Chapter 4. Product

4.1 INTRODUCTION

Products can be defined as both tangible goods and intangible services generally created for the purpose of transaction. Through this transaction, revenue or customer goodwill that will ideally provide revenue.

There are two general types of products for which the levers of product development differ:

1. Physical goods
2. Services

The product element of the marketing mix refers to characteristics of a product, service or brand. Product decisions are informed by market research where customers’ needs are assessed and the feedback is used to modify existing products or develop new products. There are many alternatives for varying the product in the online context when a company is developing its online strategy. Internet-related product decisions can be usually divided into decisions affecting the core product, basic product and the extended product. The core product refers to the main product purchased by the consumer to fulfill their needs, while the extended or augmented product refers to additional services and benefits that are built around the core of the product.

Physical goods

The word product usually indicates the image of a tangible good. That good, produced and exchanged between parties, is a physical product. Characteristics of physical products include their quality level, features, styling, brand name and packaging. Tangible goods differ from services in that buyers more easily comprehend them and their benefits since prior to purchase they can often be seen or even at times directly experienced or tested. Therefore, a tangible good is usually more easily marketed than a service.
Services

Services can be defined as any action or intangible work that one party offers to another for the purpose of transaction (to achieve either revenue or increased customer goodwill). Types of services can range from artistic performance to the delivery of information from one party to another. In marketing a service it is the fact that it may be a stand-alone offering, such as medical services, or it may be tied to a physical product. For example, services such as warranties and maintenance agreements can be used to augment a physical product and significantly enhance the overall value proposition to the customer.

As far as online marketing is concerned product refers to the services, as most of the online companies offer service products. Many online companies only offer services, such as search engines (www.google.co.in). Other online sites ultimately sell physical products; however, these sites are offering an extended service through which to purchase a physical product. For example, when purchasing a commodity from bazee.com the basic product is the physical commodity. However, the reason a person will buy from bazee.com is the extended service offering that the internet provides for commodity sales such as the convenience of ordering from home, the valuable information offered on the commodity and customer reviews, the ability to search a database of potential similar commodities, and the price savings that are a result of a sales channel that does not require a physical presence. The internet is changing some of the age old accepted limitations of service based offering such as intangibility, simultaneity, heterogeneity, and perish-ability. 79

Intangibility

Intangible products are often more difficult for customers to comprehend because they cannot touch them or see them. In most cases the customer is considering the purchase of an abstract concept and does not really know what he or she is getting until he or she is actually served. Because there is nothing physical to remind a customer that he or she has received an intangible service, it is important for marketers to regularly remind customers of the benefits so that the awareness or importance of the service does not diminish over time. The web can help make intangible service or experiences seem more tangible by providing cues such as virtual tours, video clips, and other advanced technologies.

**Simultaneity**

In service products producer and customer needed to come together at a single time for the exchange of services to take place. For example, buy a pair of shoes the customer requires to go to the shoe seller, the shop to be opened, and the sales man should be available. However, on the internet the delivery of services is technologically enabled and does not require temporal concurrence between the producer and consumer. Because websites are available 24 hours a day, 7 days a week (24/7) and can have incredible capacity, the scale and cost of delivering highly customized services via the Internet would be close to impossible to match otherwise.

**Heterogeneity**

Services are generally provided on a personalized level. For example, mechanic interacts directly with the owner of the car and diagnoses and provides a solution on an individual basis. Such personalization is historically manpower intensive and is usually impossible to reproduce on a mass production level. The Internet has removed this limitation by allowing scalable personalization. Idea cellular and other mobile service providers, for
example, allow users to receive personalized news or alerts based upon their own pre-specified preferences. In such applications customer generally specify their preferences with the service provider and therefore become co-producer. The time customers spend identifying their preferences reduces company’s efforts, and it supports a closer customer/product relationship. Not only do customers perceive this process as a breakthrough technology that better meets their needs, but the service provider also recognizes the potential cost savings gained by the customer doing most of the work associated with personalization. It is a win-win relationship where a provider’s service is not performed completely by the provider but partially by the customer.

**Perish-ability**

Many service providers are using the WEB because of the perish-ability of services which occurs due to potential imbalance between supply and demand and market inefficiencies. This is particularly important to service providers because their business models are typically characterized by a high fixed cost. Once the offline sales mechanism of sales got exhausted the excess inventory can be liquidated over the Internet. This minimized the perish-ability associated with the unsold services. The Internet made this possible by using its direct access to customers and its ability to provide updates in real time, utilizing an interval that traditionally would have preceded product perish.

