



Market segmentation, target market selection and the product life cycle: A theoretical framework and strategic implications

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Abstract

Market segmentation, target market selection and the product life cycle (PLC) constitute core analytical instruments in modern strategic management and marketing science. Traditional research has for the most part treated the three as mutually independent, static analytical modules, and has seldom examined the bidirectional causality and dynamic co-evolutionary mechanisms among them, thereby producing strategic fragmentation in managerial practice and static prescriptions ill-suited to shifts in the industrial environment. Through a systematic literature review and theoretical integration, the present study constructs a Segmentation–Positioning–Life-Cycle Model (SPLM) dynamic integrative framework, systematically demonstrating that PLC stages systematically determine the maturity, identifiability and differentiation space of market segmentation; concurrently, the degree of refinement of a firm's segmentation strategy, its resource allocation logic and its iteration cadence in turn shape, prolong or shorten the evolutionary trajectory of the product life cycle. On the basis of this framework, three core strategic principles are distilled—dynamic fit, first-mover advantage and resource matching—incorporating contemporary segmentation paradigms such as customer lifetime value segmentation and hybrid multidimensional segmentation, and combining quantitative analytical tools including perceptual mapping and the Norton–Bass multigenerational diffusion model, so as to assemble a closed-loop strategic cycle running from market structure diagnosis, through target market resource decisions, to the construction of consumer mindshare positioning. It is found that in highly uncertain high-technology environments, dynamic strategic matching outperforms the pursuit of static optimality, and that a staggered multi-product life cycle portfolio can effectively smooth industrial cyclical fluctuations and reduce operational risk. The study addresses the integration gap between traditional STP theory and PLC theory, offers a unified analytical framework for dynamic strategy research, and provides actionable managerial guidelines for firms undertaking market segmentation, target market screening and positioning reconstruction at each stage of the product life cycle.

Keywords: Market segmentation, target market selection, product life cycle, strategic positioning, dynamic strategy, SPLM integrative framework

Introduction

Since its formal introduction by Smith (1956) ^[22], market segmentation has become a cornerstone concept of modern marketing theory. Its core logic rests on the proposition that an aggregate market is not a homogeneous collectivity but is composed of consumer sub-groups differentiated by needs, preferences, purchasing motives and consumption behaviour; firms must therefore employ scientific demarcation criteria to disaggregate a heterogeneous mass market into segments that are homogeneous within and heterogeneous between, so that limited corporate resources may be allocated precisely to high-potential customer groups, avoiding resource dispersion and ineffective investment (Wedel & Kamakura, 2000) ^[26]. Immediately following market segmentation, target market selection takes up the output of segmentation analysis and, on the basis of the firm's internal resource endowments, competitive position and long-term strategic vision, completes the trade-off, answering the critical decision question of which segments resources should be directed towards and which market domains should be abandoned. Strategic positioning then completes the leap from external market structure analysis to the level of consumer cognitive perception, seeking to establish in the minds of target customers a distinctive value perception differentiating the firm from competitors; it is the cognitive vehicle of differentiated competitive advantage (Mogaji, 2025) ^[13]. Product life cycle (PLC) theory introduces a temporal and

evolutionary dimension into the static STP analytical system. The classic PLC model divides product market development into four stages—introduction, growth, maturity and decline—which exhibit systematic differences in market demand scale, consumer structure, competitive intensity, profit models and technological iteration cadence (Wernerfelt, 1985) ^[27]. PLC theory cautions that no marketing prescription remains permanently valid; the market environment evolves continuously and strategy must iterate accordingly.

For a long time, however, textbooks, practitioner training and a substantial body of academic literature have been accustomed to teaching and testing market segmentation, target market selection, positioning and the product life cycle as mutually discrete instruments (Nenonen & Storbacka, 2021) ^[14]. Segmentation research has focused predominantly on static market disaggregation, testing the predictive validity of different segmentation variables; PLC research has emphasised describing how sales and profits vary over time, yet has seldom analysed in depth 'how life cycle stages alter the structure of market segmentation' and 'how firms' segmentation decisions in turn alter the trajectory of the product life cycle'. A conspicuous theoretical gulf exists between static STP analysis and dynamic PLC evolution (Lu, 2019). The recently emerging theory of market-shaping has begun to attend to firms' agency in actively transforming market structures. Flaig *et al.* (2021) ^[5] propose a three-phase market-shaping

framework—market injection, market formation and market maintenance—explaining that firms not only adapt passively to markets but may also shape demand and reconfigure competitive landscapes through strategic action. Concurrently, research on dynamic segmentation indicates that traditional static attribute-oriented market segmentation cannot accommodate the characteristics of consumer behaviour as it changes over time, and that segmentation methodologies capable of continuous updating as markets evolve must be developed (Wedel & Kamakura, 1997). These theoretical developments furnish an important foundation for the dynamic integration undertaken in the present study.

In light of the theoretical gap, three core research questions are posed

1. How do different stages of the product life cycle affect the maturity and structural characteristics of market segmentation, and the practical effectiveness of segmentation strategies?
2. How do firms' market segmentation and target market selection strategies act in reverse, thereby altering the evolutionary trajectory of the product life cycle?
3. In a highly dynamic and highly uncertain competitive environment, what strategic principles should firms follow in order to maintain fit among segmentation, target selection and positioning on the one hand and the product life cycle on the other?

Theoretical Foundations

Market segmentation is the starting point of the entire STP strategy, and the choice of segmentation variables directly determines the quality of all subsequent decisions concerning target market screening, positioning and the 4P marketing mix. If the segmentation basis is improperly chosen, all subsequent strategy will be built upon erroneous market perceptions (Gensch & Welam, 1973) ^[7]. This chapter reviews the traditional four-dimensional segmentation variables, introduces a three-tier evaluation framework for segmentation variables, discusses contemporary novel segmentation thinking, and clarifies the typical errors and scientific validation procedures associated with segmentation failure in practice.

