

Analyzing Mobile Industry Strategies Across Product Life Cycle (PLC) Stages

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Abstract

The PLC has long served as a foundational tool for crafting marketing and strategic decisions, yet its traditional four-stage model often falls short in fast-moving industries like the mobile sector. With rapid technological advancements, shortened product lifespans, and overlapping product generations, mobile devices defy the linear paths assumed in classical PLC theory. This research proposes a customized six-stage PLC model designed specifically for the mobile industry, comprising the Pre-Launch Hype, Introduction, Rapid Growth, Competitive Maturity, Discounted Survival/Substitution, and Obsolescence/Withdrawal stages. Employing a conceptual and qualitative methodology grounded in secondary literature, industry reports, and brand case examples including Apple, Samsung, and Xiaomi, this study explores how key strategic areas such as pricing, marketing, cost management, promotions, and sales behavior shift at each lifecycle phase. By mapping these evolving strategies to each custom stage, the research delivers a dynamic framework better aligned with the constraints and opportunities of the current mobile landscape. The proposed model not only enhances theoretical understanding of lifecycle strategy in high-tech markets but also provides practical insights for firms looking to optimize product positioning, maximize profitability, and extend brand relevance amid accelerating innovation cycles. This paper contributes to both academic discourse and managerial practice by offering a more flexible, actionable PLC framework suited to the realities of today's mobile industry.

Keywords: Product Life Cycle (PLC), Mobile Industry, Marketing Strategies, Pricing Tactics,

1. Introduction

The Product Life Cycle (PLC) has long been recognized as a foundational framework in marketing and strategic management, describing the progression of a product through distinct stages: introduction, growth, maturity, and decline. Traditionally, this model has enabled businesses to align marketing, pricing, and production strategies with each stage by anticipating consumer behavior and competitive dynamics. However, in the context of modern, high-velocity industries such as mobile technology, the assumptions underlying the classical PLC model are increasingly challenged. The linear, predictable transition across stages no longer accurately reflects the turbulent and innovation-driven trajectories of many contemporary products.

Originally conceptualized by theorists including Levitt and Kotler, the PLC model provided businesses with a structured tool to guide resource allocation, promotional focus, and lifecycle planning. Yet, as markets become more saturated and product innovation accelerates, these static models struggle to capture the level of responsiveness now required. In fast-changing sectors, product life cycles are often

shortened, stages overlap, and external factors, such as regulatory shifts, platform dependencies, and sustainability priorities, influence strategic direction in unprecedented ways.

The mobile industry serves as a compelling example of this dynamic. Characterized by relentless technological advancement, compressed lifespans, and frequent product releases, it fundamentally defies the structure implied by traditional lifecycle theory. Unlike durable goods with predictable maturity phases, mobile devices enter a market saturated with consumer expectations and competitors offering incremental innovations at rapid intervals. As a result, products may transition from introduction to obsolescence within a single year, or even coexist across multiple stages through practices like tiered pricing, refurbishment, or software updates.

These inherent characteristics render the traditional PLC model inadequate for guiding strategic decision-making in mobile markets. For instance, while classical theory suggests a clear decline phase, many mobile products are instead repositioned, refurbished, or rebranded to target new customer segments. Companies often leverage overlapping launches, backward compatibility, trade-in incentives, and service ecosystems to prolong the relevance of older devices, even as new models dominate the spotlight. Such strategies blur the linearity of the product lifecycle and demand a more nuanced, agile framework to support consistent value delivery across varying phases of a device's life.

Historically, organizations have used the PLC model to shape decisions across multiple areas: setting pricing strategies, tailoring promotions, managing distribution channels, forecasting sales, and timing withdrawal. These functions remain critically important in the mobile sector but require faster, data-driven adjustments and finer segmentation. The high cost of research and development, combined with the premium placed on innovation, compels companies to recoup investments more quickly while minimizing risk from short product lifespans. Strategic innovation, such as bundling devices with services, offering limited-edition variants, or using demand forecasting algorithms, has become essential in managing mobile product performance across the lifecycle.

