,250 and RM 232,943.45 from the defendants, being amounts due in respect of certain security clips and metal strip ceilings sold and delivered by them to the defendants at the defendants' request. The defendants denied the plaintiffs' claim and counterclaimed, *inter alia*, for loss and damage suffered by them on the ground of the plaintiffs' breach of contract in failing to supply a proper metal strip ceiling system of merchantable or satisfactory quality or one which was fit for its purpose, or alternatively, that there was a separate contract for the design of the metal ceiling system and that the plaintiffs had breached their obligations under this contract.

2 At the start of the trial, the parties agreed that only the question of liability was to be determined at this stage with damages to be assessed separately at a later date. As such, this judgment is concerned only with liability.

Background facts

3 The plaintiffs were manufacturers and suppliers of strip ceiling systems. They were incorporated in Singapore in 1992 as a subsidiary of the well-known Swiss corporation Gema Metaldecken AG, one of the world's leading metal ceiling manufacturers.

4 The defendants, a company incorporated in Malaysia, were the nominated sub-contractors engaged by Perspect-Tasisei Kajima Shimizu Hazama Consortium ("the main contractor") for the construction of Hyperbolic-Parabolic and Curved Metal Linear Strip Ceilings on the underside of the roof to the main terminal building, contact pier and baggage handling system of the Kuala Lumpur International Airport at Sepang in Malaysia ("the KLIA Project").

5 By the terms of the contract between the defendants and the main contractor, the defendants were responsible for the design and installation of the metal ceiling system in both the internal and external areas of the KLIA. The present dispute relates only to the external metal ceiling system at the KLIA.

6 Annexed to the sub-contract documents between the defendants and the main contractor was a list of specifications issued by the airport authorities as part of the main contract documents. In the

section titled 'H31 Architectural Specifications - Metal Sheet Covering: Roof and Combined Ceiling', it was specifically stated at Clause 42 that the installation shall withstand a wind loading relative to a maximum wind velocity of 35.5 m/s. At the same time, the sub-contract document itself also specified that Chapter V: Part 2 of the British Standard Code of Practice for the structural use of aluminium was to be the applicable design code for wind loads in relation to the KLIA Project.

7 Between late 1995 and early 1996, negotiations ensued between the plaintiffs and the defendants concerning how they could work together in respect of the KLIA Project. Throughout this time, many meetings were held by the parties either at the plaintiffs' or the defendants' office. Any negotiation or correspondence between the parties would be conducted mainly through Mr Werner Bolt (PW1) on behalf of the plaintiffs, and Mr Masahito Nanko (DW1) on behalf of the defendants.

8 On 13 November 1995, PW1 and DW1 met at the defendants' office in Kuala Lumpur. At this meeting, the following matters were agreed upon:

> (i) The plaintiffs would appoint someone from their side as a Design Manager to provide Computer Assisted Drawings (CAD) and attend site meetings in Kuala Lumpur;
>
> (ii) The Design Manager appointed by the plaintiffs would be responsible for preparing most of the drawings required by the main-contractor in respect of the KLIA Project;
>
> (iii) The plaintiffs would issue their official quotation for the strip ceiling system to the defendants as soon as possible; and
>
> (iv) The submitted price in the quotation would be inclusive of the cost of supplying the Design Manager and the work to be undertaken by him..

9 On 23 November 1995, the plaintiffs submitted a quotation in writing to the defendants for the supply of strip ceilings. It stated, *inter alia*, that:

> The price reduction for supply only without any technical and drawing service would be 20%.

10 On 13 January 1996, the defendants issued a letter of intent ("the letter of intent") to the plaintiffs confirming their intention to enter into a contract with the latter for the design and supply of metal ceiling materials for the KLIA Project. This letter was expressed to be subject to satisfactory negotiation of terms and conditions.

11 Various other correspondence and meetings between the parties followed, although no formal contract was ever entered into between them. A practice soon developed whereby purchase orders for various components of the metal ceiling system would be issued by the defendants to the plaintiffs and the said components would subsequently be delivered by the plaintiffs to the defendants. The plaintiffs also issued invoices for payment in respect of the deliveries made. Aside from the invoices for goods supplied, separate invoices were also issued by the plaintiffs containing the words 'Being costs for design, engineering and draughtsman work' in the column titled 'Description'. The date of the first purchase order issued by the plaintiffs was 11 June 1996.

12 At this juncture, it is perhaps pertinent to set out in some detail the structure of the external metal ceiling system at the KLIA.

Structure of the external metal ceiling system at the KLIA

13 The entire external metal ceiling system used in the KLIA can be described as a sort of suspended ceiling system. It can roughly be divided into two separate sections. The first, or upper section consists of layers of stainless steel sheets, cement boards and rock wool which are firmly attached to the steel roof structure of the ceiling by way of steel purlins (*Exhibit D5*). Attached to the purlins by way of special clips are the vertical ceiling hangers which hang perpendicularly to the roof structure. At the lower end of each hanger is a feature called the Primary Angle, an elongated L-shaped steel bar which is attached to the hanger via nuts and bolts. This entire upper section of the ceiling may be referred to as the suspension system or simply, the upper section.

14 Below the suspension system is the lower section of the ceiling which consists of supporting carrier rails (*Exhibit D2*) that are screwed on to the Primary Angles in such a way that they run horizontally, or parallel to the steel roof structure. Attached at cross-angles to the underside of the carrier rails are the metal strip ceilings (*Exhibit D1*). Each strip is made of a thin, flat piece of aluminium measuring about 100mm in width and up to 3.2m in length. One side of the strip consists of a timber finish. In order to install the strips onto the ceiling system, the ends of each strip along its length are bent inwards, so that the curved edges can be secured to the carrier rails by way of clip-ins, or flaps in the carrier rails which are punched-out and folded down to allow the curved edge of the ceiling strips to be clipped around them. The ceiling strips are placed closely together with its timber surface facing downwards. Each strip is separated by what is known as a capping profile (*Exhibit D3*), a long, thin and flat strip of metal which, together with the clip-ins, aid in securing the strips to the carrier rails. The distance between each carrier rail is not fixed and can be varied depending on the design of the system. Before or at the time of the incidents (described below), the carrier rails used at the KLIA were supported at a distance or spacing of 1.2m.

15 For the purposes of the KLIA Project, only D1, D2 and D3 were supplied by the plaintiffs to the defendants. The other parts of the metal ceiling system, particularly, those comprising the upper section, were sourced by the defendants from local suppliers in Malaysia and elsewhere. The total surface area of strip ceilings supplied by the plaintiffs to the defendants for the KLIA Project was in the region of about 120,000 square metres, while the total value of the plaintiffs' charges for the external ceiling system amounted to about RM5m.

The incidents

16 On 27 June 1997, a few of the metal ceiling strips (*i.e., D1*) dislodged from the carrier rails and fell. This was followed by one or two similar incidents over the next six months. It is significant that on each occasion in which the strips dislodged, the carrier rails and everything else above them, i.e., the upper or suspended section of the ceiling system, remained intact and did not fall.

17 Subsequently, a series of wind-pressure and wind-tunnel tests were carried out on a mock-up of the KLIA ceiling system in Hong Kong by a firm of engineering consultants called J A Shillinglaw & Associates. It appears that the first test on 11 December 1997 was commissioned by the plaintiffs, while subsequent tests carried out on 12, 13, 30 and 31 December 1997 ("the later tests") were commissioned by the defendants only. There was some measure of disagreement at the trial whether or not the plaintiffs were aware or approved of the later tests carried out by the defendants. In the same vein, much argument was also raised before the trial regarding the admissibility of the later

tests' results and/or the opinion given thereon on the ground of hearsay. I shall address these arguments later on in my judgment.

18 Following the above tests, the defendants requested the plaintiffs to design and produce a security clip which would prevent the strip ceilings from falling. The plaintiffs subsequently manufactured and supplied these security clips (*Exhibit D10*) to the defendants, although it appeared that no agreement was ever reached regarding payment for the clips.

19 Apart from installing the security clips which served to fortify and strengthen the grip or connection between the curved edges of the strip ceilings and the capping profiles, the defendants also undertook various other rectification works in respect of the external ceiling system.

20 The KLIA became fully operational and was officially opened at the end of June 1998.

The Plaintiffs' Case

21 The plaintiffs' claim was in the main for two separate sums of S$143,250 and RM232,943.45 respectively. It is proposed to deal with these two amounts separately.

Claim for S$143,250

22 This amount was for the security clips supplied by the plaintiffs to the defendants after the collapse of the strip ceilings at the KLIA. Upon receiving the defendants' request for the supply of the security clips, the plaintiffs requested for the issuance of formal purchase orders. The defendants refused, stating that they had understood the supply of the clips to be free of charge. This suggestion was rejected by the plaintiffs who alleged that the defendants had, at the time when they requested for the supply of the clips, already defaulted in payments approximating the sum of RM500,000. As a result, the plaintiffs counterproposed in writing to the defendants, requesting the latter to first make payment of the arrears amounting to RM500,000 in which event the usual credit terms would be granted to the defendants in respect of the security clips. Alternatively, the clips would be supplied on a strictly cash-on-delivery basis. The defendants replied that they would pay the RM500,000.

23 In consequence, the plaintiffs contended that there was an acceptance by the defendants of the former's terms of supply for the security clips, i.e., that the clips would be paid for, albeit on the usual credit basis. The plaintiffs also drew the court's attention to the following words contained in their standard form invoice:

> Please check that our interpretation of your order is correct and in accordance with your requirements and inform us immediately in case of any discrepancies. Gema is not responsible for items manufactured incorrectly but in accordance with our acknowledgement.

In view of the fact that the defendants made no objection in writing upon receipt of the disputed invoice for the security clips, the plaintiffs submitted that they had proven their claim for S$143,250 on a balance of probability.

Claim for RM232,943.45

24 This claim comprised of various allegedly unpaid invoices.

Invoice No. 602526

This was for a sum of RM225.20 for which the plaintiffs agreed at the trial to give a credit note to the defendants.

Invoice No. 97568

This was for a sum of RM21,251 in respect of certain airfreight charges which the plaintiffs alleged they did not agree to bear. Again, the plaintiffs submitted that no objection in writing was made by the defendants upon receipt of this invoice and as such the defendants should be liable for the invoiced sum.

Invoice No. 97693

This was for a sum of RM2,830.46 for the supply of certain tiles to the defendants. No other evidence was led by the plaintiffs in respect of this claim save that they again pointed out that no objection in writing was made by the defendants upon receipt of this invoice as a result of which the defendants were liable for the sum claimed.

The remaining invoices

The balance of the plaintiffs' claim under this head totalled RM208,636.79. This amount was in respect of various invoices issued for components D1, D2 and D3 which were supplied to the defendants before the first collapse of the ceiling strips at the KLIA ("the original supply").

The Defence and Counterclaim

25 Save for the plaintiffs' claim for the original supply of D1, D2 and D3, the rest of the plaintiffs' claim was denied by the defendants. The defendants alleged firstly that there was a contract between the parties in which it was the plaintiffs' responsibility both to design, as well as to supply the materials for, the metal ceiling system. It was submitted that the plaintiffs had breached the contract for design in that they had failed to design a ceiling system which complied with the specifications for the KLIA Project as set out in the nominated sub-contract documents. Secondly, the defendants also alleged that the plaintiffs were late in delivering certain capping profiles (D3), leading to them having to incur additional transport, customs and other miscellaneous expenses. Thirdly, the defendants

alleged that the plaintiffs failed to deliver various shipping and other documents in time for clearance from customs, resulting in additional port and storage charges having to be incurred. Various other claims were also put forward by the defendants at the start, although most of them were readily abandoned by counsel at the close of the trial. It is thus not proposed to go into these other heads of claims. I shall proceed to deal only with the three heads as set out above.

Claim for breach of contract in the design of the metal ceiling system

26 The defendants submitted that the plaintiffs had contracted with them not only to manufacture and supply the requisite quantities of D1, D2 and D3, but also to design the external ceiling system intended for use at the KLIA. It was the defendants' contention that the scope of the plaintiffs' responsibility to design the metal ceiling system covered not only the technical design of D1, D2 and D3, but also included the determination of the appropriate spacing between D2 (i.e, the supporting carrier rails). In any event, it was incumbent on the plaintiffs to ensure that the design of the metal ceiling system as a whole was suitable and fit for its purpose and that the system as a whole together with its individual components were of merchantable or satisfactory quality.

27 The defendants sought to prove that the scope of the contract included design (as opposed to just supply) by reference to the following. First, the court's attention was drawn to the various invoices issued by the plaintiffs which were stated to be in respect of costs for 'design, engineering and draughtsman work'. DW1, a director of the defendant company, in his affidavit of evidence-in-chief pointed out the fact that the apportionment of costs for materials supplied and services rendered in the proportion of 70:30 meant that the plaintiffs had charged a whopping RM1.5m for design and engineering services altogether. As such, they could not now deny that the scope of the contract did not include design of the metal ceiling system. DW1 also denied PW1's suggestion that the apportionment was a sham entered into to allow the defendants to evade Malaysian import tax. He stated that the initial request to split the costs into cost for supply and cost for services originated from the plaintiffs themselves. This was clearly borne out in the plaintiffs' fax of 23 November 1995 stipulating that any reduction in price for "technical and drawing service" would be 20% (see 9 above). It was only subsequently that the defendants requested for the split to be in the proportion of 70:30. DW1 explained that the reason for this was because fees for services were paid in cash while that for materials were paid by way of letter of credit ("L/C"). As such, by increasing the non-L/C or cash component of payment from 20% to 30%, the defendants would obtain a larger safety margin to hold back payment in the event of problems with their suppliers. While DW1 admitted that he was aware from experience that tax on services was normally less than tax on materials, the fact that his company's proposal of allocating costs in the proportion of 70:30 might inadvertently lead to a savings in tax did not occur to him at that time. DW1 testified that his only concern was that the total price charged by the plaintiffs fell within his overall budget for the KLIA Project and it did not really matter to him how the costs for materials and services were finally apportioned.

