

## PRODUCT DEVELOPMENT LIFE CYCLE WITH REFERENCE TO ICICI BANK

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**ABSTRACT:** In the fast-changing financial market, banks must employ the Product Development Life Cycle to stay competitive, prioritize users, and foster new ideas. The largest private bank in India, ICICI Bank, is investigating its PDLC approach. The inquiry follows financial solutions from creation to release and expansion. To understand how this bank supports innovation, explore ideation, market research, feasibility studies, product design, development, launch, and performance evaluation. To promote product growth and customer happiness, ICICI Bank must implement risk management regulations, legal compliance frameworks, IT systems, and customer feedback techniques. Agile product development allows the bank to adapt to changing consumer preferences, fintech competitors, and regulations. PDLC shaped the banking sector's long-term success.

**Keywords:** *Product Development Life Cycle (PDLC), ICICI Bank, Financial industry, Customer-centric approach, Innovation, Ideation, Market research*

### 1. INTRODUCTION

The Product Development Life Cycle (PDLC) includes ideation, prototyping, mass production, marketing, and discontinuation. It lets you design distinctive goods that boost business value, customer satisfaction, and global sales. Competitive, fast-paced firms can reduce risks, align plans with market expectations, and preserve efficiency by encouraging professional development and learning (PDLC). It optimizes resource use and predicts future events.

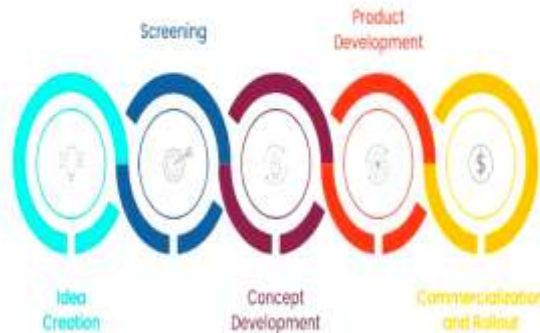
Product development includes ideation, production, testing, and advertising. Businesses may be able to recognize and manage these issues before they escalate with this help. Daily, the product's worth and success rise. Management, research, engineering, marketing, and planning must work together to produce new goods to meet company goals. Clients run the PDLC. Due to market changes, competitor analysis, and consumer input, companies constantly improve their products. A strategy that stresses customer satisfaction will boost customer loyalty, product quality, and satisfaction. Responding to real events may boost business value and provide them an edge over competition.

Product development is becoming faster and more advanced. Globalization and technology are to blame. In today's competitive corporate environment with short product life cycles, departments must interact and adapt to survive. PDLC speeds up product releases and improves operations. Prioritize these two variables to beat competitors and seize opportunities. PDLC balances regulation and creativity to boost income, performance, and plan consistency.



## 2. PRODUCT DEVELOPMENT LIFECYCLE

The first step in product development is generating an idea, which guides all subsequent changes. From ideation to market release, new product development involves many steps.



### Idea Creation

Businesses brainstorm new items before developing them. Many companies are developing new items. Clients, rivals, news agencies, staff, and vendors are included. During product development, generate many new ideas. This section helps clients resolve concerns. The basis for the next phases is laid in this phase. Products are built on ideas.

### Screening

Eliminating unrealistic ideas is necessary before executing the list. By asking consumers, staff, and other businesses for feedback, the company may avoid rash judgments. Regulations, competition, and technology drive corporate decisions. After reviewing all options, the group has some ideas.

### Concept Development

The company researches product costs, manufacturing processes, and profit margins. SWOT analysis helps a company estimate market size. Marketing strategy includes segmenting the product market by buyer demographics. Market segmentation helps companies stand out. Marketing should prioritize specialization.

### Product Development

Design and manufacture determine product size. Making a prototype while the product is being created can help determine its success. After testing, the business colleague will decide if the product can be widely distributed.

### Commercialization and Rollout

If the development concepts work, the product may be sold and circulated widely. The new product ad campaign has begun. During ideation, a market paper is needed to establish the best timing and place for product launch. Content marketing may help software as a service (SaaS) organizations create a content strategy, produce high-quality material, and reach new audiences through digital PR.