Equally important are emerging sustainability concerns that extend beyond traditional profitability metrics. In an era of environmental consciousness, factors such as durability, ease of repair, recyclability, and e-waste management increasingly influence consumer behavior and corporate strategy. Lifecycle extension strategies, including device trade-ins, certified refurbished products, and modular designs, are becoming vital not only for cost efficiency but for reducing environmental impact. Integrating these dimensions into lifecycle thinking adds a new layer of complexity that the classic PLC model was never designed to consider.

2. Objective of Study

The primary objective of this study is to develop and analyze a mobile industry specific Product Life Cycle (PLC) model that reflects the compressed, innovation-driven nature of mobile product markets. This research aims to:

- Construct a practical six-stage PLC framework tailored for mobile devices.
- Examine how strategic elements, such as pricing, marketing, cost optimization, offers, and sales tactics, change at each lifecycle stage.
- Provide conceptual insights based on real industry practices.
- Offer a guide for managers to adapt lifecycle strategies to evolving mobile market conditions.

3. Literature Review

The concept of the PLC has long served as a foundational framework in marketing and strategic management. Classical theorists such as Levitt, Kotler, and Vernon defined the PLC as a sequence of stages, introduction, growth, maturity, and decline, each representing shifts in market behavior, customer adoption, competitive intensity, and profitability. These stages were used to guide decision-making in product development, marketing investment, and strategic planning (Komninos, 2002). However, over time, this traditional model has been criticized for its static nature and limited ability to effectively capture real-world complexities, especially in fast-paced industries such as electronics and mobile technology. As highlighted by Kreimeyer, Stölzle, and Dausch (2024), today's business environments are more dynamic, and real products rarely move linearly through the rigid stages suggested by early PLC models.

The limitations of the classical model have been studied extensively in both theoretical and applied research. Cao and Folan (2009) emphasize that the traditional PLC model struggles with empirical validation, as many products exhibit irregular or unpredictable sales patterns that deviate from the expected bell curve. Additionally, the duration and transition between each stage can vary significantly across industries. In the context of high-technology markets, products may shift from growth to decline within remarkably short time frames, or even cycle through several relaunch phases that defy the model's original assumptions. As such, there has been increasing acknowledgement that while the PLC remains a useful conceptual tool, it requires adaptation to fit industry-specific circumstances.

These challenges are particularly pronounced in the mobile phone industry. With a product environment defined by rapid innovation, intense competition, and changing consumer preferences, mobile devices typically experience compressed PLCs, with shorter introduction and maturity phases, and sudden declines driven by technological obsolescence or new market entrants. Wicek-Janka et al. (2017) observed this trend in Apple products, illustrating how mobile phones often overlap across life cycles and sometimes bypass the maturity stage entirely due to annual updates and strategic cannibalization. Berkhout & Hartmann, (2020) further support this argument, suggesting that traditional PLC models do not adequately reflect the complexity of mobile products, especially when the interdependencies between product, technology, and market life cycles are taken into account.

From a marketing strategy perspective, firms in the mobile sector deploy highly stage-specific approaches to remain competitive under these dynamic conditions. At the introduction stage, companies typically engage in heavy promotion, offering innovative product features and exclusive launches to attract early adopters (Kabir et al., 2021). As the product enters growth, strategies shift to emphasize differentiation and price balance to reach wider audiences. In the case of brands like Apple, maturity is managed through intentional product tiering, older versions are discounted and offered to budget-conscious consumers while newer models lead at higher price points (Fauzi et al., 2016). Decline is mitigated with refurbishment programs, software updates, and sustainability messaging, which help extend perceived value and delay market exit. As highlighted by OjcmT (2019), digital transformation across marketing platforms has become central to extending mobile product longevity through targeted ads, user engagement, and community ecosystems.

