

A Deeper Look At Vertically Integrated Manufacturing Models

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Adam brings extensive market research, strategic planning, and operational experience to the iSuppli team. In addition to following the EMS and ODM sectors, Adam previously served as a program manager on a global, new product introduction for a \$500 million, NASDAQ-traded client of iSuppli. The project involved several suppliers, hundreds of employees and a roadmap of over 20 new products.

Formerly, Adam was employed by leading technology companies including Dell Corporation and Ariba, Inc. where he developed, implemented and executed supplier selection services specific to silicon, packaging, test, software and foundry suppliers.

Adam earned a Bachelor of Arts and a Masters of Business Administration from the University of Michigan.

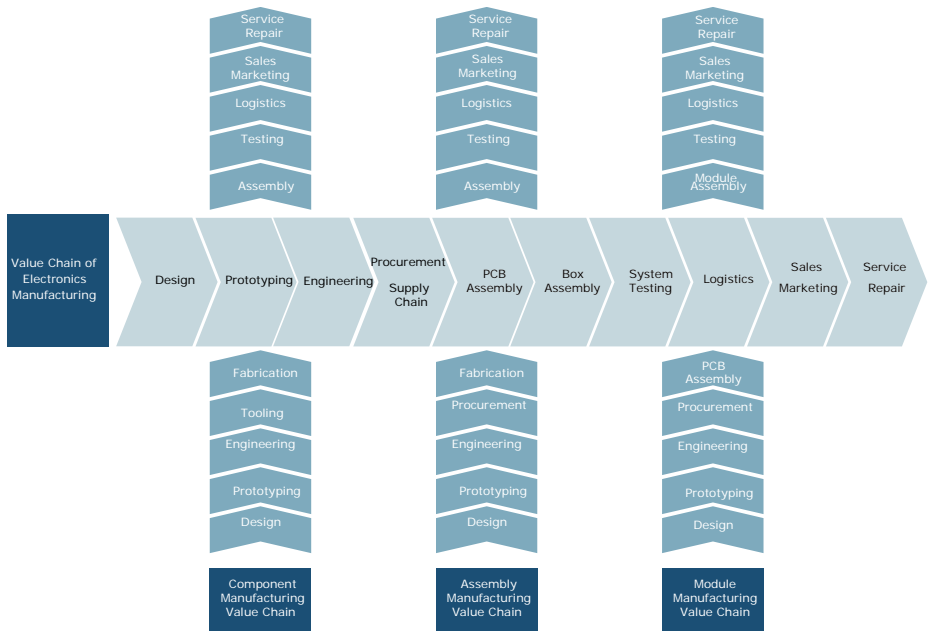
To “win” in any business environment, players must develop a sustainable, competitive advantage. Such differentiation is often revealed when evaluating the underlying business models that govern the strategic and tactical activities of multiple companies within a specific, business niche.

One of the key debates specific to the electronics manufacturing market relates to the key strategies by which EMS and ODM providers acquire or manufacture parts.

- In a vertical model, CMs directly manufacture select parts that are consumed within the Bill-of-Materials (BOM) of assembly programs.
- In a horizontal model, CMs do not manufacture any of the parts that are consumed within the BOMs of assembly programs

This report is intended to stimulate thought and discussion specific to these two different models deployed by contract manufacturers. This analysis will evaluate the vertically integrated business model and the horizontal business model and ultimately describe the impact across the electronics value chain – for OEMs, EMS providers, ODM providers and suppliers.

Common Horizontal Manufacturing Activities For ODMs With Design Functions



Critical Questions Answered

- Who are the key horizontal and vertical contract manufacturers?
- What are the core component groups manufactured by vertically integrated manufacturers?
- What is the size of the component market manufactured by EMS and ODM providers?
- What are the perceived advantages of the vertically integrated model?

Who Should Read This?

- OEMs
- Component Suppliers
- EMS Providers
- ODMs
- Distributors
- Consultants
- Financial Analysts

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Definitions

- OEM – Original Electronics Manufacturer
- EMS - Electronics Manufacturing Service Provider
- ODM – Original Design Manufacturer
- CM / CEM – Contract Manufacturer or Contract Electronics Manufacturer

Introduction

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Distinguishing Horizontal and Vertically Integrated Manufacturing Models

The Horizontal Manufacturing Model

- Bill-Of-Materials Component Acquisition
- Who Are The Horizontal Contract Manufacturers?

The Vertical Manufacturing Model

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- How Do EMS/ODM Sell Their Vertically Manufactured Parts?
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Core Activities of Horizontal EMS Providers

Core Activities of Horizontal ODM Providers

Core Efforts of Vertically Integrated EMS/ODM Provider

Sanmina Plastic Injection Molding

Custom Backplane Manufactured By Sanmina

Sample Innolux 5" TFT-LCD Module

Foxconn RF Antenna Cable Assembly

EMS/ODM Market Contribution From EMS/ODM Providers

Vistapoint Technologies – Marketing Collateral

Example Of Total Solution For Handsets Offered By Flextronics

Select Gross Margins Of Leading EMS Providers

Jabil Gross Margins (2004 – Q1 2009)

Select ROIC Performance For Vertical And Horizontal EMS Providers (2003 – 2004)

Select ROIC Performance For Vertical And Horizontal ODM Providers (2003 – 2008)

Equity Price Of Foxconn (2008 – July, 2009)

Survey Response Regarding Vertically Integrated Business Models

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Select Corporate Transactions Used To Extend Vertical Capabilities Of EMS

Select Corporate Transactions Used To Extend Vertical Capabilities Of ODMs

Top ODM In-House Capacity For Plastics Casings