28 Next, it was also stressed that the plaintiffs had constantly provided shop drawings to the defendants which drawings the defendants relied on to install the metal ceiling system. It was the defendants' case that these drawings could only have been produced by the party responsible for designing the system. One Kenneth James Patterson - Kane (DW2), a civil engineer by training and profession, gave expert evidence on behalf of the defendants. DW2 opined that the shop drawings produced by the plaintiffs were in essence engineering or technical designs or plans, given the fact that the structural elements of the ceiling together with their respective sizes and spacings were all defined. He confirmed that it was industry practice to refer to such drawings as "shop drawings". DW2 also explained that the expression "for approval" contained in many of the shop drawings supplied by

the plaintiffs meant only that the drawings were for the approval of the owners' consultants, in this case, the airport authority's consultants. He added however that any approval given by the owners' consultants was normally subject to such conditions or restrictions as would exclude responsibility for design and dimensions. In DW2's view, such drawings would also eventually be used to install the ceiling as detailed in the drawings. DW2 further confirmed that any shop drawings submitted for approval would normally be based on the applicable structural design in accordance with applicable design loads. Such technical information and data, it was said, was proprietary and could only have been within the plaintiffs' exclusive possession. In support of this contention, the defendants relied on the following which was printed at the top right-hand corner of the shop drawings supplied by the plaintiffs:

> GEMA METAL CEILINGS GROUP CLAIMS PROPRIETARY RIGHTS IN THE INFORMATION DISCLOSED HEREIN.

In the defendants' view, the fact that the plaintiffs found it necessary to reserve their claims of proprietary rights in the information disclosed was clear evidence that the plaintiffs regarded the information as their property which was not to be used by others without their prior consent. Reference was further made to a specific shop drawing in which the carrier rail (D2) was expressly described as a 'continuous galvanised steel *proprietary* carrier profile'. That all necessary data was within the exclusive purview of the plaintiffs pointed to the fact that responsibility for design could only have been theirs.

29 Emphasis was also placed on the fact that the plaintiffs had continually refused to divulge important technical information and data on D1, D2 and D3 to the defendants, despite repeated requests by the latter. It was confirmed by DW2 that D1, D2 and D3 were all proprietary components. As such, it was not possible for the defendants to have designed the ceiling system when crucial technical information on the ceiling components was not forthcoming. Counsel for the defendants referred to a fax dated 10 May 1996 from the defendants to the plaintiffs wherein DW1 had requested for technical information on the "tensile load" for certain components of the ceiling system. More specifically, there was a request for information on 'how tight the strip ceiling will clip/hold when wind pressure is given'. In reply, the plaintiffs wrote:

> Such a test for pull down is not existing and as far as I know nobody has such a test ever done, I am sorry, I can't help you in this matter.

Nothing whatsoever was said about the "tensile load" information requested for by the defendants, nor was it specifically stated that the ceiling system could not withstand prevailing wind pressures. Dissatisfied with the response, DW1 wrote again to the plaintiffs on 13 May 1996, stating:

> Please let us know your comment as manufacture for such a doubt. Do you have any recommendation of material for inside and outside after considering such a doubt?

Nothing further was received from the plaintiffs with regard to this matter. Under cross-examination, DW1 testified that he did at some point orally ask PW1 if the ceiling system could withstand the "situation of the Project", to which PW1 had replied, "No worry, no problem". As a result, DW1 trusted that the plaintiffs would design the metal ceiling system properly. He further explained in cross-examination that the defendants did not go to some other expert or engineer to obtain the information which the plaintiffs refused to provide because to do so would have been an exercise in futility. The reason for this was because the information was proprietary, and as such, the only party privy to it were the plaintiffs. Hence, the defendants had no choice but to trust the plaintiffs and to proceed with the installation based on the shop drawings provided by the latter. No further insistence

on a disclosure of the information was made as it was assumed that the plaintiffs were legitimately seeking to protect their proprietary rights. DW2, the expert, also gave evidence that without the relevant technical data of the ceiling components, it would not have been possible for the defendants or anyone for that matter to calculate with accuracy the maximum wind speed which the ceiling system would be able to withstand. Such calculations could only be done if information contained in the manufacturer's data sheets or the load test results were disclosed.

30 DW1 also gave evidence that before liasing with the plaintiffs, the defendants had in fact previously negotiated with a leading firm of metal ceiling specialists, M/s Chicago Metallic for the design of the metal ceiling system. These earlier negotiations had failed precisely because Chicago Metallic could not provide design services for the ceiling system, which services the defendants required. While it was admitted that the defendants were no doubt in the construction industry, it was explained that the metal ceiling system intended for use in the KLIA was a complex three-dimensional system with which the defendants had had no prior experience nor expertise. As such, they specifically required a separate firm of professionals to design the system for them.

31 DW1 further testified that during the period between 8 September 1995 to 19 February 1998, both the defendants' and the plaintiffs' representatives, including DW1 and PW1, held over 37 meetings to discuss the various aspects of the works to be carried out by the respective parties. Throughout these meetings, PW1 had frequently emphasised that part of the Gema Group's strategy was the provision of design and engineering services. DW1 also stressed that the defendants were very careful to select a partner with the necessary expertise in designing the metal ceiling system, and that this was in fact his "basic condition" in determining who to work with. He further opined that if the plaintiffs' role had indeed been confined only to the manufacture and supply of D1, D2 and D3, then there would absolutely have been no need for them to have produced shop drawings in relation to the KLIA Project. Moreover, DW1 also referred to a meeting between himself and PW1 at the plaintiffs' office in which DW1 had personally handed over a ring-binder file (*Exhibit D6*) containing the tender documents for the KLIA Project together with the full specifications for the metal ceiling system to PW1. He testified that PW1 left the room with the file, but came back in shortly without it. The file was subsequently returned to DW1 only some two or three hours later, leading him to assume that the plaintiffs must have or must be taken to have made photocopies of the contents therein.

32 Reference was next made to the meeting held at the defendants' office on 13 November 1995 (see 8 above) at which it was agreed that the plaintiffs would appoint a Design Manager and would produce CAD drawings required by the main contractor. Furthermore, Mr Sam Kiew Hong (PW2) of the plaintiffs, with whom the defendants frequently dealt during the course of the Project, consistently referred to himself as a "Design Manager" in all of his correspondence with the defendants. Additionally, he had also written several letters to the defendants in which were contained illustrations and comments on how the components of the suspension system should best be affixed. Furthermore, reliance was also placed on PW2's admission in court that he was the one who had determined for the spacing between the carrier rails to be fixed at 1.2m. All this, the defendants contended, was evidence that the plaintiffs were actively involved in making recommendations on the design and dimensions of the ceiling system.

33 With respect to the letter of intent dated 13 January 1996, DW1 explained that he had used the words 'subject to satisfactory negotiation of terms and conditions' to mean that only conditions relating to price and the terms of payment were left outstanding at that time. In his view, the agreement to design had already been confirmed and as such, there was no need to negotiate further on this.

34 Finally, the defendants relied on the expert evidence of DW2 to show that the design of the metal

ceiling system was faulty and that the system provided by the plaintiffs was not fit for its purpose. It was not in dispute that DW2 did not attend any of the tests carried out by J A Shillinglaw & Associates in Hong Kong. He had the opportunity however to examine the reports and results of those tests and gave his opinion in the form of a written report dated 18 October 1999 which was exhibited to his affidavit of evidence-in-chief. In his report, DW2 opined that the design of the metal ceiling system at the KLIA was deficient in two respects:

> (a) The strength of the clip connections between the ceiling strips and the carrier rails was inadequate; and
>
> (b) The carrier rails were not strong enough to span the 1.2m distance or spacing between their supports.

Strenuous objection was taken by counsel for the plaintiffs with respect to the admissibility of this evidence on the ground that it was an opinion based on hearsay evidence as the makers of the Shillinglaw reports were not called to testify. As before, I shall revert to this point again later in my judgment.

35 In court, DW2 gave evidence that the design code normally used in Malaysia to establish design wind pressures is the British Standard Code of Practice, Chapter V Part 2 and that this would normally be within the knowledge of any civil engineer in Malaysia doing design work. In DW2's view, the design wind speed that is normally adopted for use in Malaysia, albeit not specified in any construction regulation, is 30 m/s. It was also added that it is standard industry practice for the party designing an external metal ceiling system to take into account prevailing wind pressures in the area.

Claim for late delivery of capping profiles

36 In support of this claim, the defendants relied on a fax written by PW1 to the defendants dated 7 May 1997 in which PW1 expressly admitted that there was a delay in the delivery of the capping profiles due to a "production mistake in the factory". When cross-examined on this in court, PW1 conceded that this must have been the case, given that he had written the fax himself.

Claim for late delivery of documents

37 The defendants contended that the terms of shipment and delivery were CIF Port Klang in Malaysia. An endorsement printed on Purchase Order No. ITC/GEMA/P/035 required all shipments to be made between 1 November 1996 and 31 May 1997. Whilst conceding that all the containers of goods did in fact arrive before or within the month of May 1997, it was nevertheless submitted that this was not a sufficient discharge of a seller's obligations under a CIF contract. In the defendants' view, the obligations of the plaintiffs in this case could only be said to have been fulfilled when the relevant bills of lading and insurance policies were actually handed over to the defendants. As some of these documents were only received after May 1997, the defendants submitted that there was breach of the CIF terms of the contract on the part of the plaintiffs.

Plaintiffs' defence to counterclaim

38 The plaintiffs denied that an agreement was ever reached between the parties in which the plaintiffs had agreed to undertake the structural design and engineering of the KLIA Project in accordance with the specifications of the sub-contract documents. It was submitted that it is the court's duty to ascertain the intention of the parties from the evidence before it, and to this end, what needs to be determined is the objective intention of the parties. Throughout the trial, considerable emphasis was placed by counsel for the plaintiffs on the fact that it was the defendants who were the nominated sub-contractors of the KLIA Project, and as such, responsibility for design of the ceiling system must have been something within their exclusive province.

39 In response to the defendants' attempt to use the plaintiffs' invoices which prescribed a fee for 'design, engineering and draughtsman work' as evidence showing agreement by the plaintiffs to undertake the design of the ceiling system, PW1 testified that the idea for the apportionment of costs into that for materials and that for services originated from the defendants. He personally had no objection to this as it meant nothing to the plaintiffs who were only concerned with the total value invoiced. PW1 further testified in court that from his experience in the business, he imagined that the defendants' intention in requesting for the apportionment was presumably to reduce import taxes payable on materials in Malaysia. He added that the words 'design, engineering and draughtsman work' used in the invoices had no particular meaning and were meant only to make the plaintiffs' quotation or offer more competitive. He conceded however that all this was not mentioned in his affidavit of evidence-in-chief but explained that the reason for this omission was that he did not want to get the defendants into further trouble in view of the then fairly good relationship between the parties. PW1 also alluded to the fact that 30% of the total price of the contract amounted to nearly RM2.4m which was a preposterous sum to pay for drawings. According to the defendants' own witness DW2, the most that he would charge for design inclusive of calculations was approximately S$100,000 for a total of 50 drawings. As such, the 30% apportioned for services in this case could not possibly have reflected the actual services rendered. It was further implied that DW1's reasons for varying the apportionment were questionable in view of his admission that he knew from previous experience that tax on services was generally less than tax on materials. Moreover, DW1 had also admitted that the defendants did in some way benefit from the import duty saved.

40 The plaintiffs next produced a table of Profit and Loss Comparison which purportedly showed that there was only a mark-up of 2.08% as at the date of quotation between the 70% invoiced to the defendants for materials and the cost price at which the plaintiffs had purchased those materials. This, it was submitted, was before the plaintiffs' usual security factor of some 35% for exchange rate fluctuations was even taken into account. As such, it was contended that the plaintiffs' 70% invoice could not be a true reflection of the actual sale price of the materials to the defendants, which was really 100% of the value stated on the defendants' purchase orders.

