



Engineer's Career Options in Marketing and Business

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**The Chinese Institute of Engineers
Dallas/Fort Worth Area Chapter
4/28/07**

The Difference Between Marketing and Sales

Marketing Function ≠ Sales Function

Sales is when you're face-to-face with a customer, convincing a person to buy your product

Marketing is the collection of decisions you make about the market that leads to successful sales. Marketing is the planning part of sales:

- Market assessment
- Competitive analysis
- New product definition and proposal
- Product roadmap and positioning

Glossary:

Field sales, regional sales

Tactical marketing (Factory sales)

Strategic marketing (Systems engineering) – This seminar's focus

Tactical Marketing (Factory Sales) Job Description - Example

Job Title: Product Marketing Engineer (PME)

Job Duties:

Specific responsibilities include:

- Providing product training for all direct and indirect sales channels
- **Increasing design wins and net revenue** for assigned products (WW)
- **Provide forecast information** for assigned products
- Developing in-depth knowledge of ALL HPL Linear products and a strong knowledge of ALL HPA products
- Work with our Strategic Marketing Managers to develop new HPL product proposals
- Participating in new HPL Linear product launch activities
- **Ensuring the customers and WW sales force are aware of new product introductions** for the products assigned
- **Working in concert with the region sales force** to increase design wins and NR for assigned products within budget

The ideal candidate will have 5 years or more of PME experience in Analog products. A strong electrical engineering background is needed. The ability to evaluate a customer's application and recommend the correct HPA product is essential.

The person in this position must be able to manage product promotions and sales growth in the assigned region. This person must also be able to prepare an annual business plan, execute effectively, and motivate the regional sales force to focus time and attention on HPA products. Excellent communication, technical, and business skills and attention to detail are a must.

Strategic Marketing Job Description – Example

Job Title: Marketing manager

Job Duties:

This is a **high-profile** marketing leadership position, with **primary responsibility for product roadmaps** and product requirements definition for TI's next-generation Wireless Terminal Chipsets to support the 3G (WCDMA and UMTS) wireless communication standards.

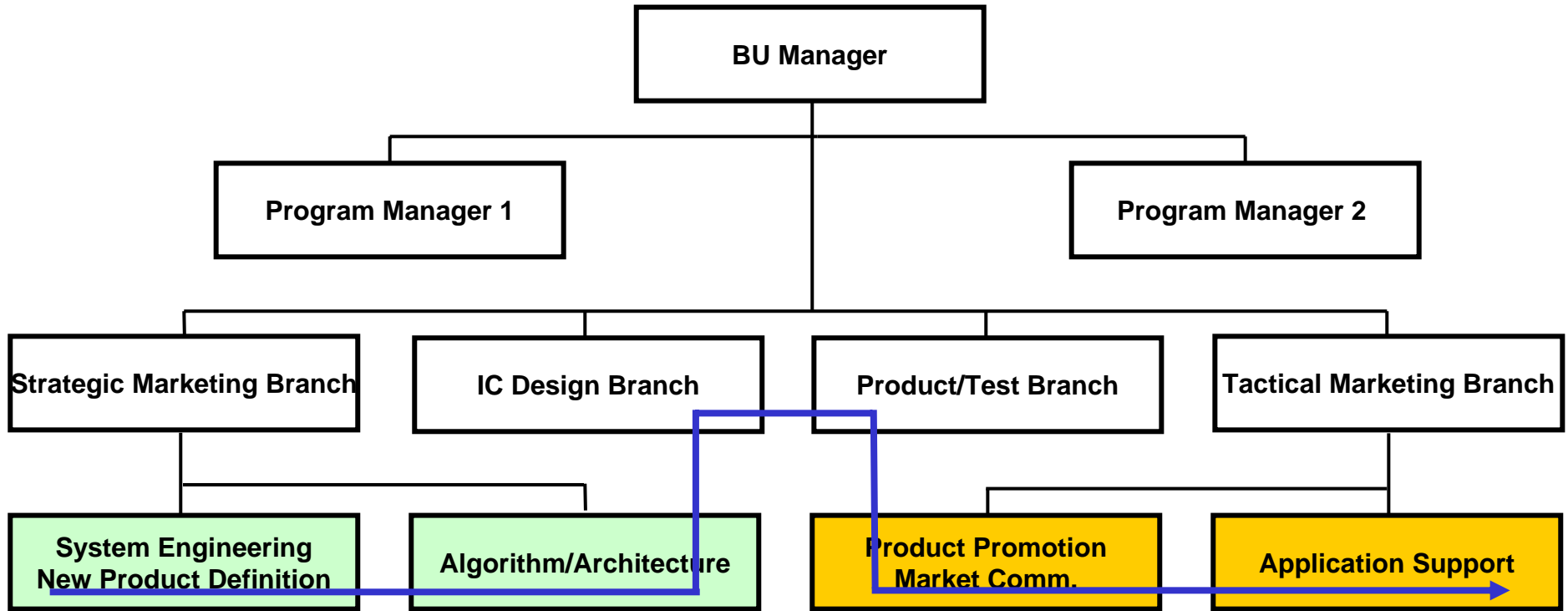
Specific responsibilities include:

- Chipset solution product roadmaps and **product definition** - digital, analog and RF, software, and reference designs
- Creating applications software strategy and business models with third-party partners
- **Product positioning** and public messaging
- Strategic marketing activities, including **competitive analysis**, collaboration with wireless operators, and the formation of strategic partnerships

The ideal candidate will have 10+ years experience in technology marketing and/or development, with **5+ years in technical product management**. A strong preference will be made for candidates who have both wireless product management and engineering experience.

This position calls for a person with **strong and experienced marketing and technical skills** and the ability to leverage a broad portfolio of wireless and multimedia technologies. Cross-functional communication skills are needed to interact effectively with a diverse technical, business development, and program management team.

Business Unit (P&L Dept.) Structure



New Product Development Process

New Product Definition
 Sea of ideas
 Competitive analysis
 Product cost analysis
 Product Roadmap
 Product datasheets
 Travel a lot
 High visibility (The double-edged sword)

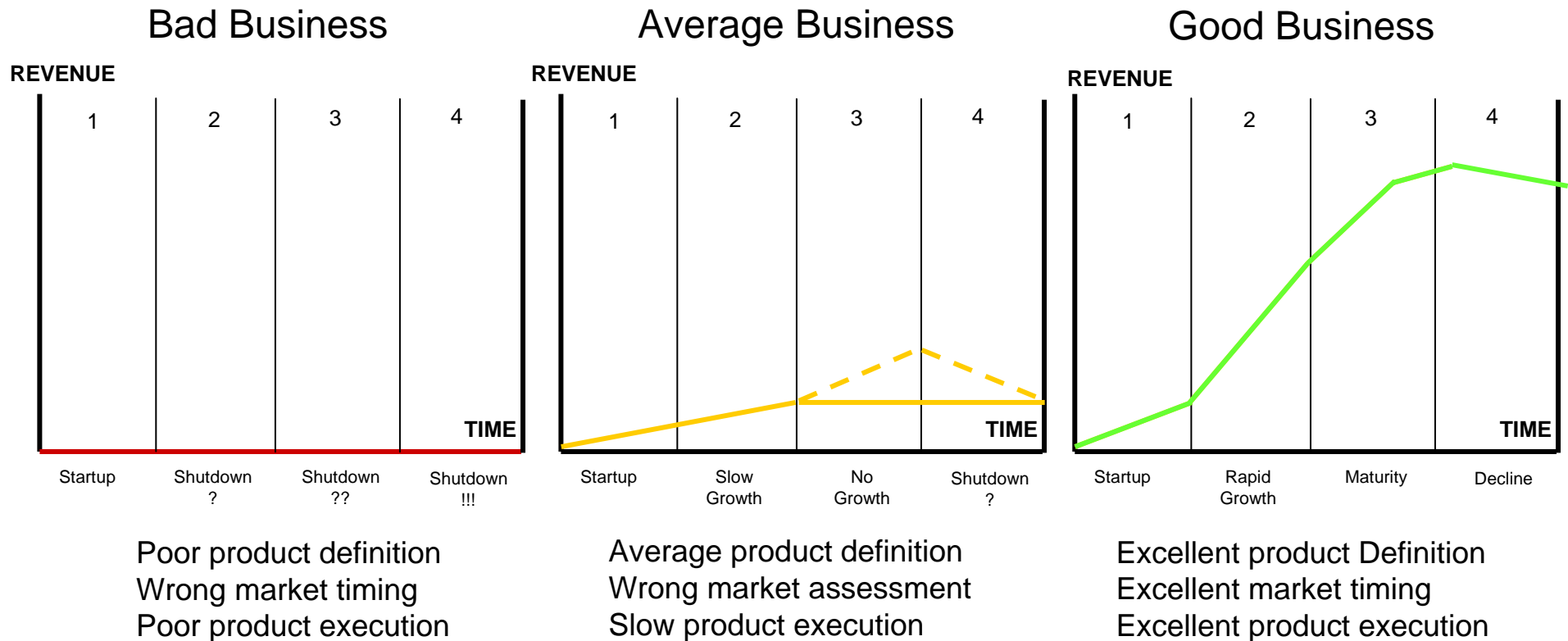
IP creation
 IP verification
 No travel

Product promotion
 Pricing
 Demand forecasts
 Product web sites
 Trade shows
 A lot of travels
 Medium visibility

Customer support
 Bench verification
 EVM development
 Technical training
 Some travel

Garbage in - Garbage out

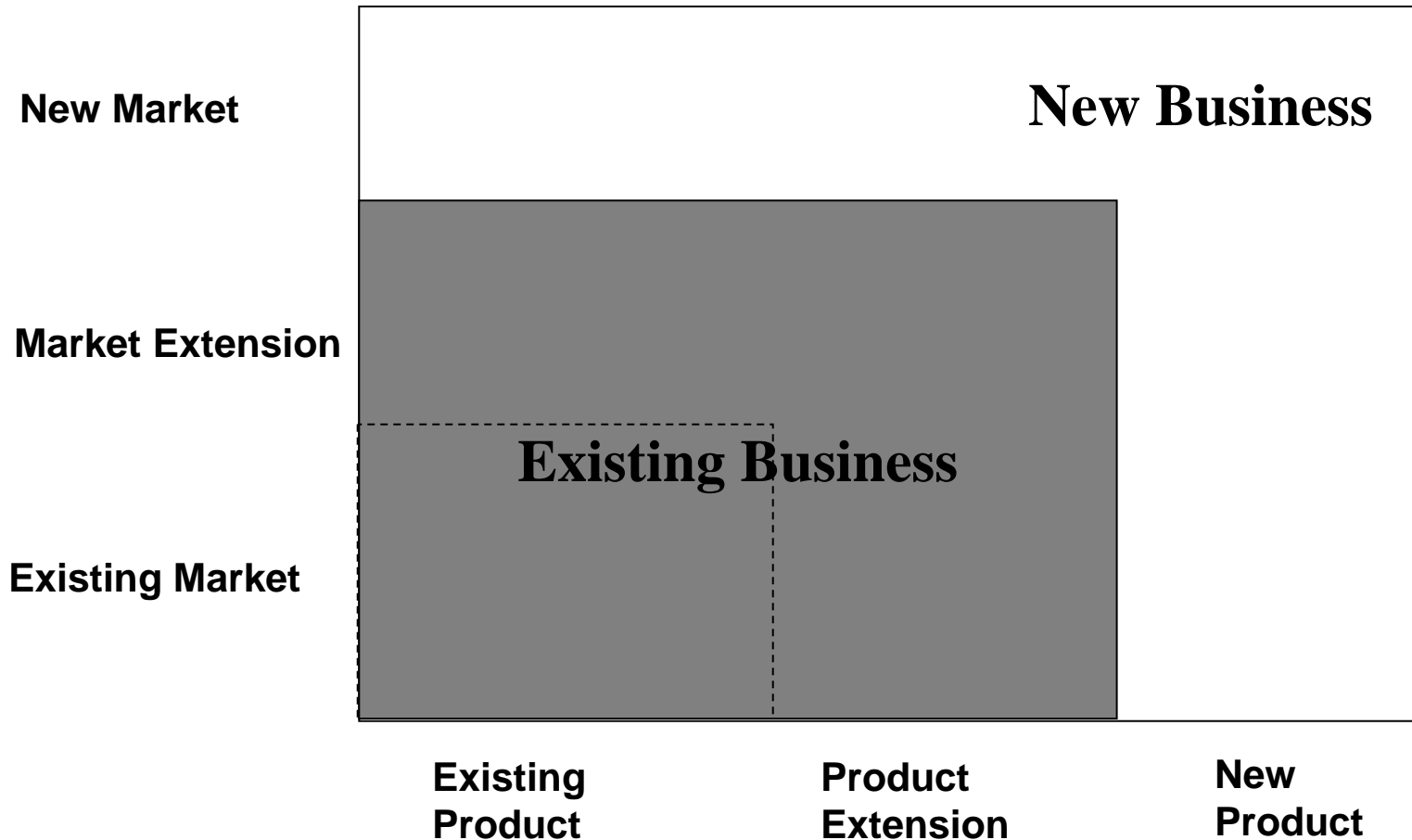
Marketing Quality Critical to Organizational Life Cycle