Additionally, strategic innovation in pricing and launch management is fundamental. Lee & Kim et al. (2014) used agent-based simulations to demonstrate how behavioral consumer analysis can fine-tune pricing and timing strategies. In China, state subsidies have impacted consumer preferences and shifted the PLC curve by boosting short-term demand, thereby extending growth or delaying decline (Hou and

Zhou et al., 2025). Such interventions indicate how external factors further distort the classic PLC trajectory, reinforcing the need for adaptive models. The rapid pace of device evolution evident in Apple's annual launches, necessitates short product development cycles, frequent refreshes, and synchronized marketing and logistics, all of which place pressure on accurate sales forecasting and inventory management (Xi, 2021).

Moreover, sustainability has emerged as another critical layer requiring inclusion in PLC strategy formulation. Studies by Cordella and Alfieri et al., (2021) indicate that the durability, repairability, and recyclability of smartphones play vital roles in extending their usable life and reducing carbon footprints. A lifecycle analysis conducted on refurbished smartphones in Chile revealed that reusing mobile devices greatly reduces environmental impact compared to manufacturing new ones (Wiche & Pequeño et al., 2022). Modeling work by Oberoi (2019) also shows that mobile product life cycles tend to shrink due to innovation pressure, undercutting the time available for firms to recover R&D costs and achieve profitability. These environmental and economic factors jointly support the need for more agile, data-responsive life cycle models.

Altogether, the collective insights of past studies make it increasingly evident that the classical PLC model, while conceptually robust, does not capture the full complexity of today's mobile product ecosystems. These products evolve within overlapping platforms, multi-tiered pricing environments, global marketplaces, and policy influences, all while being expected to meet sustainability criteria. For these reasons, there is growing recognition among researchers and practitioners of the need for a customized PLC model specifically tailored to mobile devices. Such a framework would better reflect compressed life cycles, high innovation intensity, and the fluid marketing strategies required in today's highly volatile market.

4. Research Methodology

This study adopts a conceptual and qualitative approach to analyze how strategic management and marketing activities in the mobile industry are shaped by the Product Life Cycle. Rather than employing empirical or statistical methods, the research is structured around theoretical synthesis, critical literature analysis, and industry observation. The approach is intentionally selected to capture nuances and context-specific dynamics that are often missed by quantitative methods, especially in sectors characterized by rapid innovation and market volatility.

Data Sources

The research relies primarily on secondary data and academic literature from peer-reviewed journals, industry reports, and case studies relevant to PLCs, mobile industry dynamics, and strategic management. The following sources form the backbone of the review:

- Foundational and critical works on PLC theory and its evolution.
- Sector-specific analyses focused on consumer electronics and mobile products.
- Case studies highlighting strategy shifts at different PLC stages.
- Documentation of industry trends, including pricing, marketing, cost management, and sustainability initiatives within mobile product life cycles.