Across both physical and service-based products there are three components to the overall value proposition: the core benefit, the basic product, and the extended product.
1. **Core Benefit**

The core benefit is the most fundamental value offered by the product’s category. This is the benefit that is usually assumed when the buyer purchases the product. The core benefit is not a point of differentiation that the buyer uses to distinguish between products. For example, the core benefit of any hotel is to provide stay. The buyer will nearly always assume that any hotel he or she is considering for hiring will at its most basic level achieve the goal of the core benefit.

2. **Basic Product**

The basic product refers to the baseline offering beyond the core benefit that a customer enters the marketplace to buy. This represents a customer’s threshold for considering a purchase. Diagram 4.1 depicts two examples, a traditional product such as hotel and an Internet product - stock alert. The basic product includes everything a customer would expect in order to consider hiring a hotel. These expectations might include a bed, a fan, drinking water and other baseline items. The stock alert is a daily service, provided by CNBC network, which delivers newsletter via Internet. The basic product for stock alert includes a list of stock updates by leading experts, in depth coverage of the same topic, inspirational stories about other investors’ successes. Basic products are differentiated from each other by the unique branding between different products. However, the opportunity to differentiate increases by extended product.
1. **Extended Product**

An extended product goes beyond a customer or buyer’s expectations. The extended product is the portion of the value proposition that is used to further differentiate one competitor’s offering from another and serve as the basis of comparison for prospective buyers. Extended offerings is a strategy best used in more mature markets as a means of avoiding price based competition. These products are designed to enhance individual experiences with the product and at times offer companies additional revenue streams; therefore, customer-informed products derived from close examinations of users’ total consumption systems are ideal vehicles for this strategy.

An extended product in one particular market may be a basic product in another market. For example, the power backup in a hotel may be
considered an extended product, but the power backup in a cinema hall would be considered a part of the basic product. As such, the distinction between extended versus basic product offers exists as a construct based on the expectations of customers in particular markets. Adding to this complexity is the fact that customer expectations are not static. As marketers continue to make extended products available, customers raise the baseline by incorporating what was once an extended product into their baseline expectations. In doing so, customers transfer extended products into their expectations for basic products. For example, as power backup has become standard in the luxury hotel market, within that market that has became a part of customer expectations for inclusion in the basic product and would no longer be considered a product extension. Thus marketers are required to constantly redefine the basic product and create an ever-evolving portfolio of value propositions to meet customer expectations.

4.2 PRODUCT DEVELOPMENT

The Internet and its 2Is i.e. interactivity and individualization, offer managers many new tools and technologies enabling emergent product development techniques and dramatically improving those that are more traditional. As recognizing and learning more about individual customers across every interaction is one of the most powerful benefits the internet has to offer. These capabilities have fundamentally changed consumer research, reporting, and personalization and are particularly valuable in forming a meaningful relationship with a customer. The 2Is should have a dramatic impact on product development and are the foundation on which all Internet-based product development levers are based.

In the new economy, the Internet, data warehousing, data mining, computer telephony integration, and a host of other tools are creating tremendous opportunities for today’s managers to improve a product’s value proposition. Now both traditional and Internet tools can be used to develop
products that offer higher value to customers. For this purpose some product development levers are available as shown in diagram 4.2 to managers to maximize the value proposition offered to customers, and to understand how these levers impact the customer as he or she moves across the different marketing relationship phases.

**Diagram 4.2**

**Product Development Levers**

- Packaging
  - Attributes & Features
  - Customer specifications
- Mass customized Product

- Customer Service Programs
  - Post sales support
  - Customer Care
  - Customer Relationship Management
  - Loyalty Programs & Privileges
  - Availability of Complementary Products
  - Upgrades
  - Enabling Community
  - Additional Functionality

**Source:** Desai Anoop, *Product Development — A structured approach to consumer product development design & manufacture.*

Product development levers i.e. basic & extended along with their interaction with both physical & service products have been discussed below. No consideration will be made of the core value of products, as the core value level is not a level of differentiation by which levers can be employed.
Basic Product Development Levers

Numerous product development levers exist at the level of the basic product. These levers are the initial opportunities for differentiation that can be used in order to increase the value proposition to the client without extending the basic product. The levers include packaging, attributes and features, customer-specifications and mass customized product.

1. **Packaging**

Packaging can be used to make product stand out from its competitors, appear more appealing, and communicate to prospective customers both consciously and subconsciously. Packaging can be used to increase the tangibility of a product. Explicit messages may be printed on packaging.

