



Product Innovation Lecture Notes Week 1-4

Product Innovation and Management (Royal Melbourne Institute of Technology)



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MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 1: INTRODUCTION

PART 1: INTO AND IMPORTANCE OF I, PI, NPD

- CEOs and CMOs continue to rate innovation capability as a critical driver for their further business successes
- Companies that are doing well today are more likely to have a continuous supply of successful new products
- Developing and launching a steady stream of successful new products is not easy and many companies struggle to do it well or profitably

DEFINING INNOVATION (I)

- Innovation itself is a very broad concept that can be understood in a variety of ways
 - *Innovation is not a single action but a total process of interrelated sub processes. It is not just the conception of a new idea, nor the invention of a new device, nor the development of a new marketing. The process is all these things acting in an interrelated fashion* (Myers and Marquis, 1969)
 - *Innovation is concerned with the commercial and practical application of ideas or inventions* (Trott, 2017)
 - Invention = the conception of the idea
 - Innovation = the subsequent translation of the invention into the marketplace – commercial exploitation

NEW PRODUCT DEVELOPMENT (NPD)

- ...is the **creation and subsequent introduction** of a good or service that is either **new, or improved** on previous goods or services of its kind
- ...is the development of new products, changes in **design of established products, or use of new materials or components** in the manufacture of established products
- ...is the **overall process** of strategy, organisation, concept generation, product and marketing plan creation and evaluation, and commercialisation of a new product (PDMA 2012)

WHY DO FIRMS DO IT?

- Many reasons, including:
 - **Expansion and growth** – product innovation utilises slack resources, enables scale, and fosters growth
 - **Competition** – helps differentiate your business from the competition and provides opportunity for sales and profits
 - Block or overtake competitors
 - **Customer retention** – product innovation helps ensure that what you sell doesn't become irrelevant or stop meeting the needs of your customers
 - **Customer acquisition** – product innovation seeks to invite new customers to your brand
 - **Talent acquisition and retention** – top employees want to work for businesses that are at the innovative forefront of their industries

12 DIMENSIONS OF BUSINESS INNOVATION

Dimension	Definition	Focus
Offerings	Develop innovative new products	Predominantly Growth Orientated
Platform	Use common components or building blocks to create derivative offerings	
Solutions	Create integrated and customised offerings to solve end-to-end customer problems	
Customers	Discover unmet needs or underserved customer	

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	segments	
Customer experiences	Redesign customer interactions across all touchpoints and moments of contact/truth	
Brand	Leverage brand into new domains	
Presence	Create new distribution channels or innovative points of presence – where can your offer be bought/used by customers	

Dimension	Definition	Focus
Processes	Redesign core operating processes to improve effectiveness and efficiency	Predominantly Operations & Capabilities Orientated
Organisation	Change form, function or activity scope of the firm	
Supply chain	Think differently about sourcing and fulfilment	
Networking	Create network-centric intelligent and integrated offerings	
Value capture	Redefine how company gets paid or create innovative new revenue streams e.g., IP leveraging	
Business model	Rethinking the basic rationale of how an organisation creates, delivers and captures value, in economic, social, cultural or other contexts e.g., moving to omnichannel marketing from single bricks and mortar	

PDMA BIG PRODUCT INNOVATION TOPICS AND ISSUES

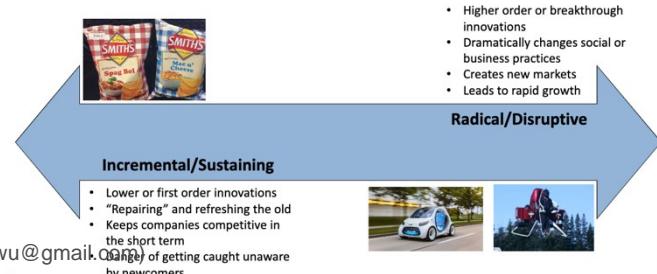
- The value and importance of open innovation
- Managing the front and back end of innovation
- Integrating design thinking into the new product development process, and design effectiveness
- Individual and firm-level incentives for innovation
- New approaches for customer engagement in the development process
- The importance of failure and how to manage it
- Including sustainability in new product development
- The role of crowdsourcing and crowdfunding in developing new products
- Innovation and product development in a connect world

SECTION SUMMARY

- Innovation has long been argued to be the engine of growth for business
- Product innovation and product development is a creative and analytical process that needs to be managed
- Many of the old traditional approaches to product innovation management need to change and new approaches need to be considered
- Firm still struggle to do it well and develop a sustained level of success
- Marketing and a market orientation remains critical to successful product innovation and product development

PART 2: TYPES OF NEW PRODUCTS

SUSTAINING VS DISRUPTIVE



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Incremental/Sustaining

- Lower or first order innovations
 - E.g., new snack/chip flavours
- 'Repairing' and refreshing the old
- Keep companies competitive in the short term
- Danger of getting caught unaware by newcomers

Radical/Disruptive

- Higher order or breakthrough innovations
- Dramatically changes social or business practices
- Creates new markets
- Leads to rapid growth

TYPES OF NEW PRODUCTS

- Booze Allen (Strategy&)
 - New to the world – 10%
 - New product lines – 20%
 - Additions to product lines – 26%
 - Improvement to product lines – 26%
 - Cost reductions – 11%
 - Repositioning's – 7%
- PDMA (Ch 4)
 - Radical innovations
 - Really new products
 - Architectural innovations
 - Incremental innovations

RADICAL AND REALLY NEW

- Introduces an entirely new core technology – requires users to re-learn how to use or extract value from the product
- E.g., Pebble Watches – bursting onto the market via Kickstarter in 2012, the technology and its application created a whole new category long before Apple joined in with the launch of their Apple Watch, three years later
- E.g., Driverless car - new research published this month in the Journal of Engineering and Technology Management, has found that we may be more willing to trust driverless cars in certain situations, but not so much in other cases
- E.g., the world's first flying motorcycle
 - JPA is developing a recreational version of the SpeederTM and is taking pre-orders now
 - The recreational SpeederTM will be the first turbine powered, fully stabilised vertical take-off and landing (VTOL) personal aircraft ever built
 - Being fully stabilised means that minimal pilot training will be required
 - It will take off from practically anywhere and will fly at over 150mph
 - It will also fly at up to 15,000ft
 - The Ultralight Version (UVS) will not require a pilot's license to operate – all training will be provided by JPA

INCREMENTAL – SUSTAINING INNOVATIONS

- Refinements, improvements, exploitation of existing technology used by the firm e.g.:

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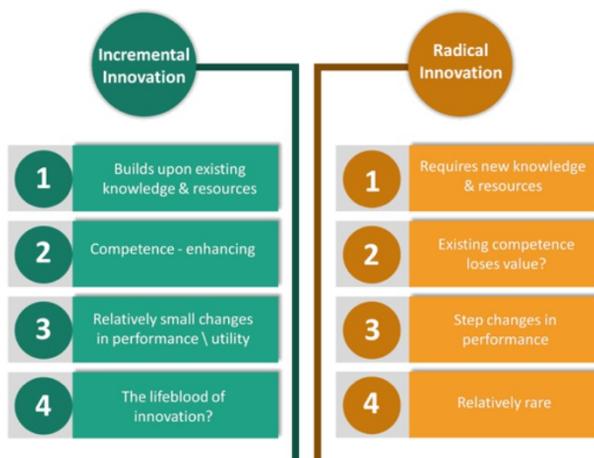
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- New (related) category entry
 - Leveraging the brand into new but related categories e.g., Snickers into ice-cream
- Additions to existing product lines
 - Line extensions and flankers that flesh out the product line in the current markets e.g., Up&Go reduced sugar line, Coke No Sugar, Coke Life
 - Stretch up or down – entry level vs premium level
- Improvements and revisions to existing products
 - Current products made better e.g., Heinz baked bean line redevelopment, P&G's continuing improvements to detergents – extra enzymes, packaging changes that improve use

Incremental can also include...

- Repositioning (brand and product):
 - Brands that change their positioning and target market and hence need to refresh or rebadge products
 - Products that are retargeted for a new use or application
 - Also includes retargeting to new users or new geographies markets
 - E.g., Volvo repositioned as innovative
 - Dove repositioned to real people 'it's ok to be me' 'I'm beautiful as I am'
 - Coco-Pops repositioned as an adult cereal
- Cost reductions:
 - New products that provide the customer similar performance but at a lower cost
 - May be more of a 'new product' in terms of design or production
 - E.g., Datsun Go, fat replacement in cookies

RADICAL AND INCREMENTAL HAVE IMPLICATIONS FOR FIRMS



Section Summary

- Firms need to balance their product development efforts and link it to growth strategies and the product innovation strategy
- Balanced (in market) Product Portfolio – a product strategy in which a firm balances the combination of new, growing, and mature products

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- Balanced NPD portfolio – a product strategy in which a firm balances the development of radical, really new, incremental, cost reduction new product projects to support the product strategy

PART 3: SUCCESS FACTORS IN NPD

BEING SUCCESSFUL?

- A big part of managing PI and NPD is trying to understand how to be successful?
- There is a history in the literature, consulting, and in companies of unpacking those things that drive success – we need to learn from our product, project and program experiences



PRODUCT LEVEL SUCCESS FACTORS

- USP: A unique superior product
 - A differentiated product that delivers unique benefits and a compelling value proposition to the customer or user
- VoC: Building the voice-of-the-customer – market driven and customer-focused NPD
- Pre-work: Doing the homework and front-end loading
 - Due to diligence, done before Development gets underway
- Definition: Sharp and early product definition
 - Avoid scope creep and unstable specs, leading to higher success rates and faster to market
- Iterations: Iterative or spiral development
 - Build, test, obtain feedback and revise
 - Putting something in front of the customer early and often, to get the product right
- Global orientation: The world product – a global or ‘glocal’ product concept (global platform, locally tailored)
 - Targeted at international markets (as opposed to the product designed to meet home-country needs)
 - Online platforms e.g., Amazon means we are often global from the start
- Launch: A well-conceived, properly executed launch
 - A solid, properly resourced marketing plan is at the heart of an effective launch

WHY PRODUCTS FAIL

- Lack of customer or user inputs and insights
- Weak front-end homework – market, consumer and technical assessment
- Me-too, ho-hum, trivial products, no need/want being satisfied
- Unstable product specs and project scope creep – what it started out as and what it should be delivered is no longer the project product by the time it gets to the marketplace
- Lack of continual ‘so what’ assessment
- Too many projects in the pipeline and no focus
- Lack of manager competencies, skills and knowledge

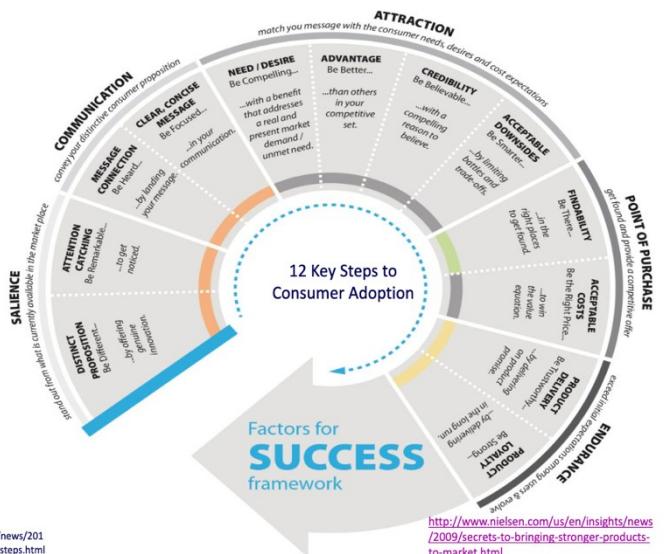
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- Dysfunctional project teams and lack of inter-functional cooperation