41 PW1 also averred in his affidavit that the only responsibility which the plaintiffs undertook in this case was to assist in designing and producing Computer Assisted Drawings (CAD). Such drawings, it was said, were mere Proposal Drawings, which were not the equivalent of engineering or technical designs or plans. Rather, such drawings were mere illustrations proposing the general concept of strip ceiling suspension systems. In this case, the Proposal Drawings were produced based on instructions provided by the defendants and it was alleged that the defendants were free to and did in fact make changes or alterations to the drawings without the prior approval of the plaintiffs. Much reliance was also placed on the fact that all the drawings produced by the plaintiffs had the words "for approval" stamped on them and that the plaintiffs were consistently described as being manufacturers only. In the same vein, PW2 also gave evidence that he was only employed as a designer and a draughtsman and was not a professional engineer by training. The difference between a mere draughtsman and an engineer was recognised by DW1 who himself testified that a drawing done by a draughtsman could not be regarded as sound or safe until an engineer had certified it to be so. PW2 admitted however

that it was he who had suggested that the carrier rails in this case be positioned at a distance or spacing of 1.2m. Nevertheless, it was alleged that the defendants had their own Project Manager, one Mr. Y Ishino, and a full-time draughtsman, one Mr Aidros Osman, both of whom could have designed or checked on the design of the metal ceiling system. Moreover, the defendants had themselves chosen not to follow the plaintiffs' proposals for the suspension system but elected instead to source for the components of the suspension system (i.e., the upper section) from their own local suppliers. In addition, DW1 had also chosen D1, D2 and D3 himself, without having to rely on PW1's advice or opinion. Thereafter, the defendants had also appointed their own firm of contractors, Decolite Industries, headed by one Dr C K Lim, a specialist ceiling consultant, to install the entire ceiling system, which included the components D1, D2 and D3 supplied by the plaintiffs. Dr Lim, whom it was alleged was privy to most of the ongoing negotiations between the parties at that time, was not called by the defendants as a witness. As such, it was submitted that the court ought to draw an adverse inference against them.

42 The plaintiffs further made the point that at no time did either party document any agreement whereby the plaintiffs expressly agreed to design the ceiling system. Instead, the contemporaneous written correspondence referred only to quotations for metal ceiling *materials*, as opposed to the metal ceiling *system*. That DW1 might have intended for both to mean the same thing was irrelevant so far as the plaintiffs were concerned as they could not be presumed to have been aware of DW1's own subjective intention. The plaintiffs also brought forward the point that there was no written contract to design the system. This omission, it was said, was particularly glaring given that the value of the entire KLIA Project totalled some RM21m, coupled with the fact that there was a comprehensive sub-contract in writing between the defendants and the main contractor which set out in considerable detail the defendants' obligations and liabilities. Moreover, DW1 had himself admitted that it was normal practice for parties to enter into a written contract in such cases. As for the letter of intent dated 13 January 1996, PW1 testified that the fact that it was stated to be subject to satisfactory negotiation of terms and conditions showed that there was then no contract at all. As no negotiation ever took place, it could not be said that any contract was ever entered into in pursuance of this letter of intent.

43 In relation to the defendants' fax of 10 May 1996 requesting for information on the "tensile load" of certain materials and the plaintiffs' reply saying that they could not help, the plaintiffs submitted that it was inconceivable that the defendants or any client would simply accept such a reply and let the matter rest if the plaintiffs were indeed employed as the engineer or designer responsible for designing the metal ceiling system. The fact that the defendants were content not to pursue the matter further showed that the plaintiffs could not have been appointed as engineers in charge of designing the ceiling system. Reference was also made to a fax dated 27 March 1996 in which the plaintiffs had expressly informed the defendants that the latter's request for technical details and static calculations far exceeded what the plaintiffs as metal ceiling manufacturers were bound to provide. It was further stated in the said fax:

> … [W]e are not an civil engineer office to give calculation into the market. We have done test according to the German DIN norm system, and therefore will guarantee certain facts.
>
> But in no way do we give know-how for calculations or manufacturing/design into the market, if for example a certain dead load is requested we either confirm that our ceiling system has been tested for it or is unable to comply. But we do not provide calculation details.

It was submitted that the above showed that the plaintiffs were only a supplier of metal ceiling

materials, and that the provision of a draughtsman was merely incidental. The plaintiffs further relied on a Durability Warranty for materials issued by them to the defendants at the latter's request. It was contended that as the warranty extended only to *materials*, there could not possibly have been an assumption of responsibility for designing the *system* on the plaintiffs' part.

44 Counsel for the plaintiffs further submitted that little reliance should be placed on the alleged verbal or oral assurance by the plaintiffs that they could design the metal ceiling system, or to the effect that it was "no worry, no problem". First, it was contended that mere oral testimony unsubstantiated by documentary proof was necessarily subject to the failings of memory and the passage of time. This problem was further compounded in the present case in view of DW1's limited grasp of the English language. At the trial, counsel for the plaintiffs attacked DW1's competency, or the lack thereof, in the English language. It was DW1's own testimony that at the start of the parties' negotiations in 1995, he could understand about 70% or 80% of the oral English in an ordinary conversation. Moreover, the fact that a Japanese interpreter had to be present in court to assist DW1 in his testimony must be taken as further indication that the actual degree of his ability to express himself clearly in the English language was in serious doubt. As such, any form of communication emanating from DW1, whether in written form or orally made, should be treated with circumspection by the court. In particular, it was pertinent that DW1 did not refer to any alleged oral assurance by PW1 in any of his faxes to the plaintiffs after the strip ceilings fell.

45 With respect to the defendants' assertion that they had no choice but to trust the plaintiffs as the latter refused to disclose crucial material data and technical information, the plaintiffs relied on DW1's admission that the defendants already had possession of samples of D1, D2 and D3 from as early as December 1995 or January 1996. Furthermore, the defendants had thereafter built their own mock-up using D1, D2 and D3 and locally-obtained materials for the suspension system. Counsel for the plaintiffs even went so far as to suggest that DW1 could in any event have obtained any raw material data which he required directly and personally from the plaintiffs' factories in Europe by himself! Alternatively, the defendants could and should have engaged their own civil engineer to verify and calculate if the metal ceiling system met the wind speed requirement of 35.5 m/s. Such an engineer would then have been able to arrange for the appropriate wind loading or other test to be carried out to determine if the requirements of the sub-contract were met, and if necessary, to build a mock-up of the entire ceiling and subject it to a wind-tunnel test similar to that which was done in Hong Kong after the incidents.

46 Reliance was next placed on DW1's admission that wind speed requirement was an important design consideration. Despite the importance of this to him, DW1 confirmed that he did not highlight the specific wind speed requirement of 35.5 m/s to the plaintiffs because he assumed that it was a common thing which PW1 ought to have known. While PW1 did not deny that DW1 did indeed hand over an entire file of documents (*Exhibit D6*) to him at his office, it was asserted that there was no written acknowledgement or record of exactly what documents were contained in the file at the time it was handed over. PW1 further testified that he only took copies of those pages relating to the manufacturing requirements of ceiling materials and did not recall seeing any wind speed requirement. In any event, even if he had seen such a requirement, he would not have paid much regard to it as the plaintiffs were merely suppliers of D1, D2 and D3. Hence, it could not be said that the defendants had made known to the plaintiffs their intention to use D1, D2 and D3 in a metal ceiling system which was capable of withstanding a wind speed of 35.5m/s.

47 It was further submitted that even if the plaintiffs were responsible for designing the ceiling system, the maximum wind speed which they would have catered for was only 30 m/s, which according to DW2, was the design speed normally adopted for use in Malaysia, and not 35.5 m/s.

48 Finally, it was asserted that DW1 was a resourceful person, capable and competent enough to secure a contract as valuable as the KLIA Project for his company. Being a man of business, it was reiterated that if there had indeed been a contract for design of the metal ceiling system, such contract would certainly have been documented in writing by DW1. In view of the fact that no such written contract was entered into, it was submitted that the only probable inference must be that there was no agreement to design the system in the first place.

49 In answer to the defendants' claim for late delivery of documents, PW1 testified that the plaintiffs had used their best efforts to obtain the necessary shipping and other documents from the relevant third parties as soon as possible. In any case, the defendants had failed to adduce any evidence showing that there was in fact any delay at all in the delivery of the documents. As a matter of law, a CIF seller's only obligation is to make every reasonable exertion to send the bill of lading as soon as possible after he has shipped the cargo to the consignee. As such, the plaintiffs cannot be blamed for any delay due to the fault of third parties over whom the plaintiffs had no control.

The issues

(1) Was there a contract for design between the parties?

50 There was no doubt that the parties in this case did not enter into any written agreement, whether for the sale and supply of the metal ceiling materials, or for the design of the metal ceiling system. Any contract between them must thus be collected from the words and documents which have passed between them. An acceptance by one party of the other's offer may also be inferred from the conduct of the former. The task of inferring an assent and of fixing the precise moment at which a meeting of the minds may be said to have emerged is one of obvious difficulty, particularly when, as in this case, the negotiations and relationship between the parties have stretched over a long period of time and there were also numerous correspondence and meetings. The function of the judge nevertheless is to try, as far as practical experience allows, to ensure that the reasonable expectations of honest men are not disappointed. For this purpose, the law adopts an objective test of agreement. The classic formulation of the principle was stated by Blackburn J in *Smith v Hughes* (1871) LR 6 QB 597 as follows:

> If, whatever a man's real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that other party upon that belief enters into the contract with him, the man thus conducting himself would be equally bound as if he had intended to agree to the other party's terms.

Locally, in *SAL Industrial Leasing Ltd v Teck Koon (Motor) Trading (a firm)* [1998] 2 SLR 325, the Court of Appeal held that the question whether or not there was an intention by the parties to enter into a legally binding contract was an objective one. The following passage from *R v Lord Chancellor`s Department, ex p Nangle* [1991] ICR 743 at p 751 was quoted with approval:

> [I]n our judgment, that the question whether there is an intention to create legal relations is to be ascertained objectively, and where the terms of the relationship are, as here, to be derived solely from the documents, depends upon the construction of those documents. It is possible for a party to believe mistakenly that he is contractually bound to another when in fact he is not; and conversely to believe that he is not when he is. His belief is immaterial. While this remains a subjective

> belief uncommunicated to the other party, this is plainly correct. But where such a belief is expressed in the documents it must be a question of construction of the documents as a whole what effect should be given to such a statement.

To this I would add that the contemporaneous conduct of the parties, in addition to documents, can and should also be taken into account in order to determine the existence of an agreement between the parties: see e.g., *Harvey v Johnson* (1848) 6 CB 305; *Brogden v Metropolitan Railway* (1877) 2 App Cas 666.

51 Applying the above principles to the present case, I found that there was ample evidence to support the defendants' contention that there was a contract for design of the metal ceiling system between the parties. In the first place, it was clear that the plaintiffs had separately invoiced the defendants for 'design, engineering and draughtsman work'. DW1, whom I found to be a truthful witness, testified that both the plaintiffs and defendants agreed to apportion the sums payable by the defendants to the plaintiffs into costs for materials, and costs for services in the proportion 70:30. On this apportionment, the total amount charged to the defendants for design and engineering services was some RM1.5m, not RM2.4m as PW1 seemed to have suggested in court. Clearly the reasonable inference to be drawn from this is that some responsibility for design and engineering must have been undertaken by the plaintiffs. PW1 himself, in his affidavit of evidence-in-chief, did not deny that the invoice billing of 30% was for services rendered. His explanation then was that the term 'design, engineering and draughtsman work' was merely a commonly used or standard phrase which described PW2's proposal drawings, but which did not cover responsibility for design work. In court, PW1 sought to alter his story by stating that the request to split the costs into that for supply and that for design emanated from the defendants, whose purpose was to reduce the amount of import tax payable by them in Malaysia. I found this explanation to be completely unsubstantiated on the facts. In the first place, it was the plaintiffs who, in their initial quotation in writing to the defendants dated 23 November 1995, stated that the price for materials supply and 'technical and drawing service' was split into the proportion 80:20. Further, the reason given by PW1 for the defendants' alleged request for the price apportionment was not documented in his affidavit of evidence-in-chief. His feeble explanation that the reason for the omission was that he did not want to get the defendants into further trouble was thus unworthy of belief. By the time this action was commenced on 25 November 1998, the KLIA was already fully operational and it may be assumed that there was no longer a working relationship between the parties. Having started this litigation in the first place, it is unbelievable that PW1 or the plaintiffs would have had any qualms about getting the defendants into trouble. If it was indeed true that the defendants were concerned about wanting to reduce or avoid import taxes, such an important fact would have been crucial or at least greatly relevant to the plaintiffs' defence to the defendants' counterclaim. As such, there was no reason for PW1 not to have mentioned it in his affidavit.

52 In any event, PW1, under cross-examination, agreed that any tax saving between an apportionment of 80:20 and 70:30 was only a meagre 2%, the result of which is that little monetary benefit would have accrued to the defendants upon the re-apportionment. In my opinion, the words 'The price reduction for supply only without any **technical** and drawing **service** would be 20%' as contained in PW1's fax of 23 November 1995 plainly revealed an implied offer on the part of the plaintiffs to do design and engineering work for the defendants. In my view, 'technical service' would encompass 'design and engineering services'. This offer was subsequently accepted by the defendants who accepted and paid for the invoices issued by the plaintiffs in respect of 'design, engineering and draughtsman work'.