**Physical Goods**

Beverages are an example of how packaging can be used as a product development lever. Prior to the frooti’s (mango drink) entry into the market the only mango drink available in the market was maaza but it was available in bottle made of glass therefore a bit difficult to carry and keep. Frooti differentiated its offering by packaging its drink in tetra pack. All the information about ingredients is printed on the pack and it’s difficult to pack outside the plant so customers were assured about purity and it helps to raise the probability of purchase. It also help the customers to know about the quality, brand image prior to buying it.

**Services**

Another company to differentiate itself using packaging as an effective lever is Life Insurance Corporation of India (LIC). As first entrant into the Life insurance business, LIC India used its unique punch line on almost every document send to the customer i.e. “zindagi ke saath bhi zindagi ke Baad bhi”. Even today in India individuals who want to take an insurance cover
the first choice is LIC India simply due to the statement that is the part of packaging that customer receives.

2. **Attributes and Features**

   Individual attributes and features specific to a product are frequently used at the basic product level to differentiate one competitor’s offering from another. They are also used to help customize an offering to individual tastes and preferences. However, caution needs to be exercised when deploying these as product development levers so as not to inundate the customer with too many choices. Moreover, the inclusion of particular attributes and features at times raises the cost of producing the product, and these costs are usually passed on to the customer. Customers do not necessarily want to be inundated with choices, nor do they want to be charged additional fees for each and every one of the attributes and features included in a product.

**Physical Goods**

   It is very simple in case of physical goods. One manufacturer is providing some additional attributes and features than the other one and he is also charging for these additional attributes and features however other one is not offering these additional attributes and feature therefore pricing is lower than him. Thus using attributes and features as a lever can allow a company to further differentiate itself and increase the revenue stream by meeting customer preferences.

**Services**

   In case of services on the basis of attributes and features one service provider can differentiate its service from the other by providing some additional services. For example the online hotel booking can be differentiated from one hotelier to another by adding some features like a
picture of the room, view from the room etc. These attributes and features function as valuable levers because they effectively meet customer needs while not overwhelming the customer with too many choices.

3. **Customer Specified Attributes and Features**

While the attributes and features in the Internet economy can be very similar to those of previous economies, a key difference is increased ability to allow customers to specify these attributes and features. The Internet offers tremendous efficiency in receiving customer feedback as a result of the 2Is. Both the basic and extended products can be modified by taking regular customer feedback. It is a key mechanism by which the individualization and interactivity of the Internet facilitate customer specification of attributes and features.

**Physical Goods**

In the new economy the companies are very much concerned about the customer specified attributes and features. Dell computer enables its B2B customers to select from a myriad of attributes and features designed for both information technology professionals and end users. These attributes and features are referred to as the computer’s personalized configuration.

**Services**

Information is a core product for many Internet service firms. In fact, firms that integrate aggregate and otherwise add value that transform information into insights are referred to as infomediaries. Many of these infomediaries employ the customer specified attribute and features lever. A customer can specify what types of news he wants and how he would like to receive it, whether through e-mail, a customized personal page or a wireless device. Additionally, the users can control the frequency of delivery and the
format. The inherent value that these firms deliver is not the information itself, but rather the greatly improved usability of this content by leveraging user friendly interfaces, search engines and other web-based techniques.

4. **Mass Customized Product**

Modern technology has greatly diminished the traditional economies of scale associated with mass production such as run size and economic order quantities. For instance, computerized manufacturing capabilities and modular product design now make the manufacturing of a broad variety of product economically viable. If a product has six features and there are three permutations for each feature, then there are $18 (6 \times 3)$ possible product variations from which a customer can choose. Historically, allowing for numerous variations was prohibitively expensive; today it is a practical reality.

**Extended Product Development Levers**

Many product development levers exist at the extended product level that can assist a manager in improving a product’s value proposition. It is at the extended product level that managers can most dramatically differentiate their products from those of competitors. Some of the most effective levers include customer service programs, loyalty programs and privileges, availability of complementary products, upgrades, enabling community, additional functionality, and fulfillment capabilities.

5. **Customer Service Programs**

**Post-sales Service**

Post-sales support has two primary benefits to a product manager. It can be used as a lever to provide a relevant basis for establishing an ongoing dialogue with the customer. Such a dialogue can act as a powerful element for building valuable relationships with the customer. Additionally, post-
sales support can enable an annuity stream, which can be considerable. While these types of extended services have traditionally accompanied a wide range of basic products, the extent of interactivity and ability to acquire individualized information has now made it possible to greatly enhance these programs. A company can support its ongoing relevance to an individual customer, and the value it delivers to the customer, by reminding them of routine product maintenance requirements, electronically scheduling appointments, registering, filling, and making accessible warranty information online, or providing tips and troubleshooting advice via the web.

