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**2021/9/29**

# **生產與作業管理**

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**” Chapter 2: Strategy and Sustainability**

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# Outline

- 1 What is strategy?
- 2 What is operations strategy?
- 3 Operations competitive dimensions
- 4 The notion of trade-offs
- 5 Order winners and qualifiers
- 6 Supply chain risk

# 1. What is strategy ?

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- A firm always intends to create and sustain value for its shareholders.

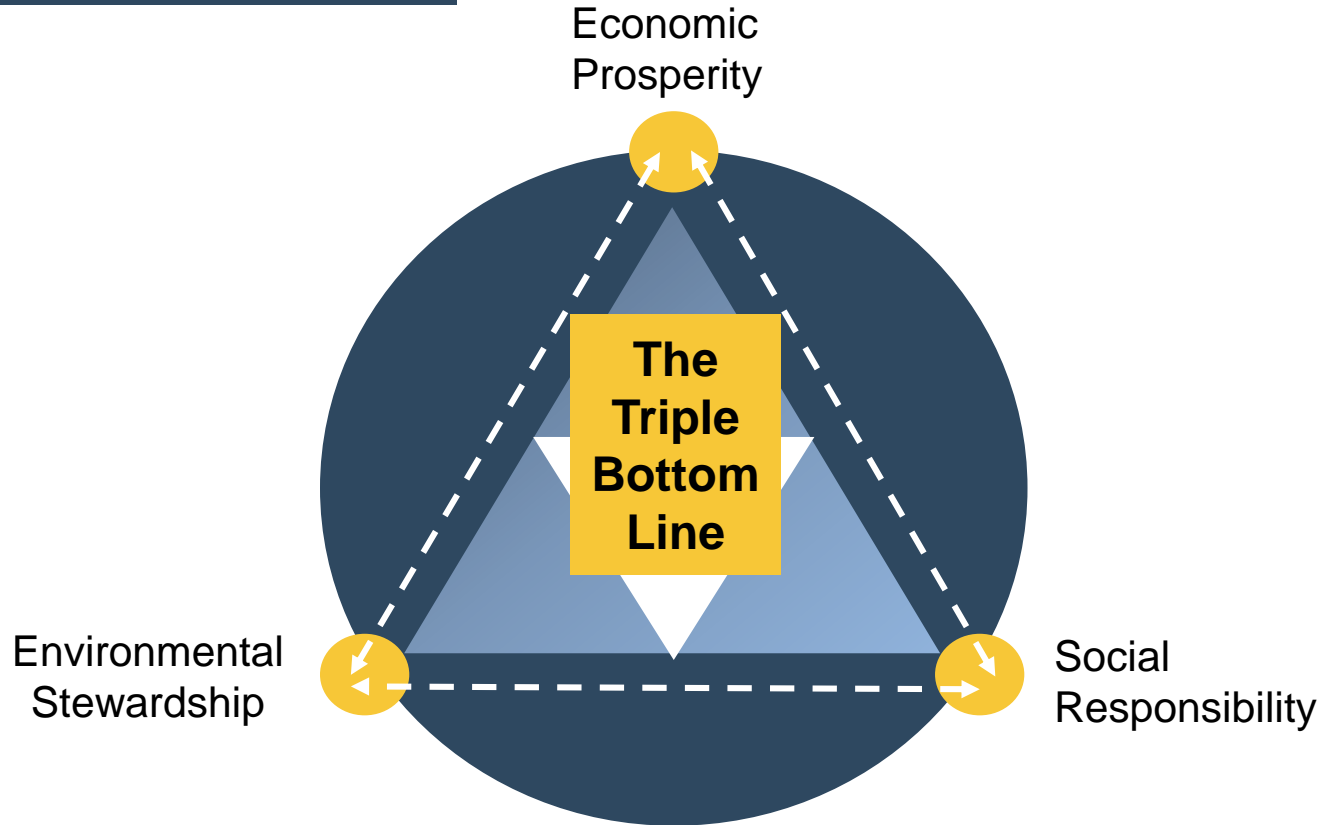


- **Shareholders** – individuals or companies that legally own one or more shares of stock in the company
- **Stakeholders** – individuals or organizations who are directly or indirectly influenced by the actions of the firm