NIELSEN REVOLUTIONIZES WAY COMPANIES APPROACH PRODUCT INNOVATION (US)

- Companies spend on average \$15 million on marketing for a new product launch – some spending more than \$60 million
- With Nielson's new approach based on tracking 600 product launches and testing 20,000 initiatives success rates can move from 10% to 75%

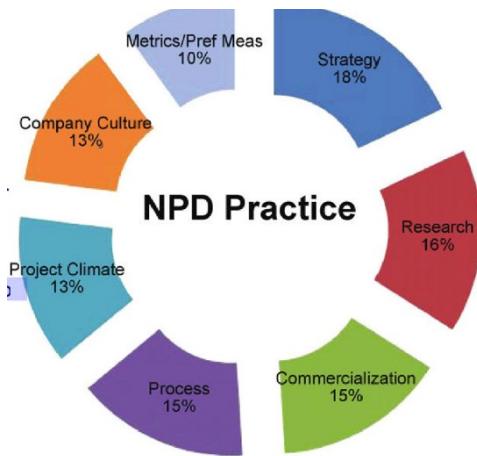


ts/news/201
ry-steps.html

<http://www.nielsen.com/us/en/insights/news/2009/secrets-to-bringing-stronger-products-to-market.html>

PDMA: 7 CRITICAL PROGRAM LEVEL SUCCESS DIMENSIONS OF NPD

- Used Delphi methodology with leading experts to derive dimensions
- A survey involving over 300 NPD practitioners who were asked to divide 100% of perceived importance across the seven dimensions



- Strategy
 - What is product development supposed to do for the firm?
 - What goals is being set?
 - What markets and consumers are we going after?
- Research
 - Make sure we understand the way the market is changing
 - What are the competitors and consumers doing?
 - What are the latest customer needs?
- Commercialisation
 - Strategies to commercialise their products
 - Advertisement, brand name, media choices

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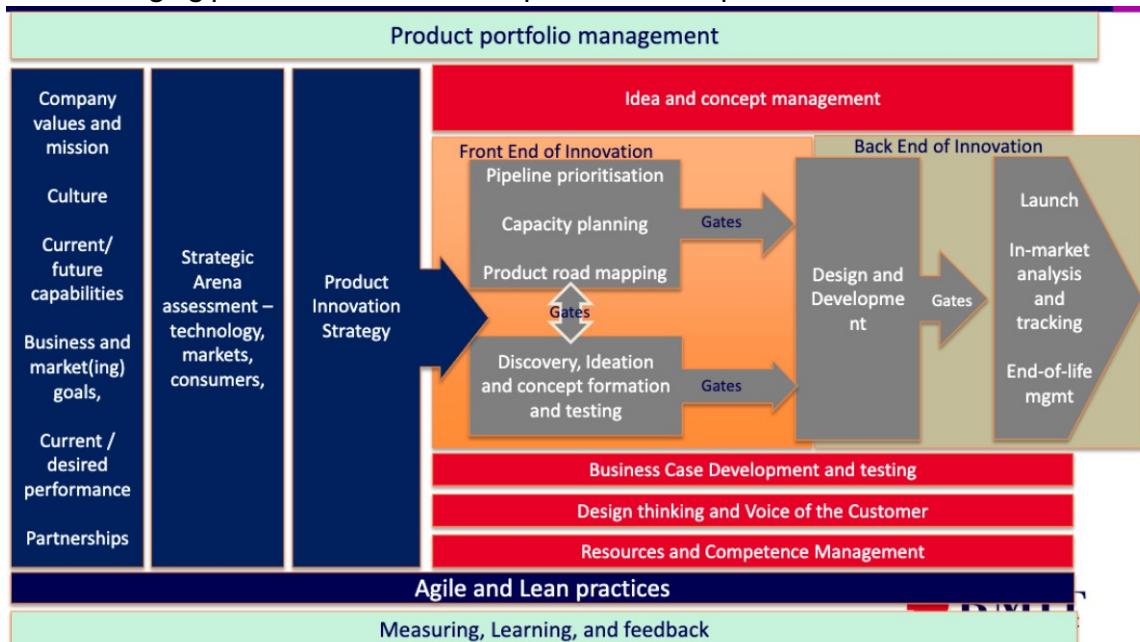
- Sales promotion
- Process
 - Designed specifically for the firm that makes sure that the front-end innovation is well executed and back-end (development of physical product)
- Project Climate
 - How well the organisation constructs, manages and rewards teams
- Company Culture
 - How well is the company's culture designed to support innovation?
- Metrics
 - What metrics/performance measures are in place to measure progress

SECTION SUMMARY

- We need to understand best practice in developing new products, managing NPD processes, and develop an innovation capable firm

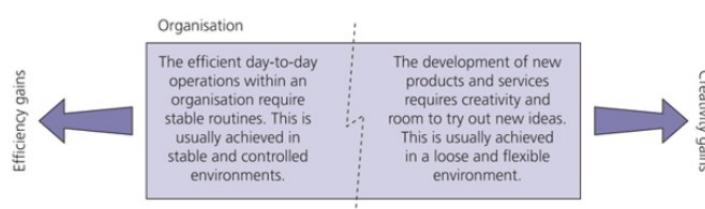
PART 4: A FRAMEWORK FOR THE COURSE

- Our framework highlights those best practice elements we need to consider when managing product innovation and product development



SUMMARY

- Product innovation and its management extends from the very minor adjustment to existing products (goods and services) through to development of radical new solutions to existing and latent problems
- Many tensions exist in the process of managing and executing I, PI, and NPD



- Firms try to balance many competing elements to be successful

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- Risk vs reward
- Capital investments vs payback and ROI
- Discontinuous vs sustaining innovations
- Being entrepreneurial – small vs large firms
- Front end vs back end of innovation
- Process management vs creativity

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WEEK 2: PRODUCT AND INNOVATION STRATEGY AND THE NPD PROCESS

PART 1: IMPORTANCE AND CONNECTEDNESS OF INNOVATION STRATEGY

THE LAYERS OF STRATEGY

- Strategy has layers and is interconnected
- Product Innovation strategy is connected through all of these layers

Corporate level strategy	This level answers the foundational question of what you want to achieve - growth, stability, or retrenchment? What mix of businesses will you have?
Divisional or Business unit level strategy	This level focuses on how you're going to compete as a business unit - through customer intimacy, product or service leadership, or lowest total cost? What is differentiation based on?
Product level strategy	A product level strategy lays out a coherent approach to improve competitiveness, increase customer satisfaction, and maximize income for products and product lines.
Market level strategy:	This level focuses on how you're going to grow. Will it be through market penetration, market development, product development, or diversification?

- E.g., Apple
 - Divisions and business units
 - Services, App store, ApplePay, iCloud, and Apple Music
 - Products – Product mix decisions
 - Product Level Strategy
 - Mac strategy
 - iPhone strategy
 - iPad strategy
 - Other products – Apple TV, iWatch, headphones, cases, displays, storage devices and various other connectivity and computing products and supplies
 - Product line level
 - iPhone 12 Pro
 - iPhone 12 Pro Max
 - iPhone 12 mini
 - iPhone 12 – product differentiation
 - iPhone SE (2020)
 - iPhone 11 Pro
 - iPhone 11 Pro Max
 - iPhone 11

WHY AN INNOVATION STRATEGY IS IMPORTANT

- One of the major contributors to product innovation failure is the lack of an innovation strategy that is clearly connected the firms' vision, goals and objectives (Pisano, G 2015)

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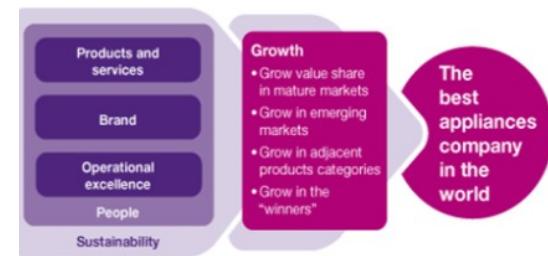
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THE PROBLEM	THE SOLUTION	THE STEPS
Innovation remains a frustrating pursuit. Failure rates are high, and even successful companies can't sustain their performance. The root cause is that companies fall into the trap of adopting whatever best practices are in vogue or aping the exemplar innovator of the moment.	Managers should articulate an innovation strategy that stipulates how their firm's innovation efforts will support the overall business strategy. This will help them make trade-off decisions so that they can choose the most appropriate practices and set overarching innovation priorities that align all functions.	Creating an innovation strategy involves determining how innovation will create value for potential customers, how the company will capture that value, and which types of innovation to pursue. Just as product designs must evolve to stay competitive, so must innovation strategies as the environment changes.

INNOVATION STRATEGY

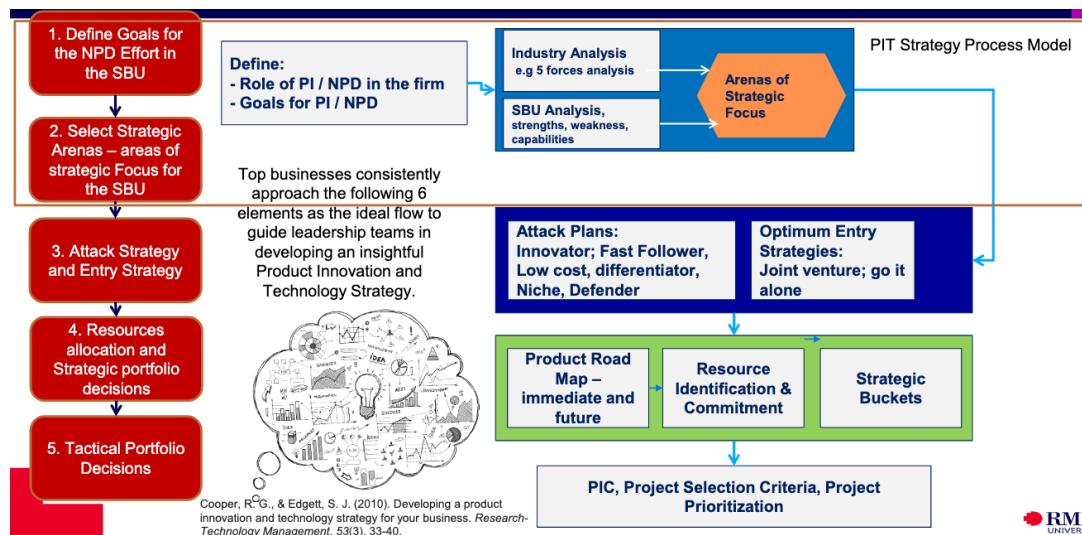
- An innovation strategy in business is defined as a commitment to a common innovation vision, mission, and goals, and a structured set of activities designed to support the future growth of an organization
 - It should be clearly connected the business or business units' vision, mission, strategy, goals and objectives
 - It should be clear connected to the analysis of the future of a market or industry e.g., GM and Electric vehicles
 - It should outline the goal of an organization's innovation activities and define the key initiatives that will help it achieve that goal
 - It should create buy-in from stakeholders is essential...all those who will contribute to its implementation need to understand and support it
- The innovation strategy should be simple, clear, and easily understood by everybody involved – concise, actionable, and accessible for the entire business

With innovative products under a strong brand in the premium segment and by leveraging the Group's global strength and scope, Electrolux aims to create a platform for profitable growth