**Customer Care**

The Internet has enabled a radical shift from a company’s traditional complaint management to true customer care. The 2Is of the Internet have facilitated a significant shift in customer care. Today, the Internet facilitates customer interaction, greatly reduces time to resolution, and reduces costs. Customer care can be tiered to deliver higher levels of service to a company’s most profitable customer, while providing less service for those customers with profits margins that do not justify the investment. Effective customer care requires completely integrated customer care centers established to support both online and offline interactions and operations. Websites should provide an e-mail address for contacting a customer care representative that can be easily found at multiple logical locations throughout the site. Furthermore, customers have begun to expect companies to respond in at most 24 hours. Customer care represents an opportunity to seek important feedback from customers, add value, and save both business & even customer relationships from being abandoned.
Customer Relationship Management

Over the last decade or more, relationship marketing, direct marketing and database marketing have combined to create a powerful new marketing paradigm. This paradigm is often referred to as customer relationship management (CRM). A related approach is known as one-to-one marketing\(^{80}\), where in theory; relationships are managed on an individual basis. But, owing to the costs of managing relationships on an individual level, many companies will apply CRM by approaches which tailor services to develop relationships with particular customer segments or groups, rather than individuals. This involves a company in developing a long-term relationship with each customer in order to better understand that customer’s needs and then deliver services that meet these individual needs.

1. **Loyalty Programs and Privileges**

The purpose of loyalty programs and privileges is to recognize and reward a company’s best customers by providing additional services in appreciation of their loyalty. In turn, this can increase a customer’s perceived value of a product offering. A highly effective use of this lever is when these benefits deliver value that reinforces a product’s brand or image.

2. **Availability of Complementary Products**

Availability of complementary products assures the buyer of the basic product that additional functionality, tools, or other enhancements are available or will be available in the future, thereby improving the potential value of the basic product. Modular product design and open platform products\(^{81}\) greatly improve the value that complementary products can add. It is important to recognize that the complementary product itself can be a basic product in a different market; it is the availability of such products that enhances the value of another basic product. For example a mobile phone

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\(^{80}\) A unique dialogue occurs between a company and individual customers (or groups of customers with similar needs).

\(^{81}\) Products that have little or no barrier for third party companies to easily develop complementary product
with digital camera, here digital camera is a complementary product however; camera is also a basic product in the market of digital cameras. Thus the availability of such complementary products works as extended product development lever.

3. **Upgrades**

For many years companies have effectively utilized upgrades as a product lever to both develop long-term customer relationship and offer the customer a better value proposition. The Internet has vastly improved the efficiency of this lever, which has had the effect of substantially increasing the frequency with which it is employed. Downloadable upgrades are part of the product offering for most software companies. The 2Is of the Internet allow a company to use customer feedback on a product to derive important improvement ideas for product upgrades. These customers have extensive experience and understand the benefits and potential shortcoming of the previous version. They have invested their own learning capital in the product and therefore have a vested interest in providing feedback.

4. **Enabling Community**

It refers to developing an active community around a product deepens the relationship between the product and the individuals in that community and can offer long-term, loyal, and high-margin customers to a company. For example Bajaj automobiles is enabling a community i.e. DTSI club, it is a set of interwoven relationships built upon shared interests, which satisfies members’ needs otherwise unattainable individually.

5. **Additional Functionality**

There are a number of enhanced functionalities that a website can use to extend a basic product and drive additional benefits to its visitors. These functionalities can be sorted into two categories; low-tech and broadband enabled. Low-tech functionality includes facilitated comparison shopping, product selection guides, live personal assistance, or product demonstrations. At the emerging state of Internet, slow connections, and processing speeds
are currently hindering the advancement of broadband applications and requiring managers to focus efforts on the low-tech functionalities. Web conferencing, and streaming video capabilities are functionalities that increase value, but all are greatly limited today. In future these technologies will offer greater opportunities to extended products once connectivity and processing become much more efficient and robust.

4.3 NEW PRODUCT DEVELOPMENT PROCESS

New Product Development is impacted by number of factors. Managers have to weigh number of factors while developing a new product as shown in diagram 4.3.

1. Consider his or her customers and understand their new product needs.
2. Understand his or her production needs and capabilities.
3. Evaluate the discoveries of his or her research and development team.
4. Judge his or her competitors and the marketplace forces.

