

摘要

台灣半導體產業協會指出，半導體產業無論是在產值、營運附加價值、外匯收入、稅賦、就業機會、政府投資獲利、興建晶圓廠所帶動的周邊效益等，都有穩定且持續成長之表現，對國家有相當大的貢獻。在半導體產業中，半導體原物料通路商位居上游供應商與下游製造商之間的橋樑位置，維繫通路貨暢其流，在整個產業鏈中扮演重要角色。在此一領域中，以崇越科技的經營績效卓越，足為業界楷模。因此，本研究擬以崇越科技為個案，進行策略研究。

一個成功的營運模式，應該可以解釋如何增強價值展現、如何作好價值傳遞，以及如何達成價值回饋等議題。藉由研究連續成長的個案公司—崇越科技，本研究希望可以確認下列議題所採取的關鍵策略：

- (1) 個案公司如何確保其在產業價值鏈中的位置？亦即如何增強價值展現？
- (2) 個案公司如何提升相對於其他同業的競爭力，並更有效地提供客戶最大的價值？亦即如何作好價值傳遞？
- (3) 個案公司如何作到提升營業利潤及實現公司價值？亦即通路商如何達成價值回饋？

本研究使用吳思華教授的「策略三構面」及「四個競技場」分析進行個案研究。策略三構面理論主張，規劃企業策略時，可以由下列觀點進行：

- (1) 營運範疇：產品／市場、活動組合、地理構形、業務規模
- (2) 核心資源：有形／無形的資源、個人／組織能力
- (3) 事業網路：體系成員、網路關係、網路位置

此外，本研究也將探討三構面之間彼此的調整關係。至於四個競技場分析，則是以下列四個不同觀點，分析企業的策略：

- (1) 價值與效率競技場
- (2) 能耐與結構競技場
- (3) 實力與體系競技場
- (4) 異質與同形競技場

本研究針對崇越科技的四項重要策略事件，包括成立光電材料部、成立水處理部、IPO、成立中古設備部等，進行策略三構面分析，以及四個競技場分析。藉以研究半導體原物料通路商如何增強價值展現，如何作好價值傳遞，以及如何達成價值回饋。茲將各策略事件分述如下所示：

(1) 策略事件一：成立光電材料部

成立光電材料部，使得崇越科技的營運模式，由原本的佣金交易，擴增為現品交易。此一策略事件使得崇越科技提昇了倉儲、物管及資金調度的能力。成立光電材料部之後，崇越科技的主要產品，由原有的矽晶片、半導體製程用石英器材，擴展到黃光製程的主要原料—深紫外線光阻液，在 2005 年該項產品貢獻了逾 18 億台幣的營業額。其他主要產品如化學研磨液、環氧樹脂積體電路封裝材料、液態封裝材料...等，也可以複製深紫外線光阻液成功的營運模式進行推廣。

(2) 策略事件二：成立水處理部

崇越科技成立水處理部，跨入半導體製造廠的廠務系統相關業務。此一策略事件使得崇越科技發展出工程設計、施工維護之組織能耐，並建立了良好的下包廠商體系。之後，水處理部將業務切割為：純水工程及廢水工程等二部份，並在廢水工程此一領域發展自有品牌。在 2005 年時，水處理部的年營業額達新台幣 15 億 1 千萬。此一策略事件也帶來其他額外的商機，如發展潔淨室建造工程以及中央供酸系統等相關業務。

(3) 策略事件三：IPO

IPO 提供崇越科技較佳的籌措資金管道，使得財務運作上更有彈性。IPO 使得崇越科技公司知名度及形象大幅提昇，對於延攬優秀的員工，自然也會有正面的助益。此外，財務管理的能力也因此提昇，與金融體系間的關係也更為緊密。

(4) 策略事件四：成立中古設備部

崇越科技成立中古設備部，以成為高科技產業的全方位供應者。崇越科技掌握半導體中古設備的商機，使得營運範疇得以擴展至中古設備的買賣、運送、設備翻新、裝機、零件供應、機台調校、甚至包括製

