

國立勤益技術學院九十三年年度研究所招生初試試題卷

所別：企業管理研究所 組別：企業經營組、商管科技組 身份別：一般生在職生

科目：企業管理個案評論

准考證號碼： (考生自填)

考生注意事項：

- 一、考試時間 100 分鐘。
- 二、不得使用計算機、字典、翻譯機、手機等。
- 三、答案寫於答案卷，與試題一起交回。

試題：(包含兩個個案、共六題)

(個案一)

旺宏電子公司成立於 1989 年，資本額新台幣三百七十三億元，員工人數約三千五百人，擁有六吋晶圓一廠，月產能三萬五千片，八吋晶圓二廠，月產能四萬片。創立之初，即計劃以 Mask ROM 作未來系統單晶片 (System-on-a-Chip, SoC) 趨勢布局的主力產品，現階段的兩大主力產品線為 Mask ROM 與 Flash(快閃記憶體)，而 Mask ROM 仍是目前策略主軸產品。由於 Mask ROM 屬非揮發性記憶體類產品中之成熟期 IC 產品，客戶對其需求，非僅著重於產品本身的設計與製造技術，也關注整體運籌能力的表現。因此，旺宏在生產面管理範疇，除產品設計、製程技術與產能規畫之外，一直持續深耕於 Mask ROM 供應鏈中 Cycle Time 的縮短，透過生產流程與方法的改善，1996 年 TAT (Turn Around Time) — 客戶交 ROM Code 到拿到實際 Mask ROM 成品的時間，已由 40-50 天降至 12 天。

旺宏的全面性企業層級整合計畫則始自 1995 年，稱作企業整合系統(Corporate Integration System, CIS)，係因全球化佈局所引發的需求，目標是建立旺宏未來 5 年所需商業流程以及資訊科技基礎架構建立一個基礎，因為當時旺宏預期未來 5 年的營業額成長，會是 95 年的好幾倍，所以開始著手規劃企業整合系統。以 12 天 Cycle Time 的 Mask ROM 為例，再壓縮的空間相當有限，因此，企業整合系統的主要功效不在 Cycle Time 的壓縮上，而是預警 (Prewarning)、答交 (Available Promise) 等提供即時性 (Real Time) 資訊的能力上。譬如：Mask ROM 預定 Cycle Time 為 14 天，若不能達成，如何事先就能掌握這項訊息；客戶預期外的訂單，是否有足夠產能於客戶指定日期進行交貨等。

旺宏分三階段推行 CIS：

- (1) 第一階段：1995-1996 年為規劃期，針對未來 5 年旺宏要達到的企業營運目標，規劃 CIS 計畫如何逐步完成。整個規畫基礎從兩個角度切入：企業流程再造 (Business Process Reengineering, BPR)，以及資訊科技 (IT) 的導入計畫，針對企業流程改造完成後的組織結構，提供所需的資訊科技，使改造後的營運流程能確切發揮效能。在 BPR、IT 規劃完成後，即形成變革計畫 (Transition Plan) — 細部指引計畫完成的各項依循步驟。經過半年，即完成第一階段的作業。
- (2) 第二階段：1997 年起為執行期。由於 CIS 涵蓋整個企業，需要一定程度數量的人物力支援，但旺宏並沒有足夠人物力同步執行整個企業的流程再造以及資訊科技的引進，所以仍以供應鏈管理 (SCM) 中最重要的部分 — 訂單為核心，包括從接單、生產規劃、製造、採購、售後服務與財務等部分，先著手進行。2001 年旺宏先針對原物料採購部分著手，因為採購牽涉範圍僅止於 IT 與物管範疇，相對較單純。由於晶圓廠須維持高產能利用率的特性，事實

背面還有試題

上原物料管理部分對旺宏而言，並不那麼重要，選擇以此切入的原因，主要是基於「學習」效用的考量，可幫助公司員工調整工作內容形式與思考邏輯，讓員工的附加價值能向上提升。當然採購 E 化後，仍有縮短採購時程的好處。

(3)第三階段：2002年為拓展期，以顧客關係管理(Customer Relationship Management, CRM)為主軸。SCM另一重點是Demand Planning，可歸類為客戶關係管理，言及此必須回歸旺宏的Key Account策略。Key Account策略與Demand Planning間關係的意義如下：Key Account策略著重契約、長期關係，因此，必須依據契約需求化為與客戶間互動的細部流程安排；個別Key Account的需求不盡相同，必須依其真正所需量身訂作，進行相關供應鏈上的整合工作；客戶關係管理必定以Key Account為主，而後再推行至其他一般客戶。而旺宏客戶關係管理的重點，不在於一般CRM軟體提供的一對一行銷，以歸納出一般客戶購買模式，而是著重Key Account真正所需，進行點對點流程的佈建。因此，了解客戶需求是佈建前預先必行的課題。旺宏採取的方法是以產品、地區與資料別作區分因素，譬如：產品為Mask ROM，地區為日本，將廠商所需的資料或其他需求列出，在建置上即以此為核心。所以，不同產品、地區的客戶有不同需求，也衍生出不同的資訊交流模式。