[Electrolux strategy - Electrolux Annual Report Financial review \(electroluxgroup.com\)](#)

PRODUCT INNOVATION AND TECHNOLOGY STRATEGY REQUIREMENTS ANALYSIS



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EXAMPLE: GM TRYING TO RESHAPE ITSELF

- Suffers high costs, reduced sales in main markets, increased global competition

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- They had to rethink their business model
 - How to leverage global growth
 - Lower the cost of their profile and improve their margins, secure supply and distribution lines
- The redesign was built around:
 - Vision – a clear vision statement
 - Design – innovation statement and signal to the market that needs to fulfilled
 - Build – push to improve the manufacture of the vehicles at cost effective ways
 - Sell – having a clear brand strategy and clear in the way different products are positioned
 - Reinvest – recognition that they need to reinvest even though the business cycle may be challenging

MOST RECENTLY (2021)

- Beneath a banner proclaiming “Zero Crashers, Zero Emissions, Zero Congestion,” General Motors’ CEO Mary Barra announced her company’s plan to produce 100 percent electric vehicle by 2035, the most sweeping overhaul of any major global automaker in the history of the industry
- While the wisdom and strategy can be debated, there is no arguing the fact that GM’s decision to wean itself — and the world — off of fossil fuels will have tectonic effects that will be felt far beyond Detroit, and will take along for the ride scores of ancillary businesses that keep America’s love affair with the automobile rolling
- From gasoline stations and the refineries that supply them, to oil changes (EVs don’t need them), charging stations, power plants, factory rebuilds, battery sourcing and recycling, GM’s extreme makeover is predicated on a holistic redesign and worldview
- By embracing the dual EV and AV strategies, GM has given a de facto endorsement to the changing dynamics that have made segment leader Tesla the behemoth it is today — its \$750 billion market value is about 10 times that of GM’s

THE EV PUSH GENERAL MOTORS’

- General Motors is shifting into overdrive on electric vehicles to carve out a bigger share of that market, with plans for dozens of new models, redeployment of engineers to a dedicated electric vehicle division and committing \$27 billion for battery and autonomous technology development to overtake Elon Musk’s Tesla

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- GM Sets sights on overtaking Tesla with \$27 billion push for EV market dominance

BY THE NUMBERS:

GM INVESTS IN A ZERO-EMISSIONS FUTURE

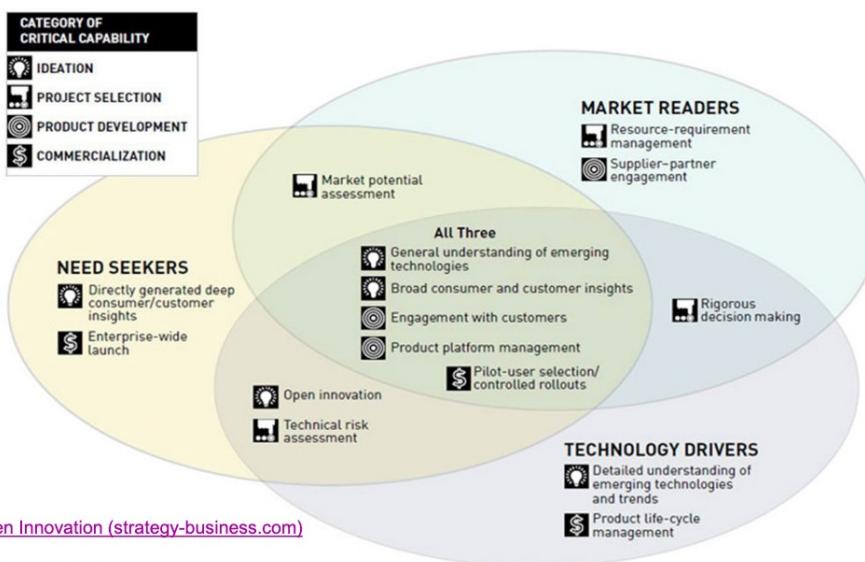


INNOVATION STRATEGY AND BUSINESS STRATEGY

- Innovation Strategy x Business Strategy shapes the innovation capabilities needed by a firm

Critical and Specific Capabilities by Strategy

The top-performing companies in each of the innovation strategies, whether they were classified as Need Seekers, Market Readers, or Technology Drivers, all agreed on a shared set of critical innovation capabilities, but for each of the three strategies, a distinct set of capabilities - such as resourcing-requirement management and supplier-partner engagement for Market Readers - ranked among the most critical.



Source: Strategy&

- All of these firms, regardless of what their strategy is have to affect capabilities
 - General understanding of emerging technologies
 - Broad consumer and customer insights
 - Engagement with customers
 - Product platform management

PART 2: GROWTH STRATEGIES AND PRODUCT INNOVATION

- Firms need to consider their approach to growth and balance current products and their lifecycles with new products

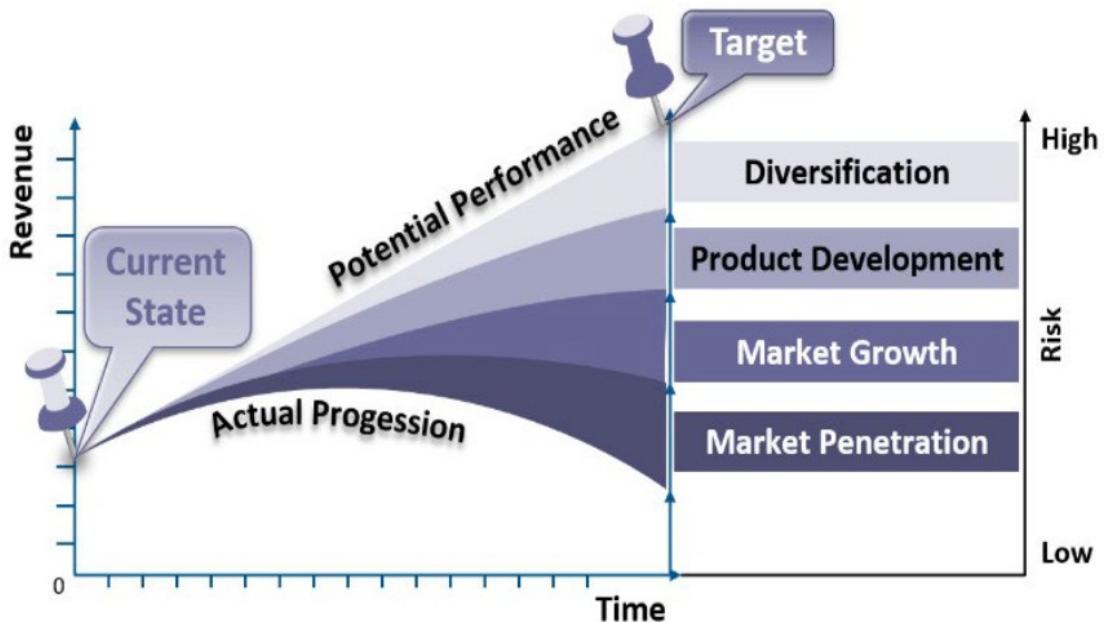
FIRM AND PRODUCT GROWTH STRATEGIES AND IMPLICATIONS FOR PRODUCT INNOVATION

- The Ansoff Matrix, also called the Product/Market Expansion Grid is a tool used by firms to analyse and plan their strategies for growth
- Can close the gap between current and desired future performance in many ways

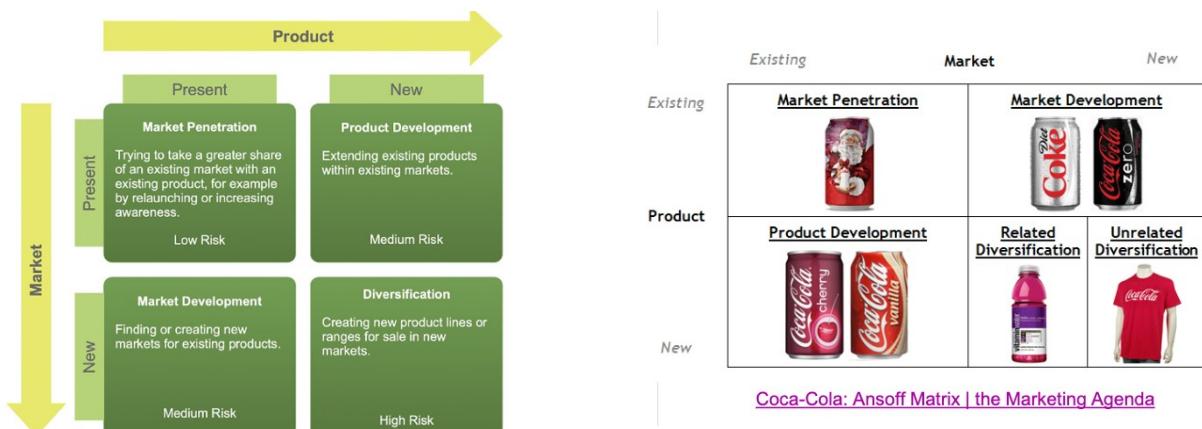
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- Diversification
- Product development
- Market Growth
- Market Penetration



ANSOFF GROWTH VECTOR MATRIX



- Market penetration
 - How well you currently distribute in your current market
 - How you run your communication campaigns
 - Trying to find new benefits to sell for existing products
 - Product renovations e.g., package change
- Market development
 - Find new marketplaces to go to with the current products that aren't sold in
 - Find marketplaces that have growth available to them and not hugely competitive
- Product development
 - Developing variations of products
 - Extending product lines – stretching
 - New product but is related to existing market/customers
- Diversification

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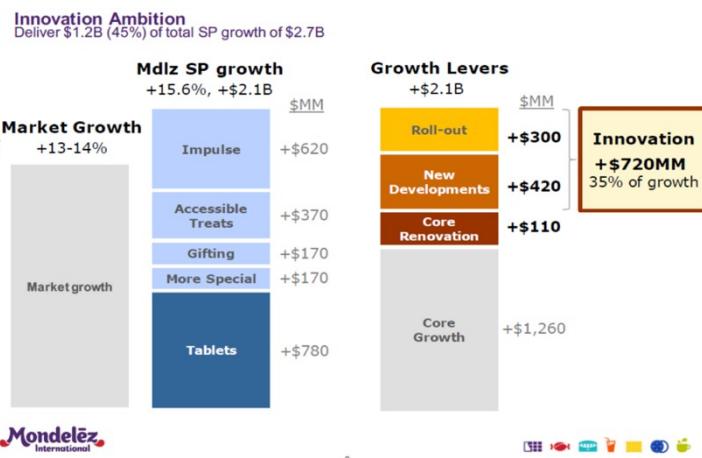
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- o Related
 - Leveraging capabilities – e.g., snickers bar into an ice-cream
- o Unrelated
 - Completely unrelated, no competence in the area
 - Huge risk
 - E.g., Mars bar into running shoes

BALANCED PORTFOLIO - INNOVATION TYPES

Type	Definition	Characteristics	Examples
Geographic Expansion	1. Geogr. expansion of established core brand 2. Geogr. expansion of proven innovation 24+ mths after first launch	Moving proven Global/ Regional Brands or new products into new countries, that leads to incremental revenue	
Transformational		Completely new product addressing unmet consumer need or entry into new categories. Establishes multi-item platform. Ability to evolve into new spaces or usage occasions. Usually new brand/sub-brand	
Adjacency	New product launched in addition to existing portfolio	Intended to be a multi-year, multi-item that extends the core brand into new territories, new users, or new occasions.	
Line Extension		Close-in additions to current product line for the same consumers and the same occasion/ benefit. Typically variations on flavor, size, shape or package.	
Renovation	Improvements of existing core product	Material improvements providing obvious consumer benefits to existing product line, to drive incremental revenue and/or maintain/improve brand relevance.	