The confluence of these factors should help a manager to decide whether to develop a new product.

Diagram 4.3

Drivers of New Product Development
1. Customer Needs

It refers to a customer informed approach to product design. Customer needs are a crucial factor for a manager to consider when deciding whether to develop a new product. A customer-informed design process has a much higher probability of success because it is based upon likely customer acceptance and a ready-made market. Such focus improves success rates and profitability. To achieve a strong market orientation during the product development, businesses must-

- Develop a thorough understanding of the nature of the market.
- Understand the competition.
- Devote resources to activities that determine customers’ wants.
- Develop a relationship between product attributes and user needs.
- Seek customer input throughout the product design, development, prototyping, testing, and marketing.

The purpose of a strong market orientation is to leave nothing to chance by seeking customer inputs and incorporating them in product design.

2. Production or Manufacturing

Manufacturing-driven, new product development is based upon gaining production efficiencies of some type. Two examples of production based product development are finding a market for manufacturing byproducts or developing a product that can fill capacity for expensive equipment that is underutilized. These approaches are generally focused internally on the manufacturing operations, with a goal of reducing costs or leveraging existing assets, and have very little to do with the customer. While there may be some new product ideas generated from this process, managers tend to use caution when investing scarce resources into internally driven product development. The commercial viability of these products is certainly suspect, since neither the customer nor the marketplace drove the development effort. However, when the product development is driven by
production needs but a clear market for the product is identified; such products can be successful with almost no additional fixed costs.

3. Research and Development

Another product development driver can be an organization’s research and development team. The R&D staff is particularly astute at understanding what is possible today, probable tomorrow, and how technologies are likely to evolve over time. If, however, the R&D team is kept at arm’s length from understanding the customer’s need, then this approach represents another inside-out development process that may not meet with much commercial success.

4. Competitors and Marketplace Forces

In a few situations either competitors or the marketplace can drive new product development efforts. When a company learns about a competitor’s up-coming product, it can choose to try to develop the product faster and beat its competitor to market with a preemptive offering. Second, a company can quickly duplicate its competitor by employing the fast follower strategy. Third, the company can use tactics to try to minimize the market impact the competition has.

Market dynamics can have an impact on company’s product when costs of entry are added to the product’s overall costs. That is, added expenditures to win customers should be expected upon an initial product offering if a company plans to do business in certain industries or among a given segment in particular markets as shown in diagram 4.4.
An organization needs to consider each new product opportunity, considering the overall business, industry dynamics and the activities of individual teams within the organization. A product development portfolio, as shown in diagram 4.5, should be managed much like an investment fund, striking a balance within the portfolio across dimensions such as risk profile, time horizon, potential payout, investment requirements and incremental...
developments or true innovations. A strong product development portfolio generally includes. 82

1. New Product development
2. Enhancements and line extensions of current product and services
3. Development of existing products

Diagram 4.5
Product Portfolio

1. **New Products**

The objective of new product development is usually top line revenue growth, which begins with clearly identifying the market opportunities. These ideas may compete with an existing product, change the basis of competition by creating a new position/niche in a market, or may create new industry. Only 10 percent of new products are truly “new to the world products.” 83. These relatively small numbers of breakthrough innovations or discontinuous product developments are likely a result of the relatively high risk and cost associated with these undertakings, as well as the short term

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83. A study conducted by Fortune Magazine, 2007
time horizon of many firms. While in the short term a company’s product and process technologies and assets determine the incremental offers it can bring to market, in the long term its knowledge assets are what shapes its potential breakthrough offerings.  

2. Line Extension

A line extension is an incremental advance to an existing product and therefore lies somewhere between existing product and new products along the product development range. Specifically, a line extension is any effort that successfully leverages a brand name to launch product modifications or related products. The strength of a line extension is that by capitalizing on an existing brand name, the produces are saved the exceedingly high expense of introducing and promoting a new brand. Line extensions benefit from instant brand recognition and may include a ready-made base of customer from the parent brand. If a company can identify and target customers of the parent brand, then marketing the line extension to them via the internet is extremely efficient from both a time and cost stand-point.

3. Existing Product

It includes addition of some features in the existing product, for example Nokia launched N70 mobile set later on company launched the music addition of the same model.

Idea Generation

Divergent thinking is one tactic that is often successful in the idea generation phase of new product development. The objective of divergent thinking is to invoke up as many new product ideas as possible without filtering them in any way. A group typically generates more ideas than individuals do because of the synergies between participants. An expert facilitator with proven exercises and stimulus materials can get people to stop filtering their sessions idea’s and encourage them to think far outside of their


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comfort zone or normal thought processes. In addition, the objectivity of an external facilitator can help the group stay true to the creative process and minimize the potential impact of corporate politics as shown in diagram 4.6.