While the same new product development process is applied, not every business generates positive returns.

Corporate Entrepreneurship

Even a good business is not safe forever. Successful business managers know that new business creation must be pursued consistently because it takes long time to achieve results.



New Product Strategy (Start-up) Proposal

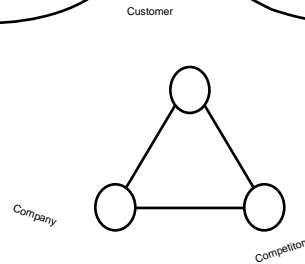
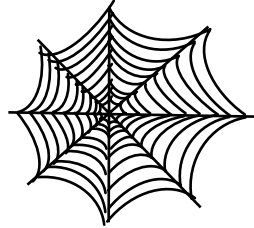
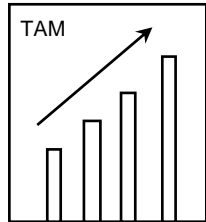
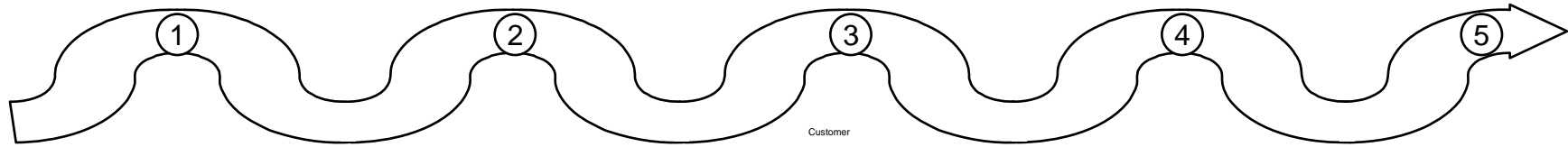
Establish proof of demand

Outline industry dynamics

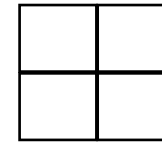
Define value proposition

Recommend strategy

Analyze financial implications



Where



How



Market attractiveness

Position attractiveness

Financials

Required Skill Sets

Strategic Marketing	Corporate Entrepreneur	Business Manager (P&L Manager)
Broad EE systems knowledge	A lot of ideas, a lot of passion	Good strategic vision, good judgment
Good device level knowledge	Skills to sell your ideas (Persuasion power)	Decisive Able to make tough decisions
Creative and resourceful	Willing to take calculated risks	Talent management. Mentoring
Attention to details	Take new initiatives proactively (vs. taking orders)	Customer relationship
Good at multitasking	Team leadership	International business leadership
Customer interface	Motivating and inspiring	Conflict resolution
Good listener	Willing to work hard even if rewards are slow in coming	High-level of integrity
Presentation skills	Negotiation skills	Coordination among biz units
Communication skills	People skills (High EQ*)	Planning and budgeting