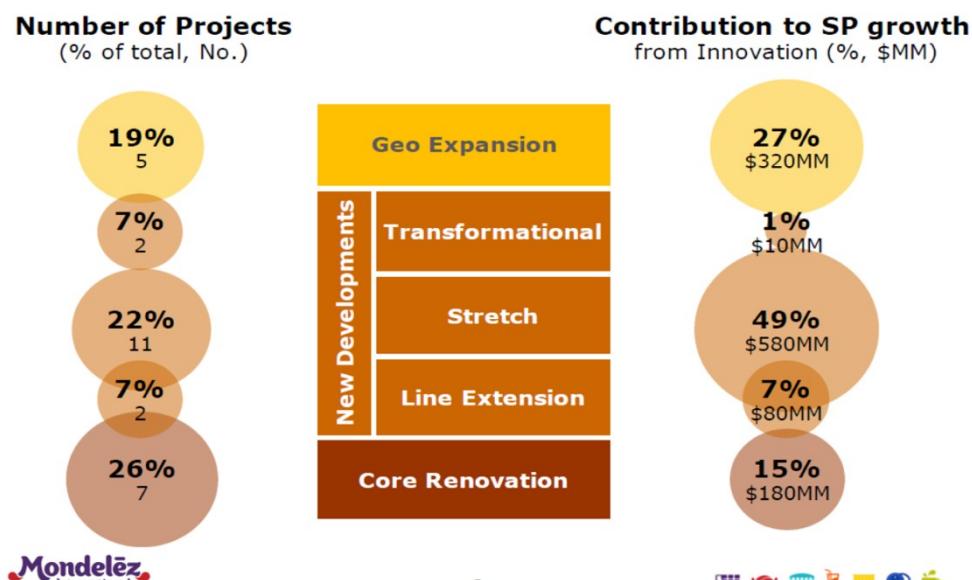
- Geographic expansion
 - o Taking products that are doing well in the markets and roll them out into different markets
- Transformational
 - o Create a new space in a category
 - o Often bringing a new brand into the marketplace
- Adjacency
 - o Going into different territories and have to do minor adjustments to packaging, language
- Line extension
 - o Bringing out different flavours, sizes, shapes
- Renovation
 - o Improvements to existing products



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- Need to know where your growth is going to come from, your goals and the role of innovation



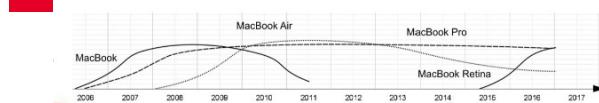
Mondelēz

Brand	Growth Driver	Q1 2013	Q2 '13	Q3 2013	Q4 '13	1H 2014	2H 2014	2015
Dairy Milk	SNACK MORE	SNACK MORE	Bubbly LX		Light Ingredients	Chocobakery Biscuit		Light Ingredients LX
	INDULGE MORE	INDULGE MORE	Cake Block Mousse LX Block Mousse Bar Launch TBC			Mousse Layer LX Mousse Layer Bar	Chiller	Cake LX
	SHARE MORE	SHARE MORE	Flow Wrap, Deletions & Core LX		Pre-Teens	Marvellous Creations LX		Pre-Teens LX
								ChocSavoury LX
Cadbury	SHARE MORE	SHARE MORE			ChocSavoury Bitesize			
	INDULGE MORE	INDULGE MORE	Cherry Ripe ROL & Format Cherry Ripe Bitesize			Cherry Ripe ROL		Cherry Ripe Format
	SNACK MORE	SNACK MORE	Crispello Crispello		Multipacks LX	Boost Format		Crispello LX Boost ROL
	GIFT MORE	GIFT MORE	Boost ROL		Favourites LX	Cadbury Everyday		Favourites More Special

- Push the horizons and have discipline
- Sense of where product activity is taken place and how they are going to roll out over time so that there is always something happening at some point in time but not overwhelming the market

PRODUCT LIFESTYLE CONCEPT

- How do we build and sustain growth for our products e.g., iPhone, Tim Tams?
- The concept of the PLC forms part of our thinking
- Phases of introduction, growth, maturity and decline with any product
 - Try to drive a level of investment that we made in innovation



This document is available on



Product Lifecycle Management – keeping MacBook alive through innovation and model replacement

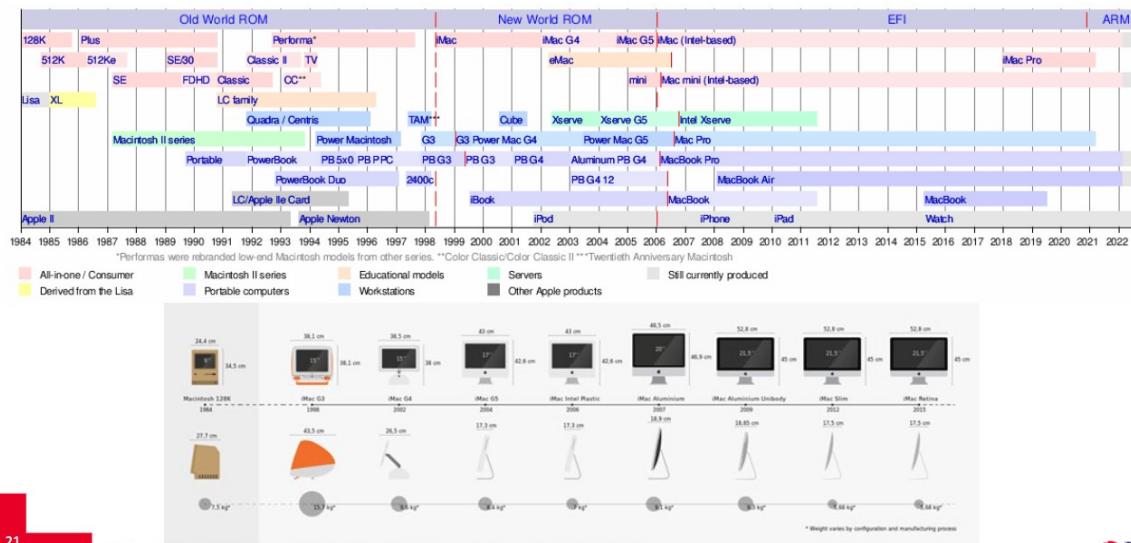
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- Over the introduction phase trying to recoup some of the costs associated with developing anything new, driving cash flow and sales (achieve a level of profitability)
- Challenge of the lifecycle – competition is fierce therefore lifestyles of new products/versions are always shortening considerably

EXAMPLE: APPLE MACINTOSH TIMELINES



21

apple-history.com/specs for every apple computer, established 1996

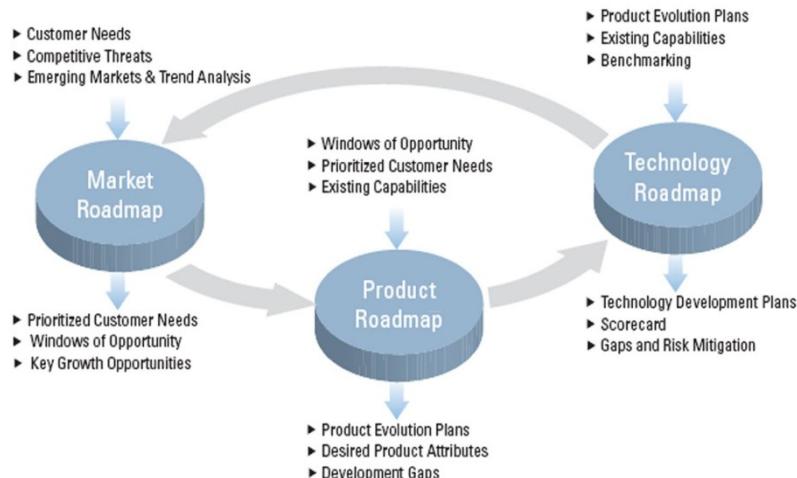
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- The Mac Pro coming out in 2006 and has been refreshed – screen sizes and aesthetics
- Always thinking about the lifestyle of the product and how to roadmap that forward to achieve the goals set for the product and contributes to overall firm performance

PART 3: PRODUCT ROAD MAPPING

ROAD MAPPING

- The process of road mapping involves capturing strategic information on a timeline – how the business wants to develop
 - How to unfold the future of the things done in the business
- This information relates to business vision, objectives, strategies, market requirements, product or service plans, technologies, and capabilities
- The collected data is then fed into various roadmaps
 - Market
 - Product platform development
 - Product – evolution and release maps
 - Technology



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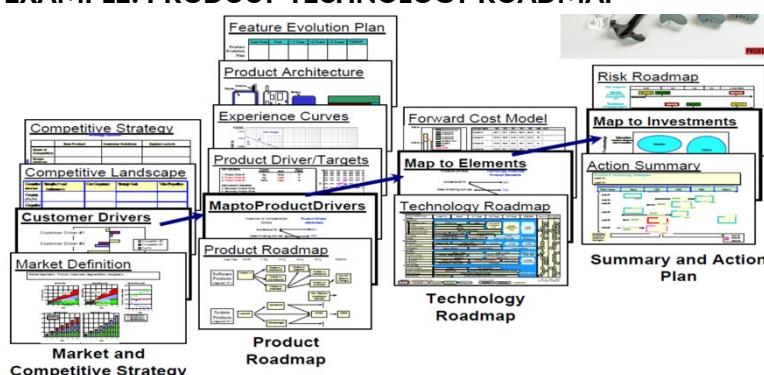
- Market roadmap:
 - Customer needs – what we know and how that will play out overtime
 - Competitive threats
 - Emerging markets and trend analysis – priorities
- Product roadmap:
 - Product evolution plans that desired attribute are going to appear in a product overtime
- Technology roadmap:
 - What technology development/RND need to be in place to support that
 - E.g., iPhone aesthetics – change material

EXAMPLE: APPLE PRODUCT MIX

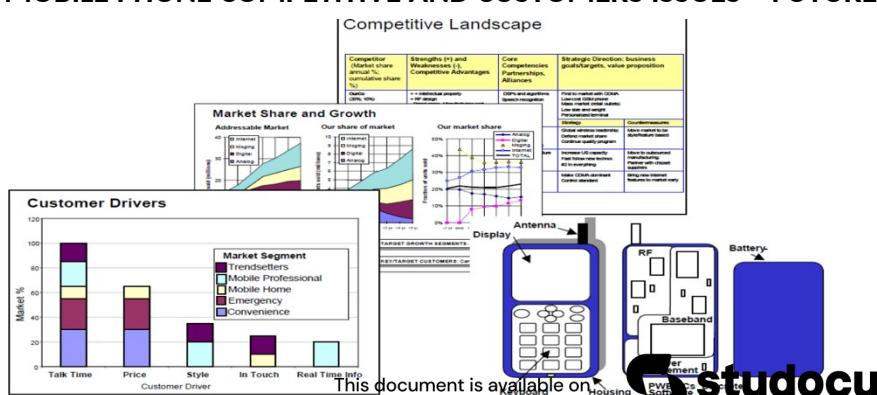
- iPhone is the only one product line the overall product mix
- the iPhone needs a roadmap
 - How will it evolve to be competitive and solve customer pain points?