**Diagram 4.6**

**Divergent and Convergent Thinking in Product Development**

Idea Screening

The next step is to begin grouping and screening ideas. This process, known as convergent or critical thinking, begins with the participants in the development process revisiting all the ideas that emerged from the divergent thinking process, then going through a process that objectively identifies the most valuable ideas. It is the best to clearly define the divergent part of the process from the convergent portion; otherwise participants cannot remove themselves from their natural screening behavior, marginalizing the potential of the divergent portion of the process.

It is usually useful for the development team to begin screening by outlining a clear set of objectives and metrics for the new product as well as the associated development process. Diagram 4.7 provides some illustrative
examples of metrics; however, each team will need to develop a customized set of metrics that are appropriate for its specific circumstances.

**Diagram 4.7**

**New Product Development Metrics**

<table>
<thead>
<tr>
<th>Customer</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is our objective to generate more business among the existing customer base, attract new users, or keep existing customers?</td>
<td>• Extending an existing brand name or developing a new brand?</td>
</tr>
<tr>
<td>• Do customers have expectations of a particular imagery or positioning that the new product must be consistent with?</td>
<td>• How does this concept fit into the overall product/service portfolio of the enterprise?</td>
</tr>
<tr>
<td>• Does the new product fulfill a customer’s need or aspirations?</td>
<td>• What is the competitive landscape in this market, fierce, nonexistent, or somewhere in between?</td>
</tr>
<tr>
<td></td>
<td>• How attractive is the economic potential of this proposition?</td>
</tr>
<tr>
<td></td>
<td>• What is the role of each channel and how will they be integrated?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>People</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How will the performance of the development team be measured?</td>
<td>• Does the enterprise have the capabilities to develop and deliver this product, or is an alliance partner or sub-contractor required?</td>
</tr>
<tr>
<td>• What incentive does an individual employee have to commit himself to particular new product development effort?</td>
<td>• Is there sufficient existing capacity, or do new sources need to be identified?</td>
</tr>
<tr>
<td>• What resources and skills will be needed to maximize the team’s probability of success?</td>
<td>• Does the required technology exist today, or will new technology need to be developed?</td>
</tr>
<tr>
<td></td>
<td>• Should the technology be managed internally or outsources?</td>
</tr>
</tbody>
</table>
Product Design

The high degree of uncertainty and fast pace inherent in today’s product design requires an innovation process that is extraordinarily adaptive. If one competitor in an industry reduces its product design cycle time, there is considerable pressure on other industry members to follow suit. The magnitude of this competitive pressure is quite dependent upon the industry and the relative importance customers place on various purchase criteria. After all, timing is only one of many factors that customers consider when making a purchase design.

Prototype Development

Alpha:

Rapid prototyping is a relatively new approach to product development, which allows design engineers to develop a high level and more conceptual prototype without taking the time and resources necessary to create an in-depth model. This shifts the resource intensive in-depth prototyping to a later stage in the development cycle, where the idea is more stable and where building a prototype can be done concurrently with other tasks.

A critical success factor in applying flexible product development is the process a firm uses to generate information about the marketplace and the way that it integrates that information with the appropriate technical choices. All products must be built upon a deep understanding of customers’ needs or future needs and a continuous, reliable feedback loop. In this way a firm can generate ongoing feedback for its evolving product development cycle and associated prototypes. The Internet is an ideal vehicle for enabling this type of communication due to its relative immediacy, low cost, and high degree of interactivity. Furthermore, the continually advancing technology of the
Internet, such as 3D representations, web casting, and video conferencing, is only likely to advance the role of the Internet in rapid product development.

**Beta:**

Beta testing should be done among a key user group in a relatively controlled environment. While some companies have elected to make beta prototypes available to the public for free as a means of sampling and gaining distribution, this is an extremely high risk development tactic. The basic idea behind this approach is to publicly test a very early version of a product. Although grounded in a customer perspective, this feedback is inherently unreliable and carries very high risk. It is entirely possible for a beta test to tarnish the product’s reputation and persuade customers to switch to a competitor’s product.

**Business Analyses**

Once an opportunity has been identified, the next steps in developing a product have increasing risks and resource requirements; therefore, the development team must apply additional rigor to the initial analyses in order to ensure that the due diligence of the business analysis is commensurate with the magnitude of the decision being made. Key considerations include: Current brand equity, imagery, and personality, existing product portfolio, how to leverage existing equity, Customer base, corporate core competencies, timing, and distribution.