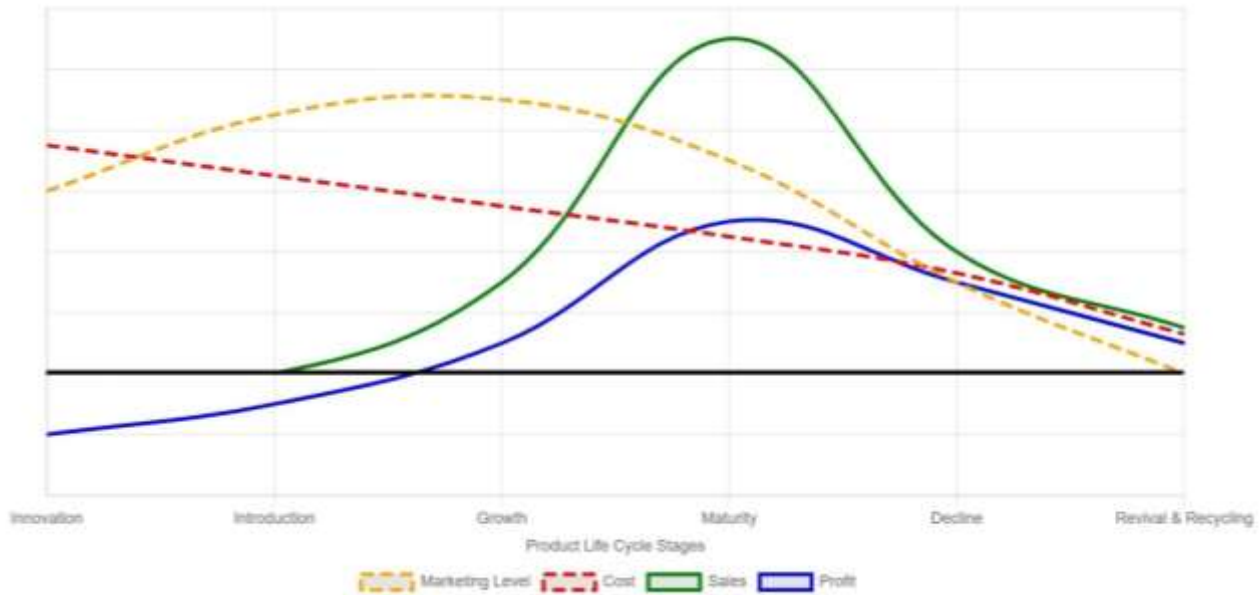
All sources are selected for their scholarly validity and contemporary relevance, with particular emphasis on those addressing the mobile sector's unique characteristics.

Scope and Limitations

The study is limited to a **qualitative, conceptual** exploration without primary data collection or quantita

tive modeling. It focuses exclusively on mobile devices (such as smartphones) and associated strategies. Broader technology, service, or multi-industry analysis is beyond the current research scope.

5. Proposed Product Life Cycle (PLC) Model for Mobile Industry



Graph 1: Product Life Cycle of Mobile Industry

Innovation Stage (Pre-Launch Hype)

The proposed Product Life Cycle (PLC) model for the mobile industry offers a comprehensive and nuanced understanding of how key strategic levers, marketing intensity, cost management, sales patterns, and profit margins evolve throughout a product's existence in an environment defined by rapid innovation, intense competition, and shifting consumer expectations.

In the very initial phase, known as the innovation stage, organizations devote substantial attention and resources to laying the groundwork for future success. Marketing during this period is focused on creating anticipation, not immediate sales. Investments here are often directed at educating the market, cultivating relationships with partners, and positioning the upcoming product within the brand ecosystem. Costs are driven predominantly by research, development, prototyping, and initial testing. These expenditures occur well before revenue streams emerge, resulting in significant operating losses. No measurable sales are recorded, as the product is not yet available to consumers. The heavy upfront investment and the absence of income mean profits are negative, often signaling high risk and uncertainty but also laying the foundations for market entry.

Introduction Stage

Once the product transitions into the introduction phase, marketing efforts intensify further. The main objective during this stage is to break through market noise, generate awareness, and entice early adopters. Promotional spending peaks as the company employs bold advertising campaigns, launch events, influencer partnerships, and other tactics to drive initial demand. Distribution networks are carefully chosen and expanded, but operational inefficiencies can persist as production begins to scale. The cost of manufacturing remains high due to the need to fine-tune supply chains and optimize logistics, though it gradually declines as operations become more familiar with the product. Sales begin to register

as innovators and early adopters engage with the new offering; however, volumes are still modest. Profits improve from their lowest point since initial revenues start to offset the preceding torrent of expenses, but breakeven remains out of reach for most firms at this stage.