Apple Inc.					
iPhones	iPads	Macintosh	Apple Watch	TV	Music
iPhone 11 Pro	iPad Pro	MacBook Pro 13"	Apple Watch Series 5	Apple TV+	Apple Music
iPhone 11	iPad Air	MacBook Pro 16"	Apple Watch Studio	Apple TV pp	AirPods Pro
iPhone SE	iPad	MacBook Air	Apple Watch Nike	Apple TV 4K	AirPods
iPhone Xr	iPad mini	Mac mini	Apple Watch Hermes	Apple TV HD	HomePod
		iMac	Apple Watch Edition	AirPlay	iPod touch
		iMac Pro	Apple Watch Series 3		Beats

EXAMPLE: PRODUCT-TECHNOLOGY ROADMAP

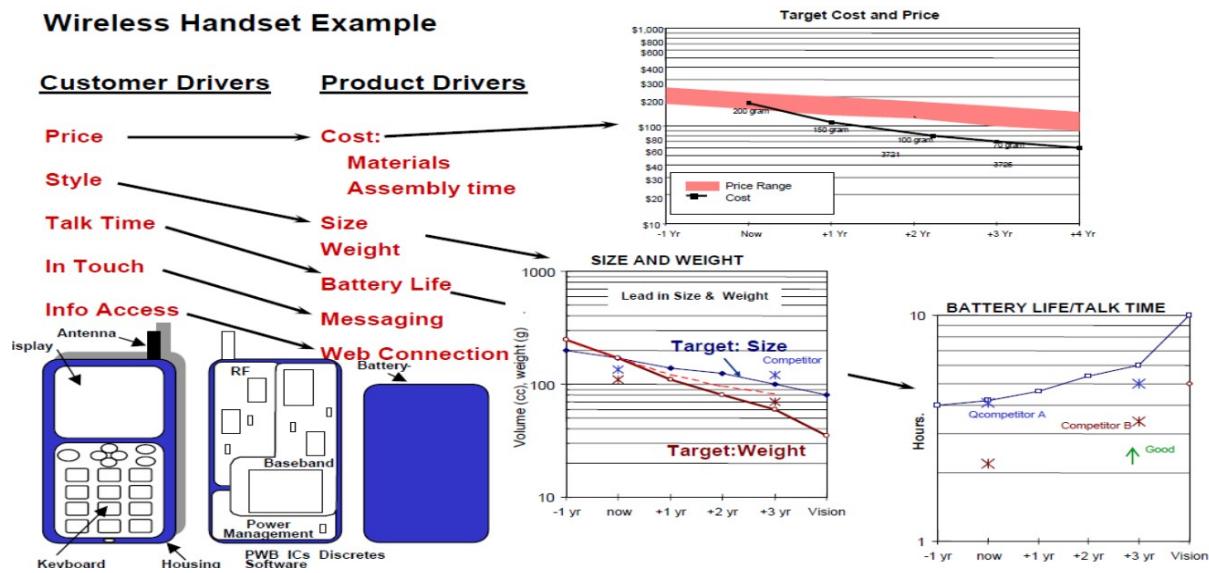


MOBILE PHONE COMPETITIVE AND CUSTOMERS ISSUES – FUTURE FOCUSED



MKTG1092 - PRODUCT INNOVATION MANAGEMENT
WEEK 2: PRODUCT AND INNOVATION STRATEGY AND THE NPD PROCESS

PRODUCT ROADMAP: PRODUCT DRIVERS LINK CUSTOMER NEEDS TO TECHNOLOGIES AND TARGETS



- Customer drivers can map out into product drivers

ROADMAPS AND THEIR BENEFITS

- Roadmaps link business strategy and market data with product and technology decisions using a series of simple charts
 - Mental map to keep teams/managers on track
- Roadmaps reveal gaps in product and technology plans
- Roadmaps prioritize investments based on drivers
- Road mapping helps set better targets: more competitive and more realistic
- Sharing roadmaps allows strategic use of technology across product lines
- Road mapping communicates business, technology and product plans to team members, management, customers and suppliers – key stakeholders
- Roadmaps provide a guide to the team, allowing the team to recognize and act on events that require a change in direction

SUMMARY

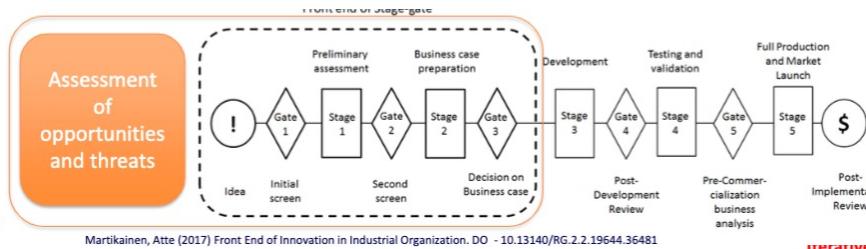
- Gary Pisano (2015) says it best...
 - "...Without innovation strategy, innovation improvement efforts can easily become a grab bag of much-touted best practices: dividing R&D into decentralized autonomous teams, spawning internal entrepreneurial ventures, setting up corporate venture capital arms, pursuing external alliances, embracing open innovation and crowdsourcing, collaborating with customers, and implementing rapid prototyping, to name just a few
 - There is nothing wrong with any of those practices per se. The problem is that an organization's capacity for innovation stems from an innovation system: a coherent set of interdependent processes and structures that dictates how the company searches for novel problems and solutions, synthesizes ideas into a business concept and product designs, and selects which projects get funded"

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

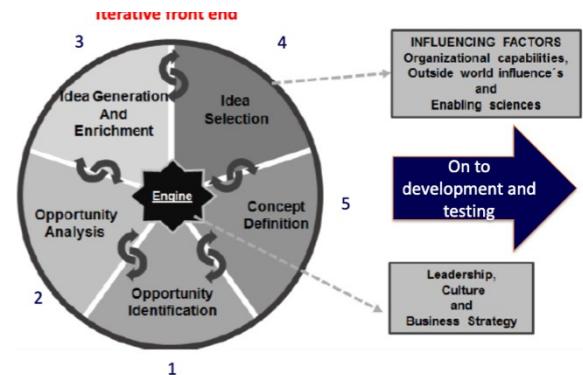
PART 1: THE FRONT END OF INNOVATION (FEI)

- Front End Innovation is the starting point where opportunities and threats are identified, ideas and solutions are raised and concepts are developed prior to entering the formal product development process.
- Front End process allows for creativity and value creation in a systematic manner different from the formal back-end development process
- It has been identified as a major success factor for product innovation



KOEN'S NEW CONCEPT DEVELOPMENT MODEL

- FEI consists of:
 - Opportunity (and threat) identification
 - Opportunity analysis
 - Idea generation, assessment and enrichment
 - Idea selection – screening and prioritising
 - Concept definition, enrichment and evaluation



FRONT END OF INNOVATION AND ACTIVITIES

- Discovery/Opportunity and threat identification and analysis
 - Strategic Market Analysis
 - Macro environmental trends – opportunities and threats
 - Micro environmental trends – opportunities and threats
 - Market landscape and frameworks
 - Customer/consumer analysis
 - Product Innovation Charter forming
- Idea generation, enrichment, selection
 - Idea Generation
 - Customer orientated
 - Technology orientated
 - Cost orientated
 - Idea assessment
 - Attractiveness risk
 - Alignment with existing projects
 - Project portfolio update
- Concept definition, testing and specification development
 - Market analyses
 - Product concept
 - Product planning
 - Number of pieces
 - Product costs
 - Timing

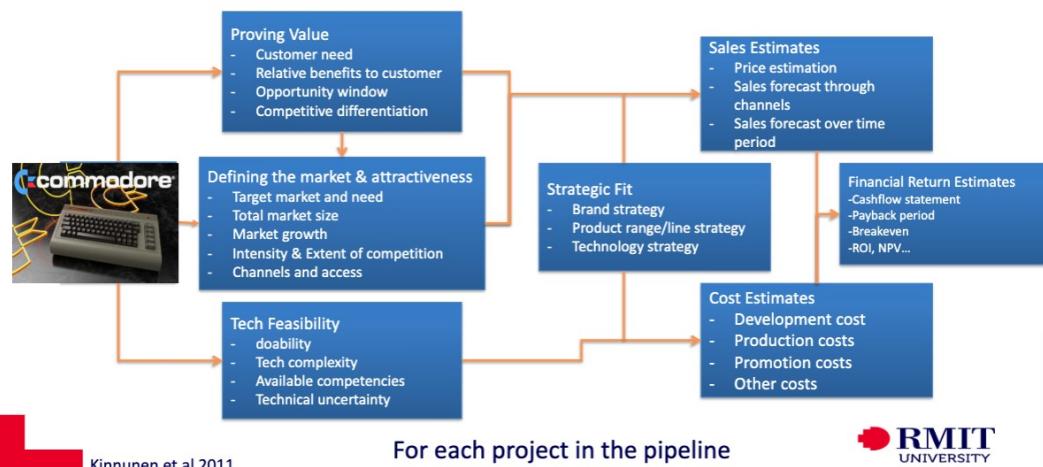
MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

- Investment
- Project costs
- Product specifications
- Product architecture

Back End of Innovation

- Prototyping, development, commercialisation
 - Development according to inputs of phase II
 - Cross-functional project teams
 - Design reviews
 - Industrial design
 - Building and testing prototypes
 - Market tests
 - Final design
 - Preparation for serial production
 - Start of production
 - Market introduction
 - Market penetration
 - Continuous product verification



THE FEI IS A CRITICAL PHASE FOR BUILDING THE BUSINESS CASE FOR A NEW PRODUCT

GUIDELINES FOR A SUCCESSFUL FEI

1. Guarantee support and commitment of top management
2. Comprehensively assess the micro and macro environment
3. Define a clear and transparent innovation strategy
4. Communicate the value the FEI within the company
5. Ensure the use of synergies in respect to market and technological aspects
6. Focus on developing a market orientation
7. Develop a commercialisation concept for all innovation projects early on
8. Install a performance measurement system
9. Form and use interdisciplinary teams
10. Involve external stakeholders

SUCCESS FACTORS FOR EARLY PRODUCT DEVELOPMENT (FEI)

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WEEK 3: FRONT END OF INNOVATION

	Factor	Key questions	Ideal condition/situation
Evaluating-Phase Success Factors	Environmental scanning and analysis	Has the scanning process provided the necessary environmental knowledge for evaluation?	An effective scanning process exists for integrating broad external information into the project
	Idea visioning and product championing	Is the idea sufficiently visionary to promote ideas to different stakeholders?	Commitment of enthusiasts who enable linkage between project goals and the firm
	Preliminary technology assessment	Is the product's viability attainable based on the technological assessment?	Well defined technical requirements for reducing uncertainty
	Idea refinement	Can the individuals in the project communicate a clear solution?	Systematic approach to idea refinement in place
Defining-Phase Success Factors	Creation of a preliminary product concept	Is it possible to present a robust preliminary product definition for a clear understanding?	Clear visual presentation of early product concept for feedback and development
	Project priorities	Are priorities set for the key product features?	Significantly developed project requirements or priority list that ranks key product features
Formalizing-Phase Success Factors	Screening of the preliminary product Concept	Can the product concept be screened and evaluated?	Effective way to screen obvious no-go projects and go projects
	Cross-functional executive review committee	Is a cross-functional executive review committee involved in the evaluation?	Interests of different department and functional level are captured in the review committee