1. The Traditional Four-Dimensional System of Segmentation Variables

Since the latter half of the twentieth century, marketing scholarship has grouped the bases of consumer market segmentation into four categories—geographic, demographic, psychographic and behavioural—constituting a hierarchical analytical system extending from external objective characteristics to internal motives and thence to actual consumption behaviour (Mogaji, 2025) ^[13]. The four categories of variables are not mutually exclusive and are frequently combined in practice. Firstly, geographic variables constitute the most basic static basis of division, taking the spatial attributes of consumers as the criterion, including country, region, urban–rural structure, city size and climatic conditions. The underlying logic is that geographic conditions influence regional economic levels, consumption culture and product availability, thereby producing differences in demand structure. The advantages of geographic segmentation lie in the abundance of publicly available data, clear boundaries and high quantifiability,

making it suitable for firms conducting macro-level layout when first entering unfamiliar markets. Its limitations are equally pronounced: consumers within the same geographic area remain highly heterogeneous in their needs, and geographic variables alone cannot explain intra-regional differentiation of preferences. Secondly, demographic variables constitute the category most widely applied in industrial practice, encompassing objective population characteristics such as age, gender, income, educational attainment, occupation, family life cycle and household size. Demographic characteristics are directly related to consumers' purchasing power, level of cognition and product demand tier. Demographic data are highly standardised, secondary data are readily obtainable and the threshold for survey execution is low, so that such variables are frequently used as a basic framework for the preliminary screening of potential markets. A substantial body of empirical research, however, indicates that demographic variables have limited predictive power with respect to actual purchasing behaviour; within groups sharing identical demographic characteristics, differences in consumption preferences are often considerable (Tkaczynski & Rundle-Thiele, 2011) ^[24]. Over-reliance on demographics readily produces 'pseudo-segmentation'.

Thirdly, psychographic variables focus on consumers' inner psychological world, including personality traits, lifestyle, values, consumption attitudes and life pursuits. Where geographic and demographic variables cannot explain preference differences within the same group, psychographic variables can uncover deeper motives, and are especially suited to brand-driven, experience-oriented and highly differentiated industries. The disadvantages of psychographic variables lie in the difficulty of measurement, the high cost of questionnaire development, the complexity of data collection, and the fact that segmentation results are relatively difficult to translate directly into concrete operational actions such as channel and pricing decisions. Fourthly, behavioural variables constitute the segmentation basis closest to the real market and possessing the highest predictive validity. Behavioural variables include product usage frequency, brand loyalty, purchasing occasion, price sensitivity, the core benefits sought by consumers, and usage scenarios. Behavioural variables anchor directly to consumers' actual purchasing and product usage behaviour rather than merely to external labels such as demographic or geographic attributes, and represent the segmentation basis most valued in contemporary marketing research (Wedel & Kamakura, 2000) ^[26]. The challenge of behavioural segmentation is that it often requires firms to possess transaction, membership and user behaviour data, imposing demands on firms' data acquisition capabilities. Each of the four segmentation bases has strengths and weaknesses; there is no absolutely optimal single dimension, and firms must combine them individually or in combination according to industry characteristics, data availability and strategic objectives, so as to construct a hierarchical framework of market analysis (Lu, 2019).

2. A Three-Tier Evaluation Framework

From a strategic management perspective, the selection of segmentation variables cannot be judged by the criterion of 'whether the data are easy to obtain' but should take the maximisation of strategic value as its objective. The

literature has proposed a three-tier evaluation framework of predictive validity–strategic executability–competitive segment distinctiveness as the criterion for screening segmentation bases (Wedel & Kamakura, 2000) ^[26]. The first tier, predictive validity, constitutes the basic threshold. The selected segmentation variables must be capable of effectively explaining and predicting differences in consumers' purchasing behaviour and demand preferences. If, after segmentation, the groups display no statistically significant differences in purchasing intention or product preference, the segmentation basis is invalid. Empirical results generally indicate that behavioural variables possess the highest predictive validity, followed by psychographic variables, with geographic and demographic variables relatively lower. At the very first step of segmentation work, the association between the variables and key market indicators should be tested, and indicators lacking explanatory power excluded.

The second tier, strategic executability, is the guarantee of segmentation implementation. The sub-markets obtained through division by the variables must be capable of directly guiding product development, channel layout, pricing and communication activities along the value chain. Many studies obtain statistically elegant groupings through clustering algorithms, yet the characteristics of the groupings are ambiguous and firms do not know how to adjust products and marketing for the group in question; such segmentation possesses classificatory significance only, without operational value, and constitutes ineffective segmentation. The third tier, competitive segment distinctiveness, is the key to building sustained competitive advantage. The segmentation perspective employed by a firm should as far as possible be differentiated from that of its competitors. Where the entire industry simply applies geographic and demographic segmentation, the sub-markets targeted by firms overlap heavily and firms fall into homogeneous red-ocean competition. Strategic segmentation choice aims to uncover sub-groups to which competitors have not yet attended and which have not been adequately served, establishing a proprietary market insight (Rangan *et al.*, 1992) ^[18]. The three tiers must be considered simultaneously: attention to predictive validity alone while neglecting executability renders segmentation non-implementable; attention to executability alone while neglecting competitive distinctiveness permits only imitation of competitors and renders differentiation difficult.

3. Contemporary Novel Segmentation Thinking

With the development of big data technologies and the evolution of marketing theory, traditional static attribute-oriented segmentation can no longer satisfy firms' requirements for refined resource allocation, and scholarship has developed two representative new paradigms: customer lifetime value segmentation and hybrid segmentation. Customer lifetime value refers to the sum of expected net returns that a customer can bring to the firm over the entire duration of the relationship, after deducting acquisition and maintenance costs (Gupta *et al.*, 2006; Reinartz & Kumar, 2003) ^[9, 19], CLV segmentation is grounded in the resource-based view, grouping customers no longer solely by external attributes but by future revenue contribution, retention potential and cross-purchasing potential. Its strategic logic is clear: corporate resources are scarce and should not be allocated equally to all customers; resources should be

deployed differentially according to differences in customer group value. For high-CLV segments, resources are invested to strengthen retention, cross-selling and deep cultivation; for low-value customer groups, the cost structure is optimised, service input reduced or switching thresholds raised. CLV segmentation achieves deep alignment between market segmentation and corporate financial objectives and resource strategy, and has become an important instrument in the field of customer relationship management (Fader & Hardie, 2021) ^[4]. CLV segmentation also has limitations: it depends heavily on complete historical transaction data, and is difficult to apply directly in new markets or new product scenarios lacking customer history; multiple versions of CLV calculation models exist, and parameter settings directly alter segmentation results. CLV is therefore suited to stages after the product has entered growth, when a certain base of existing users has been established.