# 黑狗兄的策略是什麼？

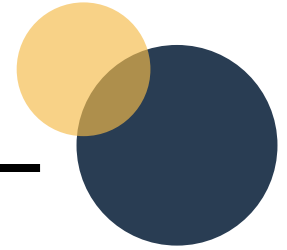


# Triple Bottom Line



# 1. What is strategy? (cont'd)

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- Typically a strategy breaks down into three components:
  - Operations effectiveness
  - Customer management
  - Product innovation

# Operations effectiveness

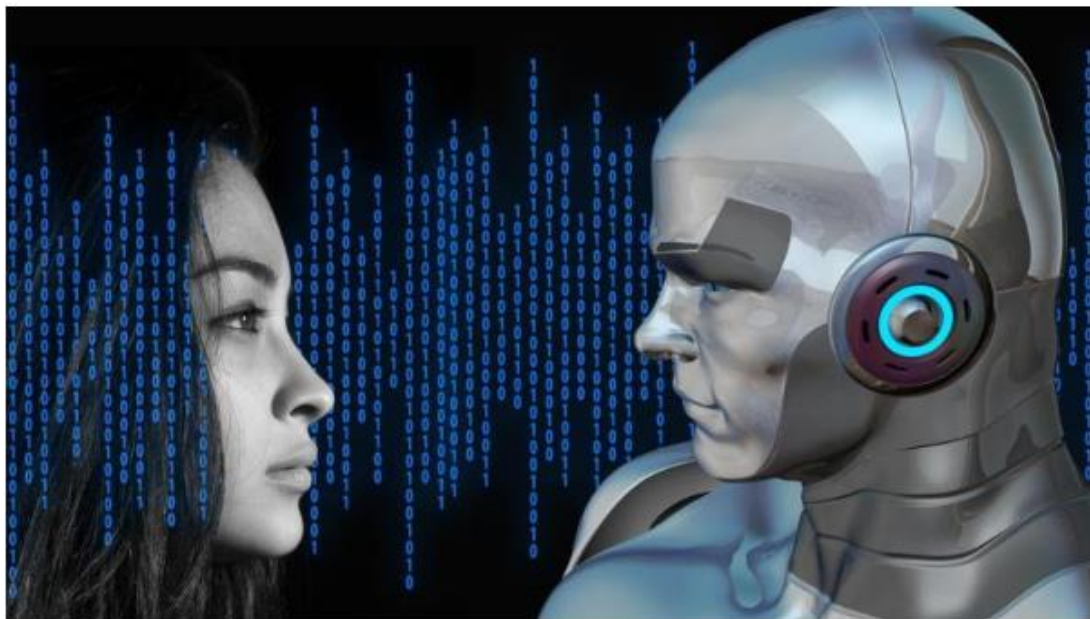
- The core business processes **spanning all the business functions** from taking customer orders, handling returns, manufacturing, managing the updating of web sites, to shipping products.
- **Cost** concerned
- Strategies associated with operational effectiveness including:
  - Quality initiatives, process redesign, and technology investments, can show quick near-term (12 to 24 months) results.