PART 2: DISCOVERY/OPPORTUNITY IDENTIFICATION AND ANALYSIS

IMPORTANCE OF ASSESSING SWOT/TOWS FOR PI

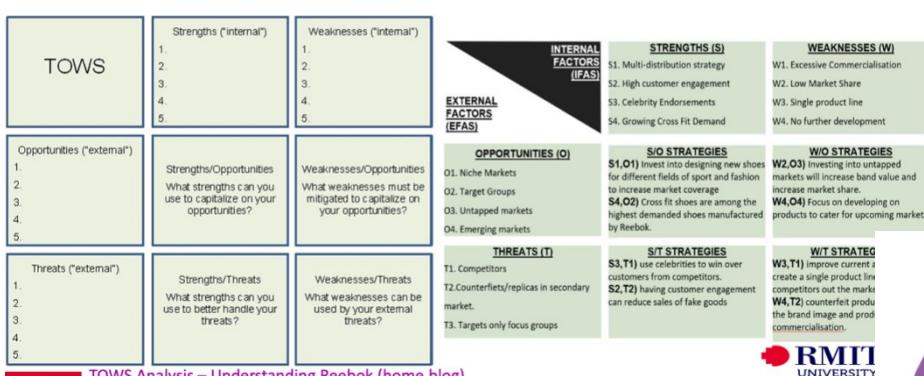
- The FEI starts by analysing our current situation and performance in our markets and categories and with our customers and consumers
- The FEI also requires us to determine where **attractive** new opportunities are and where **significant** threats are
- Effectively we need to undertake a SWOT analysis even before jumping in to coming up with new ideas or starting new product project

SWOT ANALYSIS

Strengths	Weaknesses
<ul style="list-style-type: none"> What do you do well? What unique resources can you draw on? What do others see as your strengths? 	<ul style="list-style-type: none"> What could you improve? Where do you have fewer resources than others? What are others likely to see as weaknesses?
Opportunities <ul style="list-style-type: none"> What opportunities are open to you? What trends could you take advantage of? How can you turn your strengths into opportunities? 	Threats <ul style="list-style-type: none"> What threats could harm you? What is your competition doing? What threats do your weaknesses expose to you?

TOWS

- TOWS extends SWOT by looking to match up the Strengths with Opportunities and the Threats with Weaknesses



RMIT
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THE MARKETING ENVIRONMENT AND PI

This document is available on



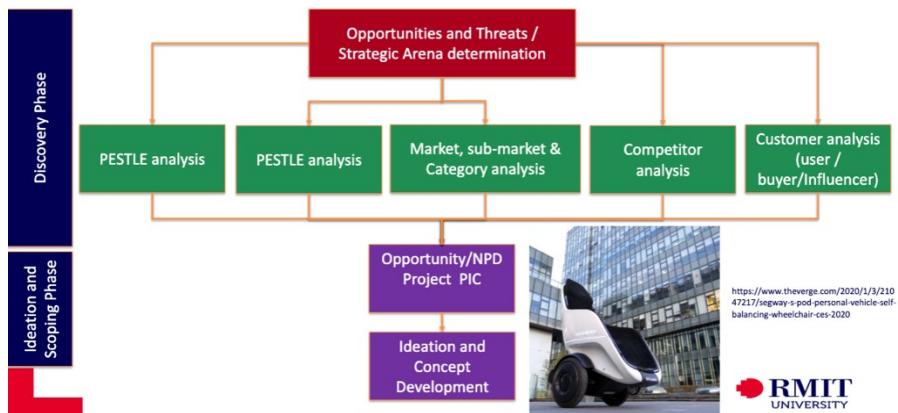
Downloaded by Daniel Wu (ca.danielwu@gmail.com)

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

- We represent the marketing environment as series of layers
- Our product innovation strategy needs to reflect an understanding of each layer
 - Where are the opportunities and threats that promote or inhibit our ability to achieve growth goals?
 - How do the strength and weaknesses relate to our own abilities?
- All of these issues impact product innovation decisions

TOOLS AND PROCESSES FOR ANALYSING



PESTLE ANALYSIS

- What trends and likely events will influence our product innovation decisions and investments?

PESTLE ANALYSIS

POLITICAL	ECONOMIC	TECHNOLOGICAL	LEGAL	SOCIAL	ENVIRONMENTAL
<ul style="list-style-type: none">• Tax Policy• Trade / Tariffs• Regulation• Policy• Immigration• Defense / Wars	<ul style="list-style-type: none">• GDP Growth• Income / Wages• Business Cycles• Interest Rates• Monetary Policy• Inflation	<ul style="list-style-type: none">• Human Rights• Infrastructure• Political Structure• Corruption / Graft• Protectionism• Fiscal Policy / Debt	<ul style="list-style-type: none">• Innovation• Digitization• Robotics• AI / Analytics• Automation• Infrastructure	<ul style="list-style-type: none">• Mobility• 3D Printing• Biotechnology• Miniaturization• Internet of Things• Cloud Technology	<ul style="list-style-type: none">• Risk• Legal System• Litigiousness• Employment Law• IP Protection• Business Law

CSIRO 2022 MEGA TRENDS

- A once-in-a-decade report from CSIRO, Our Future World, identifies seven global megatrends that hold the key to the challenges and opportunities ahead

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION



INDUSTRY ATTRACTIVENESS AND PROFITABILITY



COMPETITIVE RIVALRY

- Includes:
 - Number of competitors
 - Diversity of competitors
 - Industry concentration and balance
 - Industry growth
 - Industry life cycle
 - Quality differences
 - Product differentiation
 - Brand identity/loyalty
 - Switching costs
 - Intermittent overcapacity
 - Informational complexity
 - Barriers to exit
- What trends and likely events will influence our product innovation decisions and investments?

Bargaining Power of Buyers (Consumers, Channels)

- Includes:
 - Buyer volume (number of customers)
 - Size of each buyer's order

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

- Buyer concertation
- Buyer's ability to substitute
- Buyer's switching costs
- Buyer's information availability
- Buyer's threat of backward integration
- Industry threat of forward integration
- Price sensitivity

Bargaining Power of Suppliers

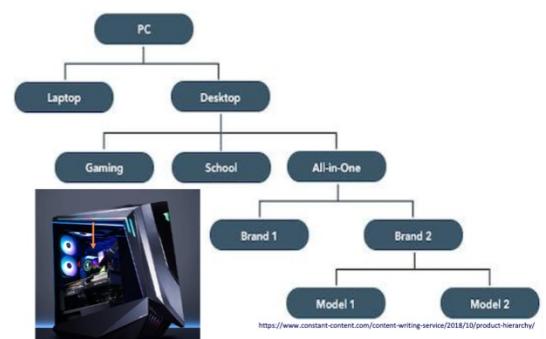
- Includes:
 - Number of suppliers
 - Size of suppliers
 - Supplier concentration
 - Availability of substitutes for the supplier's products
 - Uniqueness of supplier's products or services (differentiation)
 - Switching costs for supplier's products
 - Supplier's threat of froward integration
 - Industry threat of backward integration
 - Supplier's contribution to quality or service of the industry products
 - Importance of volume to supplier
 - Total industry cost contributed by suppliers
 - Importance of the industry to supplier's profit

Threat of Substitutes

- Includes:
 - Number of substitute products available
 - Buyer's propensity to substitute
 - Relative price performance of substitutes
 - Perceived level of product differentiation
 - Switching costs
 - Substitute producer's profitability and aggressiveness

Threats of New Entrants

- Includes:
 - Economies of scale
 - Product differentiation
 - Brand identity/loyalty
 - Access to distribution channels
 - Capital requirements
 - Access to latest technology
 - Access to necessary inputs
 - Absolute cost advantages
 - Experience and learning effects
 - Government policies
 - Switching costs
 - Expected retaliation from existing players



PART 3: PRODUCT CATEGORY ANALYSIS

MKTG1092 - PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

- Product managers need to determine whether a category is attractive enough to warrant some level of investment – entry to, new product lines in, extension to lines, refreshment of existing products or even exiting from

CATEGORY ATTRACTIVENESS

- Aggregate structural factors
 - Category size
 - Category growth/growth rate
 - Stage in product lifecycle
 - Sales cyclicity
 - Seasonality
 - Profits and product profitability
- Category factors
 - Threat of new entrants
 - Bargaining power of buyers and suppliers
 - Current category rivalry
 - Pressure from substitutes
 - Category capacity
- PESTLE factors impacting the category

COMPETITION/COMPETITOR ANALYSIS

- Competitor analysis is an important part of industry, market and category analysis
- A competitive analysis is a strategy that involves researching major competitors to gain insight into their products, sales, and marketing tactics
- Competitive market research focuses on finding and comparing key quantitative metrics and qualitative insights that help identify differences between your products and services and those of your competitors
- Comprehensive market research helps establish the foundation for an effective product innovation strategy and marketing and sales strategy that helps your company, brand or products stand out from crowded markets crowd

Benefits of a Competitor Analysis

- Helps you identify your product's unique value proposition and what makes your product different
- Enables you to identify what your competitor is doing right and wrong
- Tells you where your competitors are falling short – which helps you identify areas of opportunities
- Learn through customer reviews what's missing in a competitor's product
- Provides you with a benchmark against which you can measure your growth

DIRECT COMPETITION ANALYSIS AND MAPPING

- We can also look at competition in a category by mapping it in the context of a category or market

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

	Casual sharing	Personal Scoffing	Traditional	A step above	Formal	Extra special
OVERVIEW	A casual range of crowd pleasers for adults and or kids	A casual range of portion sized unwrapped treats	The old and a little conservative favourites	A step up in quality a smoother more creamer taste	A real step up – a special purchase used for gifting	Unique hand made quality chocolates - the best you can get
SEMIOTICS – signs and symbols	Accessible looking packaging with colour and variety Typically Individually wrapped	Portion sized Unwrapped Slender smaller portioned boxed Uniform product Everyday looking packaging	Everyday brand largely mimics the semiotic rules of the Extra Special (yet the masterbrand with strong heritage and highly aligned to everyday)	A step up from everyday packaging, cleaner lines less cluttered Hints of gold and embossing Tray format	Showy sophisticated packaging (cleaner/less cluttered, embossed, gold, cursive font) Tray format	Gift looking in nature Simple plain packaging Subtle understated rather than glitz and glam
PRIMARY USAGE	Casual sharing and entertaining Gifting for casual adults and kids Family sharing – casual, scoffing Stocking fillers, Snacking	Scoffing by self or with partner Casual gifting (i.e. for Dads)	For adults when they are looking for something a little bit more special Gifting for men , the safe option (i.e. for the boss)	Adult savouring by self or with partner	Formal sharing - dinner parties Celebratory and intimate gifts Special and thoughtful treats Looking to impress	Special and intimate Gifts For close girlfriends / friends
KEY BRANDS	Favourites, Roses and Milk Tray	Nestle Scorched Almonds and Whitakers Sampler	Cadbury Continental	Ferrero Rocher and Lindt Lindor	Lindt Swiss, Guylian, Bennetts	Montblanc, Devonport
PRODUCT	Good tasting, consistent chocolate - milder, everyday flavours		A more refined and smooth taste, indulgent and decadent flavours, European or handcrafted			
	THE BULK OF THE MARKET PURCHASED MOST FREQUENTLY			LESS FREQUENTLY PURCHASED		

PART 4: THE PRODUCT INNOVATION CHARTER

CHARTERING FOR IDEATION

- A PIC is a document prepared by management designed to provide guidance on the role of innovation for strategic arena or a product/market opportunity
 - Can focus on an area (a customer trend e.g., wellness, veganism, a new geographic market e.g., Melbourne, Singapore) or a specific opportunity (e.g., energy snacks for long distance runners)
 - Sets the NPD group/team goals and objectives
 - Charts the group's/team's direction
 - Tells the group how it will play the game

PIC SECTIONS

- Background
- Focus
- Goals and objectives
- Guidelines

Background

- The background of a PIC includes key points from a PESTLE analysis and situation analysis
- Questions address in this section of a PIC may include:
 - what is the business about?
 - Why has this strategy been developed?
 - What is the core opportunity?
- E.g., Corning Context
 - Dual working households have increased over the last decade and parents are very stressed for time at home
 - The advent of frozen foods and other conveniences are changing the way people prepare and serve food
 - There is an opportunity for an attractive vessel that can go from the freezer to the stove top or microwave to the dinner table in one go

Corning ware has a long association with our kitchens



a
Corning Glass Works develops pyroceram in the 1950s and up front homework looks into market opportunities. After winnowing these down, a kitchenware team is given the following charter.