程參數設定。「高科技產業的全方位供應者」的公司願景，也使得崇越科技得以在半導體產業有更明確的定位。

經由「策略三構面」及「四個競技場」分析，確定崇越科技的四項策略事件對於其成長具有重大意義。崇越科技的營運範疇、核心資源、事業網路在各個策略事件之後均有顯著的擴展，而不論是在「價值－效率」、「能耐－結構」、「實力－體系」、「異質－同型」競技場，都可看到崇越科技的具體成長趨勢。因此，崇越科技在四個策略事件中所採行的各項關鍵策略，應可成為半導體原物料通路商在勾勒其未來發展的營運策略時的標竿參考。

在本研究的事件描述及三構面調整關係當中，我們可以整理出來個案公司在各個策略事件所運用的關鍵策略，並依研究目的所要探討的主題歸納如下：

- (1) 以個案公司為例，通路商如何確保其在產業價值鏈中的位置，亦即通路商如何增強價值展現。
 - 1) 擴大服務平台，滿足顧客整體需求，是通路商確保代理權的重要關鍵。
 - 2) 維持暢通而綿密的人脈網路是通路商的天職。
 - 3) 對通路商而言，自有品牌的創立應該因勢利導，不該破壞與原有代理的供應商之間的良好關係。
 - 4) 踴躍參加各項服務品質競賽有助於提升通路商形象及強化公司體質。
- (2) 以個案公司為例，通路商如何提升相對於其他同業的競爭力，並更有效地提供客戶最大的價值，亦即通路商如何作好價值傳遞。
 - 1) 通路商辨識需求缺口的能耐，與其是否能持續發展有高度正向關係。
 - 2) 人才為通路商最重要的資產。
 - 3) 顧客內部的各個部門也存在競爭狀態，通路商應善用情勢並維持與各部門的良好互動。
 - 4) 通路商應建立完整的支援／外包體系。

(3) 以個案公司為例，通路商如何提升營業利潤及實現公司價值，亦即通路商如何達成價值回饋？

- 1) 通路商適用多種營運模式。
- 2) 切割現有的服務內容，創造新立足點。
- 3) 延伸產品線，善用核心能耐，創造新價值。
- 4) 健全而靈活的財務控管是通路商持續成長、實現公司價值的重要基礎。

關鍵詞：

半導體原物料通路商、價值展現、價值傳遞、價值回饋、策略三構面、四個競技場、崇越科技。

Abstracts

As Taiwan Semiconductor Industry Association pointed out, semiconductor industry had been and is of great contribution to Taiwan in the aspects of GDP, foreign currency income, tax income, unemployment rate, government investment achievement, and also subsidiary industry of wafer fabrication. Semiconductor manufacturing raw material distributors play a very important role in semiconductor industrial value chain, who bridging the raw material manufacturers and semiconductor manufacturers. Topco Scientific Co., Ltd (TSC) is a leading company of semiconductor raw material distributor in Taiwan and Great China Region. TSC would be the case to be studied on the strategy of its continuous growth.

A successful business model should cover how to enhance “Value Proposition”, how to perform “Value Delivery”, and how to achieve “Value Capturing”. In the study of TSC’s continuous growth, we shall be able to identify the key strategies which were employed in the following three themes:

1. How does the distributor secure their position in the value chain i.e. how to enhance their value proposition?
2. In what way the distributor compete with their competitors and perform better i.e. how to perform their value delivery?
3. How does the distributor make their own benefit feasible i.e. how to achieve their value capturing?

“Three Aspects of Strategy” theory and “Four Coliseums of Business” analysis by Dr. S.H. Wu were applied in this study. The “Three Aspects of Strategy” theory provides the scope of establishing a thorough business strategy, and “Four Coliseums of Business” analysis exploit the business growth in four different points of view.