# 新例子：AI取代人工？

AI人工智慧時代=人類與機器人搶工作的時代？

2017.07.20

👍 讚 260





## 軟銀攜手鴻海推機器人 郭董：改變世界的時刻！

cnYES 鉅亨網 作者：鉅亨網記者胡慧文 台北 | 鉅亨網 - 2014年6月5日 下午7:09

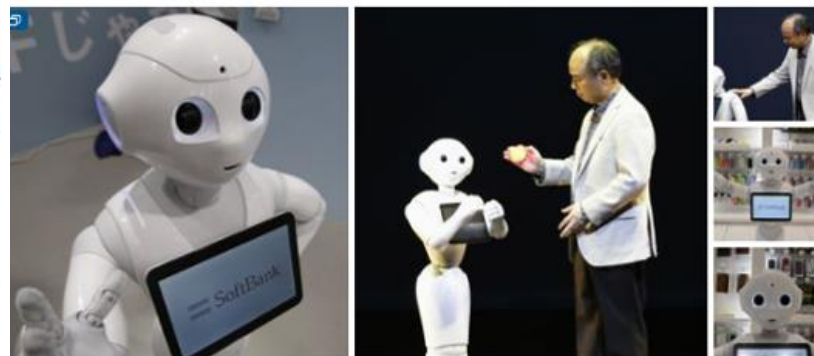
日本軟體銀行(SoftBank)今天舉行機器人發表會，鴻海集團(2317-TW)董事長郭台銘也應邀出席，軟體銀行社長孫正義表示，將於明年2月開賣居家照顧機器人，每台售價為19.8萬日元，將委由鴻海生產。郭台銘表示，已與軟銀合作2年，共同發想創意加上熱情，開發機器人，看到軟銀的機器人發表，正是改變世界的時刻！

孫正義特地在發表會中，介紹郭台銘為「最重要的合作夥伴」，眾所皆知，鴻海是蘋果重要的夥伴，製作iPhone、iPad，同時也是全世界電腦、電子相關廠品最大的製造工廠。軟銀與鴻海有長期合作關係，從日本Yahoo!BB!寬頻相關產品就開始合作，機器人如此重要，「除了鴻海以外，從來沒有想過要找其他的廠商合作」。

郭台銘表示，與軟銀在機器人開發方面，合作2年，軟銀的機器人，像是孫正義的寶貝，「如果沒有熱忱的心、愛、感情，機器人只是機器人」，而雙方共同發想創意、加上熱情，軟銀機器人上市，將是改變全球機器人產業和人類社會的重要時刻。

由於軟銀居家照顧機器人，每台售價僅19.8萬日元，軟銀表示，因為製造伙伴鴻海，在製造與成本控管能力卓越，再加上希望大量生產，提供一般家庭可以買得起的價格，後續再搭配軟體、雲端服務，才有更多獲利可能。

鴻海代工機器人「Pepper」



# 富士康 自動化工人砍半 換機器人 邁向工業4.0 昆山廠員工銳減至5萬多人

2015年05月25日



1,650

G+1

3



富士康工廠自動化有成，旗下昆山廠區工人已經從2013年的11萬人，銳減到現在剩5萬多人。圖為鴻海董事長郭台銘。下圖為機械手臂。法新社、中央社

## 集團轉型

【楊喻斐／台北報導】上周五富士康首度邀請陸媒一窺機器人自動化成果，這是富士康昆山工廠成立22年來首次向媒體開放其保密到家的蘋果生產線。富士康科技集團總經理游象富表示，隨著自動化程度不斷提高，富士康昆山廠區工人已經從2013年的11萬人，銳減到現在5萬多人。

獨！前進富士康昆山廠 直擊郭董機器人軍團  
Youtube



## 鴻海機器人自動化布局



投入人工智慧產業，代工當紅神奇寵物恐龍「Pleo」

2007年

傳出投入醫療照護機器人

2008年

- 郭台銘喊出擴大使用機器人以減少人力需求，要打造100萬「機器人大軍」
- 宣布投資100億元，在台中設「智動創新園區」

2011年

與軟銀共同開發製造新一代、具人性化、適合在家庭運用的商業型機器人

2012年

傳郭台銘與Google「Android之父」魯賓會面，針對機器人與自動化生產交換意見

2014年2月

代工生產日本電信巨擘軟銀推出的居家照顧機器人

5月

資料來源：採訪整理

謝艾莉/製表

COVID-19  
CORONAVIRUS



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” 後疫情時代的生產與作業管理

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# H&M虧損創10年新高 將關閉全球170家門市!