Growth Stage

During the growth period, the marketplace response becomes much more pronounced. As consumer acceptance accelerates, demand surges and the product gains mainstream traction. Marketing, though still substantial, transitions from pure awareness-building to reinforcing the product's unique features and expanding reach to new customer groups. Targeted messaging, loyalty programs, and differentiated value propositions become important. Operational costs reduce more sharply due to realized economies of scale, refined processes, and supply chain optimization. Sales rise dramatically, capturing a wider array of customer segments. For the first time, profits turn positive and begin to grow rapidly, as revenues outstrip costs and the company capitalizes on both increased demand and improved efficiency. The firm may focus on introducing upgrades, improving service, and expanding distribution to new geographies during this bullish phase.

Maturity Stage

As the product approaches maturity, the strategic environment shifts yet again. With heightened competition and market saturation, companies redirect marketing from broad messaging to strategies focusing on customer retention, segmentation, and loyalty. Rather than aggressively pursuing new consumers, efforts are redirected toward differentiating the product, offering value-added services, and bundling complementary products. Cost continues to decline, aided by established, efficient processes and strong vendor relationships. Sales volumes peak, representing the product's zenith in the market. This phase is typically the most lucrative, as profit margins are maximized owing to strong demand, high operational efficiency, and mitigated promotional costs compared to earlier, more aggressive marketing periods. Firms often extend product relevance through minor innovations, customization, or enhanced after-sales service to resist the onset of decline.

Decline/Survival Stage

Eventually, products enter the decline stage, characterized by diminishing relevance and market share due to technological advancements and shifting consumer preferences. Marketing spending tapers off significantly, limited mostly to efforts aimed at clearing inventory or reaching niche segments that still value the product. Companies adopt defensive pricing, cost-saving measures, and consider scaling down production or repurposing manufacturing assets. Operational costs continue to drop, as production volumes decrease and the focus moves to extracting remaining value from existing assets. Sales volumes decrease markedly, and competition may erode margins further. Profits, once at their height, now begin to wane, and resource allocation is carefully scrutinized to avoid unnecessary outlays.

Revival & Recycling Stage

What distinguishes the mobile industry and is captured explicitly in this model, is the final phase of revival and recycling. After the principal life of the product appears over, companies implement circular economy strategies. Minimal marketing is conducted, often limited to campaigns promoting trade-in, refurbishment, or environmentally responsible disposal programs. Costs are pared down to the bare minimum required to process, recycle, or refurbish returned devices. While overall sales slow considerably, there remains a market for refurbished units, parts, or secondary applications in less affluent markets. Profits at this stage are modest but can be positive thanks to stringent cost control and new revenue streams generated from recommerce initiatives and material recovery. These efforts not

only extract residual value from older products but also enhance brand reputation for corporate responsibility and sustainability.

Overall, this model emphasizes a fluid, percentage-based progression of core business variables. Marketing, cost, sales, and profit curves do not move in rigid, discrete steps but flow dynamically, intersecting and influencing one another as the product navigates the fast-evolving mobile marketplace. Unlike classical PLC models, this approach explicitly accounts for accelerated cycles, overlapping generational launches, the strategic extension of old products, and the final push toward sustainability through revival and recycling. It enables industry practitioners to anticipate when to intensify or reduce marketing, when to prioritize efficiency, and how to transition from growth to end-of-life strategies without relying on static milestones. This perspective provides the granular clarity needed for agile decision-making within one of the world's most competitive and technologically advanced industries.

6. Strategic Analysis by Product Life Cycle Stage

Innovation Stage (Pre-Launch Hype)

Pricing Strategies: At this stage, companies do not typically disclose pricing to the public. Instead, they develop internal price strategies by assessing research and development costs, analyzing the market's willingness to pay, and targeting specific customer segments for the upcoming launch.

Marketing Tactics: Efforts in marketing are primarily directed at generating excitement and anticipation through methods such as selective leaks, invitations to early previews, and relationships with influencers or industry insiders. For instance, Apple is known for its carefully staged information releases and teaser campaigns before product announcements.