Traditional segmentation practice frequently falls into an either/or choice: using demographics alone, or behaviour alone. Hybrid segmentation adopts a hierarchical multidimensional approach: macro-level static variables (geographic, demographic) are first used to construct a preliminary framework, and micro-level dynamic variables (psychographic, behavioural, customer value) are then used to refine the segmentation further, constructing a three-dimensional multidimensional market segmentation structure. A substantial body of empirical research confirms that hybrid segmentation can enhance the predictive capability, group stability and strategic sensitivity of segmentation, and represents a preferred solution balancing segmentation precision with practical executability (Wedel & Kamakura, 2000) ^[26]. The risk of hybrid segmentation is that the inclusion of excessive dimensions produces an explosion in the number of sub-groups, with each segment becoming too small to possess strategic significance; dimension reduction through statistical testing is therefore required. Where segmentation strategies fail in practice, the root cause lies mostly in the subjectivism and arbitrariness of variable selection; two typical errors warrant vigilance. Firstly, excessive diversification of variables. The unfiltered inclusion of large numbers of geographic, demographic, psychographic and behavioural indicators produces dimensional explosion and the disaggregation of numerous minute sub-groups, each with an insufficient sample size and hence no operational significance, rendering the segmentation results unwieldy and unusable by managers. Secondly, convenience-oriented bias. Priority is given solely to readily obtainable geographic and demographic data, without testing whether these variables bear a substantive relationship to genuine industry demand. The resulting groupings are statistical groupings only, divorced from consumers' actual purchasing behaviour, and firms proceeding on the basis of such segmentation to design products and marketing will naturally fail to achieve results.

To avoid the above errors, scholarship has established a standardised validation procedure

1. Conduct exploratory data analysis in conjunction with industry characteristics and strategic objectives, filtering out variables unrelated to consumer demand;
2. Employ statistical methods such as cluster validity testing and between-group difference testing to verify that the grouping achieves internal homogeneity and external heterogeneity;

3. Conduct a strategic feasibility assessment from the perspectives of organisational resources, cost structure and competitive landscape, confirming that the segmentation results possess both statistical validity and operational executability.

Statistical validity does not equal strategic validity; this is the point most readily overlooked in practice.

Target Market Selection Strategy

Once market segmentation is complete, the firm faces multiple sub-markets and, constrained by resources, cannot invest equally in all. Target market selection is the process of screening, from among numerous sub-markets, those that the firm will serve, and determining the intensity of resource investment in different segments (Mogaji, 2025) ^[13]. Traditional theory treats target market strategy as a one-off static decision, whereas the modern view holds that target market selection iterates continuously in parallel with the industry life cycle. This chapter reviews the three classic strategies, analyses the dynamic evolutionary mechanism, and introduces a six-construct quantitative evaluation framework.

According to the breadth of the market served and the degree of differentiation of the marketing mix, three categories may be distinguished: undifferentiated marketing, differentiated marketing and concentrated marketing (niche strategy). Undifferentiated Marketing: intra-market demand differences are ignored, and a single product, uniform price and standardised marketing mix are directed at the entire market. This strategy relies on economies of scale and the experience curve to obtain cost advantages. Its defects are, however, very evident: it disregards demand heterogeneity and, as market demand becomes diversified, is readily eroded by competitors adopting focused strategies. Undifferentiated marketing is better suited to early stages of industry development and highly homogeneous product scenarios. Differentiated Marketing: the firm simultaneously enters multiple sub-markets and develops dedicated product, pricing, channel and communication programmes for different segments. Its advantages lie in broad market coverage, matching of diverse needs and dispersion of the risk of decline in any single market. Its disadvantages lie in the simultaneous operation of multiple lines of business, which markedly raises research and development, production and marketing costs; moreover, an excessive number of differentiated programmes may fragment and blur the brand image. Differentiated marketing is better matched to large firms with substantial resources. Concentrated Marketing (Niche Strategy): the firm forgoes most segments and concentrates all resources on one or a few sub-markets, pursuing deep penetration. Its advantage lies in the high concentration of resources, enabling rapid accumulation of technological, brand and customer advantages within the segment, and it constitutes a rational starting point for small and medium-sized enterprises with limited resources. Its risk is equally pronounced: business is highly dependent on a small number of segments, and should demand in the target segment contract, the firm faces severe operational crisis. The three strategies have no absolute superiority or inferiority; everything depends on external market conditions, the competitive landscape and the firm's resource endowments.

Traditional textbooks frequently treat target market strategy as a fixed choice of the firm, whereas in reality target market selection is a continuously adjusted dynamic process. Two categories of key force drive strategic evolution: the product life cycle (an endogenous force) and competitive dynamics (an exogenous force). From the perspective of endogenous drivers at the PLC stage: in the introduction stage the market scale is small and uncertainty high, and the firm's resources are limited, so that concentrated marketing is appropriate, concentrating resources on validating product-market fit; upon entering the growth stage, the market expands rapidly and the firm may shift to differentiated marketing, expanding into multiple high-growth segments; by the maturity stage, the market is saturated and cost competition intensifies, so that the cost advantages of undifferentiated marketing may be absorbed to a moderate degree while retaining some differentiated segments; in the decline stage, the firm contracts in reverse, retaining only high-loyalty, high-value segments and extracting residual returns. Competitive dynamics as an exogenous variable likewise play a critical role. If a segment has already been firmly occupied by leading competitors, forced entry by the firm will precipitate consumptive homogeneous competition; conversely, those under-served segments where competitive pressure is low and demand has not yet been satisfied represent prime opportunities for differentiated positioning. Changes in competitors' strategies compel firms to reassess their target market portfolio and adjust resource allocation (Nenonen & Storbacka, 2021) ^[14].

In order to reduce subjective experiential judgement in target market selection, scholarship has developed a six-construct comprehensive evaluation framework, scoring each sub-market along six dimensions and deciding trade-offs after comprehensive weighing. The six constructs are:

1. **Segment size:** the absolute volume of the sub-market, constituting the basic carrying capacity of the business;
2. **Expected growth rate:** the future growth potential of the sub-market;
3. **Segment profitability:** the profit space of the sub-market, reflecting the quality of returns;
4. **Competitive intensity:** the number of competitors within the sub-market, the strength of rivals and entry barriers, representing entry risk;
5. **The firm's relative competitiveness:** the resources, technology and brand advantages the firm possesses in that segment relative to competitors;
6. **Strategic fit:** the consistency between the segment and the firm's brand positioning, existing resources and long-term strategic vision.

Trade-offs frequently exist among the six dimensions; for example, some segments are enormous in size but extremely competitive, with the firm possessing no competitive advantage; some segments are modest in size but highly growth-oriented with weak competition, and highly matched to the firm's capabilities. The six-construct framework assists managers in systematic weighing, avoiding exclusive

attention to size while neglecting competitive risk and self-fit.