Product innovation charter

Background
Women are entering the workforce in greater numbers, and are very stressed for time at home. The advent of frozen foods and other conveniences are changing the way people prepare and serve food. There is an opportunity for an attractive vessel that can go from the freezer to the stove top to the dinner table.

Focus
(a) Technology: Utilize the unique thermal properties of pyroceram. Use current glass product manufacturing technologies.
(b) Markets: Home makers in specified income bracket. Must also appeal to large retailers that will be used as channels. Benefit segment is characterized by those who value practical convenience and affordability, without compromising table appearance.

Goals and objectives
Cookware must be attractive and affordable. We intend to build a long-term market, so the sales objectives (specify) in early years will outweigh near term ROI on this launch. We should seek to launch, or be ready to follow up with, an entire line of cookware.

Guidelines
Use current distribution channels. The cookware should fit seamlessly into the kitchen environment (freezer space, stovetop limitation, cleaning, service at the table). Expect to incur large advertising expenditures (specify) to build awareness.

MKTG1092 - PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

Focus

- The focus of a PIC includes the company's core competencies and how best to use the company's core competencies to derive value
- Questions addressed at this stage of a PIC may include:
 - What are your core competencies?
 - What is your competitive advantage and the value that your company can bring to the target market?
 - What are your advantages in relation to your target market's needs, wants and consumption trends?
 - What are your company's marketing capabilities?
- E.g., Corning Ware
 - Technology: Utilise the unique thermal properties of pyroceram,. Use our current glass product manufacturing technologies
 - Markets: Parents and the primary cook in specified income bracket. Must also appeal to large retailers that will be used as channels. Benefit segment is characterised by those who value practical convenience and affordability, without compromising table appearance

Goals and Objectives

- The goals and objectives section describes the company's short term and long term objectives of the new product. The goals and objectives should be measurable

Guidelines

- The guidelines component of the PIC is essentially a road map written by the Product Manager for the entire organisation. It includes the time and entry to market, costs, product quality and so forth
- E.g., Corning Ware
 - Use current distribution channels
 - The cookware should fit seamlessly into the kitchen environment – freezer space, stovetop and microwave limitation, cleaning, service at the table. Expect to incur large advertising expenditures (specify) to build awareness

OTHER RULES OF THE ROAD

- Degree of innovativeness
 - Radical/really new
 - Adaptive product
 - Imitation/emulation
- Timing
 - First to market
 - Rapidly follow
 - Wait until market is open
 - Late entrant
- Misc
 - Avoid certain competition
 - Patentability
 - Product integrity

SUMMARY

- The FEI is a success factor for new products and new product programs

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 3: FRONT END OF INNOVATION

- NPD is underpinned by a research process – primary, secondary, qualitative and quantitative
- The PIC guides a project and team and places some boundaries around what we are prepared to do and how we approach the NPD task

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 4: FRONT END OF INNOVATION CONSUMER INSIGHTS

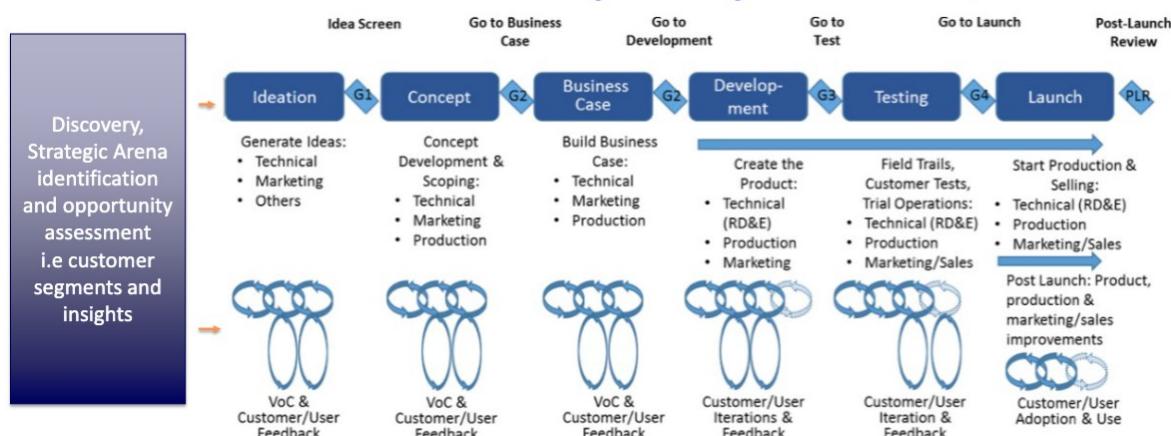
PART 1: FOUNDATION OF NPD RELATED CONSUMER RESEARCH

HEARING AND SEEING YOUR CUSTOMER

- Customer research for NPD is
 - Discovery or acquisition orientated
 - Retention oriented
- The “voice of the customer” is the term to describe the stated and unstated customer needs or requirements
- The voice of the customer can be captured in a variety of ways: direct discussion or interviews, surveys, focus groups, customer specifications, observation, warranty date, field reports, etc

NPD PROCESS AND THE VOICE OF CUSTOMERS

The Customers Voice is ‘heard’ right throughout the NPD process

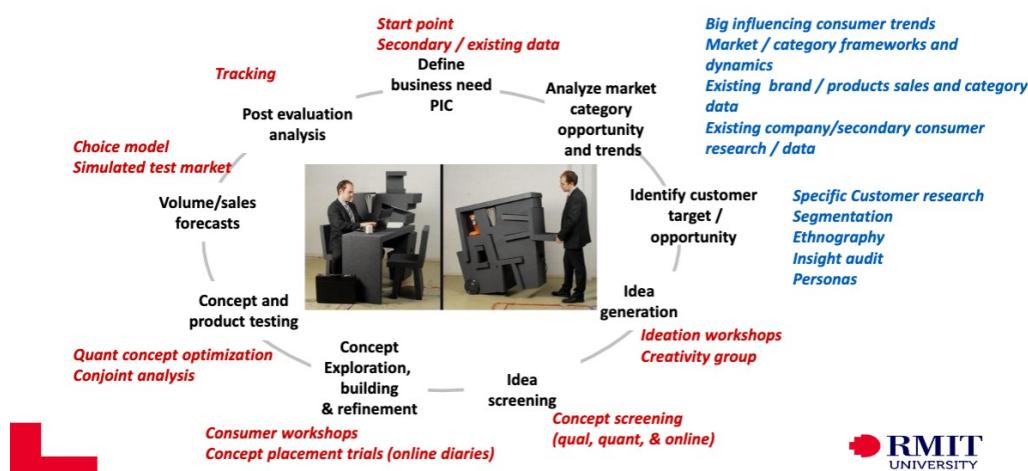


TYPES OF RESEARCH

- Trend analysis (Macro)
 - Broad lifestyle, product need, and behavioural trends
- Quantitative research
 - Consumer/customer segmentation
 - U&A research
- Qualitative research
 - Ethnography
 - Journey mapping
 - Jobs-to-be-done (JTBD) analysis



NPD-RELATED CONSUMER AND PRODUCT RESEARCH CYCLE



MKTG1092 – PRODUCT INNOVATION MANAGEMENT

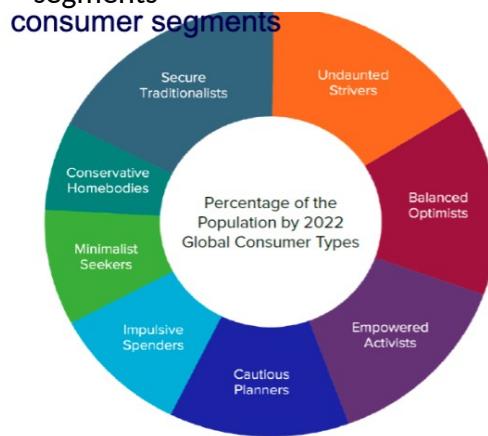
WEEK 4: FRONT END OF INNOVATION CONSUMER INSIGHTS

PART 2: BIG CONSUMER TRENDS

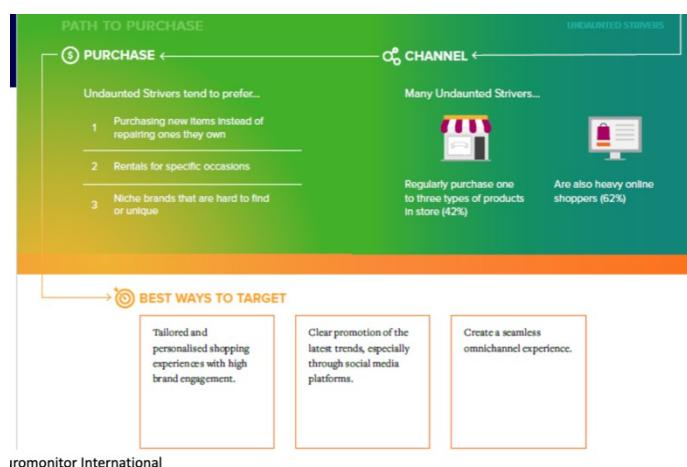
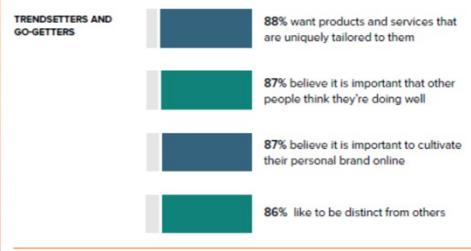
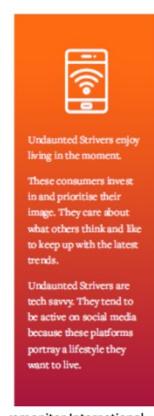
- Are there big global or local trends that will influence our new product development decisions?