**Test Marketing**

Test marketing is a small scale experiment in which a new product is introduced and supported by a clearly defined marketing mix: advertising, distribution, packaging, pricing and promotion. The objective of a test market is to learn how the product is likely to perform once introduced on a larger scale and how various combinations of the marketing mix impact the
product’s performance. In the online world, many such approaches to systematic test marketing are still under development.

**Commercialization**

This is the final phase of new product development. It is where the planning for introduction and rollout takes place. This phase requires a highly complex implementation plan in which timing, required resources, marketing, supply, distribution, and the interdependencies between them have to be carefully understood & planned. As first impressions are everything, there is one chance to introduce a new product, so it must be done right the first time. Even the best new product may not survive a faulty commercialization process.

In the online world, launching a new website is an example of commercializing a new product. Assuming that the previous steps of the development process were followed and that site has differentiated offerings that meets or exceeds customer needs, a new site’s first critical hurdle for commercialization is driving awareness. A company must get target customer segments to learn about the site and define a hook that will actually drive customers to the site. Once customers are at the site, the usability and design interface can be relevant hurdle. If customer have difficulty in navigating the site, they are unlikely to use it or purchase the product. The final litmus test of commercial viability, however, is repeat visitors or customers. It is expensive to generate trial and first time visitors. Most Internet companies do not make money from a customer’s initial purchase and count on repeat purchases to progress the product toward profitability. It is thereby essential to make the site “sticky”, meaning interesting enough to generate repeat visits.
4.4 **PRODUCT ENABLE CUSTOMER RELATIONSHIP**

There are two primary techniques by which a product offering can help enable a customer relationship:

1. By deploying the product development levers that are appropriate for the existing relationship
2. By emphasizing the elements of the value proposition that are most relevant at a given stage of the relationship as shown in diagram 4.8.

**Diagram 4.8**

*Four Key Stages of Customer Relationship*

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1. **Awareness**

   The objective of the awareness phase is to entice prospective customers into learning more about the product.

   **Packaging** can help drive awareness and communicate specific product benefits as well as differentiate the product from competitors. The information elements of the value proposition, including reports (customer reports) and research (customer safety), play a critical role in this phase of the customer relationship and should be made readily available to a customer so he can evolve into the exploration phase, where he performs his due diligence on the category and product offering.

2. **Exploration/Expansion**

   The objective of the exploration relationship phase is to prove the relevance of the product offering to the prospective customer and to get him to try the product. The product levers on this first list of the exploration/expansion phase are ideally suited for this.
Packaging also has an impact during this relationship phase. The package is part of a brand experience that the customer explores further to decide whether to embrace or reject the produce.

Focusing communication of a product’s attributes and features and the unique possible combinations helps a prospective customer understand how this product will meet his needs and differentiates the product from its competitors.

Fulfillment capabilities, such as instant and efficient delivery, help a company capitalize on the customer’s need while removing subsequent behavioral hurdles. Providing the product while the customer is actively motivated in the midst of exploring his interest provides immediate satisfaction, helping the customer experience become highly reinforcing by making the product available when the user actually needs it and is motivated to buy it.

Customer Experience is another important lever during the exploration relationship phase. The way a customer comes to feel about a product based on its brand and his experience during the exploration phase will have an impact on whether he decides to commit to the product.

3. Commitment

Once a customer enters the commitment stage of a relationship, the objectives are to keep him committed and to expand the amount of business, an enterprise derives from each committed individual or organization. Loyal customers are typically very profitable customers that buy a disproportionate amount of product. The product levers that help to win this loyalty are much the same as those used to grow a company’s share of customers.

Upgrades can be used to create an ongoing dialogue with customers after initial purchase, both in the product development process as well as in the implementation or rollout of a new version of the product. Once a company demonstrates that it is interested in designing products to better
meet its customers’ needs by actively soliciting their insights, and once customers have invested time and energy in helping a company redesign the next version of its product offering, it is very likely that customers will move more deeply into the commitment stage and buy the product upgrade.

**Customer-specified attributes and features** are an effective lever not just in the exploration/expansion phase but also in the commitment phase. When a company delivers on its promise to produce a customer designed product, long-term customer commitment is deepen. Using customer insights throughout the design and development process greatly enhances the utility that the end product actually delivers to the customer. Having a product designed with an individual customer’s needs in mind is valuable and unique in today’s marketplace. Personalization is a specific type of Internet-enabled, customer specified feature that helps create a customized and relevant experience for any individual. Personalization allows individuals to create enhanced value for themselves upon subsequent visits. Once customers go through the effort of personalizing a site, it is usually an excellent indicator that they have become committed.