## 3. LITERATURE SURVEY

Mira da Silva, M. (2025): Discovering new objects 25 years later is examined in this paper. Maria do Brasil, M.C. This paper discusses great product managers' tactics, methodologies, and KPIs. Discovery efforts appear to affect first judgments in academic publications, trade

journals, and blogs. To ensure consistency and assurance, alignment, paper, ideation, prototype, validation, and refinement receive the greatest focus.

Ulewicz, Malgorzata (2024): This paper proposes a new product production method that prioritizes high-quality materials and eco-friendliness to create durable products. Life Cycle Assessment (LCA) and Quality Life Cycle Assessment (QLCA) frameworks evaluate consumer and environmental needs while designing or manufacturing products. At the start of their development, the framework can help organizations balance these two key variables. A five-step process evaluates prototype quality using customer and environmental factors.

Schleich, B. (2023): Schleich, B. This paper examines how digital twins can improve PLM and complex professional tasks. Digital twins of physical things can track product usage and advise design decisions. The paper recommends integrating data from multiple product versions. Digital siblings help you understand the product's operation over time, helping you to discover user demands and make design decisions.

Davvetas, V. (2022) Davvetas, V. (2022) consults marketing professionals from many nations and reads several books to assess the product life cycle (PLC) idea. Over 100 academics were surveyed to evaluate if the PLC paradigm needs to be updated for new research and practice. Literature review and citation analysis were used to assess PLC implementation in academic papers and research.

Wang, M.(2021): Mao, M. (2021): The paper found that protecting product design data is harder when working with others. PDLIM—"Product Design Lifecycle Information Model."—organizes design data to ease the transition from pre-design to maintenance and recycling. The research found that digital alternatives and crowd sourcing allow designers to get instant input on product functionality and utility.

Yassine, A. A. (2020): .A. Forsyth. (2012) This paper turns the topic into a convex optimization problem to optimize product development resource efficiency. The main reason people don't progress is money and performance. With these limits, both methods improve development enough to be useful. This paper uses dependency architectures and product design to show how module location affects resource use estimations. The strategy is supported by mechanical design case studies that show investment approaches can improve performance.

## 4. TYPES OF PRODUCT DEVELOPMENT

The process of making a product includes four main steps:

- ❖ **New product development**
- ❖ **New feature development**
- ❖ **Enhancement to existing feature**
- ❖ **Rebranding**

Products go through their development lifecycles successively.

### **New Product Development**

"New product development" (NPD) involves designing and marketing a product to meet a need. The process includes prototyping, testing, market research, ideation, and product launch. Businesses often enter new markets or complicate old ones to generate revenue while

developing new goods. Uber's speed and smartphone app accessibility have changed urban transportation.

### New Feature Development

Adding features makes a product more useful and sets it apart from competition. Our products always outperform the competitors. Instead of developing a new product as market or consumer preferences change, this strategy might be used. It enhances an existing instrument. Instagram created Reels to compete with other short-film websites. We wanted to improve Instagram by adding more engaging, fast-sharing content. Before adding features, make sure the product will improve and meet its goals. To use this efficiently, you must monitor the service's usage, detect issues, and fix them.

### Enhancement to Existing Feature

Minor feature changes might improve a product's functionality, efficiency, or utility. to improve product attractiveness and usability. Enhancements to social media privacy settings are obvious. Enhancements like faster software or better security are less obvious. This reminds me of Facebook. Social media platforms introduce new features constantly to help consumers personalize their websites and content. It boosts their satisfaction and confidence in you. Product longevity is determined by new technologies, consumer feedback, and analytics.