Strategic Positioning and Perceptual Mapping

Market segmentation answers 'into which groups can the market be divided', target market selection answers 'whom shall we serve', and strategic positioning answers 'what position do we wish to occupy in the minds of target customers' (Ganesh & Oakenfull, 2000) ^[6]. In an era of rapid imitation of product technology, physical product characteristics are easily caught up with and replicated, whereas positioning in the consumer mind is an intangible asset at the cognitive level, difficult to imitate, and an important source of differentiated competitive advantage. Porter (1980) indicated that the sources of sustainable competitive advantage may be reduced to two broad categories, cost leadership and differentiation, positioning being the projection of differentiated advantage at the level of consumer cognition. Positioning does not change the product itself but changes consumers' perception of the product and brand. Many firms fall into the error of treating positioning as an advertising slogan; genuine positioning requires the coordination of activities across the entire value chain—product, service, channel and communication must all align with the positioning, failing which it remains an empty slogan. As an industry moves towards maturity and product functions converge, positioning becomes the core instrument for avoiding price wars.

Differentiation may derive from every link in the value chain and may be reduced to five sources

1. **Product attribute differentiation:** performance, quality, technical specification, design;
2. **Service differentiation:** response speed, after-sales assurance, customised service;
3. **Personnel differentiation:** employees' professional competence and service quality;
4. **Channel differentiation:** breadth of channel coverage, convenience, channel exclusivity;
5. **Brand image differentiation:** brand reputation, personality and value proposition.

Among these, brand image constitutes a higher-order intangible differentiation, long in construction but, once established, the most enduring support for differentiation.

Not all differentiation possesses strategic value; effective differentiation must simultaneously satisfy three conditions

1. **Value:** the differentiation must create genuinely perceived value for target customers, and must be something consumers care about;
2. **Difficult imitability:** the differentiation rests on the firm's resources and organisational processes, and is difficult for competitors to replicate;
3. **Cost reasonableness:** the premium and returns generated by differentiation exceed the additional costs incurred in achieving it.

Many firms pursue inconsequential product differences of which consumers take no notice, incurring substantial costs

without converting them into higher returns; this violates the above conditions.

A qualified positioning statement clearly delimits the target group, specifies the category to which it belongs, identifies the core benefit and simultaneously provides credible supporting evidence. The effect of positioning is measured by two indicators: firstly, strength of the benefit appeal: the attractiveness and importance of the benefit point to target consumers; secondly, positioning distinctiveness: the degree of differentiation relative to competitors. The ideal strategic state is a dual-high positioning achieving both high appeal strength and high distinctiveness. In reality firms frequently face a trade-off: highly attractive benefit points have often already been occupied by competitors, while a wholly distinctive point of difference may be insufficiently attractive to consumers. Perceptual mapping employs statistical methods such as multidimensional scaling (MDS) and factor analysis to reduce consumers' complex cognition of multiple product dimensions into two- or three-dimensional coordinate diagrams, visually presenting the position of each brand in the consumer mind (Grundström, 2015) ^[8].

The principal strategic functions of perceptual mapping are

1. **Positioning verification:** comparing the firm's intended positioning with its actual position in consumers' minds, to identify any gap;
2. **Visualisation of the competitive landscape:** observing where competitors cluster in cognitive space;
3. **Uncovering potential opportunities:** seeking blank positions on the coordinate map not yet occupied by any brand.

In practice, however, a major misconception readily arises: treating blank positions on the map as directly equivalent to market opportunities. A blank on the coordinate map has two possible interpretations: firstly, that it is genuinely an untapped market opportunity; secondly, that the combination of attributes in question corresponds to no consumer demand at all, and is a strategic trap (Bendixen, 1995) ^[2]. A blank does not equal an opportunity; perceptual mapping is only a cognitive snapshot and must be combined with demand validation and judgement of industry trends, and decisions cannot be made directly on the basis of the diagram alone. Perceptual mapping is a static instrument and requires regular updating in order to keep pace with the shifts in consumer cognition brought about by PLC evolution.

Product Life Cycle Theory

The PLC introduces a temporal dimension into the entire strategic system, yet the classic PLC model suffers from numerous limitations criticised in scholarship. This chapter reviews the characteristics of the four PLC stages, collates academic critiques, and introduces innovation diffusion theory and the competitive life cycle as complementary optimising perspectives.

The classic PLC model divides product market evolution into introduction, growth, maturity and decline, each stage exhibiting systematic differences in demand, consumers, competition and profit (Wernerfelt, 1985) ^[27].

1. **Introduction stage:** the overall market scale is small, uncertainty extremely high and competitors few. Consumers are predominantly innovation adopters, and product specifications have not yet been standardised. The firm's core task is to validate market acceptance, iterate and optimise the product, and educate the market. Sales volume is low, research and development and marketing input high, and profits slender or negative. Growth stage: the market expands rapidly, sales volume and profit margin rise in tandem, and economies of scale gradually emerge. Early adopters diffuse to the mass consumer, and market demand is awakened. Competition shifts from early technological differentiation progressively towards competition in scale and channel coverage. New competitors flood into the market in large numbers.
2. **Maturity stage:** market demand approaches saturation and overall sales growth stalls. Competition becomes white-hot, price wars frequent, and industrial concentration gradually rises. Consumers are predominantly repeat-purchasing existing customers, and brand loyalty becomes crucial.
3. **Decline stage:** overall market demand contracts, substitutes continue to penetrate, marginal profits are continuously compressed, and large numbers of competitors exit the market. The firm's strategic focus is no longer expansion but the extraction of residual value from the existing base, with resource contraction and withdrawal.

The PLC model is succinct and intuitive and is widely used in teaching and practice, yet scholarship identified its structural defects at an early stage (Shu & Wang, 2007) ^[21]. Firstly, the bell-shaped sales curve is not a necessary trajectory for products. Some products remain stable at the maturity stage over long periods; some breakthrough innovative products skip the slow introduction stage and enter high-speed growth directly; some products achieve a second extension of their life cycle through repositioning. The PLC is only a typical pattern, not a destiny. Secondly, stage demarcation lacks objective quantitative criteria. The boundaries among introduction, growth, maturity and decline are blurred, and classification is often retrospective, making it difficult to determine precisely in the present which stage one is in, which weakens predictive value. Thirdly, the traditional PLC model underplays firms' subjective agency. The original model implicitly assumes that the product life cycle is the result of passive propulsion by external market forces, neglecting the possibility that firms' strategic choices may alter the product's evolutionary path. This is precisely the point the present study seeks to correct: firms do not passively endure the life cycle but may actively intervene in its trajectory through segmentation, positioning and product iteration.

