

Marketing Principles and Software Business: A Review of Strategies, Business Models, and Customer Relationships

¹Pan Myo Phyu, ²Aye Nandar Win, ³Myat Hnin Sunn, ⁴Thet Htet Hnin, ⁵Hlaing Htake Khaung Tin

^{1,2,3,4,5}Faculty of Information Science

University of Information Technology, Yangon, Myanmar

¹panmyophyu@uit.edu.mm, ²ayenandarwin@uit.edu.mm, ³myathninsunn@uit.edu.mm,

⁴thethtethnin@uit.edu.mm, ⁵hlainghtakekhaungtin@uit.edu.mm

Abstract: Fast evolution of digital technologies, cloud computing, artificial intelligence, and Software-as-a-Service (SaaS) has greatly changed the business environment of the software industry. In this environment, marketing principles play an important role in meeting customer needs, generating value, competing in the market, and establishing relations with customers. The current review paper emphasizes on the application of marketing values in the software business environment including such issues as market segmentation, targeting and positioning, marketing mix tactics, software pricing, digital marketing, customer relationship management, customer acquisition, customer retention, and SaaS business models. A narrative literature review methodology was chosen to review existing studies related to marketing principles and software businesses. The results of this literature review show that traditional marketing principles continue to remain important, but they should be adapted to new business environments. From the analyzed literature, it is evident that efficient software marketing is based on customer-oriented software development, proper pricing policies, digital communication, and customer involvement. Moreover, the reviewed literature shows that in SaaS businesses, customer onboarding, product adoption, and retention and renewals are particularly important. Based on the analyzed literature, an integrated view of marketing principles applied in software businesses is outlined. The study concludes that integrating marketing principles with technological capabilities can enhance customer value, strengthen competitive advantage, and support sustainable software business growth.

Keywords: Marketing Principles, Software Business, Digital Marketing, Software-as-a-Service, Customer Relationship Management, Customer Acquisition, Customer Retention, Software Pricing.

I. INTRODUCTION

Marketing is one of the basic business functions involved in studying the needs of customers, value creation, value communication, and customer relationship building [1], [2]. Even though the traditional marketing principles were developed for goods and traditional services first, they can be applied to software firms as well. However, due to digital revolution, the processes of value creation, distribution, pricing, promotion, and consumption have undergone changes [3], [5].

First, it should be noted that the software industry is very dynamic and competitive, has no geographical boundaries, and the requirements of its customers change very often. Thus, customers can use digital tools to analyze the software

product, its price, and alternatives prior to making the decision about the purchase. This fact implies that not only functionality of a software product is sufficient to ensure its commercial success.

The emergence of the SaaS paradigm has yet again changed the nature of the relation between the provider and the client. Whereas software licensing is typically based on the one-off transaction, SaaS implies subscription billing, continual updates, Web-based access, and ongoing interaction with the client [5], [8].

Thus, software vendors should not only consider the problem of attracting clients but also the problems of onboarding the client, making him adopt the solution, be satisfied with it, retain him, renew the subscription, and possibly even act as an advocate for the software. It turns out that

SaaS client retention depends not only on functional features of the product but also on the nature of the relationship.

The cumulative significance of digital marketing in software industry cannot remain unnoticed. Several techniques like SEO, content marketing, social media marketing, e-mail marketing, demo of software on Internet, webinars and even online advertising assist software companies in reaching their target audience through highly measurable channels [3], [6].

This article considers the relationship between marketing concepts and software industry and illustrates how marketing concepts may be used in software industry settings. In this paper the following topics will be covered: marketing mix strategy, segmentation and positioning, digital marketing, software pricing, SaaS business model, CRM, customer acquisition and customer retention.

II. REVIEW METHODOLOGY

A narrative literature review is used as the methodology for investigating the interaction of marketing principles and software business strategies in this study. Academic books, journal papers, review articles, and latest studies related to marketing management, digital marketing, software business models, SaaS, pricing, CRM, customer retention, and digital transformation have been reviewed [1] - [8]. The selection of literature has been based on its relevancy to the major themes of the study.

The major themes considered in the review are customer orientation, value creation, segmentation, targeting, positioning, marketing mix, software product strategy, pricing, digital marketing, customer acquisition, customer retention, CRM, data-driven marketing, and SaaS business models. Comparative tables have been included to analyze the difference between traditional software business model and SaaS business model and major software pricing and digital marketing strategies. This review does not include primary data but only an integrated conceptual framework from the literature.