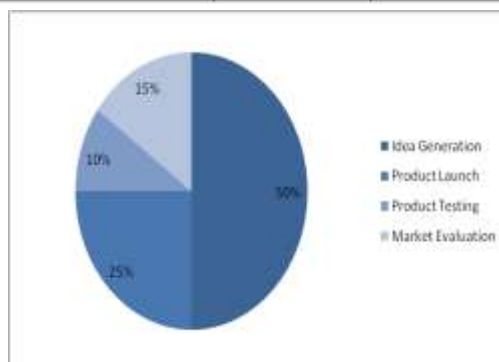
### Rebranding

Marketing "rebranding" goes beyond changing a product's name, image, or color scheme. These include changing the product's name to reach more people, entering new markets, and meeting customer expectations. A product may need to change its features, user interface, branding, or promotion to appeal to a specific demographic. A company may change its strategy to attract young people or do business abroad. Rebranding to maintain and attract customers requires market research, creative thinking, and good communication.

## 5. RESULTS

### 1. Can ICICI Bank help develop new product ideas throughout their life cycle?

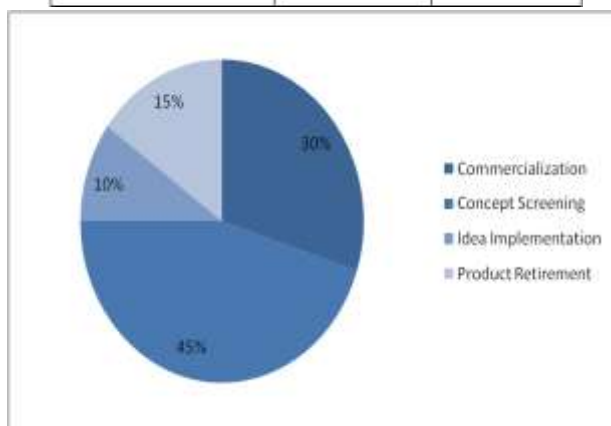
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Idea Generation	50	50%
2	Product Launch	25	25%
3	Product Testing	10	10%
4	Market Evaluation	15	15%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



**INTERPRETATION:** Half of the paper participants said idea generation was most important. This shows your true interest in product development. Launching the product takes 25% of the project. A successful product launch is essential.

**2. What are the ICICI Bank product creation life cycle phases when an idea is conceived?**

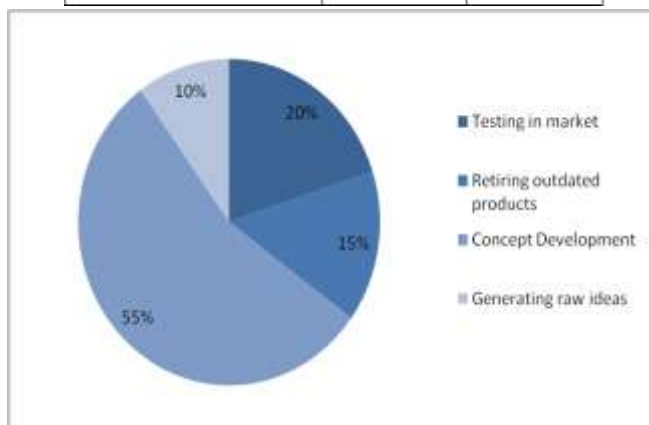
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Commercialization	30	30%
2	Concept Screening	45	45%
3	Idea Implementation	10	10%
4	Product Retirement	15	15%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



**INTERPRETATION:** Concept screening was the most important phase for 45% of participants. The second half of a product's marketing is the most fun. The 25% budget includes 10% for idea implementation and 15% for product disposal. All of this suggests that both product development phases are being neglected.

