

Course: BSc in Information Technology

Class Bsc in IT 4.2

Unit Title: Entrepreneurship & Product Devt

Unit Code: CIT 4201

Facilitator: DR. Rosemary Kagundu

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NEW PRODUCT DEVELOPMENT

- New Product Categories
- i) **New to the world**: These products are inventions that create a whole new market E.g chapati making machine ,hair plaiting machine.
- ii) **New to the product categories (new Product Lines)**: These are products that take a firm into a category new to it. The products are **not new to the world**, but **are new to the firm**. The new product line raises the issue of the imitation product: **e.g KCBs school fees savings account**



- **iii) Additions to existing Product Lines:** These are simple line extensions, designed to flesh out the product line as offered to the firm's current markets. Eg. Zesta's chilli & Garlic sauce

iv) Improvements and Revisions to existing Products

Current products made better e.g Zesta's tomato sauce with no sugar additives

- **v) Repositionings:** Repositionings are products that are retargeted for a new use or application e.g

vaseline baby oil used for massage ; aspirin repositioned as a safeguard against heart attacks



- **Cost Reductions** : Cost reductions refer to new products that simply replace existing products in the line, providing the customer similar performance but at a lower cost. May be more of a “new product” in terms of design or production than marketing.



NEW PRODUCT DEVELOPMENT (NPD) PROCESS

- New product development is the development of original products, product improvements, product modifications and new brands through the firm's own research and development efforts
- NPD process consists of the following steps
 - i) Idea generation
 - ii) idea screening
 - iii) Concept development & Testing
 - iv) Marketing strategy development

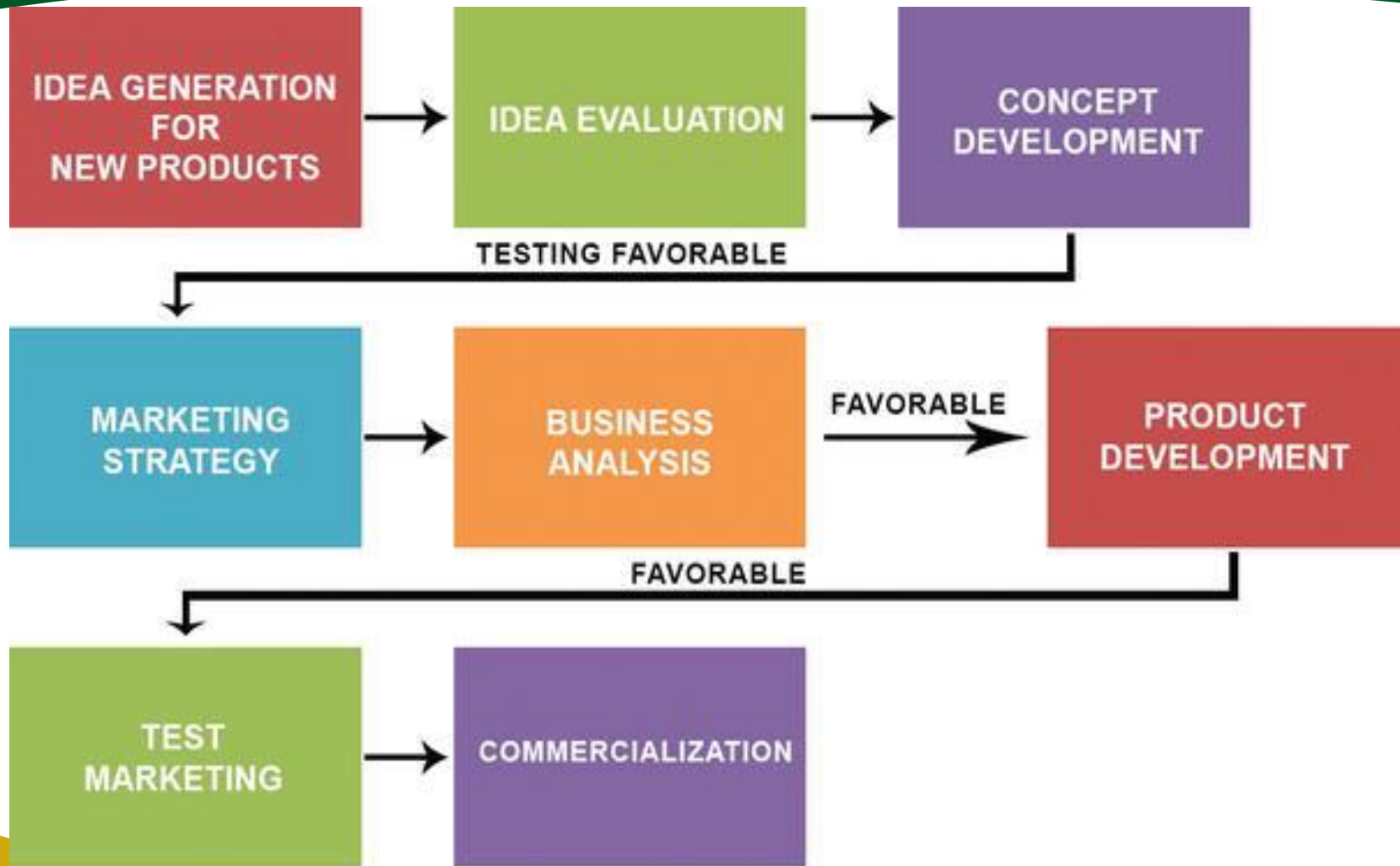


- V) Business analysis
- Vi) Product development
- Vii) Market testing
- Viii) Commercialization