2.1 Marketing Principles in Software Business

Marketing theories offer a framework for analyzing the process of identification of customer requirements, creation of value, communication of value, and establishment of relationships with the customers [1], [2]. Customer orientation is especially important, since software customers usually buy the solution to their problems rather than the technical capabilities. This means that organizations can choose business intelligence software to solve decision-making issues, CRM software to manage customers better, or enterprise software to automate their business processes. Consequently, marketing of the software should focus on the outcome for the customers rather than technical characteristics [1], [4].

Value creation is very similar to customer orientation. Some of the ways to create value by using software include reduction of operational costs, increase in productivity, automation of routine tasks, support of decision-making, communication improvement, increase in security, and scalability of organization [2], [4]. Thus, the value proposition of the software should explain how the software solves customer problems and why it offers better results compared to other options.

Another marketing principle which should be considered is segmentation as software consumers have different needs, budgets, technological sophistication levels, and patterns of product usage. Segmentation can be based on industry, size of the company, geographical market, technological sophistication level, customer needs, or pattern of product usage [1], [3]. In this case, targeting allows organizations to focus on attractive customer segments, whereas positioning creates a clear image of the product compared to its competitors [1], [2].

2.2. Marketing Mix and Software Business

Product, price, place, and promotion are the components of the traditional marketing mix [1], [2]. They are relevant for software businesses too, although their application differs significantly

since software is mainly an intangible product. The software product strategy involves not only its functionalities but also its usability, security, reliability, integration, support, documentation, updating, and customer experience [4], [5].

The pricing in software businesses has moved from the traditional licensing model to subscription, freemium, tiered, usage-based, and hybrid models [11], [13]. The distribution of the

software product takes place using the internet (websites of companies producing software, cloud services, mobile application stores, online marketplaces), and promotion is done using such means as SEO, content marketing, social media, email marketing, webinars, and digital advertising [3], [6]. The following table 1 provides a comparison of the marketing mix in traditional and software businesses.

Table 1. Comparison of the Marketing Mix in Traditional and Software Businesses

Marketing Element	Traditional Business	Software Business
Product	Physical products or conventional service	Application, platform, SaaS, or digital service
Price	Purchase price or service fee	Subscription, license, freemium, usage-based, or tiered pricing
Place	Physical stores and distributors	Website, cloud platform, app store, marketplace
Promotion	Advertising and sales promotion	SEO, content, social media, email, webinars, digital advertising

The comparison demonstrates that the fundamental marketing mix remains relevant but has been adapted to digital distribution, continuous product development, flexible pricing, and interactive communication [1], [3].

2.3 Software Product Strategy

The software product strategy varies from the traditional product management strategy because a software application is continuously upgradeable even after it goes live. Additional features, improved security, enhanced integration, performance improvements, and interface alterations can always be made during the product life cycle [4], [5]. As a result, the evaluation of software by customers does not stop at just the functionality provided initially.

Thus, customer feedback plays a very crucial role in the software product strategy as well.

Customer feedback, user feedback, sales feedback, support feedback, and other feedback data can highlight various usability issues, feature gaps, and market requirements. Thus, incorporating such feedback into the software development process can make the software better fit the market requirements and increase customer satisfaction [4].

2.4 Software Pricing Strategies

Pricing is an important strategy because it affects how customers perceive the value proposition, generates income, positions the business within the market, adoption, and retention [1], [11]. Software firms adopt different pricing strategies depending on various factors including market segment, product, usage, and competition. The following table 2 displays the comparison of software pricing models.

Table 2. Comparison of Software Pricing Models

Pricing Model	Characteristics	Advantages	Limitations
One-time license	Single payment	Immediate revenue	Limited recurring revenue
Subscription	Monthly or annual payment	Recurring revenue	Churn risk

Pricing Model	Characteristics	Advantages	Limitations
Freemium	Basic version free	Low entry barrier	Conversion challenge
Tiered pricing	Multiple packages	Supports different segments	Pricing complexity
Usage-based	Payment according to usage	Value aligned with consumption	Revenue variability
Hybrid	Combination of approaches	Flexible	More complex management

The findings from studies regarding SaaS pricing show that pricing is becoming increasingly complicated and can affect decisions regarding software development and operation [11], [13]. Further studies have shown the application of intelligence and artificial intelligence in software pricing decision-making [12]. Therefore, software pricing can be viewed as a marketing and product decision rather than a financial one.

Change from the conventional software licensing model to the SaaS is one of the most significant shifts in the software business model. Conventional software normally entails a license and installation, while SaaS provides ongoing availability through the Internet and typically requires subscription payment [5], [11]. The following table 3 presents the traditional software and SaaS comparison.