To remedy the deficiencies of the PLC, scholarship has integrated it with innovation diffusion theory and the competitive life cycle, upgrading the PLC from a mere sales curve into a comprehensive diagnostic framework encompassing demand diffusion, consumer adoption and the evolution of the competitive landscape. Innovation diffusion theory (Rogers, 2003) ^[20] explains the mechanisms underlying the PLC from the micro-level adoption

behaviour of consumers: the length of the introduction stage depends on innovation characteristics and consumer acceptance thresholds; the growth slope of the growth stage is determined by the imitation coefficient (Bass, 1969) ^[1]. The Norton–Bass multigenerational diffusion model further explains the substitution and coexistence relationships among multiple generations of technological products, and is suited to high-technology multigenerational iterative products (Norton & Bass, 1987) ^[15]. The competitive life cycle perspective, by contrast, moves beyond single-product sales to attend to changes over time in industry entry and exit barriers, the number of competitors and the focus of competition. Combining the demand side with the supply side overcomes the limitation of the traditional PLC's excessive emphasis on sales data. After optimisation, the PLC is no longer a simple sales-stage label but a set of contextual diagnostic instruments.

The SPLM Integrative Framework

This chapter is the core of the paper, seeking to dissect the bidirectional influence mechanism between market segmentation and the product life cycle (PLC), to elaborate appropriate dynamic segmentation strategies stage by stage, to present the complete SPLM dynamic integrative framework and to expound its three strategic principles. Traditional literature has for the most part treated market segmentation and the PLC as two sets of independently operating theoretical instruments, the former focusing on the disaggregation of static market structures and customer grouping, the latter on stage description of product market evolution. From an integrative strategic perspective, however, the two stands in a relationship of bidirectional influence and dynamic co-evolution, jointly determining the effectiveness of the firm's market layout and the sustainability of long-term competitive advantage. This chapter seeks to remedy this theoretical gap by constructing a unified dynamic strategic analytical system. Market segmentation and the PLC are not two independent instruments but stand in a relationship of bidirectional co-evolution. This relationship may be dissected at two levels. Firstly, PLC stages passively shape the state of market segmentation. The product life cycle stage determines the maturity, stability and differentiation space of market segmentation. In the introduction stage, market awareness is insufficient and overall demand has not yet been awakened; consumers lack clear cognition of product functions, value and usage scenarios, segmentation boundaries are blurred, and it is difficult to stably disaggregate clear groups. At this point demand heterogeneity has not yet fully manifested, and any attempt at refined segmentation may produce unstable and unreliable results owing to an insufficient effective sample. Upon entering the growth stage, as product technology gradually matures, market education continues and consumer cognition spreads rapidly, demand grows explosively, consumer groups rapidly diversify and preferences rapidly differentiate, and segmentation characteristics become clear and distinct. The differences among segments along dimensions such as functional preference, price sensitivity, channel selection habits and service requirement standards continue to widen, achieving structural differentiation of market segmentation. By the maturity stage, basic demand has been universally satisfied and product functions converge; the attribute-based discriminating variables that previously served as the

segmentation basis gradually lose efficacy, and a pronounced phenomenon of segment consolidation emerges. The needs of different sub-segments converge and the previously clear segment boundaries gradually blur. In the decline stage, overall demand contracts, substitutes spread rapidly, large numbers of sub-segments disappear and segmentation converges, with only a few sub-segments possessing high brand loyalty, high switching costs or special preferences surviving. In short, the life cycle stage determines the maturity, stability and differentiation space of market segmentation, constituting the feasible boundary of segmentation strategy.

Secondly, firms' segmentation strategies actively shape PLC trajectories in reverse. Firms do not passively endure the endpoint of the product life cycle; on the contrary, the segmentation basis, degree of segmentation refinement and iteration cadence chosen by the firm alter the efficiency of market penetration, uncover neglected potential demand, and thereby influence the evolutionary path of the product life cycle. Where a firm successfully uncovers a neglected hidden sub-market at the maturity stage, it may open up new demand space, activate the vitality of the existing market, prolong the product's maturity cycle and effectively delay the arrival of the decline stage. Where resources are precisely contracted in the decline stage and focused on high-retention segments, residual value may be extracted to the maximum and resource utilisation efficiency optimised. Conversely, excessive segmentation in the introduction stage disperses resources, retards market penetration and may even cause premature product failure; adherence to an outdated static segmentation system at the maturity stage will rapidly precipitate homogeneous price competition, with market share and profitability continuously declining, accelerating the product's entry into decline. Firms' strategic choices possess agency; they are not confined to passively accepting the outcome of the life cycle. The overwhelming majority of past research has seen only the unidirectional constraint of the PLC upon strategy, neglecting how strategy in turn reshapes the path of market evolution; this is precisely the theoretical gap the SPLM framework seeks to remedy. The revelation of the bidirectional influence mechanism breaks the limitations of traditional static segmentation thinking and demonstrates that no once-and-for-all market segmentation model exists. Static, ossified segmentation strategies cannot match the dynamic evolution of the PLC and will produce misalignment between the firm's resource allocation and the real market structure. The core proposition of strategic management is therefore to adjust segmentation logic, segmentation dimensions and segmentation refinement dynamically according to the stage of the product life cycle in which the product stands, achieving deep matching between segmentation strategy and product market evolution.

On the basis of the bidirectional influence mechanism, this section elaborates stage by stage the appropriate dynamic segmentation strategies, constituting a complete spectrum of dynamic segmentation strategy. In the introduction stage market maturity is low, consumers' cognition of the product is limited, and demand heterogeneity has not yet fully manifested. If a firm forcibly undertakes highly refined segmentation, employing multidimensional, fine-grained segmentation variables to disaggregate the market, unstable and unreliable segmentation results will be produced owing to an insufficient effective sample and floating demand

characteristics. Such artificially refined segmentation lacks market representativeness and cannot genuinely reflect potential demand differences; not only can it not guide resource allocation, but it will produce strategic misjudgement and resource dispersion. The introduction stage should therefore adopt a coarse segmentation strategy, giving priority to benefit segmentation and usage-situation segmentation and focusing on the core pain points consumers wish to resolve rather than demographic or geographic labels. Benefit segmentation takes the core problems consumers wish to solve and the benefits sought from the product as the criterion of division, focusing on consumers' deeper demand motives and bypassing the limitations of surface attributes, so that genuine potential demand groups may be effectively identified at a stage when market cognition is not yet mature. Situation segmentation, by contrast, takes product usage scenarios and consumption situations as its core, anchoring the product's core application domain and helping the firm rapidly focus on the core market and complete preliminary market validation. The core objective of the introduction stage is not to identify large numbers of segments but to find the early adopter group with genuine pain points and to validate product-market fit. The segmentation mode of this stage accords with the blurred market and undetermined demand characteristic of the introduction stage, can maintain the validity and stability of segmentation under low market maturity, and lays the foundation for the segment differentiation of subsequent stages.