53 I accepted DW1's evidence that the defendants' reason for changing the apportionment from 80:20 to 70:30 was so that the defendants could have a larger safety margin to hold back payment in

the event of problems with their suppliers. This was in fact corroborated by a fax written by PW1 on 26 November 1996 confirming that payment for invoices comprising 70% of the total cost would be made via L/C while the remaining 30% for design, engineering and draughtsman work would be invoiced on a normal telegraphic transfer basis. I also found it reasonable that the defendants' main concern at that time was for the entire price of the contract to be within the overall budget, and that it did not really matter to them how the costs for materials and services were split. Counsel for the plaintiffs attempted to suggest that the 70:30 arrangement was a sham as RM1.5m was a preposterous sum to be charging for design and technical service. In my view, this argument plainly ignored the fact that the true amount charged for services as originally proposed by the plaintiffs was actually 20% of the total price, i.e., RM1m, which by any measure is a substantial fee. While it is true that DW2 testified that the normal amount chargeable for the design services rendered in this case was around S$100,000, this was, in my view, only DW2's own personal opinion as to what he himself would charge if he was assigned to undertake purely design work. DW2's estimate did not include attendances at site meetings. It was thus natural for the plaintiffs, an internationally-recognised premier organisation, to charge a premium for the design, engineering and draughtsman services for their proprietary ceiling system. I accepted DW1's evidence that the defendants had no experience whatsoever in what to my mind was a specialised type of suspended ceiling intended for construction at the KLIA. As such, DW1 would hardly have been aware of the usual or market price for the design of such ceilings, if there was even a market for such a proprietary type of ceiling in the first place. In DW1's view, he had a fixed overall budget to keep to, and so long as the total cost fell within that amount, there was really nothing else for him to be concerned with.

54 With respect to the table of Profit and Loss Comparison (*Exhibit P6*) relied on by the plaintiffs, this was tendered to the court only at the end of the trial in response to my earlier request for evidence of invoices from the plaintiffs' suppliers in Germany. I had asked for this in order to determine if the amount invoiced to the defendants in respect of materials only was realistic after taking into account the plaintiffs' cost of sales. *Exhibit P6* revealed, from a side-by-side comparison of suppliers' invoices and the invoices issued by the plaintiffs, that the plaintiffs' profit margin from materials was only 2.08% based on an apportionment of 70:30 i.e. plaintiffs' invoiced price to defendants for materials being 70% of the contract price and the plaintiffs' own cost price being 68.57% of the contract price would give a 2.08% profit margin. As the profit margin could not possibly be so low as 2.08%, counsel for the plaintiffs therefore submitted that the amount actually invoiced to the defendants for materials should not be 70% but in reality, should have been 100% of the contract price without any deduction in the contract price of 30% (or more accurately 31.43% based on these calculations) for 'design, engineering and draughtsman work', which the plaintiffs alleged to be nothing but a sham. Assuming that the plaintiffs were correct in this regard, the plaintiffs' profit margin purely in respect of materials supply would then soar to 45.83%. This the plaintiffs submitted was more realistic than 2.08%. In an attempt to explain away part of this extraordinarily large profit margin of 45.83%, it was further alleged that the plaintiffs' usual provision for exchange rate fluctuations was some 35%. In my view, this evidence was plainly unbelievable. In the first place, the suggestion that a 35% security factor was provisioned for exchange rate fluctuations was ludicrous and completely out of line with normal business practice especially when the contract between the plaintiffs and defendants was finalised well before the recent asian currency crisis, and I very much doubted that a reasonable businessman would have made provisions for or envisaged currency exchange rates fluctuations in the RM, S$, Sfr, and DM in the range of 35%. In my view, the invoices issued by the plaintiffs to the defendants in respect of materials should have been 80% of the total price charged to the defendants. That was how the plaintiffs had originally priced their materials. This 80% was however subsequently reduced to 70% on paper, because of the defendants' wish for a larger safety margin in respect of payment. Nevertheless, this did not affect the overall amount which the plaintiffs had in fact charged for materials, which remained at 80% of the total amount invoiced to the defendants, and the remaining 20% was in truth charged for substantive 'design, engineering and draughtsman

work'. On this view, the plaintiffs' total profit margin in respect of materials would work out to be around 16.66% (i.e. based on 80/68.57 X 100%), which in my opinion, was certainly more realistic than a 45.83% profit margin. A plausible supposition would be that some 10-12% of the total profit margin of 16.66% accounted for the plaintiffs' mark-up in respect of sales alone while the remaining 4-6% represented provision for exchange rate fluctuations, which to my mind was far more reasonable than a provision of some 35%. In the result, I had no doubt that the invoices issued in respect of 'design, engineering and draughtsman work' were genuine at least up to an amount of 20% and the defendants were indeed billed for substantial design, engineering and draughtsman work done by the plaintiffs. I did not think that the invoicing for 'design, engineering and draughtsman work' was merely a faade or a fraudulent and illegal scheme by the defendants to evade import taxes as alleged by the plaintiffs.

55 Next, it was also not disputed that the plaintiffs produced shop drawings in respect of the KLIA Project, a fact which showed that the plaintiffs were clearly acting in performance of an earlier-concluded agreement to design, or at the very least, that they were conducting themselves in a manner which was consistent with their earlier offer to provide design services as may be gleaned from the plaintiffs' fax of 23 November 1995. The shop drawings provided by the plaintiffs were adopted for use by the defendants to install the metal ceiling system at the KLIA and were in turn handed over by them to the main contractor and thereafter to the airport authorities for approval. DW2, the defendants' expert witness, upon examining the drawings produced by the plaintiffs, opined that they were in essence engineering or technical designs and plans. No expert evidence was led by the plaintiffs to refute this. In the premises, I accepted DW2's evidence that the shop drawings produced by the plaintiffs were engineering or technical designs or plans. From my own perusal of these drawings, it was clear that the structural elements of the ceiling system as well as the respective sizes and spacings of the individual components were all set out in considerable detail. In my view, only the party in charge of designing the system would have taken it upon himself to state in such precise terms the dimensions of the individual components and other measurements between each component in the system. The width and thickness of the material to be used for each component of the system had been explicitly set out in the key to all the drawings. Clearly, these drawings could not possibly have been mere "Proposal Drawings" intended only for the purposes of providing a rough or vague concept of the system or a general manner of installation. There is no doubt that the production of the drawings in question must have involved extensive work, calculation and responsibility, which to my mind, would only have been done by a party tasked with the duty of designing the system. PW1's assertion that the complex, detailed, and to-scale drawings given by the plaintiffs to the defendants was merely a goodwill gesture was thus completely unbelievable.

56 I was fortified in the above view by the fact that CP100 is a proprietary system. The shop drawings themselves stated clearly that the plaintiffs claim proprietary rights in the information disclosed therein. As such, it would have been impossible for the defendants, even if they had wanted to, to seek confirmation or verification with their own firm of engineers on the structural integrity of D1, D2 and D3 when fitted together as a system, having regard to their profiles, dimensions, spacings, method of clipping, and the wind loading that the system ought to be capable of withstanding. Without information on the grade of the material or components used for the system and material properties like tensile strength, which information the plaintiffs did not disclose, calculations on structural integrity could not be done. DW2 testified that D1, D2 and D3 were all proprietary components, a fact which was attested to by PW1 himself. Of course, it would have been open to the defendants to carry out their own material load testing on D1, D2 and D3 in order to obtain the necessary technical data which would enable independent engineers to verify the structural integrity of D1, D2 and D3 when fitted together. But in my view, this was not a reasonable solution in the circumstances and not one in which the defendants were obliged to take, given the very substantial fee that the plaintiffs had charged for design services. Having paid a handsome design fee, I think it

was reasonable for the defendants to have assumed that D1, D2 and D3, when installed as an integrated system in accordance with the shop drawings of the plaintiffs would be safe and capable of withstanding the required design wind loads. DW2's expert evidence as documented in the report exhibited to his affidavit of evidence-in-chief was that proprietary systems utilise components and connection details which are specifically developed by the manufacturer for each application. They are not assembled from separate standard structural sections which can be purchased from different sources. In DW2's view, proprietary systems are specially designed systems built by a manufacturer and only they would have the knowledge or information on the characteristics or strength of each individual part to the exclusion of others. Should others wish to utilise the system, they would have to rely on the manufacturer for the requisite information on the relevant characteristics or strengths. No expert witness was called by the plaintiffs to displace these propositions which I accepted *in toto*.

57 It was also significant that the defendants did in fact attempt to obtain crucial technical information from the plaintiffs but none whatsoever was forthcoming from the latter. In the faxes dated 10 and 13 May 1996 referred to above, consecutive requests for technical information were made by DW1 to the plaintiffs. No satisfactory reply however emanated from the plaintiffs. In my view, this constant refusal to divulge important information supported the inference that the plaintiffs had undertaken full responsibility for designing the system. It might be supposed that by refusing to give information which would have allowed the defendants to conduct their own tests or checks, the plaintiffs were in fact impliedly warranting that installation of D1, D2 and D3 in accordance with their shop drawings could be adopted wholesale by the defendants and no modifications were necessary. The earlier fax of 27 March 1996 written by PW1 to the effect that the plaintiffs did not give know-how for calculations for manufacturing or design into the market also provided strong evidence of the fact that the plaintiffs had the necessary load test data needed to design the ceilings for the required loadings. The reason why they did not provide this information to the defendants was because they regarded it as confidential and commercially sensitive data. Contrary to the plaintiffs' view that this fax negatived the existence of an agreement to design on their part, I found that it was precisely because they did not divulge certain information that they must be taken to have impliedly assumed responsibility for the rest of the information which they did in fact provide, as there was otherwise no reasonably practicable way for the defendants to verify the dimensions and installation details in the shop drawings supplied by the plaintiffs. DW2's expert opinion after all was that a third party, without the relevant technical data, would not have been able to calculate and determine the loading capacity of a proprietary ceiling system with any degree of accuracy. In my view, it was absurd for the plaintiffs to expect that the defendants should have conducted their own load tests to obtain the relevant data, given that the former had already charged an almost exorbitant fee for design services, and that the defendants themselves had a fixed budget to adhere to. *A fortiori*, the suggestion that the defendants should have built their own full-scale mock-up to test the system before installing it was both ridiculous and completely unreasonable in the circumstances. To my mind, where A has contracted with B to design a system, then in the absence of further provision, B is entitled to assume that A had performed his duties under the contract properly. The concept of responsibility would become superfluous if B had to constantly double-check on whether or not A had accomplished its side of the bargain. Take for example the case where I ask an architect and a civil engineer to design a house for me. Thereafter I build the house according to the design supplied by them. The house later collapses and it is revealed that their design was flawed. Can it be that I should thereafter have no recourse against them because I ought to have hired another architect and civil engineer to conduct a separate, independent check on the design before building the house? I think this clearly cannot be the position at law. In any case, it must be remembered that the plaintiffs' failure in the present case to divulge information was not because they did not have the necessary expertise to do so nor were they unqualified in this respect, as counsel for the plaintiff suggested in his closing arguments. On the contrary, as their business catalogue and ISO 9001 Certificate revealed, the Gema group is world-renowned for its design and engineering expertise. I can only

surmise that the reason for the non-disclosure in this case was because the plaintiffs were concerned with protecting their proprietary rights in the material and the system as a whole, not because they were not competent to give the necessary calculations or data. As a result, the defendants had no other practical alternative but to rely fully on the drawings and dimensions supplied by the plaintiffs. The same can also be said about the mock-up of the ceiling system built by the defendants using D1, D2 and D3 and locally-obtained suspension components. In my view, this was done more to ensure the general functionality of the system as a whole and to observe its overall aesthetic quality. I did not think that the defendants ever intended for this mock-up to be used as a test of the structural integrity of the design of the system as supplied by the plaintiffs. In any case, as I have found, it was neither reasonable nor practicable for the defendants, or for the plaintiffs to expect the defendants to conduct their own wind-loading or wind-tunnel tests on the mock-up, given that the plaintiffs had withheld crucial technical information on the strengths and characteristics of the materials supplied. In the same vein, I also attached no weight to the manufacturer's note printed on the shop drawings supplied by the plaintiffs, stating that all dimensions were to be checked by the sub-contractor prior to manufacture and installation. To me, this was merely a standard phrase pre-printed on the shop drawing sheets as a matter of course. As the statement was inconsistent with the conduct of the plaintiffs in refusing to divulge crucial information necessary for the dimensions to be verified, I found that the note could not have the effect of altering the fact that responsibility for design lay with the plaintiffs throughout. The position with respect to the words "for approval" on the shop drawings was likewise no different. In any case, I accepted DW2's expert opinion that the words "for approval" referred to the approval of the airport authority's consultants, which approval, if given, did not ordinarily encompass responsibility for design and dimensions.