CIS的成效可以三方面來說：1. 財務觀點。最主要應是總成本的降低，此不僅止於會計成本，尚包括時間與人力配置的機會成本。2. 客戶滿意度觀點。旺宏主要以出貨達成率為衡量標的，目前與客戶每月定時檢討累計出單比例(Cumulative Item Percentage, CIP)與累計出貨比例(Cumulative Volume Percentage, CVP)兩項指標，檢討與預估情形的吻合情況，換言之，即多少訂單與產品數量可以準時交給客戶。在運籌系統逐步建置後，CIP/CVP已由先前的75-85%，提升至現今的95%。3. 內部流程改造觀點。尤指TAT縮短已由最早的40-50天，縮短為1996年的17-24天，再持續壓縮至目前的12天。訂單現況回報週期(Order Status Cycle Time)已由數小時提升為數分鐘內；生產規劃週期(Production Planning Cycle Time)已從約2週壓縮至2天左右；而結帳週期(Financial Closing)則由1週降為2天。

推行完CIS後，旺宏目前正進行主管資訊系統(Executive Information System, EIS)的導入，在公司電子化SCM系統基礎建設架好以後，下一步就是把資訊轉為知識，作為每一管理階層日常決策的依據，並得以形成流程持續改善的回饋能力，換言之，即是知識管理(Knowledge Management, KM)。旺宏認為，企業資源規劃(Enterprise Resource Planning, ERP)加上知識管理，電子商務(Electronic Commerce, EC)的能力才得以完整呈現。

請由以上描述，回答下列問題：

- (一) 旺宏的企業整合系統(CIS)導入三階段中，請剖析策略制訂背景與說明執行時各階段應注意事項。(20%)
- (二) 對於CIS執行時人力不足的問題，你有何建議？(15%)
- (三) 某產業分析師認為旺宏的CIS的關鍵成功因素為團隊精神、推行方法與IT工具的妥善應用，請詳述你的想法。你有其他關鍵因素的補充嗎？(15%)

(個案二)

Timex Corp. was one of the first companies to offer low-cost, durable mechanical watches. These watches were mass produced with hard-alloy bearings which were less costly than jeweled bearings. They were also much longer lasting than nonjeweled watches had been before. Timex attempted to sell these watches in jewelry stores offering a 30 percent markup. However, jewelers commonly received 50 percent markup on merchandise and therefore many refused to stock them. The company then began selling direct to drugstores, hardware stores, and even cigar stands. At one point the company had a distribution system of nearly a quarter of a million outlets. This mass-distribution strategy was coupled with heavy TV advertising demonstrating the durability of the watches. For example, one of the ads showed a Timex watch being strapped to an outboard motor propeller and continuing to work after the engine had been run for several minutes. Such ads were used to support the contention that Timex watches could "take a licking and keep on ticking." In order to keep dealers and prices firmly in line, Timex limited production to about 85 percent of anticipated demand, making them somewhat scarce.

This strategy was extremely successful. By the late 1960s Timex had 50 percent market share in America and as much as 20 percent of worldwide sales. In 1970, Timex had after-tax profits of \$27 million on sales of \$200 million.

After a quarter of a century of dominance in the low-price watch market, Timex began to face serious competition by the mid-1970s. One of the major technological advances was the development of electronic watches which Timex executives initially judged to be unimportant. By the time they recognized the importance of this technological change and introduced an electronic watch, competitors had already developed and marketed much-improved models. In fact, the Timex electronic watches were so big and clumsy that employees nicknamed them "quarter pounders" and price ended up 50 percent above competitive, much more attractive watches.

By 1983 Timex's U.S. market share had plummeted to about 17 percent and operating losses approached \$100 million. Distribution had declined to 100,000 outlets. Timex ranked fifth in volume behind Japan's Seiko, Citizen, and Casio, and a Swiss combine, ASUAG-SSIH Ltd. Digital and quartz analog watches dominated the market and even the successful Japanese companies faced increased price competition from manufacturers in Hong Kong. In fact, the export price of the average digital watch dropped from \$5 in 1981 to less than \$2, and many companies were forced out of business with margins of only a few cents per watch.

At this point Timex decided to attempt to rebuild its watch market. (It also decided to make itself less vulnerable by diversifying into home health care products and home computers.) To rebuild its timekeeping business, the company invested over \$100 million to retool and redesign its watch and clock lines. Timex's marketing vice president supported this investment by stating that "we were thick, fat, ugly, overpriced, and behind in technology." The strategy then became to produce watches that were just as attractive as higher-price brands and keep the major portion of the line priced at under \$50. Of course, this forced Timex to compete in a world already overloaded

with too many inexpensive watch brands. In addition to watches from Japan and Hong Kong, Swiss manufacturers scored a big hit with a trendy timepiece called Swatch, which was brightly colored plastic and sold for \$30. Sales soared to 100,000 units per month, and Swatch could not be produced fast enough.

Times also attempted to compete in the over-\$100 price range with its superthin quartz analog Elite collection, which was sold in department and jewelry stores for up to \$120. However, as one competitor summed it up in evaluating the market potential of the Timex Elite collection, "It's got one disadvantage; It's got a \$12.95 name on it."

請由以上描述，回答下列問題：

- (一) 假設該公司之 Elite 手錶每只之變動成本為\$30、製造費用及其他固定成本為\$18,000,000。請問該產品之損益平衡點為多少只手錶？若要獲得\$3,600,000 之利潤則應賣出多少只 Elite 手錶。(15%)
- (二) 請從創新管理/科技管理之角度，論述該公司面臨科技變遷之環境下應有何具體作為來予以因應。(15%)
- (三) 該公司進入較高價之手錶市場會面臨哪些問題？如何因應與解決？(20%)