Cost Management Focus: Organizations are heavily focused on research and development expenditures, prototyping, and building the foundational ecosystem for the product. This phase involves planning and negotiating supply agreements ahead of market entry to help manage early costs.

Offers and Promotions: During innovation, there are typically no customer-facing offers. However, companies may collaborate with app developers or other partners, offering early access or incentives to stimulate ecosystem readiness.

Sales Behavior (Qualitative): No direct sales occur at this stage since the product is still under development. The primary aim is to build market anticipation and set the stage for a successful launch.

Introduction Stage

Pricing Strategies: Most brands introduce new mobile devices with premium pricing, aiming to capture early adopters who value exclusivity and cutting-edge features. Over time, these initial prices may be lowered as the product moves out of the launch window.

Marketing Tactics: There is a significant emphasis on attention-grabbing campaigns, including launch events, partnerships with influencers, and broad media outreach. Brands like Samsung and OnePlus use spectacular events and media collaborations to create a buzz at product release.

Cost Management Focus: Companies devote attention to resolving production inefficiencies and managing supply chain logistics as manufacturing scales up. High investment in promotional activities continues, but gradual improvements in manufacturing lessen unit costs.

Offers and Promotions: Some brands offer early-bird promotions, limited pre-order incentives, or bundled gifts to encourage early adoption. Xiaomi is well-known for prompt flash sales tied to exclusive discounts for quick buyers.

Sales Behavior (Qualitative): Sales start to come in, driven mainly by enthusiasts and early adopters enticed during launch. The pattern often involves spikes during event-driven online releases, which can help drive quick awareness and initial momentum.

Growth Stage

Pricing Strategies: As the product moves into the mainstream, pricing may be incrementally adjusted to appeal to a broader market. Companies often introduce lower-priced variants to reach more price-sensitive segments, following an initial period of premium pricing.

Marketing Tactics: Marketing shifts toward reinforcing product differentiators and building loyalty with the broader consumer base. Brands sponsor major events and run comparison campaigns to stand out in a crowded field.

Cost Management Focus: Firms focus intently on improving manufacturing efficiency, negotiating volume discounts with suppliers, and optimizing logistics. The emphasis here is on operational effectiveness to support expanding demand.

Offers and Promotions: There is frequent use of exchange programs, trade-in deals, and special cashback offers to incentivize both new and repeat buyers. Apple, for example, leverages trade-in programs to drive sales of new models.

Sales Behavior (Qualitative): Sales accelerate rapidly in this phase as the device gains widespread market acceptance. Positive reviews and word-of-mouth contribute to a strong growth trajectory.

Maturity Stage

Pricing Strategies: Companies respond to rising competition by making products more accessible through price cuts, discounts, and bundling. Older models often see substantial price reductions to remain attractive.

Marketing Tactics: Efforts focus on customer retention through loyalty programs and extended service offerings. Brands concentrate on surviving in a saturated market by promoting value and differentiation.

Cost Management Focus: Operational processes are streamlined, and companies invest in supply chain optimization, often reusing platforms and components from existing product lines to enhance margins.

Offers and Promotions: Bundled sales such as smartphones paired with accessories or service contracts are increasingly common. Brands also launch longer-term financing or seasonal promotions to maintain consumer interest.

Sales Behavior (Qualitative): Sales reach their peak and then start to plateau. Demand is primarily driven by replacement purchases and loyalty-driven upgrades rather than new customer acquisition.

Decline Stage

Pricing Strategies: As the product's relevance wanes, brands employ aggressive price cuts and clearance tactics to offload remaining inventory. Drastic reductions are used to appeal to bargain shoppers and clear the way for new models.

Marketing Tactics: Marketing is scaled back to minimal levels, targeting only the most price-sensitive or niche consumer segments remaining in the market. Remaining advertisements focus on value, reliability, or end-of-line features.

Cost Management Focus: Firms reduce production levels, minimize inventory costs, and phase out all but essential support operations for the device. The goal is to minimize financial exposure as demand falls.