58 Counsel for the plaintiffs also sought to play up the fact that DW1 did not take issue with the plaintiffs' refusal to provide information and merely let the matter rest as it was. He submitted that if the plaintiffs had indeed been tasked with designing the system, then a client's likely response would have been to send a nasty letter reminding the designers and/or engineers of their appointment and demanding an answer. In my view, this submission was completely without merit. I think it was clear from the documentary evidence that repeated requests for information had been made by DW1 to the plaintiffs. Each request however was consistently met with the same response from the plaintiffs to the effect that they could not divulge the necessary information. In fact, DW1 testified that he had, upon receiving the non-committal response from the plaintiffs, spoken to PW1 over the phone querying if the ceiling system could withstand the "situation of the Project", to which PW1 had replied "no worry, no problem". Moreover, DW1 had also earlier enquired of PW1 if the plaintiffs could design the metal ceiling system to which the latter had replied in the affirmative. Having observed the demeanour of DW1 in the witness box, I found that he was a truthful witness, who, despite his slight handicap in the English language, was nevertheless able to expressly himself with sufficient clarity. In this respect, I also found the plaintiffs' attacks on DW1's competency in the English language to be completely unwarranted. Despite having engaged the services of a Japanese language interpreter to assist him in court, DW1 chose to and did in fact give most of his evidence in English, without the aid of the interpreter at all. I recognised that most of the written correspondence and oral communication between the parties in this case occurred between 1995 and 1996. Nevertheless, I accepted DW1's evidence that his grasp of English at that time was around "70 to 80%", which to my mind, was sufficient for him to accurately convey his intentions to the plaintiffs in simple English. A perusal of some of the letters or faxes written by DW1 during the relevant period revealed that his command of the English language, even in writing, was no where as lamentable as the plaintiffs would have me believe. I found that DW1 was able to express himself clearly and to a reasonable degree of preciseness. While errors in grammar were no doubt present, this did not in any way affect the substance of what DW1 intended to convey, and any reasonable person looking at the documents written by him would have little difficulty understanding their purport and scope. *A fortiori*, I think the reasonable inference must be that DW1's grasp of spoken or oral English must have been of an equal

standard, if not higher. In the premises, I accepted DW1's evidence that PW1 had orally assured him that it was not a problem for the plaintiffs to design the ceiling system and that the system as designed by the plaintiffs could withstand "the situation of the Project". In fact, if PW1 had said anything otherwise in response to DW1's query, then I think as a matter of common sense, the defendants would thereafter have terminated their working relationship with the plaintiffs. After all, they had specifically discontinued discussions with Chicago Metallic precisely because the latter could not undertake the design of the 3-D ceiling system at the KLIA. As such, I found that it was reasonable for the defendants, after having met with continuous refusals to divulge critical information, to assume that the plaintiffs were legitimately seeking to protect their proprietary rights, and to rely on the shop drawings and dimensions specified by the plaintiffs. That the defendants had requested for the information in the first place did not have the effect of casting responsibility for design on their shoulders. Rather, it merely allowed them the opportunity of carrying out their own independent checks or verifications on the specifications supplied, which they were fully entitled to do. This did not however change the fact that responsibility for design rested with the plaintiffs. At this point, I should also state that I found the plaintiffs' argument that no weight should be placed on PW1's alleged oral assurances because this was not specifically pleaded in the defence and counterclaim to be wholly unsustainable. I did not think that the defendants did at any time attempt to rely solely and exclusively on these one or two verbal assurances to found their entire cause of action. In my view, these oral assurances were merely part of the overall evidence adduced before the court from which I was asked to infer an agreement for the plaintiffs to design.

59 Further evidence of the existence of a contract for design can be garnered from the fact that the defendants had passed Architectural Drawings supplied by the main contractor onto the plaintiffs. If the plaintiffs' assertion that their only responsibility was to supply D1, D2 and D3 to the defendants, then there would have been absolutely no need for the Architectural Drawings to be passed to the plaintiffs, nor would it have been necessary for them to produce detailed shop drawings specifying dimensions and other highly-particularised measurements.

60 It was also significant that PW2 consistently referred to himself as a "Design Manager" in all of his correspondence with the defendants. Throughout the trial, the plaintiffs continually tried to run the argument that their only responsibility was to provide the defendants with a draughtsman who was in no way responsible for the drawings which he produced and one who would only draw in accordance with the defendants' instructions. I found this argument tenuous in the circumstances. In the first place, if the plaintiffs' only intention had been to appoint a draughtsman, then there would have been no reason for PW2 to have addressed himself otherwise. I think the obvious inference from the fact that PW2 called himself a "Design Manager" was that both parties were agreed that the plaintiffs were responsible for designing the system. Moreover, to my mind, it was also improbable that PW2 had to take instructions from the defendants in designing the metal ceiling system given, as I have alluded to in the preceding paragraphs, that all the necessary technical data and load test results were within the exclusive province of the plaintiffs. At this juncture, I should also highlight the point made by DW1 that it was the plaintiffs who had proposed the appropriate thickness of the metal strip ceiling to be used, thus impliedly warranting the strength, and hence capacity of the system as a whole. A thinner strip ceiling would obviously not secure as well onto the carrier rails as a stronger and thicker strip ceiling since the securing depended on the curved edges of the strip ceiling holding on to the hooks or clip-ins on the carrier rails. It was further admitted by PW1 himself that the plaintiffs also advised on the suitable thickness of the capping profiles to be used. In addition, detailed illustrations of the way in which the components of the suspension system should be installed were also forwarded to the defendants. It was clear from all this that the plaintiffs were at all times actively involved in the details of the entire ceiling system. Their efforts in explaining to the defendants how the suspension system should be installed went beyond the duties of a mere supplier of materials. What was also telling was the fact that it was the plaintiffs who had determined the appropriate spacing between

the carrier rails, which to me, was an important element of the structural integrity of the design. It is incredible that a mere supplier would actually be involved in making crucial technical decisions like these, particularly when such decisions involved integral design components of the metal ceiling system. I rejected the plaintiffs' suggestion that PW2 could not have been tasked with making detailed engineering drawings as he was not a professional engineer by training. PW2 himself testified that he had a certificate in drafting and basic design concepts and was at all times working under the supervision of one Mr Kevin Butler, whom I understood to be PW2's boss and who was also involved in designing the system. In the absence of further clarification from the plaintiffs, I accepted DW1's evidence that Mr Butler contributed to the designing of the ceiling system as well, and was presumably qualified to do so.

61 Counsel for the plaintiffs next sought to impress upon me the fact that the plaintiffs had described themselves as mere suppliers in the shop drawings. I found this argument to be completely misleading. A quick look at the shop drawings supplied revealed that the plaintiffs did not actually describe themselves as suppliers. They had merely filled in their name into a blank space entitled 'Manufacture' on the standard form drawing sheet.. That they were the manufacturers of the system was certainly not in doubt, and as such, the so-called description was not incorrect. Nevertheless, this did not mean that they could not also have been responsible for designing the ceiling system, particularly when no corresponding blank or space for 'Design' was provided for on the standard drawing sheet.

62 The allegation that the defendants had modified the shop drawings supplied by the plaintiffs was also not sustainable on the facts. DW1 confirmed that the only time in which the drawings were modified was after the collapse of the ceilings at the KLIA. Security clips were added to the strip ceiling in order to avert another collapse and even then, such was done only upon consultation with the plaintiffs. Any other modification to the drawings were merely remedial measures, undertaken as part of the rectification works which the defendants carried out after the dislodgement of the ceiling strips. There was no evidence that the defendants had modified the plaintiffs' shop drawings before the incidents, or before forwarding them on to the main contractor.

63 Counsel for the plaintiffs also sought to emphasise the point that DW1 had, in the letter of intent dated 13 January 1996, used the words 'intention to enter into a contract… for the design and supplying Metal Ceiling *Materials*'. This, counsel contended, showed that the defendants only intended for the plaintiffs to supply *materials*, and not to design the *system* as well. In my view, this argument was completely untenable as it ignored the fact that the word "design" was also used in the sentence. The word "design" used in this context, could only have been a reference to a design of the system. Surely the objective intention could not have been to design the materials, which were really standard products pre-developed for specific purposes, and this, I had no doubt, must have been within the knowledge of PW1. In any case, this letter of intent was but one out of many pieces of evidence which showed distinctly the existence of an agreement to design.

64 Counsel for the plaintiffs also based a large part of his arguments on the assumption that the existence of a contract for design must either have been concluded by a specified time or never at all. First, counsel sought to show that there could not have been an agreement for design as at the date of the defendants' fax, i.e., 13 November 1995 which set out the minutes of the parties' meeting on the same day. The reason for this was because the parties had only agreed to provide a design manager to do CAD drawings, but not an engineer who was able to make technical calculations. As such, it could not be said, based on this fax, that there was an agreement by the plaintiffs to design the system. Counsel then went on to make a similar point with respect to the letter of intent dated 13 January 1996. In this case, counsel sought to show that the words 'subject to satisfactory negotiations of terms and conditions' indicated that there was no agreement as to price and the terms of payment and consequently, no agreement for design either. Finally, counsel also referred to

various other contemporaneous correspondence which he claimed, showed that there was never any discussion on the structural design or engineering of the metal ceiling system.

65 In my view, the above arguments were wholly misconceived. The existence of the contract for design in this case was founded not merely upon one or two pieces of correspondence between the parties. In determining whether or not there was a contract in this case, the court must be concerned to take into account the totality of the evidence before it. While I accepted the view that there might not have been a concluded contract for design at the date of the letter of intent, the subsequent conduct of the parties presented unmistakable evidence that they must have reached *consensus ad idem* at some point during the entire period of the working relationship between the parties. For example, the issuance of invoices for 'design, engineering and draughtsman work' by the plaintiffs, the production of shop drawings and the concomitant refusal to disclose critical technical information, as well as the appointment of PW2 as a Design Manager may all be taken as conduct from which an offer to provide design services may unequivocally be inferred. Consequent acceptance of this offer can be seen from the fact that the defendants passed on relevant Architectural Drawings of the KLIA to the plaintiffs, that the contract and tender documents were also handed to the plaintiffs, and that the defendants accepted and paid for invoices issued in respect of 'design, engineering and draughtsman work.' Alternatively, the situation may also be analysed such that it was the defendants who had made the initial offer for the plaintiffs to design the system through their cumulative acts of asking PW1 whether or not the plaintiffs could design the system, of requiring the plaintiffs to appoint a Design Manager who would also attend site meetings, and of passing the contract documents and Architectural Drawings on to the defendants. This offer was clearly accepted by the plaintiffs via the provision of shop drawings and a Design Manager, the refusal to disclose critical technical information and the constant assertion of their proprietary rights in the system supplied, and the issuance of invoices for 'design, engineering and draughtsman work'. It is trite law that an acceptance may be by conduct. For example, an offer to buy goods may be accepted by supplying them; an offer to sell goods may be accepted by the buyer using them, and an offer contained in a request for services may be accepted by beginning to render them: see *Chitty on Contracts*, Volume 1: General Principles (28th Ed, 1999) at 2-027. Hence, returning to the facts of the present case, whichever way one looks at it, it is clear that the mere fact that no agreement was reached by the parties at the meeting on 13 November 1995 concerning the appointment of an engineer was not conclusive of the fact that there was never or that there could never be an intention for the plaintiffs to assume responsibility for design. Likewise, while the words 'subject to satisfactory negotiation of terms and conditions' in the letter of intent might mean that there was no concluded contract at that point in time, they do not preclude the possibility of an agreement arising subsequently. If I were to take the plaintiffs' argument to its logical conclusion, that the words 'subject to satisfactory negotiation of terms and conditions' meant that there could not have been a concluded contract for design at that point and after because terms relating to price and method of payment were still outstanding, then logically, there would also never have been an agreement for the sale of materials, since the price and other payment terms had also not been finalised with respect to materials as at the date of the letter of intent. Yet no argument was ever made of the fact that there was a contract for the sale of materials, which unarguably was also evidenced by the subsequent practice of issuing purchase orders and invoices respectively. In the premises, I found that the ensuing conduct of the parties in this case clearly disclosed an objective intention that the plaintiffs were responsible for designing the metal ceiling system. At this juncture, I think it is also appropriate to deal with the plaintiffs' argument that it was "striking" that the defendants did not bother to enter into a written contract for design when the value of the entire KLIA Project was some RM21m, and when there was a comprehensive nominated sub-contract between the defendants and the main contractor. In my view, there are many ways in which a company could conduct its business. The degree of trust that one party might place in another could well vary with the reputation and track-record of the latter. Where the entity concerned is a world-renowned

organisation professing to deliver services of world-class standards, I do not think it is unusual for men of business to rely on the oral assurances and other contemporaneous conduct moving from that organisation. In any event, in the present case, it was not imperative that the defendants should have entered into a written agreement with their designers or engineers just because the value of the KLIA Project was large. After all, they had not seen it fit to enter into a written contract for the sale of materials either, a fact which clearly exemplified the level of trust which they placed in the plaintiffs. Finally, the argument that the contemporaneous correspondence contained only requests for quotations for materials was also not borne out by the evidence. It was clear from the defendants' faxes that numerous requests were made by them for shop drawings and PW2 did in fact supply detailed illustrations of various sections of the ceiling system to the defendants. Moreover, shop drawings were also provided in due course. In any case, there was no need for the defendants to have requested for quotations as to the cost of design when PW1 had already, in his earlier fax of 23 November 1995, indicated that service charge would be an automatic 20% of the total quoted price and the balance of 80% would be the price for supplying materials. As such, any negotiation on the price of materials would directly affect the price for design, engineering and draughtsman services.