Upon entering the growth stage, the market expands rapidly, consumer groups rapidly diversify and market segmentation begins to differentiate. As product technology gradually matures, market education continues and consumer cognition spreads rapidly, the overall market demand scale expands at high speed, while large numbers of external competitors enter the market, thoroughly breaking the single-market pattern of the introduction stage. At this stage market heterogeneity rapidly manifests and continuously strengthens, and the originally blurred market whole gradually disaggregates into multiple sub-segments with distinct characteristics and clear boundaries. The differentiation of market structure furnishes complete conditions for the implementation of differentiated marketing strategy, and the firm's segmentation strategy shifts from the single coarse segmentation of the introduction stage to a strategy mode of multiple segments and selective deep cultivation. Firms should not, however, attempt to cover all emerging segments, but should screen two to three core segments with high growth, high fit and low competitive pressure for concentrated cultivation through the six-construct evaluation—segment size, expected growth rate, segment profitability, competitive intensity, the firm's relative competitiveness and strategic fit. The segmentation capability of firms in the growth stage determines whether the firm can grow from follower to industry leader. Numerous empirical studies in strategic management indicate that the first-mover advantage of the growth stage derives not from mere scale expansion but from the foresight and precision of segmentation strategy. The firms most competitively advantaged in the growth stage are mostly Those firms most competitively advantaged in the growth stage are mostly pioneers who are the first to perceive the trend of market differentiation and who proactively disaggregate a mass, blurred market into

manageable, high-value sub-segments. Hybrid segmentation is appropriate at this point, with macro-level dimensions providing the foundation and behavioural and benefit dimensions employed to identify high-potential customer groups, combined with a differentiated target market strategy, so as to establish brand preference and user stickiness within segments before the competitive landscape has solidified, forming a first-mover positioning advantage difficult to imitate.

In the maturity stage product functions converge, basic demand has already been satisfied by mainstream products, and previously effective segmentation variables gradually lose efficacy, producing the phenomenon of 'segment consolidation'. At this stage overall market demand approaches saturation, new demand contracts sharply, and market competition shifts from incremental expansion to stock-based rivalry, with industry technology and product functions highly standardised and homogenised. Following the continuous differentiation of the growth stage, the demand characteristics, customer attributes and market boundaries of the various sub-segments tend towards stability, and inter-segment differentiation reaches its stage peak; however, as competing products converge in function and basic demand is comprehensively satisfied, the product attributes, functional characteristics and other discriminating variables that previously served as the basis of market segmentation gradually lose efficacy, the needs of different sub-segments converge, and a pronounced phenomenon of segment consolidation emerges. Adherence to the old segmentation framework at this point will produce only stock-based attrition, and traditional ossified segmentation strategies become wholly ineffective. Firms must undertake re-segmentation, uncovering 'hidden sub-markets'—the needs of weak sub-groups not yet fully recognised by the industry and not yet satisfied by existing products. Such hidden segments, being subtle in demand and difficult to identify, are neglected by most firms, yet constitute the few remaining incremental spaces in a mature market. The successful uncovering of hidden segments can open up new space in a saturated market, effectively prolong the product's maturity stage and even rewrite the trajectory of the product life cycle. The CLV customer value dimension may be introduced at this point to distinguish high-value existing users, and relationship- and emotion-level positioning developed, so that loyalty and usage-rate segmentation is combined with emotional and relational positioning to cultivate the existing market deeply and avoid price wars. From the perspective of PLC interaction dynamics, the re-segmentation strategy of the maturity stage plays a key role in rewriting the product life cycle. Successful uncovering and cultivation of hidden segments can open up wholly new demand space for a saturated product market, activate the vitality of the existing market, effectively prolong the duration of the product's maturity stage, delay the arrival of the decline stage, and achieve the strategic objective of the firm actively intervening in the product life cycle.

The strategic logic of the decline stage is entirely the reverse of the growth stage, shifting from diversified layout to contraction and focus. In the product decline stage overall market demand continues to contract, market scale continuously shrinks and overall industry profitability continues to weaken; the core trend in the evolution of market segmentation at this stage is comprehensive convergence. As mainstream demand iterates and substitutes

spread rapidly, the demand of most sub-segments gradually disappears, and only a few sub-segments possessing high brand loyalty, high switching costs or special preferences survive, becoming the only remaining value space in a declining market. At this stage the core logic of dynamic segmentation strategy is entirely the reverse of the growth stage, shifting from 'segment differentiation and diversified layout' to 'segment contraction and resource focus'. The firm proactively abandons low-efficiency segments with contracting demand and slender profits, concentrating remaining resources on a small number of high-value surviving segments. Such segments generally possess the characteristics of stable demand, high customer switching costs, high brand loyalty and slow substitute penetration. Market scale is no longer pursued; the maximisation of residual value is pursued instead. Effective segmentation management in the decline stage requires the firm to proactively undertake segmentation optimisation and liquidation, comprehensively abandoning low-efficiency segments with contracting demand, weak profitability and no loyal customer base, and concentrating remaining resources on a small number of high-value surviving segments. A precise segment contraction strategy not only assists the firm in extracting the residual market value of the product and maximising resource utilisation efficiency, but also avoids the resource depletion caused by ineffective competition, achieving a smooth conclusion to the decline stage and freeing resources and space for the firm's new product layout. Cost-sensitive segmentation combined with value-capture positioning is appropriate at this point, so as to maximise residual industry value.