“Three Aspects of Strategy” theory claims the following aspects should be reviewed when establishing the business strategy:

1. Business Domain : product/market, business activities, business geography, business scale
2. Core Resource : physical/non-physical properties, personal/organizational competence
3. Business Network : network parties, network relationship, network position

Also, the adjustment/correlation of these three aspects should be discussed. The “Four Coliseums of Business” analysis exploits the status of company’s strategy in four different points of view:

1. Value-Efficiency coliseum
2. Competence-Organization coliseum
3. Power-Networks coliseum
4. Innovation- Authenticity coliseum

This study applied the “Three Aspects of Strategy” and “Four Coliseums of Business” analysis on TSC’s four critical strategic issues including the issues of establishing the “Opto-Electronics Department”, establishing the “Water Treatment Department”, IPO, and establishing the “Used Machine Department”. From which we could conclude how the semiconductor raw material distributors enhancing their Value Proposition, improving their Value Delivery, and achieving their Value Capturing. The briefing of these four issues is as followings:

Issue 1: Establishing the “Opto-Electronics Department”

Establishing the “Opto-Electronics Department” was to extend the TSC’s business model from indent order business to stock sale business. Also, this issue strengthened TSC’s ability of technical service, logistics, and financial management. The success of DUV Resist brought annual revenue of over NTD1.8 billion in 2005. Other major products such as CMP slurry, Epoxy Molding Compound, IC Underfill Material...could also copy the business model of DUV Resist.

Issue 2: Establishing the “Water Treatment Department”

Establishing the “Water Treatment Department” was to create new business in the semiconductor manufacturers’ facility area. TSC built up their engineering capability and also the subcontractor network. The success of separating the water treatment business into pure water and waste water two categories let TSC could have their own brand waste water business. Water treatment business contributed NTD1.5 billion in 2005. Also it brought new business chance like Cleanroom and Chemical Supply System.

Issue 3: IPO

IPO to let TSC has much stronger financial flexibility. The company status has been up rated and could be easier to recruit excellent employees. The financial management capability had been improved and the business network is much stronger.

Issue 4: Establishing the “Used Machine Department”

Establishing the “Used Machine Department” was to address TSC as a

Total Solution Provider of High Tech Industry. TSC captured the business chance of semiconductor manufacturing used machine off-shore service from which they could extend the business to used machine buy-and-sale, logistics, refurbish, installation, parts sourcing, calibration/tuning, and process parameter setting. The company vision of Total Solution Provider of High Tech Industry will lead TSC to exploit the semiconductor industry with a higher and thorough position.

Through the “Three Aspects of Strategy” and “Four Coliseums of Business” analysis we could confirm that the above mentioned four critical strategic issues are of great positive effects to TSC in the sense of Business Domain, Core Resource, and Business Networks. Also we could see the continuous growth trend in the Value-Efficiency, Competence-Organization, Power-Networks, and Innovation-Authenticity coliseums. Therefore, the key strategies applied in these four critical strategic issues could be the bench mark of semiconductor raw material distributors for their further growth.

From the description of these strategic issues and the adjustment/correlation of three aspects discussion, we could conclude the key strategies for a successful business model of semiconductor raw material distributor, and list these key strategies with respect to our three themes of study:

How does the distributor secure their position in the value chain i.e. how to enhance their value proposition?

1. Expanding the service base and providing the total solutions to customers is very essential to secure the agency rights
2. Maintaining a freely flowing and circumspect human relationship network is a must-do job of distributors.

3. Distributors should take very caution when developing own-brand products, should not damage the relationship with principles.
4. Attending the service quality contest will strongly promote company's image and improve competence.

In what way the distributor compete with their competitors and perform better i.e. how to perform their value delivery?

1. The ability of identifying customers' needs is proportional to the success of continuous growth of distributors.
2. People are the most valuable assets of distributors.
3. Competitions inside customer's organization should be handled with care, and should maintain good communications with each departments of customer.
4. Distributor should establish an integrated supporting/subcontractor system.

How does the distributor make their own benefit feasible i.e. how to achieve their value capturing?

1. Multiple business models are adequate for distributor.
2. Rearranging current service contents to create new business niches.
3. Fully utilize core competence to extend product lines and create new values.
4. Nimble and integral financial management is the foundation of long-term growth and can capture company's value.

KEY WORDS:

semiconductor raw material distributor, value proposition, value delivery, value capturing, Three Aspects of Strategy, Four Coliseums of Business, Topco Scientific Co., Ltd