66 I move on to deal with the argument of plaintiffs' counsel that his clients could not possibly have been responsible for designing the metal ceiling system when they were not the nominated sub-contractor for the KLIA Project. Great emphasis was placed by counsel on the proposition that as the defendants were the nominated sub-contractor for the KLIA Project, responsibility for design must have been theirs solely. I found this argument to be completely fallacious and misconceived as it ignored the basic and fundamental doctrine of privity of contract. There was never any doubt that the defendants had all along been the nominated sub-contractor for the KLIA Project, and that under the terms of the sub-contract, responsibility for design was that of the nominated sub-contractor. Nevertheless, the sub-contract did not prohibit the nominated sub-contractor from sub-sub-contracting its obligations out to a third party, which was what the defendants did in this case. While the defendants would certainly remain liable to the main contractor for any failure to fulfil their obligations under the sub-contract, including obligations of design, this does not affect the duties of the third party, i.e., the plaintiffs, to the defendants under the sub-sub-contract. As such, the fact that the defendants were the nominated sub-contractor vis--vis the main contractor was a matter wholly separate and distinct from their relationship with the plaintiffs. In my view, any argument along the line that because the plaintiffs were not the nominated sub-contractor vis--vis the main contractor therefore they could not have been responsible for design of the system was completely untenable. In this respect, the same can also be said of the obligation contained in the nominated sub-contract on the part of the nominated sub-contractor to obtain a certificate from the plaintiffs stating that the requirements of the nominated sub-contract were all met. In my view, the failure of the defendants to obtain such a certificate from the plaintiffs might well amount to a breach of the former's obligations to the main contractor, but this breach in no way affected the scope of the plaintiffs' duties under their own sub-sub-contract with the defendants. I think it is clear in this case that the defendants had sub-sub-contracted its obligations of design under the nominated sub-contract to the plaintiffs. For this purpose, it was not necessary for the use of precise words or phrases by the parties. Their conduct was more than sufficient for such an intention or agreement to be objectively inferred.

67 With respect to the Durability Warranty for materials issued by the plaintiffs, I accepted DW2's undisputed evidence that no similar warranty exists in the industry for services rendered. As such, no similar warranty for technical and engineering design service was given by the plaintiffs nor could one be expected to be given. Hence, the fact that the only warranty issued in this case was one relating to materials added nothing to the plaintiffs' case.

68 With regard to the allegation that the defendants had their own Project Manager, i.e., Mr Y Ishino

and as such were equipped to undertake design responsibility, I think this was adequately countered by the defendants' explanation that Mr Ishino was merely an architect by training and not an engineer. As such, he was not qualified to comment on the adequacy of the structural design as detailed in the shop drawings supplied by the plaintiffs. As for the fact that the defendants had their own draughtsman, one Mr Aidros Osman and thereafter one Ms Hanita, I find, on the evidence, that these persons were employed to draw a different type of ceiling for a different section of the KLIA. Any drawing which Ms Hanita might have made in respect of the ceiling which is the subject-matter of the dispute in this case, was done only after the collapse of the ceiling strips, and merely as part of the overall rectification work. As for Dr C K Lim of Decolite Industries, I think it was adequately explained by DW1 that the former was neither an engineer nor a metal ceiling consultant employed by the defendants. He served as a director in the defendants' company and was initially employed only for his administrative experience in labour and payroll matters in Malaysia. After all, his doctorate was in Agricultural Studies and Forestry, which were hardly the qualifications of an engineer. At most, I was willing to make the assumption that Dr Lim could have been roped in by the defendants to assist in the installation of the ceilings as well, but this in no way translated to his being further tasked with having to examine and give advice on engineering and other technical matters, which he was undoubtedly not qualified to give. As such, I rejected the plaintiffs' request for me to draw an adverse inference against the defendants for not having called Dr Lim to testify. In my view, Dr Lim's presence in court would not have altered the substance of the defendants' evidence.

69 In the light of the foregoing reasons, I had no doubt that there was an agreement for the plaintiffs to design the metal ceiling system. The intention of the parties was plainly evident from the objective evidence before the court. In particular, the plaintiffs' conduct throughout the relevant period showed that they had impliedly assented to undertake responsibility for design. I think any reasonable person, looking at all that had transpired between the parties during the material time would have had no hesitation in coming to the conclusion that both sides had agreed that the plaintiffs would not only supply the materials for the KLIA Project but would also design an appropriate metal ceiling system in respect thereof.

(2) What was the scope of the contract for design?

70 Having found that there was a contract for design, the necessary implication must be that the contract contained all the terms which were essential to allow it to be workable as a matter of commercial common sense: *Trollope and Colls v Atomic Power Constructions* [1963] 1 WLR 333 at p 337. In this case, one would imagine that it was an implied term of the contract that the plaintiffs were to design a metal ceiling system which was capable of withstanding the requirements of the KLIA Project. There was no doubt that from the start, the plaintiffs knew that they were being engaged in connection with the KLIA Project. Next, the entire bundle of tender and sub-contract documents containing the requisite specifications were handed over to PW1 at a very early stage of the negotiations. Counsel for the plaintiffs attempted to suggest that as the documents were contained in a ring-binder file (*Exhibit D6*), it was possible for the defendants to have altered its contents between the time that the file was handed over to PW1 and the time of the trial. I found this spurious suggestion to be completely speculative and unwarranted on the evidence. In my mind, there was nothing to indicate that PW1 did not receive the whole set of tender and sub-contract documents together with the specifications. In fact, PW1 himself admitted that DW1 did indeed pass him a file similar to *Exhibit D6*. His explanation however was that he did not make copies of the specifications which were irrelevant to him as a manufacturer. In particular, he denied that he had seen copies of certain wind-speed tables which were part of the sub-contract documents. Looking at all the circumstances of the case, I disbelieved this piece of evidence entirely. PW1 claimed that each

specification had an index in the front which indicated where he, as a manufacturer could find details which were important to manufacture and supply. Having perused the file of documents tendered as *Exhibit D6*, I found that no such index as PW1 described existed. Rather, the various specifications were contained in separate sections in the contract and tender documents. Each such section was preceded by a cover page which set out in bold print the general title to the section in question. There was a main contents page right at the top of all the documents contained in the file, which set out the title to each separate section. With respect to the wind-speed tables, they were contained in that section of the documents titled 'A52: Architecture - General Requirements'. According to PW1, he took copies of documents which contained technical descriptions of the ceiling as designed by architects and other technical explanations. In my view, section A52 clearly fell within this scope as apart from the wind-speed tables, it contained information relating to architectural materials, work samples and other conditions of construction. As such, even taking PW1's case at its best, and assuming that he had not perused through every single page of the documents, he must at least have looked first at the main contents page. From there, he would have sieved out the relevant sections and directed for copies to be taken of those sections which appeared from their title to be germane to a manufacturer. Alternatively, he would have determined the relevancy of each section by flipping to the respective cover pages and looking at the titles printed on them. Since the subject-matter "general requirements of architecture" was clearly relevant to a manufacturer, I had no doubt that PW1 must have directed for this entire section, inclusive of the wind-speed tables, to be photocopied. On a balance of probability, I found that the plaintiffs did in fact take copies of all the relevant sections contained in *Exhibit D6*, including Section A52. I accepted DW1's evidence that upon handing over the file to PW1, the latter left the room with the file for a few minutes and thereafter returned without it. The file was only handed back to DW1 some two or three hours later. The obvious inference from this was that PW1 had simply passed the file on to one of his employees with instructions to take copies of sections which were relevant. It was unlikely that in the short time that PW1 was away, he could have given any detailed instruction to anyone about specific pages within each section to make copies of. In any case, that the plaintiffs were in possession of all the contract documents was corroborated by PW1 himself, who admitted without qualification in his affidavit of evidence-in-chief that the defendants had indeed given a full set of the contract documents to him. He further admitted perusing through these documents personally and that he was familiar with the responsibilities of the defendants under the nominated sub-contract. In the circumstances, it was incontrovertible that the plaintiffs were aware of the requirements and specifications of the KLIA Project, and must be taken to have agreed to design a ceiling system which met those requirements. To my mind, the parties must have intended it to be a term in their contract, for why else would the defendants have contracted with the plaintiffs to design the ceiling system if they were not going to adhere to the specifications stipulated for the KLIA Project?

71 Counsel for the plaintiffs further sought to take issue with the fact that the defendants did not specifically highlight the wind speed requirement in the KLIA Project to the plaintiffs. In my view, there is no requirement in law for the defendants to specially bring this to the plaintiffs' attention. There was no doubt that the contract documents were replete with references to wind velocity. It was stated throughout that the metal ceiling system had to withstand a maximum wind speed of 35.5m/s. Having obtained and perused the contract documents, the plaintiffs must be taken to have been aware of this requirement and it must have been apparent to them that this was an essential term of the design contract. In fact, PW1 had himself given evidence that wind-loading was a specific design criteria for the plaintiffs' products. Moreover, he also agreed with the question posed by me that as the ceiling in this case was to be used externally, his awareness of wind concerns had in fact led him to make provision for wind loading in determining the spacings between the carrier rails. In my view, there was no doubt that wind speed requirement was a relevant factor which must be taken into account by the party in charge of designing the ceiling system. In any event, even if the specific requirement of 35.5m/s was somehow construed as not being part of the design contract, I think it

would at least be possible, or perhaps even necessary, to imply a term to the effect that the plaintiffs would design a metal ceiling system which was capable of withstanding normal design wind speeds, given that the ceiling was intended for use externally. In my view, such a term ought to be implied whether because it is necessary to give business efficacy to the contract for design, or whether because an officious bystander would deem it as being such an obvious thing to do. I also accepted DW2's expert evidence that it was common industry practice for the party designing an external suspended ceiling to take account of prevailing wind pressures in the locality. Therefore, at the very least, it must have been a term of the contract that the plaintiffs were required to design a ceiling which was capable of withstanding the design wind speed normally adopted for use by Civil Engineers in Malaysia, which, in DW2's expert opinion, was 30m/s.

(3) Was there a breach of the contract for design?

72 Neither party disputed the fact that several strip ceilings dislodged from the carrier rails on at least two or three occasions after they were installed at the KLIA. The obvious inference from this was that there must have been something wrong with the design of the system. I do not think there was ever any suggestion or proof that the installation of the ceiling was faulty. In any event, having examined *Exhibits D1, D2 and D3* myself, I had no doubt that it is extremely difficult, perhaps even impossible, given the design of the carrier rails with its clip-in function, for the strip ceilings to slip out as a result of inadequate installation. It was a simple, albeit extremely tedious, process of clipping the ceiling strips onto the clip-ins in such a way that it would either automatically snap snugly into position or not fasten at all. It was unlikely that the strips could have been attached only half-way onto the clip-ins without fully clipping in. If any part of the length of the strip is not clipped in yet, it would be very obvious to the person installing it because that part would protrude downwards and be out of alignment with the rest of the strips, a matter which could easily be detected with the naked eye.

73 I was fortified in the view that there was a defect in the design supplied by the plaintiffs by the fact that the problem of the strips dislodging did not recur after several specifically design-related remedial measures were adopted by the defendants after the incidents as explained by DW1. Firstly, the distance between the carrier rails was reduced from 1.2m to 0.6m, and second, security clips were affixed along various lengths of the ceiling strips and capping profiles. It was significant that there were no more incidents of strips falling off after these measures were implemented. In my view, the obvious inference from this was that there must have been something wrong with the initial design supplied by the plaintiffs. Apart from the above, two further steps were also taken by the defendants after the incidents. First, 'borders' were added to prevent wind from entering the hollow cavities in the ceiling, and second, screws were added to secure the short intermediate joining pieces to the main ceiling strips. In my view, it was entirely reasonable for the defendants to adopt the remedial measures they did to overcome what I considered to be a dangerous defect. Strip ceilings falling from such heights could kill. In an airport where human and vehicular traffic is going to be very heavy, such a dangerous defect is clearly unacceptable.

74 At this juncture, I should add that in reaching the above conclusion, I attached no weight whatsoever to DW2's analysis of the adequacy of the ceiling system design as well as his postulations on the possible reasons for the dislodgement of the strips as documented in the 18 October 1999 report exhibited to his affidavit. I recognised and accepted counsel for the plaintiffs' point that the section of the report dealing with the adequacy of the system design was based mainly on the Shillinglaw test reports in respect of the wind-loading and wind-tunnel tests conducted in Hong Kong on 12, 13, 30 and 31 December 1997. As the makers of the Shillinglaw reports were not called, there

was no doubt that the Shillinglaw reports relating to these later tests were classic hearsay and hence clearly inadmissible. In my view, none of the exceptions to the hearsay rule as set out in the Evidence Act (Cap. 97) were applicable on the facts. The law on the interrelationship between hearsay and opinion evidence is clear. Where an expert seeks to give an opinion the basis of which is dependant upon the truth of hearsay evidence, that expert's evidence is likewise inadmissible. Put another way, an expert is only permitted to give his opinion when the primary facts upon which that opinion is based are capable of being proved by admissible evidence: Colin Tapper, *Cross & Tapper on Evidence* (9th Ed, 1999) at pp 514-515. Where the material upon which his opinion is based have merely been reported to him by hearsay, then that expert's opinion is inadmissible. Returning to the facts of the present case, it was not in doubt that the Shillinglaw reports were not admissible by reason of them being hearsay. In the premises, I found those parts of DW2's opinion i.e., Sections 4.0-6.0 of the 18 October 1999 report, which relied for its basis on the truth or accuracy of the Shillinglaw reports, to be similarly inadmissible and excluded them completely. I recognise that most experts frequently employ hearsay to some degree in forming their views. In fact, as a matter of convenience, courts have sometimes tended not to insist upon proof of the extrinsic materials customarily employed by experts to perform their work, namely understanding obtained from the use of professional libraries and knowledge acquired in the discharge of professional duties. Nevertheless, I did not think that the Shillinglaw reports fell within that category of so-called common professional knowledge which an expert is entitled to rely on when he has had no personal knowledge of how that knowledge was arrived at. In my view, the reports were merely the results of specific tests conducted for a specific purpose. As such, I found that it was unsafe for me to rely on the opinion given on those reports. Hearsay evidence as the basis of expert opinion made it impossible for the court to evaluate that opinion and had the effect of turning DW2 into a conduit for the makers of the Shillinglaw reports who could not be cross-examined to test the substance of their evidence.