**3. Which ICICI Bank department develops new product features?**

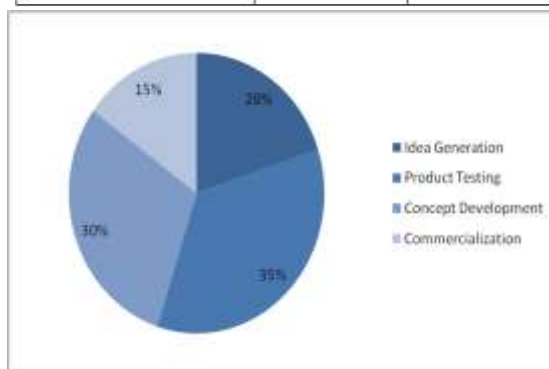
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Testing in market	20	20%
2	Retiring outdated products	15	15%
3	Concept Development	55	55%
4	Generating raw ideas	10	10%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



**INTERPRETATION:** The data show that idea generation is most important. If you trust 55% of poll respondents, the suggestions could be improved. The fact that 20% of the market was tested emphasizes the importance of product functionality before release. Twenty percent of products are outdated or new. 15% of funds go to eliminating old things and 10% to developing new ideas. This suggests that some historical periods are less important than others.

**4. When will ICICI Bank ask customers to try new ideas?**

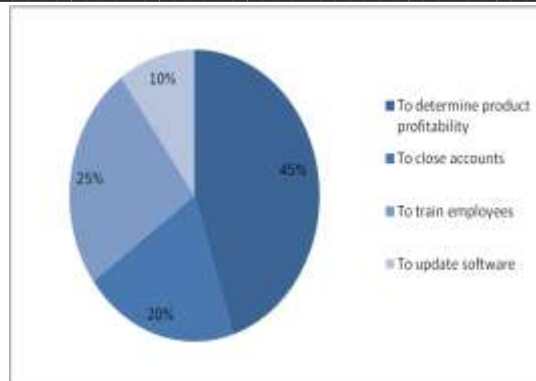
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Idea Generation	20	20%
2	Product Testing	35	35%
3	Concept Development	30	30%
4	Commercialization	15	15%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



**INTERPRETATION:** 35% of survey respondents said product inspection, which ensures quality and saleability, is the most important component of the process. Concept development has a 30% impact, thus working on concepts before starting work is vital. 35% of employees develop new goods and penetrate new markets. Distribution takes 15% of the time, ideation 20%. This suggests neither phase is being prioritized.

**5. How can market research help ICICI Bank develop new products? This's main purpose?**

S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	To determine product profitability	45	45%
2	To close accounts	20	20%
3	To train employees	25	25%
4	To update software	10	10%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



**INTERPRETATION:** The paper found that 45% of respondents prioritized product efficacy. This shows its importance in commercial decision-making. The second most important part of operations is personnel training, weighing 25%. Learning new skills is important. Software updates and account closures make up 30%. Twenty percent goes to account closures and ten percent to software development. This means that neither occupation is important to society.

## 6. CONCLUSION

The Product Development Life Cycle includes planning, development, testing, and small improvements. A product is released when a concept is conceived. Planning generates new ideas to overcome market gaps and meet consumer needs. Each iteration uses the same fundamentals. To improve product quality and safety, a market analysis and testing are done before release. Businesses can quickly fix issues and add new features by monitoring customer input before and after release. Marketing, production, and R&D must coordinate to maximize resource use and reduce risk. PDLC helps organizations create unique, high-quality goods that set them apart from competition, satisfy customers, and encourage growth.

## REFERENCES

1. Puglieri, F. N. (2025): Challenges and opportunities for sustainability in the digital product lifecycle: A systematic literature review. *Sustainability*, 17(16), 7265.
2. Joachimiak-Lechman, K. (2024). Life cycle perspective in design and product development. *Engineering Management in Production and Services*, 16(3), 143-156.
3. Venkatrayulu, C. (2023): Pharmaceutical product life cycle management strategies in the contemporary scenario. *Journal of Pharmaceutical Negative Results*, 14(3), 512–516.
4. Menhas, R., & McDermott, O. (2022). *Managing engineering change within the paradigm of product lifecycle management*. Processes, 10(9), Paper 1770.
5. Mohamed, T. A. (2021): Adjusting the logistic function to develop a more realistic product life cycle model. *International Journal of Product Lifecycle Management*, 13(3), 205–223.
6. Elangovan, U. (2020): *Product Lifecycle Management (PLM): A Digital Journey Using Industrial Internet of Things (IIoT)*. CRC Press.