**Mass customization** allows for the customer to get a product that on an individual basis truly fits the customer’s needs. From a marketing perspective the value of this technology takes the benefits of customer specified features and attributes to a whole new level by enabling a company to actually deliver on this promise. When a company can offer a customer an individually customized product, the customer is likely to engage in a long-term relationship with the company.

**Post-sales support** is a traditional lever for creating customer commitment. This adds additional value for the customer, creates a platform for an ongoing customer dialogue, and is generally self sustaining or profitable from a financial perspective (by creating committed, repeat customers)
Loyalty programs recognize and reward customers for their commitment to a product and in turn are likely to deepen this commitment. In essence, through these benefits, customers receive significantly extended offerings, which benefit them greatly and increases the likelihood that these customers will remain committed.

Customer experience marketing is the bread and butter of a committed relationship because an experience can be rich with meaning and benefits, is unique to the individual, and cannot be readily replicated by competitors. The customer derives high value from this rich set of experiences and is extremely likely to be committed and stay committed as long as the experiences are meaningful, incremental, and positive.

Enabling community helps customers become connected with a product, enhances the overall value an organization can deliver, and creates richer customer experiences. One of the interesting aspects of community is that committed customers are more connected to the product, so they become liable to promote community. Community generates an ideal level of commitment. This connectedness, or stickiness, drives an individual to repeatedly return to the site and help to build the community by exciting new customers; therefore, committed customers can create a cycle in which new customers become committed customers.

Customer relationship management is the ultimate lever in helping to deepen the relationship between customers and companies. CRM tools allow companies to determine the individual needs of particular customers and service those customers efficiently by meeting those needs. As companies are able to work closely with their customers to meet their individualized needs, the customers become increasingly committed to the products and companies.

Customer care can be used to cement a committed relationship. Customer care departments are usually the first to know that the customer is
experiencing some type of difficulty and are the first line of defense in resolving customer concerns. If the department staffs are well trained, armed with customer information, and empowered to make decisions, they can turn a potentially negative or volatile situation into a pleasant customer experience. Because an organization’s most profitable and committed customers are mostly responsible for the company’s growth and reputation, highly skilled customer care specialists should be reserved for those customers.

**Dissolution**

If a company is unable to maintain a customer’s commitment, the customer will proceed to the *dissolution* stage of the relationship. In such situations a company has the opportunity to salvage the relationship. If salvaging the relationship is not possible, then the company should attempt to end the relationship on a positive note as possible and hope for the opportunity to do business with the customer at some point in the future.

**Customer care** is the key lever to professional dissolution. ICICI Bank handles dissolution extremely well. Its customer care representatives politely probe to understand why a customer is considering dissolution and immediately attempt to address the customer issues. If the customer is at all interested, ICICI bank provides attractive incentives for continuation of service. If a customer decides to end the relationship, bank has number of effective win-back tactics such as keeping the customer’s e-mail address, mobile number reserved for a given period of time, providing upgrades to the latest service available for the same category of customers.
4.5 CUSTOMER INFORMED APPROACH TO PRODUCT DEVELOPMENT

Customers have a wide variety of desired experienced and associated expectations for commercially based relationships. While these differ across channels and segments, it is of utmost importance that an organization continues to consider desired experiences and expectations throughout its product development, sales, and distribution processes. Today’s Internet experiences are raising expectations for customer service, convenience, and immediacy across all channels of interaction, including bricks and mortar interactions. The rapid time frames and completeness of market data enabled by the Internet have also permanently changed customer expectations. According to a survey,$^{87}$ a full 90 percent of online shoppers want some sort of human interaction in the purchasing process. As a result, part of a company’s overall value proposition or product offering should be available on its customer’s terms, by whatever channel the customers prefer to use.

From the customer’s perspective, channel distinctions are no longer something they should have to worry about. Customers are now readily moving between multiple channels even within one purchasing process. This hybrid shopping process is rapidly becoming the norm, with tremendous implications for creating and delivering product offerings while maintaining a seamless customer experience. Integrated marketing, pricing rationalization, channel-specific sales metrics, and employee incentive structures all need to be carefully thought through and implemented to match these customer needs.

$^{87}$ Online shoppers, interaction during purchasing process by IAMAI 2009.