75 I should also state at this point that I did not give a ruling on the admissibility of DW2's opinion and/or the Shillinglaw reports during the course of the trial because counsel for the defendants had, before the commencement of the trial, indicated in chambers that his clients would be calling one of the makers of the Shillinglaw reports to testify. As such, I allowed the parties to proceed without making a ruling on admissibility. At the end of the trial however, counsel for the defendants informed me that no one from J A Shillinglaw & Associates would be called. In the result, I directed myself that the Shillinglaw reports relating to the later tests as well as those parts of DW2's opinion that were based upon the truth of those reports would be excluded from my final determination.

76 Having done this, I found that the inference was nevertheless clear from the facts proved before me that there must have been something wrong with the design of the ceiling system as supplied by the plaintiffs. I described at the start of this judgment that the ceiling in question comprised two main parts, namely the upper, suspended section, which consisted of the hangers, purlins and primary angles, and the lower section directly beneath it consisting of the carrier rails, capping profiles and ceiling strips. It was not disputed that the plaintiffs supplied all the three components used in the lower section of the ceiling. It was also not disputed that during the incidents, only the ceiling strips fell. All the carrier rails and everything else above it i.e., the entire upper section, remained intact. From this, I was able to infer that the design of the lower section of the ceiling must have been flawed. Throughout the trial, counsel for the plaintiffs constantly tried to pin blame on the local suppliers from whom the defendants had purchased the materials for the upper section of the ceiling. In my view, this was completely unwarranted and missed the obvious point that nothing in the upper section of the ceiling fell. In fact, even the carrier rails, which were attached to the vertical hangers via the primary angles did not fall. At all times, it was only the ceiling strips (*Exhibit D1*) which fell. As such, I think it was grossly unfair for the plaintiffs to make unsubstantiated allegations impugning the integrity of the materials obtained locally or in attacking the adequacy of the installation process.

77 To my mind, it was clear that the plaintiffs had failed to discharge their obligation under the contract to design a ceiling intended for external use which was capable of withstanding the normal environmental conditions at the KLIA, and in particular one which was capable of withstanding the stipulated design wind speed of 35.5m/s. I think it is a matter of common inference that wind travelling at 35.5m/s is of somewhat significant strength. That 35.5m/s was stated as the maximum velocity required for the external ceiling at the KLIA further indicated that wind of that speed must be one of substantial force, bearing in mind that 35.5m/s was the stated *maximum* meaning that a not insignificant margin from the norm must have been taken into account by the airport authorities in reaching this design requirement. Hence, as it was not suggested that the KLIA was subject to hurricane winds or freak weather conditions at the time of the incidents, I could only infer that the dislodgement of the ceiling strips occurred at a time when wind speeds were significantly less than 35.5m/s (or 127.8km/h). I was supported in this conclusion by the fact that Sepang, Malaysia is not known for extraordinary climate or atmospheric changes nor was any such change reported around the time of the incidents. In the premises, the only logical inference must be that the strips had collapsed under normal circumstances, in which case the plaintiffs had clearly breached their obligation to design a ceiling system which was at the very least, capable of withstanding normal environmental conditions.

(4) Claim under the Sale of Goods Act (Cap. 393)

78 Even if I was wrong in holding that there was a contract for design in the circumstances when there was in fact only a contract for sale, I found nevertheless that the situation here fell squarely within the ambit of the Sale of Goods Act (Cap. 393) ("the SGA").

79 The current version of the SGA was amended in 1996 via the Sale of Goods (Amendment) Act 1996 (Act 43/1996) ("the Amendment Act"). Under s 1(2) of the Amendment Act, the provisions in the current SGA apply only to contracts for sale which are made or entered into on or after 1 January 1997. Contracts made prior to this date remain to be governed by the old 1994 Revised Edition of the SGA.

80 In order to determine which version of the SGA was applicable on the facts here, it was necessary for me to identify the period of time in which the contract of sale was entered into between the parties. It was clear that the parties did not at any time enter into a written contract. Nevertheless, the practice of issuing purchase orders and invoices started from 11 June 1996. At the same time, it was also evident from the list of Chronology of Events submitted by the defendants, which was not disputed by the plaintiffs, that installation of the metal ceiling system at the KLIA commenced around October 1996. In view of these facts, I had no doubt that the contract of sale must have been concluded at the very latest, by October 1996, when installation works began. That the defendants could commence installing the ceiling was a clear indication that a substantial quantity of the materials had already been delivered by the plaintiffs pursuant to the purchase orders issued by the defendants. As a matter of fact, I was personally inclined to the view that the contract for sale was concluded way before October 1996, presumably before the first purchase order was issued on 11 June 1996. In my view, the issuance of the purchase orders and invoices and the subsequent correspondence were merely evidence of an earlier contract reached between the parties. The purchase orders, invoices and subsequent correspondence did not constitute the contract itself, but merely evidenced an earlier contract entered into way before these documents came into existence. To put it another way, the conduct of the parties in issuing the purchase orders, invoices and other correspondence can be seen as a performance or execution of their duties under the earlier contract for sale. While it is not possible to pin-point an exact date on which the contract for sale was entered

into, I had no doubt that it must have been concluded sometime between the date of the letter of intent, i.e., 13 January 1996 and the time of the commencement of installation on site, i.e., October 1996. In the premises, I found that it was the 1994 Edition of the SGA which applied to the present case.

81 Section 2 of the 1994 Edition of the SGA provides that a contract of sale of goods is a contract by which the seller transfers or agrees to transfer the property in the goods to a buyer for a money consideration, called the price. All tangible movable property to be delivered in that state is considered as goods. The word "goods" is defined in s 61 to include all 'things attached to or forming part of the land which are agreed to be severed before sale or under contract of sale'.

82 It was next pertinent for me to define the exact scope of the contract of sale between the parties in order to determine if it was a contract which fell to be governed by the SGA. To my mind, the fundamental question was really one of whether the defendants had merely agreed to buy and the plaintiffs to sell D1, D2 and D3 separately and independently of each other, or, whether the defendants had agreed to buy and the plaintiffs to sell a standard profile metal ceiling system.

83 I think it was plain from the evidence that the subject-matter of the parties' agreement was not merely in respect of the individual components D1, D2 and D3. The real state of affairs was that the defendants had asked for, and the plaintiffs correspondingly agreed to supply, the entire lower section of the external ceiling system at the KLIA. In this respect, I relied on the testimony of PW1 himself, who admitted that what the defendants had purchased was a standard profile strip ceiling. The following extract from PW1's cross-examination was relevant:

> Q: The Defendants bought an off-the-shelf ceiling system from your company?
>
> A: The Defendants bought a standard profile strip ceiling. No special design of the profile for the Defendants. I think the profile number is CP100, bought by Defendants.
>
> Q: That CP100 is exactly the same system that is now in the Kuala Lumpur Airport?
>
> A: If Defendants installed what we supplied, then the answer is yes.
>
> ...
>
> Q: Is D1, D2 and D3 called CP100?
>
> A: It is part of CP100. CP100 also has hangers, stiffeners, profiles for external ceiling, plugs in the concrete. We have edge profiles, acoustic inlays. These are about the major components. Therefore if a customer simply orders CP100, he gets all the above items including D1, D2 and D3.

Subsequently, PW1 also explained that CP100 referred to the width of the ceiling strip. "100" stood for the 100mm width of each strip while "CP" or "curved profile" referred to the curved or bent edges along the length of each strip.

84 In my opinion, it was clear from the above that what the defendants had purchased from the plaintiffs was a composite standard profile ceiling system, comprising D1, D2 and D3, which when installed as a whole unit would together form the entire lower section of the external ceiling system at the KLIA. I accepted DW1's evidence that before he commenced negotiations with the plaintiffs, he

had no idea how to construct a suspended ceiling system, nor was he aware of the components involved in such a system. I also accepted that the external ceiling system in question was not one of the usual tile or plank ceilings, nor was it a typical flat strip ceiling. Rather, it was a complex three-dimensional hanging or suspended ceiling, something which the defendants had had no prior acquaintance with. As a result, they consulted the plaintiffs with the relevant Architectural Drawings and informed them that they wanted a ceiling that would satisfy those architectural requirements. I therefore had no difficulty in forming the conclusion that the idea or recommendation to use CP100 originated from the plaintiffs. There was no question that CP100 was a proprietary system. As such, only the plaintiffs would have knowledge of the appropriate strip ceiling profile that would best meet the defendants' requirements. Any suggestion that CP100 should be purchased by the defendants must thus have emanated from the plaintiffs. I surmised that what probably happened was that the plaintiffs had produced drawings of the way to construct the entire ceiling system (i.e., both the upper and lower sections of the system), and having examined the drawings, the defendants decided only to purchase the entire lower section of the system. This decision however did not have the effect of converting the intention to enter into a contract for the sale of a ceiling system, (albeit it was now a contract to purchase only the lower section of the system), into an intention for the sale merely of its individual components. Counsel for the plaintiffs constantly strived to place emphasis on the fact that the defendants had purchased the components comprising the upper section of the ceiling system from Malaysian suppliers. In my mind, this was completely irrelevant as it had nothing to do with the lower section of the system, which of itself was still a composite, proprietary unit as attested to by PW1 himself, and which the defendants in fact purchased from the plaintiffs. It must be remembered that CP100 referred only to the lower section on its own. The description had absolutely nothing to do with the upper section. I was further of the view that the fact that the buyers had to personally install and assemble the constituent components into the final product also did not have the effect of altering the character of the contract of sale. The situation here can perhaps be said to be akin to that of a person buying a typical "do-it-yourself" item, e.g., a bicycle. Suppose I walk into a shop, inform the owner that I want to buy a bicycle, and in consequence the owner hands me a large brown box in which are contained all the necessary components and accessories for assembling a bicycle like wheels, chains, handle bars etc. At the same time, the box also contains instructions on how to assemble the pieces together. In such a situation, can it be said that what the shop owner had just sold and what I had just bought were mere wheels, chains and handle bars and not a bicycle? I think the obvious answer must certainly be no.

85 In the circumstances, I found that the contract for the sale of the ceiling system as a composite unit fell squarely within the scope of the SGA. The entire lower section of the ceiling system came within the definition of "goods" in the SGA. It was clear that the components comprising the system were sold and delivered as tangible, movable property to be assembled, and this I found was sufficient to bring the ceiling system within the definition of "goods" in the SGA. In my view, any subsequent annexation of a chattel to land which has the effect of converting the chattel into a fixture does not take that chattel out of the realm of the SGA.

86 Under the SGA, various terms are statutorily and compulsorily implied into all contracts for the sale of goods which fall within the ambit of the Act. In so far as they are relevant for the purposes of this case, the material provisions of the 1994 Edition of the SGA are as follows:

Implied terms about quality or fitness

14. - (1) Except as provided by this section and section 15 and subject to any other enactment,

there is no implied condition or warranty about the quality or fitness for any particular purpose of goods supplied under a contract of sale.

(2) Where the seller sells goods in the course of a business, there is an implied condition that the goods supplied under the contract are of merchantable quality, except that there is no such condition -

> (a) as regards defects specifically drawn to the buyer's attention before the contract is made; or
>
> (b) if the buyer examines the goods before the contract is made, as regards defects which that examination ought to reveal.

(3) Where the seller sells goods in the course of a business and the buyer, expressly or by implication, makes known -

(a) to the seller;

...

> any particular purpose for which the goods are being bought, there is an implied condition that the goods supplied under the contract are reasonably fit for that purpose, whether or not that is a purpose for which such goods are commonly supplied, except where the circumstances show that the buyer does not rely, or that it is unreasonable for him to rely, on the skill or judgment of the seller...
>
> ...
>
> (6) Goods of any kind are of merchantable quality within the meaning of subsection (2) if they are as fit for the purpose or purposes for which goods of that kind are commonly bought as it is reasonable to expect having regard to any description applied to them, the price (if relevant) and all the other relevant circumstances.

Merchantable quality

87 ss 14 (2) and 14(6) set out the requirements of merchantability. In *MCST Plan No 1166 v Chubb Singapore Pte Ltd* [1999] 3 SLR 540, it was held, following *Cammell Laird and Co Ltd v Manganese Bronze and Brass Co Ltd* [1934] AC 402 that for the purpose of determining if the goods in question were fit for the purpose or purposes for which goods of that kind are commonly bought, it is unnecessary to establish exclusive reliance on the seller's skill and judgment. If matters such as the choice of sufficient and necessary components and the nature and properties of the components are peculiarly within the skill and judgment of the seller, the seller automatically assumes the responsibility. It has also been held that the requirement of "merchantable quality" is satisfied so long as the goods were fit for some, albeit not all, the purposes for which goods of that description are commonly used: see *Henry Kendall & Sons v William Lillico & Sons Ltd* [1969] 2 AC 31.