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IDEA GENERATION

- The best ideas for new products come from customers ! Market oriented idea generation leads to development of superior
- Idea generation is an iterative process that all business organizations require to figure out solutions to a number of arduous challenges which present business opportunities
- It involves the criteria of selecting the best idea, creating a strategic plan and implementing the idea into practice. The first and foremost stage of a new product is ideation.



- Ideas come from everywhere, can be in any form and numerous. This stage of ideation involves creating a large pool of ideas from various resources which include :
- **Internal Sources:** The unbeatable source of idea generation starts from internal sources. Many companies pay incentives to their employees to come up with workable ideas through research and development or through their own market intelligence information



Internal sources	External sources
	Customers
Research and development	Competitors
Employee market intelligence	Suppliers
Top management	Distributors
Production department	Public –unsolicited ideas
	Distribution channels



WHAT is the ideate mode

Ideate is the mode of your design process in which you aim to generate radical design alternatives. Mentally it represents a process of “going wide” in terms of concepts and outcomes—it is a mode of “flaring” rather than “focus.” The goal of ideation is to explore a wide solution space - both a large quantity of ideas and a diversity among those ideas. From this vast depository of ideas you can build prototypes to test with users.



WHY ideate

You ideate in order to transition from identifying problems into exploring solutions for your users. Various forms of ideation are leveraged to:

- Step beyond obvious solutions and thus increase the innovation potential of your solution set
- Harness the collective perspectives and strengths of your teams
- Uncover unexpected areas of exploration
- Create fluency (volume) and flexibility (variety) in your innovation options
- Get obvious solutions out of your heads, and drive your team beyond them



- **Market Research:**
- Companies are constantly keeping an eye on the volatile market to review the changing needs, requirements and trends that are loved by all.
- **Rivals/Competitors**
- **Company's SWOT** analysis can help you with **ideation**. Take a look at the offering at your rivals and find vulnerabilities and cons before strategizing your idea.



- **A SWOT** analysis is simply defined as a process that companies undertake to understand where they are and then find ways to improve. In this process, the company looks for ways to build on their strengths, minimize their weaknesses, maximize their opportunities, and snuff out threats from within and without their organization.
- In generating new product ideas through this means, emphasis is placed on the need to build on strengths and make the most of opportunities.



- Sample SWOT analysis for a botanical Nursery



Botanical Bounty

SWOT Analysis

S Strengths

Consistent quality: We consistently produce plants with high active botanical ingredients.

Saleable plants: We produce a high ratio of healthy (saleable) plants.

Experience: Co-owners have a strong combination of business development and horticultural experience.

W Weaknesses

Lack of funding: We will need to borrow \$100,000 in funds for the first year.

No reputation yet: We haven't established ourselves as reputable growers in the botanical market yet.

O Opportunities

Customer loyalty: Customers are looking for an ongoing relationship with one botanicals vendor.

Growing market: The market for supplements is huge and growing.

T Threats

Weather: A poor growing season due to the changes in weather can seriously affect production.

Pests: Pests are a threat to our ability to provide healthy plants.

Similar-sized farms: Some similar-sized farms have been in business longer.

• Market and Consumer Trends

- The smart business man will know how important it is to observe market and consumer trends so as to know which product to remove, remodel or create.
- The inability to follow this simple rule is what cost Kodak and Nokia their position as industry leaders
- When digital cameras were becoming a major trend, it would have been a smart move for Kodak to join in, or even to have initiated the trend in the first place. But instead, they neglected the massive movement of people towards digital cameras and today, they have lost their place to Canon, Nikon, Fujifilm



- For **Nokia**, it is no news that they are no longer the biggest phone company in the world. **They lost their place to Samsung.** All because they failed to move in time with the **smartphone trend**
- **Company's R&D Department**
- Another way to generate product ideas is by **research & development**. In the area of research and development, small business are likely not very strong as merely a handful are able to afford the costs that R&D incurs.



- What small businesses do is to read up on the R&D escapades of the big companies and tailor some of these ideas to their own level.
- Small companies also perform small scale customer and market research to **generate new product ideas and improvement strategies.**



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- The easy thing to do is to look at what the competition is doing and copy or improve upon it.
- This was a major step that **Apple took with the iPod. Steve Jobs looked at the Sony Walkman** (which was the rave of the moment at the time) and improved upon it.
- This act is what birthed the iPod, the iPod Touch, and now, the iPad. It worked for Steve Jobs, it can work for you too



- Customer feedback
- Another way for business owners to get **feedback from customers** is to provide channels for it, e.g. **feedback boxes, survey questionnaires, informal interviews, focus group discussions**, etc.
- It will amaze you how much these people will have to tell you.