Offers and Promotions: Deep discounts, buy-one-get-one deals, and generous accessory bundles are common. Companies often package remaining stock with appealing offers to ensure swift inventory clearance.

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Sales Behavior (Qualitative): Sales shrink quickly, and the buyer profile shifts towards late adopters or those motivated purely by price rather than brand loyalty or innovation.

Revival & Recycling Stage

Pricing Strategies: The focus in this closing stage is on competitive pricing for certified refurbished devices and attractive trade-in values for customers recycling older models.

Marketing Tactics: Promotional activities highlight the environmental benefits of recycling, availability of pre-owned devices, and extra value through warranties on refurbished products. Apple's "Renew" and Samsung's "Certified Re-Newed" exemplify such approaches.

Cost Management Focus: Lean, efficient operations are key; costs are centered on refurbishing, recycling logistics, or final product support in secondary markets.

Offers and Promotions: Brands offer trade-in bonuses or discounts on new models for customers returning old devices. Extended warranties for certified refurbished products provide added incentive.

7. Comparison with the Traditional Product Life Cycle Model

Table 1: Traditional PLC vs. Proposed Mobile PLC Model

Aspect	Traditional PLC Model	Proposed Mobile PLC Model
Stages	Introduction, Growth, Maturity, Decline	Innovation, Introduction, Growth, Maturity, Decline, Revival & Recycling
Relevance to Mobile Industry	Developed for slow-evolving products and stable markets; often assumes linear, predictable phase transitions	Explicitly addresses rapid innovation, overlapping launches, short windows, and end-of-life revival in the mobile industry
Strategic Flexibility	Prescribes broad, sequential strategies; slower to respond to disruptive changes; less adaptable to sudden market shifts	Designed for agile, phase-specific tactics with room for recycling, refurbishment, and repeated adaptation to shifting consumer demands
Lifecycle Duration	Typically spans several years to decades, with lengthy maturity and decline periods	Highly compressed—products can move from introduction to decline in under a year; maturity is brief and often bypassed due to continual innovation cycles
Example Brand Behaviors	Price skimming at launch, broad-based mass marketing, planned obsolescence as a late-stage move	Skimming (Apple), flash sales (Xiaomi), continuous product refreshes, circular economy programs (Apple, Samsung certified renewal)

Why the Mobile Sector Needs a Custom PLC Model

The traditional PLC model was designed for products in industries with stable technologies and slow market evolution, where product phases unfold in predictable, well-defined steps. In such cases, organizations could plan campaigns, manage inventory, and optimize costs with relative certainty about the product's journey from launch to obsolescence.

However, the mobile sector is distinguished by relentless and disruptive innovation, extremely short product windows, and overlapping generational launches that defy the linear sequence of the standard PLC curve. Mobile device life cycles are compressed, with new models superseding previous ones

within months. Companies often orchestrate planned price declines, refurbishing campaigns, and secondary market strategies long before the classical signposts of maturity or decline are reached. Rapid shifts in consumer behavior, enabled by online channels and digital marketing, further accelerate transitions between stages.

A custom PLC model acknowledges these realities by adding new stages, particularly Innovation (focused on R&D and hype-building) and Revival & Recycling (addressing refurbishment and circular economy strategies), that capture the complex, overlapping, and sometimes recursive nature of the mobile product journey. It provides managers with more granular guidance for marketing, cost management, sales tactics, and sustainability at every point in the lifecycle, improving strategic flexibility and competitiveness in the fast-moving mobile industry. This tailored approach allows mobile brands to make agile, data-informed decisions, better aligning resources with the demands and opportunities of real-time market conditions.