Reasonable fitness for purpose

88 s 14(3) of the SGA on the other hand sets out the terms of the implied condition relating to fitness for purpose. In the *Chubb* case (*supra*), it was held that this provision is particularly relevant in cases where the customer pays a huge amount of money for a thing to be custom-built. A breach of this implied condition enables the buyer to either rescind the contract, or claim damages for breach. I respectfully adopt the following passage from the judgment of Selvam J in the *Chubb* case:

> In one sense fitness for purpose may connote a general purpose such as when a car is purchased for driving on the roads. Fitness for purpose in that sense also includes good quality, that is merchantability. If the car is not fitted with proper brakes or if the radiator breaks down or if the sun-roof is stuck in open position on hot days it would be unfit for the purpose for which it was sold. Fitness for purpose may also apply to a specific purpose communicated to the seller or supplied such as when the coast guard orders a vessel for chasing pirates. If the engines of the vessel supplied heats up at high speed and breaks down each time the coast guard gives chase it would be utterly unfit for the specified purpose. The suppliers cannot escape responsibility by saying that the vessel can go at low speeds.

89 The distinction between merchantability and fitness for purpose was also alluded to in the *Chubb* case. Briefly, it was said that merchantability governs the sale of a particular thing which can be applied to a range of possible uses. Fitness for purpose on the other hand governs the sale of a particular thing for a particular purpose, with the word "particular" understood to mean "given", "disclosed" or "ascertained". The common feature between the two however is that liability for both is strict. In other words, a seller may be liable for a breach of either implied condition even though he had exercised all possible care.

90 Returning to the facts of the present case, I accepted that CP100, or that whole composite section of the metal ceiling system which the defendants purchased from the plaintiffs might not always be purchased for use externally. One of its likely purposes could well have been for use as an internal suspended ceiling. In the absence of further proof, I was willing to assume that the system as supplied by the plaintiffs may have been merchantable as an internal suspended ceiling, which is not exposed to the wind and other natural elements. Following the decisions in *Henry Kendall & Sons v William Lillico & Sons Ltd* (*supra*) and *Aswan Engineering Establishment Co v Lupdine Ltd* [1987] 1 WLR 1, the definition of "merchantable quality" is satisfied so long as the goods are fit for *some* of their usual purposes. There is no need for the goods to be fit for *every* conceivable purpose for which they might be used. As such, I found that the defendants' claim for breach of the implied condition of "merchantable quality" was not proved on a balance of probability.

91 The position with regard to the implied term of "fitness for purpose" however is different. Here, the words "particular purpose" have always been given a very broad interpretation by the courts, the reason being to broaden the scope of remedies available to a buyer so that if for some reason s 14(2) on merchantable quality cannot be invoked, then he would still at least have a second-string argument under s 14(3). Hence, both in *Kendall v Lillico* (supra) and *Ashington Piggeries Ltd & anor v Christopher Hill Ltd* [1972] AC 441, it was held that although the goods may be quite satisfactory for a wide range of uses, the seller will be liable if the goods are in fact unsuitable for anyone of those uses to which the buyer puts the goods.

92 The key issue with regard to s 14(3) is really that of reliance: there must have been something said or done to bring home to the seller the fact that he was being relied upon to supply goods fit for the buyer's particular purpose. The court is aided in its determination of the question of reliance by the laying down of a presumption in the section that once a particular purpose has been made known to the seller, it is assumed that the buyer will have relied on the seller to provide goods fit for that

purpose. Hence, the only onus on the buyer in the first instance is to show that he has made known the purpose for which the goods are being bought.

93 Reverting to the facts of the present case, I had no doubt that the defendants made it known to the plaintiffs right at the outset that they intended to purchase a ceiling system which was intended for use externally. This can be seen from the fact that the architectural drawings of the KLIA, the tender documents, and the specifications contained in the nominated-subcontract were all handed over to PW1 at an early stage of the negotiations. Moreover, representatives from the plaintiffs had also attended site meetings at the KLIA itself, in consequence of which they must have known of and personally seen the exact locations in which the ceiling system was going to be installed. In any case, I did not think that even the plaintiffs themselves ever quarrelled with the fact that they knew that the ceiling system was being purchased for use exteriorly.

94 I also found that the presumption of reliance was not rebutted by the plaintiffs in this case. As before, I accepted DW1's evidence that prior to being awarded the KLIA Project, the defendants had had no experience whatsoever with the specialised type of three-dimensional suspended ceiling in question. Throughout the working relationship of the parties, the defendants had constantly relied on the plaintiffs for suggestions and instructions on the mechanics of installation, the suitability of the type of material to be used, and more importantly, to propose a system which complied with the requirements of the KLIA Project. Moreover, it was also not in doubt that the Gema group was well-known not only in Asia but throughout Europe for their expertise and vast experience in metal ceiling systems. PW1 himself admitted in court that the plaintiffs had previously supplied ceiling systems for various major projects in Singapore, including Changi Airport, UIC Building and Suntec City. Further evidence of reliance can also be gleaned from the fact that CP100 was a proprietary system, and that the plaintiffs had continuously refused to divulge critical technical information which might have allowed the defendants to run tests on the system to check if it was compliant. In the result, I had no hesitation in finding that absolute reliance was placed by the defendants in the plaintiffs to supply a ceiling system which was reasonably fit for the purpose of being used as an external suspended ceiling.

95 With respect to the question whether or not there was a breach of the implied condition of fitness for purpose, the above findings under sub-heading (3) on whether there was a breach of the contract for design were similarly applicable here. For the sake of brevity, I shall do no more than to repeat only the more pertinent points here. The ceiling system supplied and installed at the KLIA was clearly deficient in that there were at least two or three separate occasions on which the ceiling strips dislodged from the carrier rails and fell, all of which occurred in normal and ordinary weather. The necessary implication from this must be that there was something wrong with the system supplied. This dangerous "defect" however was remedied once the security clips were affixed to the strips and the capping profiles, and the distance between the carrier rails halved. I think all this was sufficient to show that the initial composite system as supplied by the plaintiffs was defective. The ceiling system when used internally might not have caused any problems. But that is not the purpose for which the defendants had purchased it. The fact that certain modifications made to the original set-up or design of the thing in question (e.g., halving the carrier spacing), or fixing additional components (e.g., security clips) could render the thing fit for its purpose is irrelevant to a finding that the thing was in the first place, not reasonably fit for its purpose. Returning to the example I gave earlier of a non-ready-assembled bicycle. Suppose I assemble the bicycle utilising all the parts or components supplied with the package and in accordance with the instructions given. After riding around for a while, the chain snaps or loosens and I am unable to continue riding the bicycle as this problem keeps on recurring. It turns out that the reason for the chain coming loose was because the manufacturers of the bicycle failed to include say a special fastener necessary to hold the chain in place. In this situation, can it be denied that the manufacturers or sellers of the bicycle had breached

their duty to supply me with a bicycle which was reasonably fit for its purpose? Applying the analogy of the bicycle to the facts of the present case, I had no doubt that the plaintiffs had breached the implied condition under s 14(3) of the Sale of Goods Act. At this juncture, I should perhaps set out the facts of the *Chubb* case (*supra*), as they are somewhat similar to the facts here. Briefly, what happened in that case was that the defendants, Chubb, supplied and installed a videophone security system for the Mandarin Gardens condominium. Part of the system comprised an audio-video communication system which was located at the condominium's two main road entrances. Subsequently, the system became plagued by various problems. Of these, one of the more significant was its tendency to become crippled whenever there was lightning activity in the vicinity. Selvam J had no difficulty in reaching the conclusion that the defendants had breached their obligation under s 14(3) of the SGA. In his view, Chubb should have fitted the system with surge arresters and co-axial cables. It was unreasonable and preposterous to expect the plaintiffs, their predecessors or their consultants to detect these faults and build in rectification measures. It was Chubb's contractual duty to come up with a system in accordance with the specifications provided to them.

96 I should add that even if the contract for sale in the present case was deemed to have been concluded after 1 January 1997 such that it is the current edition of the SGA which applied to the facts here, the position would still be the same as s 14(3) was left unchanged by the Amendment Act.

97 Finally, with respect to counsel for the plaintiffs' attempt to rely on the Durability Warranty Form issued by the plaintiffs to the defendants. In my view, this Form was of no avail to the plaintiffs as their breach of s 14(3) fell outside the limited scope of the Warranty, which was concerned mainly with the durability of the individual components themselves, rather than the functionality of the composite system. In any case, I found that the words of the Warranty did not have the effect of excluding liability. They merely offered a so-called guarantee period in which the products supplied were guaranteed to be free from certain defects, much like the Defects Liability Period commonly used in contracts for the sale of real property. The effect of such "warranties" is really to reduce the possibility of litigation in the event that defects occur within the stated period. In such a case, the "warrantor", having given the warranty, would generally remedy the defects or replace the defective goods as a matter of course. If there is a dispute, the buyer can simply rely on that warranty or guarantee to establish his cause of action. After the period however, should the buyer wish to claim against the seller, then the buyer must establish a valid cause of action in law. But in no way do such "warranties" cause a buyer to lose or relinquish his right to sue the seller for defects in the goods after the period of the guarantee has passed.

98 Having considered all the circumstances of this case, I allowed the defendants' claim for breach of the contract to design a proper metal ceiling system and/or breach of s 14(3) of the Sale of Goods Act. I further directed that interlocutory judgment be entered and for damages to be assessed. In the result, I dismissed the plaintiffs' claim for S$143,250 in respect of the security clips supplied by them to the defendants after the collapse of the ceiling strips as this cost was incurred as a result of the plaintiffs' breach of contract in the first place. The claim for RM225.20 in respect of Invoice No. 602526 was also dismissed in light of PW1's agreement to give the defendants a credit note for it. I allowed however the plaintiffs' claim for RM208,636.79 arising from unpaid invoices issued in respect of materials supplied before the incidents at the KLIA.

99 I should also add at this point that I did not think it was necessary for me to deal with the defendants' claim in negligence in the light of my findings with respect to their claim in contract. In any event, where the parties were clearly involved in a contractual and commercial relationship, there is nothing to the advantage of the law's development to search for liability in tort: per Lord Scarman in *Tai Hing Cotton Mill Ltd v Liu Chong Hing Bank* [1986] AC 8o at p 107. Indeed the consequences

flowing from either cause of action are different and are liable to be confused, as can be seen from the plaintiffs' misguided argument that no remedy lies in respect of pure economic loss. I think the law is clear that this statement holds true only in respect of negligence claims, while contractual ones are governed solely by the principles of remoteness of damage as laid down in *Hadley v Baxendale* (1894) 9 Exch 341.

(5) Plaintiffs' claim for RM21,251 in respect of Invoice No. 97568

100 This was the claim for certain airfreight charges which the plaintiffs alleged they did not agree to bear. In the absence of any evidence from the defendants to refute this allegation, I allowed the plaintiffs this head of claim.

(6) Plaintiffs' claim for RM2,830.46 in respect of Invoice No. 97693

101 This was the claim for the supply of certain tiles to the defendants. The defendants' defence was that they were not obliged to pay under this invoice as the wrong tiles were sent. When asked if this was true, PW1 replied that he had no idea. As a result, I found that the plaintiffs had not established this head of claim on a balance of probability and I consequently dismissed it. I found that the standard words printed on the plaintiffs' standard form invoice as referred to in 23 of this judgment did not avail the plaintiffs as no evidence was adduced that the defendants had indeed acknowledged receipt of the tiles.

(7) Defendants' claim for late delivery of capping profiles

102 In light of PW1's concession that the delay was indeed due to a production mistake in the factory, I allowed the defendants this head of claim.

(8) Defendants' claim for late delivery of documents

103 This claim can easily be dealt with. The law on CIF contracts is clear. The seller, having procured the necessary documents, must make every reasonable effort to send the documents forward as soon as possible after he has destined the goods shipped to the buyer, but without reference to the arrival or unloading of the cargo. There is no implied condition in a CIF contract that the seller should deliver the documents to the buyer in sufficient time to enable the buyer to send on the bill of lading to meet the arrival of the ship, or in time to reach the place of discharge before charges on the goods are incurred there: Sassoon, *CIF & FOB Contracts* (4th Ed, 1995) at pp 195-197. In *Sanders v Maclean* (1883) 11 QBD 327, Brett MR stated the position as such:

> It is… equally impossible, to my mind, to say that even a stipulation ought to be implied in the contract that the bill of lading should be delivered so that it may arrive before or at the time of the arrival of the ship or before charges are incurred.

104 On the evidence before me, I found that the plaintiffs had adequately explained the processes

and inherent difficulties involved in obtaining some of the necessary documents, particularly where third party institutions were involved. They had exerted all reasonable efforts to procure the documents as soon as was practicable in the circumstances and I was satisfied that this was a sufficient discharge of their obligations under a CIF contract. As such, I ruled against the defendants in respect of this claim.

105 The remainder of the defendants' counterclaim which was not alluded to in this judgment was also dismissed. At the same time, I ordered that judgment for the plaintiffs on both the claim for the original supply of materials and for the airfreight charges be stayed pending the assessment of damages.

Costs

106 This entire litigation started out with each side advancing many different heads of claim. In the end however, I found for the defendants on the main issue of liability although a number of the plaintiffs' smaller heads of claims were also allowed. Nevertheless, I think it was clear that the defendants were the eventual victors in this case, as a result of which I ordered the plaintiffs to pay the defendants' costs to be taxed less S$12,000 in recognition of the former's success in the RM21,251 claim for airfreight. I did not attach any weight to the fact of their success in the claim for the original supply of materials as this was not in any event disputed by the defendants and would effectively be set-off against the defendants' counterclaim at the assessment stage anyway.

CHAN SENG ONN

JUDICIAL COMMISSIONER

Copyright © Government of Singapore.