FINDING BIG TRENDS CAN HELP US THINK ABOUT CONUSMER DIRECTIONS AND NEW PRODUCTS

- The most recent report from Passport identified the following global consumer segments



Questions that uncover the path to purchase

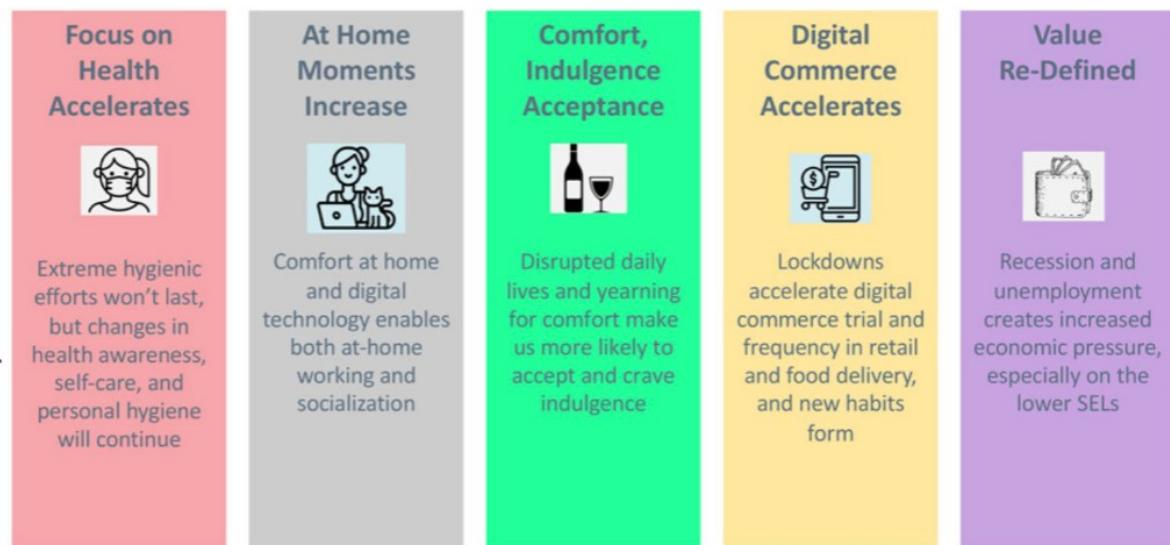


MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 4: FRONT END OF INNOVATION CONSUMER INSIGHTS

BIG GLOBAL LIFESTYLE TRENDS

- Coca Cola has identified five shopper trends that are going to stick around post pandemic



PART 3: CUSTOMER SEGMENTATION

CUSTOMER SEGMENTATION BENEFITS

- Stronger marketing messages
- Targeted digital advertising
- Developing effective marketing strategies
- Better response rates and lower acquisition costs
- Attracting the right customers
- Increasing brand loyalty
- Differentiating your brand from the competition
- Identifying niche markets
- Staying on message
- Driving growth
- Enhanced profits
- Product development

SEGMENTATION – CURRENT CUSTOMERS

- Analysing/reanalysing existing customers (always here)
- Reanalysis of existing customer segments (on our databases) to profile confirm or redefine or uncover new ones
- Ask questions about
 - Who are they demographically
 - What are their transactions
 - Psychographics
 - Needs and benefits sought

SEGMENTATION – POTENTIAL CUSTOMERS

- Analysing the non-captured market and non-customers
 - Discovery orientated – customer acquisition orientated
 - New customers that we haven't target vs
 - Targeting those that are very similar to our customers
- As questions about

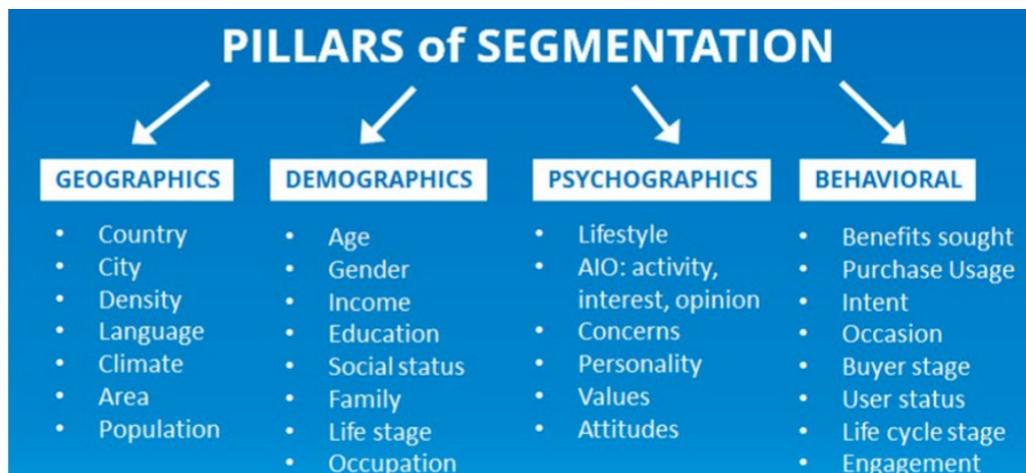
MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 4: FRONT END OF INNOVATION CONSUMER INSIGHTS

- Who buys what
- Who buys most
- What do they want
- What problems are they having
- Who would buy more if better solutions/products are available

BASES FOR SEGMENTATION

- What makes sense for segmenting potential customers (buyers and consumers) in our current project?



CUSTOMER SEGMENTATION QUESTIONS

- We can frame those bases as a series of questions that help us think about each segment and potential products



USEFUL SEGMENTATION

- Regardless of your approach, a useful segmentation should include these six characteristics:
 - Identifiable
 - Substantial
 - Accessible
 - Stable
 - Differentiable
 - Actionable

PART 4: CONSUMER INSIGHTS AND PRODUCT INNOVATION

WHAT CUSTOMERS CANNOT TELL US?

- They generally cannot tell us exactly what products to develop

MKTG1092 – PRODUCT INNOVATION MANAGEMENT

WEEK 4: FRONT END OF INNOVATION CONSUMER INSIGHTS

- Cannot provide reliable information about anything they haven't
- They will rightly or wrongly provide answers to our questions
- Information derived from unknowledgeable customers is at best inaccurate and at worst is an irrelevant fantasy

WHAT CUSTOMERS CAN TELL US?

- Can only provide reliable information about things they are familiar with or have experienced e.g., shaving
 - Their own particular problems and needs e.g., their need for a quick shave
 - The products and features they currently use e.g., their use of a 3-blade vs 5 blade razor
- A full set of customer needs for a product area can be obtained by triangulating across different users

WHAT IS A CUSTOMER INSIGHT?

- “Unarticulated Customer Needs”– Needs unrecognized by customers that – when recognized and satisfied – lead to products and services that delight them – the challenge is to “read between the lines” and “make non-obvious connections” i.e., Insight

CHARACTERISTICS OF INSIGHTS

1. Not immediately apparent – otherwise there would be no advantage
2. A unique and fresh perspective or a penetrating view of the obvious
3. Can be based on one data point – the critical case, the outlier...
4. Often found in observed anomalies
5. Often discovered accidentally – discovered by paying attention even when formal research not being conducted
6. Often come from unusual sources – e.g., the families of runners...
7. Need to be useful – being interesting is not enough
8. Not a number, a fact, or a quote from a customer
9. Insights advantage you because they “insightful” and your competitors may not see them

QUALITATIVE RESEARCH FOR NPD

- Helps us uncover needs and insights in selected segments
- Involves a deeper understanding of a phenomenon through using smaller and more focused groups of consumers
- Can include
 - Focus groups and interviews
 - Site visits and interviews
 - **Ethnography**
 - **Netnography**
 - **Consumption chain and experience mapping**
 - Lead users
 - Crowdsourcing
 - Jobs To Be Done analysis

ETHNOGRAPHY (UNCOVERING NEEDS)

- Ethnography is...
 - “A descriptive, qualitative market research methodology for studying the customer in relation to their environment

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- Researchers spend time in the field observing customers and their environment to acquire a deep understanding of customers' lifestyles or cultures as a basis for better understanding their needs and problem"
- The term "ethnography" involves the description and study of human cultures, societies and interactions
 - Understand ways of life from the "lived experience" e.g., the consumer or an end-user
 - Examine "traces" that people leave as they go about their everyday lives
 - Takes place in natural surroundings
 - Is open to change and refinement throughout the process

Three Main Ethnographic Approaches

Exhibit 1: Three Main Ethnographic Approaches			
	What people say	What people do	What people use
LISTEN			
Make notes	Conversations		
Audio-record	Interviews		
OBSERVE			
Watch		Behavior	Behavioral traces
Make notes		Mapping patterns of behavior	Wear and tear on objects, pathways, etc.
Sketch or diagram		Relationships between people	Product usage
Photograph		Time-lapse photography	Photos of product use
Videotape		Videos of daily living	Videos of activities
Digital technology		Web-cameras	Web-cameras

Ethnography

- Ethnographic field work can include
 - **Contextual inquiry** is a form of ethnography that is specifically focused on **asking questions/interviewing** in a context e.g., a bar.
 - **Observational research** entails **watching** users in their environments, without asking them questions about why or how things are being done
 - **Participant observation** is a more intensive form of observational research that focuses on the researchers **joining the culture** being studied in order to better understand that culture e.g.
 - **Day-in-the-Life Studies** and **Shadowing - Unpacking the day** of the consumer from wake up to going to be

Story: Microsoft “day in the life”

- Microsoft hired Nelle Steele (consultant ethnographer) to show up at 5 in the morning at the Milwaukee home of Tim Tucker
- The owner of Air Engineering Inc., a supplier of industrial air compressor parts, is Microsoft's model customer.
- Steele's mission was to observe Tucker at close range, arriving as soon as he stepped out of the shower, then shadowing him until his workday ended at 10:30 p.m.
- Steele, a cultural anthropologist is one of five anthropologist-ethnographers that Microsoft hired full-time to conduct a field study. Called "**Dawn to Dusk**", e=the

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study documents the work habits and thought processes of a species the software behemoth had never before tried to understand: owners and employees of small businesses

- In tailing her quarry, Steele discovered that small companies kept vital information in disconnected places – what she called “data silos” – from scribbled notes on scraps of people to files on a PC that could be accessed by only one employee. This made it harrowing to try to answer basic questions like, “how did we do in the Northeast last quarter?” “I saw the pain that data silos caused day to day” says Steele

NETNOGRAPHY

- As with much qualitative research, netnography is geared to study the perceived and symbolic meanings, consumption patterns of online consumers, and other cultural information in the social context of digital environments (Kozinets, 2010)
- Using social media a firm can access, analyse problems, usage, and underserved consumer groups and develop new product concepts
 - Blogs – company owned vs. independent
 - Forums – sharing advice and information
 - Reviews
 - Online communities
 - Twitter
 - Facebook
 - Instagram
 - TikTok

Insight Provider

- Campbell’s “my kitchen”... Netnographers study why and how people swap recipes and soup stories, analysing how these experiences fit into their daily lives... opportunities for new products emerges
- Value from a marketing perspective
 - Letting consumers drive innovation
 - Unpacking brand meaning – understanding authenticity
 - Mapping the online market space – resources consumers use to plan meals
 - Transferring and translating cultural codes - insider language, jargon...used to connect with local users.
 - Revealing a community’s most powerful players – narrative patterns in how certain bloggers lead others to use new products and techniques

CONSUMPTION CHAIN MAPPING

- Tracking customers and investigating all parts of their buying process and journey
- **Acquisition** – searching for and buying
- **Consumption** – consuming, use and storage
- **Disposal** – after use, disposal
- Consider
 - Paint points
 - Tensions
 - Critical decision points
 - Types of information and experience engaged in

JOBS-TO-BE-DONE



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- JTBD theory defines markets as a group of people that need to get a job done
- Focuses on the real needs of customers/users
- We need to figure out what is the functional job and steps to getting the job done and where our business can have an impact
- Then we ideate around how to solve that job though our existing, repurposed or new product
- What is the job to be done by our project target market
 - Buy a gift – chocolates for Mother's Day
 - Furnish a child's bedroom – buy and assemble a bed



SUMMARY

- NPD is underpinned by a research process
- The PIC guides and places some boundaries around what we are prepared to do and how we approach the NPD task
- Finding white space through consumer insights analysis is important in order to compete on your own terms
- There is an important relationship between qualitative and quantitative research but nothing beats actually engaging with consumers and seeing how they live their lives and solve consumption related problems and desires.