- **Employees**
- Employees are the most neglected source of new ideas, and Alan Guttermann says they are the best source.
- Good companies value their employees input, and ask for it & the bad companies usually don't.
- Some of the reasons why employee involvement in the idea generation process has been on the decline include: **negligence of top management, not giving credit to the employees who deserve it, fear of intimidation and rejection, etc.**



- As an entrepreneur, create an atmosphere where your employees will not **be afraid to make suggestions and propose good solutions and new ideas**
- **Sample employee involvement in a company –see lecture point**
- Lecture point -Employee Involvement in ideation-Dec 7 2020.pdf



• Trade Shows

- Select the right trade show. This will give you access to right people, right connections and you will gain new ideas, just by looking around.
- If you are allowed, you could take photographs of products that interest you and are relevant to your business.



Activity 1: 20 minutes

- Study the new product development function of two organizations that you are familiar with. Let one of them be a consumer products manufacturer and other a service industrial product manufacturer.
Analyze whether the new product development process was started.
- a) in response to a consumer need.
- B) in response to a new scientific/technological discovery.
- C) to utilize excess resources for each of the above cases.



Idea Screening

- All generated ideas in Stage 1 at idea generation are **screened and evaluated** to limit them to a manageable number including most useful ideas in order to ease new product development process in later stages and reduce costs and time spent for not useful ideas.
- Three questions that are involved in new product screening framework created by a marketing expert are applied to selected ideas.
- **These questions are defined in a sum as R-W-W ('real, win, worth doing')**, and business must give all these questions 'yes' answers:



- Is it real? Is there a **need that will force customers** to buy it?
- **Can we win?** Does it provide a considerable benefit for the business?
- Are **there enough resources** to make new product successful?
- **Is it worth doing?** Is this product compatible with the business's growth strategy?



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- **Product idea descriptions must be clear and concise. They include:**

- A clear description of the product;
- the use of the product;
- the target market segment;
- the relationship to the company's present products;
- the relationship to competing products.



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- Ideas are screened in terms of the following
(Screening factors)
 - -Marketing factors
 - -Production factors
 - - Development factors
 - -Financial factors

Ideas are then grouped
into : Promising,
marginal or rejected

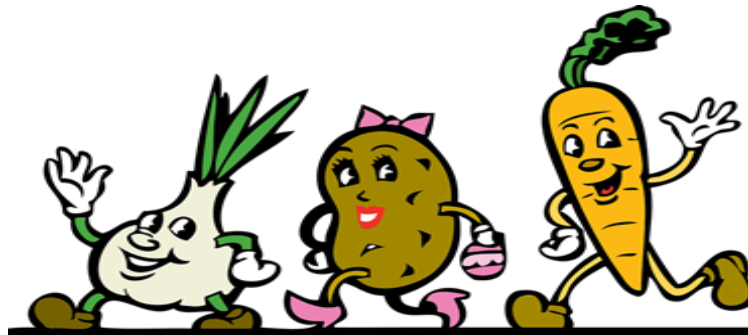


Marketing factors:

- Potential market size
- Compatibility of market image with company's product lines
- Relationship to competing products
- Compatibility with existing or specified market channels
- Access to suitable physical distribution systems
- Fits into an acceptable pricing structure
- Relationship to promotional methods and resources
- Marketing resources needed to produce success

Development factors:

- Knowledge needed for development
- Available knowledge and skills •
- Available time and human resources
- Development funds needed and available
- Compatibility with existing strengths
- Development difficulties and risks of failure



Production factors:

- Compatibility with existing product lines
- Availability of processing equipment
- Availability of raw materials and ingredients
- Availability of technical skills to produce the product
- Availability of production time
- Agreement with any legal requirements
- Cost and availability of new resources required

Financial factors:

- Compatibility of development costs with financial resources
- Capital investment resources needed and available
- Finance needed and available for market launch and ongoing product support
- Profits or returns on investment required



Exercise; Think of the value chain of any any 2 products in agriculture in Kenya

1. List different types of products that can be obtained from the product you have chosen
2. Combine them together in different ways to give ten new product ideas you can venture into
3. Identify 5 products presently the leaders on the market of the existing products you have proposed you venture into offer and for each indicate the following : strength of flavour, nutritional value, fun for children, price, attractive packaging.
4. From this product positioning, develop 5 new product ideas



- During screening , companies may make two errors thus
- A '**Drop Error**' takes place when the company has **made a blunder** by **not selecting** the **correct method** for development of the product. It is a **mistake** on part of the **company** and they have **lost out** on a good method which could have **benefited them**.
- A '**Go Error**' takes place when the company has **gone ahead** with **production** of a product with the **wrong idea** or method. It is a fault of the company that they have not been able to **identify** the **right strategy** before the **start of the production**. It was a poor idea and the it is too late for the **company** to **back out**.