2020/06/29 中時新聞網 許立穎



瑞典的全球第2大的時裝零售商「H&M」虧損近高達64.8億瑞典克朗（6.95億美元，約台幣204億），為10年來首次的季度損失。（圖/Shutterstock）

# ZARA母公司不敵虧損，擬關閉全球1200間門市



▲ ZARA母公司不敵虧損擬關閉全球1200間門市。(圖 / 路透)

# 億馨針織數據精準管理 變身機能布料智慧染整專家



匯聚近40年的染整技術，紡織業者億馨針織專注於機能布料染整業務，近年來導入數位創新應用，從紙本到數據到系統，透過智慧染整供應鏈數位系統，進行機能布效能分析與製造管理，優化染整製程，成功將交期由30天大幅縮短至14天，實現智慧染整，開拓紡織新藍海！

# Customer management

- To better understand and leverage customer relationships





# Product innovation

宏碁手機團隊一虧10年，轉做智慧佛珠大賣，熱銷背後有洋蔥！

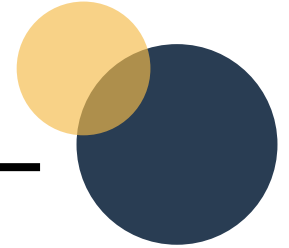
2018.06.01 by  王郭倫

- The development of new products, markets, and relationships to sustain growth.



## 2. What is operations strategy?

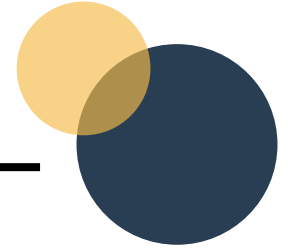
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- An operations strategy involves decisions that relate to:
  - a. The design of a process
    - ✓ The selection of appropriate technology (例如:電子商務平台)
    - ✓ Sizing the process over time
    - ✓ The role of inventory in the process
    - ✓ Locating the process

## 2. What is operations strategy?

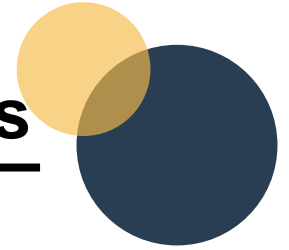
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- An operations strategy involves decisions that relate to:
  - b. The infrastructure needed to support the process**
    - ✓ Logic associated with the planning and control systems
    - ✓ Quality assurance and control approach
    - ✓ Work payment structures
    - ✓ Organization of the operations function

### 3. Operations competitive dimensions

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- a. Cost or price
- b. Quality
- c. Delivery speed
- d. Delivery reliability
- e. Coping with changes in demand
- f. Flexibility and new-product introduction speed
- g. Other product-specific criteria

# Cost or price

- Cost : make the product or deliver the service cheap
- Price is not equal to cost. Customers may want higher quality – in terms of performance, appearance, or features – than that available in competing products and services, **even though accompanied by a higher price.**
- For example, BMW

# Quality

- **Design quality**

- The set of features the product or service contains
- To focus on the requirements of the customer
  - For example, **ASUS PadFone 變形金剛再進化**



- **Process quality**

- The reliability of the product or service
- Customers want products without defects
  - For example, **Toyota 2010**



# Flexibility and new-product introduction speed

- The ability of a company to offer a wide variety of products to its customers
- The time required for a company to develop a new product and to convert its processes to offer the new product



## 預訂車主資訊更新

美國和加拿大現已開始 Model 3 交車作業，其他國家/地區的車交作業將於 2019 年開始。已預訂的客戶將會在需要確認訂單時，收到電子郵件通知。

[查看預估的交付時間](#)

[查看我們的常見問題以深入瞭解](#)