Synthesising the bidirectional interaction mechanism and the stage-by-stage strategies, the present study proposes the 'Segmentation–Positioning–Life-Cycle' (SPLM) dynamic integrative framework. Its core proposition is that the product life cycle stage defines the competitive rules and demand characteristics of the market, and that firms must adopt segmentation bases and positioning modes matching the stage in order to maintain strategic effectiveness. The framework thoroughly overturns traditional static STP thinking and establishes a rolling, full-life-cycle strategic adjustment mechanism. According to the standard SPLM correspondence, the modes corresponding to each stage are as follows. The introduction stage takes benefit segmentation and situation segmentation (coarse) as its core segmentation basis, combined with functional benefit positioning, the core strategic objective being to validate pain points and complete product–market fit. The growth stage takes behavioural–benefit hybrid multidimensional segmentation as its core segmentation basis, combined with differentiated attribute positioning, the core strategic objective being to seize high-growth segments and expand market share. The maturity stage takes loyalty, usage rate and CLV value segmentation as its core segmentation basis, combined with emotional and relational positioning, the core strategic objective being to uncover hidden segments and prolong maturity. The decline stage takes retention and switching-cost segmentation as its core segmentation basis, combined with value-capture positioning, the core strategic objective being to contract resources and maximise residual returns. This standard strategic combination can comprehensively explain the competitive phenomena of successive generations of new and old products and the coexistence of multiple product generations in high-technology industries.

The SPLM framework is accompanied by three strategic principles, which serve as the highest guiding criteria for the execution of dynamic strategy by firms.

Principle One: the principle of dynamic fit. No segmentation or positioning solution is eternally optimal. Strategic effectiveness is contingent upon the current stage of the market life cycle; as the market evolves, the segmentation basis, target market and positioning statement must all be iteratively revised on a rolling basis. A static optimal solution will, as the market evolves, become suboptimal or even erroneous. Traditional strategic management has for the most part applied each instrument independently, causing managers readily to develop problems of strategic ossification, instrument fragmentation and decision lag; the core value of the dynamic fit principle lies in establishing the dynamic adaptive thinking that 'when the market stage changes, strategy must change in step'. No permanently optimal segmentation, positioning or product strategy exists for a firm; changes in market maturity, demand structure and competitive landscape necessarily require synchronous iteration of strategy, and adherence to past successful experience is the core reason for the lagging of high-technology firms.

Principle Two: the principle of first-mover advantage. The temporal window of transition between life cycle stages is a node of industrial landscape reconfiguration. A firm that is the first to complete the switch in segmentation logic and to reconstruct its positioning may obtain a stage-specific first-mover advantage. For example, by laying out hidden segments in advance before the arrival of the maturity stage, a firm may seize the position first; by completing segmentation refinement first at the beginning of the growth stage, it may establish brand preference and user stickiness before the competitive landscape has solidified. This principle indicates that the stage transition point is a critical window for the reorganisation of the industrial landscape, and that the first to switch strategy may obtain a stage-specific competitive advantage. The three principles apply not only to single-product strategy but may also explain the firm's overall business portfolio, competitive strategy and resource allocation thinking.

Principle Three: the principle of resource matching. Any adjustment of segmentation and positioning must match the firm's internal resources and organisational capabilities. Even where a highly attractive segment has been identified, if the firm's resource capabilities are insufficient to support entry, forced investment will produce failure only. Insight into an opportunity does not equal the necessity of seizing it. Strategic adjustment must be accompanied by matching internal resources and organisational capabilities, avoiding mismatch between strategy and capability. From the resource-based view of strategic management, a firm's human, technological, financial and channel resources are scarce and specific, with clear boundaries of investment; blind global market layout will necessarily produce resource dispersion, weakening of advantages and diseconomies of scale. The resource matching principle requires firms, when dynamically adjusting segmentation and positioning, to assess objectively their own resource endowments and organisational capabilities, ensuring the feasibility of strategic transition.

The SPLM framework opens up a closed-loop strategic cycle running from market structure analysis, through target market trade-offs, to the construction of mindshare

positioning. It is simultaneously compatible with contemporary novel analytical instruments: hybrid multidimensional segmentation, CLV segmentation, perceptual mapping and the Norton–Bass multigenerational diffusion model. Hybrid segmentation, through the hierarchical thinking of macro-level static variables providing the foundation and micro-level dynamic variables deepening the analysis, combines the high stability of geographic and demographic variables with the high explanatory power of psychographic, behavioural and value variables, constructing a multidimensional three-dimensional market segmentation structure. CLV segmentation groups customers by dynamic indicators such as expected future revenue contribution, retention potential and cross-purchasing capability, achieving deep integration of market segmentation with financial objectives and resource strategy. Perceptual mapping, through methods such as factor analysis and multidimensional scaling, simplifies consumers' complex cognition of product attributes into a visual coordinate system, assisting managers in assessing the current state of positioning and blank opportunity spaces in the market. The Norton–Bass multigenerational diffusion model provides a quantitative foundation for understanding the dynamic processes of coexistence, substitution and diffusion among multiple product generations. SPLM does not replace STP or PLC but integrates the two classic theories into a unified dynamic system. Traditional strategic management has for the most part applied each instrument independently, causing managers readily to develop problems of strategic ossification, instrument fragmentation and decision lag; the greatest learning value of the SPLM framework lies in establishing the dynamic adaptive thinking that when the market stage changes, strategy must change in step. Market segmentation and positioning are the starting-point thinking of the firm in internal and external competition, while product life cycle theory introduces a temporal dimension into static strategy and resolves the core question of how strategy should iterate at different stages. The SPLM framework organically links the two, constructing a complete closed-loop strategic cycle running from market structure diagnosis, through target market resource decisions, to the construction of consumer mindshare positioning, and requiring continuous iteration in parallel with the life cycle. In a highly uncertain industrial environment, dynamic matching is always superior to static optimality, and a staggered multi-product life cycle portfolio is the key mechanism for smoothing industrial risk. Only by establishing dynamic strategic thinking centred on the market life cycle, combined with precise market segmentation, hierarchical product positioning and a solid resource and ecosystem moat, can sustained competitive advantage be maintained in a complex competitive landscape and long-term stable operation and development be achieved.