8. Key Findings and Managerial Insights

Major Insights from the Analysis

- The traditional PLC model falls short in capturing the rapid, nonlinear, and recurring product cycles in the mobile industry, prompting the need for a custom framework tailored to its realities.
- Mobile device life cycles are highly compressed, with innovation and new product launches occurring far more frequently than in conventional sectors. Manufacturers must anticipate rapid transitions from introduction to decline and often orchestrate multiple overlapping life cycles within their portfolios.
- Brand strategies in the mobile sector, such as Apple's skimming pricing for early adopters or Xiaomi's use of flash sales and aggressive value offers, showcase the necessity of phase-specific marketing and pricing tactics. These approaches maximize early profitability, build momentum quickly, and support sustained engagement through mid-cycle offers or end-of-life revivals.
- The addition of Innovation and Revival & Recycling stages in the custom model broadens the strategic toolkit for mobile brands, embracing early hype creation and circular economy considerations alongside classical strategies.
- The importance of sustainability and the integration of refurbishment and recycling programs has become a strategic differentiator, extending the brand lifecycle and enhancing reputation while controlling end-of-life costs.

Table 2: Stage-wise Design of Marketing and Pricing Strategies

Stage	Marketing Focus	Pricing Strategy	Example
Innovation	Build anticipation, brand ecosystem	Internal price modeling	Apple's secretive teasers
Introduction	Large-scale promotion, launch events	Premium/Skimming	High iPhone launch prices
Growth	Loyalty, differentiation, event sponsorships	Incremental adjustments	Samsung's expanded variants
Maturity	Retention, bundle offers, loyalty programs	Discounts/Value Bundling	Price cuts on older models

Decline	Clearance, targeted late-adopter campaigns	Deep price reductions	LG clearance sales
Revival & Recycling	Circular economy, trade-in and sustainability	Value pricing for second life	Apple Renew program

- Early stages demand investment in hype, influencer engagement, and technology partnerships before public pricing is announced.
- At launch, premium pricing and strong branding position the product for early adopters and set market expectations.
- As products enter growth and maturity, brands pivot toward broader market capture through adjusted pricing, value offers, and segmentation, ensuring steady demand and defending against rivals.
- During decline, rapid price reductions coupled with targeted promotions help clear inventory efficiently and tap remaining demand.
- The final revival and recycling stage leverages refurbished sales, buybacks, and trade-in initiatives to retain value and engage environmentally conscious or budget-sensitive consumer segments.

Strategic Implications for Launch Timing, Offer Design, and Cost Control

- **Product Launch Timing:** Launches are most effective when synced with customer upgrade cycles, major technology shifts, or festival seasons. Precisely timed events and coordinated multi-channel campaigns can maximize early exposure and capitalize on initial demand spikes.
- **Offer Design:** Early-bird deals, exclusive bundles, trade-in incentives, and flash sales create urgency, reward loyal customers, and catalyze social buzz. Multiple offer types must be planned for differing stages, shifting from exclusivity to accessibility and eventually to clearance or recirculation-focused offers.
- **Cost Control:** Proactive supply chain and production management is critical. Early-stage cost discipline (modular designs, volume negotiations) transitions to operational efficiency as scale increases and, finally, leanness in decline and revival. Throughout, systematized refurbishment and recycling programs manage end-of-life costs and support sustainability goals.

9. Conclusion

The mobile industry's relentless pace of innovation and compressed product life cycles demand a PLC model that goes far beyond traditional frameworks. The proposed model, featuring discrete stages of innovation, introduction, growth, maturity, decline, and revival/recycling, offers mobile sector managers a dynamic and actionable roadmap. By mapping strategies for marketing, pricing, offer design, and cost control to each stage, companies can maximize early returns, effectively scale, respond to emerging competition, and extend the useful life of their products through refurbishment and recycling.

Ultimately, this approach delivers not only improved financial and competitive outcomes but also reinforces sustainable business practices essential in today's technology markets. For practitioners, the key takeaway is clear: success in the mobile sector depends on agile, stage-specific strategy, continuous adaptation, and a commitment to extracting and preserving value across the entire product journey.

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