# Other product-specific criteria

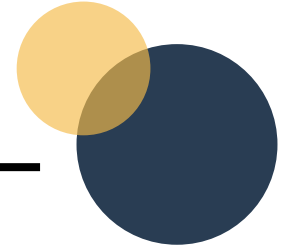
- Technical liaison and support
- Meeting the launch date of a complex project
- Supplier after-sale support
- Environmental impact
- Others





## 4. The notion of trade-offs

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- An operation cannot excel simultaneously on all competitive dimensions.
- Management has to decide which parameters of performance are critical to the firm's success and then concentrate the resources on these particular characteristics.
- **Plant-within-a-plant (PWP)**
- **Straddling**

# Plant-within-a-plant (PWP)

- Different locations within the facility are allocated to different product lines, each with their own operations strategy.
- For example, [TSMC](#)

# Straddling

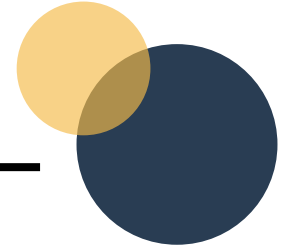
- A company seeks to match the benefits of a successful position while maintaining its existing position.
- It adds new features, services, or technologies onto the activities it already performs.
- For example, [Continental Airlines](#), 光陽機車



<https://technews.tw/2018/06/12/kymco-ionex-new-many-110-ev-nice-100-ev/>

# 5. Order winners and qualifiers

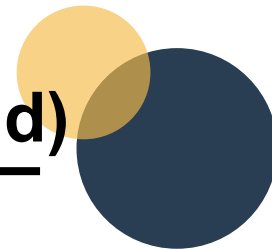
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- An order winner is a criteria that differentiates the products or services of one firm from another.
- The order-winning criterion may be:
  - The cost of the product
  - The price of product
  - Product quality and reliability



## 5. Order winners and qualifiers (cont'd)



電動車元年 2020 啟動，6 家車商蓄勢待發

- An **order qualifier** is a screening criterion that permits a firm's products to even be considered as possible candidates for purchase.

2020 年台灣量產電動車

車商	車型
裕隆日產 ( Nissan )	Nissan Leaf
保時捷 ( Porsche )	Taycan
賓士 ( Mercedes-Benz )	EQC
奧迪 ( Audi )	E-tron
捷豹 ( Jaguar )	I-Pace
特斯拉 ( Tesla )	Model S、Model X、Model 3

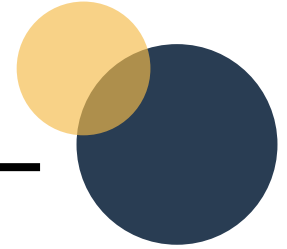
## 5. Order winners and qualifiers (cont'd)

- The order-winning and order-qualifying criteria may change over time.
  - For example, American automobile markets in the 1970s and 1980s



## 6. Supply chain risk

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- The likelihood of a disruption that would impact the ability of the company to continuously supply products or services
  - Natural disasters, capacity failures, infrastructure failures, terrorists, supplier failures, labor actions, equipment failures, commodity price volatility, and military/civil conflict...

# 實際案例

- 2011年日本311地震與海嘯，日本東海岸集中了大量半導體、鋼鐵業、石化業、汽車等行業，地震給日本這些行業帶來了較大的衝擊，也連帶影響台灣
- 台灣鐵路員工，在除夕「合法休假」



台鐵罷工示威中，有人頭戴「還我休假」標語。攝：A.K. Lee /端傳媒



# 台積日本廠 傳最快2023投產

2021-07-22 01:19 經濟日報 / 國際中心、記者鍾惠玲／綜合報導

+ 台積電



知情人士透露，台積電的決定仍取決於一些因素，包括日本政府提供的誘因和支持，以及當地供應商對於興建晶片相關基礎設施和發展供應鏈的承諾。日本廠將是台積電分散生產基地策略的一環。

<https://udn.com/news/story/7240/5618437>



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