Practical Implications and Theoretical Insights

On the basis of the SPLM framework, a series of implications for managerial practice may be derived, especially suited to high-technology industries characterised by rapid iteration and high uncertainty. A single product will follow the PLC towards decline, and a firm cannot stake all its hopes on a single product. A staggered multi-product life cycle portfolio means simultaneously

possessing a product portfolio whose members stand at different stages of the life cycle: new products at the introduction/growth stage, responsible for driving future growth; flagship products at the maturity stage, providing stable cash flow; and old products at the decline stage, undertaking stock harvesting. In the semiconductor industry, NVIDIA, AMD and Intel are representative examples, all adopting this echelon layout. Through a portfolio of products at different life cycle stages, growth, profitability and operational stability are balanced, hedging the risk of industrial cyclical fluctuation. The Norton–Bass multigenerational diffusion model can assist firms in quantitatively analysing the coexistence and substitution process of multiple product generations, and in supporting product portfolio decisions (Norton & Bass, 1987)^[15]. The specifications of high-technology hardware products can be rapidly caught up with and replicated, but software ecosystems, supply chain resources, process technology and equipment, and other assets formed through long-term accumulation, constitute barriers difficult for new entrants to surmount. This phenomenon corroborates the core thesis of the resource-based view (RBV): the possession and deployment capability of scarce, difficult-to-imitate and specific resources is the source of sustained competitive advantage. Even where a firm identifies a highly attractive segment through the SPLM framework, if it lacks the supporting proprietary resources, implementation will remain difficult. A market opportunity does not equal a firm opportunity; opportunity assessment must be combined with the firm's resource endowments.

The most important practical proposition of the present study is that dynamic matching is always superior to static optimality. No permanently applicable segmentation or positioning solution exists. As market maturity, demand structure and competitive landscape change continuously, strategies that succeeded in the past will lose efficacy over time. Adherence to past successful experience is an important reason why high-technology firms are left behind by the market. For managers, the core competence is no longer merely the design of a perfect static differentiation solution, but the continuous perception of changes in the external environment and the timely iteration of segmentation, target market and positioning, completing the dynamic updating of strategy. The SPLM framework reminds managers that an STP analysis cannot simply be filed away once completed; STP should be a continuously rolling and updated task, periodically reviewed and revised in parallel with the advance of the product life cycle.

Conclusions

Through systematic literature integration, the present study constructs the 'Segmentation–Positioning–Life-Cycle' (SPLM) dynamic integrative framework, incorporating market segmentation, target market selection, strategic positioning and product life cycle theory into a unified dynamic strategic system. Through theoretical deduction and dialogue with the literature, four core conclusions are reached (Lu, 2019). Firstly, the product life cycle stage is the key moderating variable determining the effectiveness of market segmentation strategy. Traditional segmentation theory has for the most part treated the market as a static structure, neglecting the dynamic evolutionary nature of demand heterogeneity. The present study demonstrates that systematic differences exist in market maturity, demand

stability and competitive structure across the PLC stages, directly determining the feasible boundary and effectiveness of segmentation strategy. In the introduction stage, market cognition is insufficient and demand heterogeneity has not yet manifested, so that coarse, benefit-oriented and situation-oriented segmentation logic is appropriate, avoiding the unstable results produced by excessive refinement; in the growth stage, market structure differentiates rapidly and the firm should shift to selective segment cultivation, focusing resources on two to three high-growth-potential segments; in the maturity stage, product functions converge and segmentation basis variables lose efficacy, so that proactive re-segmentation must be undertaken to uncover neglected hidden sub-groups, thereby prolonging the duration of maturity; in the decline stage, demand contracts comprehensively and segmentation strategy should shift from diversified layout to contraction and focus, concentrating resources on surviving segments with high loyalty and high switching costs. The four stages constitute a complete spectrum of dynamic segmentation strategy, demonstrating that no once-and-for-all segmentation model exists.

Secondly, firms' market segmentation strategies possess the agency to shape product life cycle trajectories in reverse.

Traditional PLC theory carries an implicit fatalistic tendency, treating the product life course as a passive, non-intervenable evolutionary outcome. The present study indicates that firms do not passively endure the endpoint of the product life cycle; on the contrary, the choice and iteration of segmentation strategy can actively intervene in the path of market evolution. Successful uncovering of hidden segments can open up wholly new demand space for a saturated market, effectively prolonging the duration of maturity and delaying the arrival of decline; precise segment contraction in the decline stage can enhance the efficiency of residual return extraction and optimise resource utilisation; conversely, inappropriate segmentation strategies—such as excessive segmentation in the introduction stage or adherence to an outdated segmentation system in the maturity stage—will accelerate product failure and produce continuous decline in market share and profitability. This conclusion echoes the core proposition of the market-shaping literature: firms are not merely adapters to the market environment but active shapers of market structure. Thirdly, the SPLM framework is accompanied by three strategic principles, providing actionable managerial criteria for firms undertaking segmentation, target selection and positioning reconstruction at different life cycle stages. The dynamic fit principle emphasises that no strategy possesses eternal validity and that strategy must be iteratively revised on a rolling basis in parallel with the market stage, adherence to past successful experience being the core reason for the lagging of high-technology firms; the first-mover advantage principle indicates that the stage transition point is a critical window for the reorganisation of the industrial landscape, and that the first to complete a strategic switch may obtain a stage-specific competitive advantage, this principle being especially critical in the growth stage, where the foresight and precision of segmentation refinement determine whether a firm can leap from follower to leader; the resource matching principle requires that strategic adjustment be accompanied by matching internal resources and organisational capabilities, avoiding execution failure caused by mismatch between

strategy and capability. The three principles constrain and act in concert with one another, jointly safeguarding the effectiveness of dynamic strategy. Fourthly, contemporary analytical instruments such as hybrid multidimensional segmentation, customer lifetime value segmentation and the Norton–Bass multigenerational diffusion model can enrich the methodological toolbox of dynamic strategic analysis (OpenAI, 2026) ^[16].

Traditional single-variable segmentation suffers from inherent limitations: static attribute variables lack depth of explanatory power, while psychographic and behavioural variables used alone suffer from insufficient stability and blurred boundaries. Hybrid segmentation, through the hierarchical thinking of macro-level static variables providing the foundation and micro-level dynamic variables deepening the analysis, effectively enhances predictive capability and strategic acuity. Customer lifetime value segmentation deeply integrates market segmentation with financial objectives and resource strategy, achieving a theoretical elevation from attribute grouping to value grouping. The Norton–Bass multigenerational diffusion model provides a quantitative foundation for understanding the dynamic processes of coexistence, substitution and diffusion among multiple product generations, extending PLC analysis from a single-product sales dimension to the strategic layout of multi-generational product portfolios. The theoretical contribution of the present study lies in filling the long-standing integration gap between static STP and dynamic PLC, organically linking static segmentation–positioning analysis with dynamic life cycle evolution, and constructing a complete closed-loop strategic cycle running from market structure diagnosis, through target market resource decisions, to the construction of consumer mindshare positioning. At the practical level, the SPLM framework provides firms with a predictable, actionable and iterable full-life-cycle strategic decision framework, assisting managers in precisely allocating resources at different market stages and dynamically adjusting competitive strategy, achieving deep matching between corporate strategy and market evolution.

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