A Natural Career Evolution

* Intellectual intelligence 智商 (IQ) Emotional intelligence 情商 (EQ)

Engineer's Business Career Path

Finding a Right Job	Building a Solid Foundation	Getting Promoted	Leading a Business
<p>The only way to do great work is to love what you do</p> <p>Do what you're good at (Build up your confidence early in the career)</p>	<p>Don't confuse intelligence (IQ) /competence with education</p> <p>Pay attention to details</p> <p>Strive for technical depth</p> <p>Get used to multitasking</p>	<p>Understand business needs (see big picture 不能只见树木，不见森林)</p> <p>Be a firefighter</p> <p>Deliver sensational performance, far beyond expectations</p>	<p>Have a clear strategic vision and be able to energize the team</p> <p>Attract great people</p> <p>Take calculated risks and be willing to make tough decisions</p>
<p>Join a solid team – full of positive energy, high business growth potential</p> <p>You like the people around you</p>	<p>Don't fix your long-term career direction too early. Take time to recognize your true talents</p> <p>Develop your communication skills – It's ok to have a foreign accent!</p>	<p>Make your own luck.</p> <p>Take initiative to advance or turn around your organization</p> <p>Develop your persuasion skills – Sell your ideas</p>	<p>Manage complex product execution and a large pool of internal and external resources</p> <p>Deliver consistent financial results</p>
<p>Offers broad career and learning options that allow you to grow with the job as a person and a professional</p>	<p>Develop your EQ as well</p> <p>Don't be a stranger even you can't fit in completely</p> <p>Don't be cynical. Relax!</p>	<p>Known for your character</p> <p>Avoid too much independence. Share ideas, help and train others. Build support from the people around you</p>	<p>Develop WW customer relationships</p> <p>Be a good spokesperson– Sell your products, your team, and your company</p>

Summary

In business, as in life, the key to success lies in recognizing your true talents and using them to your best advantage. In finding what makes you unique, and focusing on this to gain a competitive edge.

- Anonymous

“条条道路通罗马”. The marketing path is just one of them.

XuCheng Wang (王许成) currently serves as Worldwide General Manager for the Digital Entertainment Products at Texas Instruments.

Joined Texas Instruments in 1996, Mr. Wang started out as a Senior Systems Engineer working on new product definition of catalog data converter products. Mr. Wang then initiated TI's mixed-signal imaging product strategy and made his career transition to marketing and business. Promoted to GM of Digital Video Product Line in 2002, Mr. Wang architected and directed a complete turnaround of Digital Video business. In Jan. 2007, Mr. Wang was promoted to manage TI's Worldwide Digital Entertainment Products Business comprising five business units: Consumer RF products, Mixed-Signal Audio/Video products, Digital Video products, Digital Imaging products, and Portable Audio/Video products.

In 2004, Mr. Wang was among 13 Asian Americans to receive National Asian Pacific American Corporate Achievement Award.

Prior to joining Texas Instruments, Mr. Wang served for five years at Argonne National Laboratory, Chicago, IL, where he was a senior staff engineer responsible for the research and development of electron beam diagnostic systems installed on the laboratory's 7 GeV Advanced Photon Source, the largest Synchrotron radiation light source in U.S. In 1993 and 1996, he received Argonne's Exceptional Performance Awards for his innovative engineering designs.

From 1983 to 1988, Mr. Wang was with Hefei National Synchrotron Radiation Laboratory in China and engaged in the research and development of electron beam diagnostic systems for the laboratory's 800 MeV synchrotron radiation facility.

Mr. Wang received his BSEE from University of Science and Technology of China in 1983, and his MSEE from Texas A&M University in 1991.

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