2.5 Traditional Software Licensing and SaaS

Table 3. Traditional Software and SaaS Comparison

Dimension	Traditional Software	SaaS
Payment	Usually, one-time	Usually recurring
Access	Local installation	Cloud-based
Updates	Periodic	Continuous
Revenue	Transaction-oriented	Recurring
Customer relationship	Often limited after purchase	Continuous
Retention importance	Moderate	High
Scalability	Relatively limited	Generally high
Support	Often post-sale	Continuous

Due to this reason, the significance of customer retention becomes greater in the SaaS model, as the income generated is a result of recurring subscriptions from customers [8], [10]. Consequently, marketing efforts are becoming more inclusive and encompassing all aspects of customer lifecycle.

2.6 Digital Marketing for Software Businesses

Digital marketing is especially important for software companies because clients tend to find, consider, try, and buy software using digital means [3], [6]. SEO will improve visibility when clients are searching for solutions, while content marketing may provide clients with education

through articles, videos, tutorials, case studies, and other types of guides. Social media will help build brand awareness and communities, while email marketing may help to onboard and educate clients [6], [7].

The fact that digital channels allow tracking customer activity and analyzing marketing efforts makes digital marketing especially suitable for software companies. Visits, trial signups, conversion rates, engagement, and retention may all be analyzed to evaluate which marketing efforts were efficient [3], [7]. The following table 4 provides the digital marketing strategies for software businesses.

Table 4. Digital Marketing Strategies for Software Businesses

Strategy	Primary Purpose	Software Application
SEO	Increase visibility	Attract solution-oriented searches
Content marketing	Education	Blogs, tutorials, guides
Social media	Engagement	Community and brand awareness
Email marketing	Relationship building	Onboarding and retention
Webinars	Product demonstration	Customer education
Free trials	Reduce purchase risk	Product evaluation
Referral marketing	Customer acquisition	Customer recommendations

2.7 Customer Acquisition and Retention

Customer acquisition is an important factor for software business success, yet acquisition alone is not sufficient to guarantee sustainable performance. This is particularly true of SaaS businesses since customers can terminate subscriptions if they feel there is no added value [8], [10]. Software businesses need to devise approaches to facilitate adoption and usage of their products by customers.

There are many factors affecting customer retention, such as quality, usability, reliability, customer support, onboarding, price, security, customization, and innovation [8], [9]. According to research related to SaaS customer retention, non-tangible factors such as trust and knowledge sharing affect customers' intention to form long-term relations with software vendors [8].

2.8 The Customer Relationship Management

The Customer Relationship Management procedure has become significant for software firms as online dealings create information that can be employed to analyze customers during their entire lifecycle [15]. CRM data combined with information about the use of the product would offer an even greater insight into customer behavior. A decrease in the usage of the product might signify the customers' dissatisfaction with the software and the chances of them leaving the company. The firm could act by offering the

clients assistance, training programs, products, or customer success initiatives. CRM will no longer be merely about managing customer records but will become strategic [15], [18].

2.9 Data-Driven Marketing

Software companies collect large volumes of customer and behavioral data by way of digital interactions. The information from websites, trial behaviors, feature utilization, subscriptions, service queries, and customer feedback may serve as a helpful basis for marketing decisions [3], [7]. Data-based marketing could help with customer segmentation, personalization, campaigns optimization, product recommendation, and churn prediction. Thus, customers using only the basic functionality of the software product may be recognized and offered targeted tutorials/demos to promote further utilization of the product. Nonetheless, the utilization of the customer data imposes certain obligations about privacy, security, and data governance [16], [17].

2.10 Comparison of Traditional and Contemporary Software Marketing

The development of digital software businesses has shifted promotion from a transaction-oriented approach toward a continuous customer-lifecycle method. The following table 5 shows the traditional and contemporary software marketing.

Table 5. Traditional and Contemporary Software Marketing

Dimension	Traditional Approach	Contemporary Approach
Main objective	Initial sale	Long-term customer value
Relationship	Transaction-oriented	Relationship-oriented
Product development	Periodic	Continuous
Pricing	Fixed license	Subscription, usage, tiered, hybrid
Promotion	Conventional	Digital and interactive
Customer data	Limited	Extensive
Feedback	Periodic	Continuous
Retention	Secondary	Strategic priority
Decision-making	Experience-based	Data-driven

The comparison shows that contemporary software marketing is more strongly connected with product development, customer experience, analytics, and relationship management [3], [5], [8].

III. PROPOSED INTEGRATED MARKETING FRAMEWORK FOR SOFTWARE BUSINESS

An integrated marketing framework in figure 1 is thus suggested for the software business based on

the synthesis of the reviewed literature. This framework links basic marketing concepts with the market strategy, software business strategy, digital marketing, lifecycle management of the customers, customer relationship management, and data analytics. It further explains how these processes help in creating customer value, satisfaction, loyalty, revenue generation, and competitive advantage.

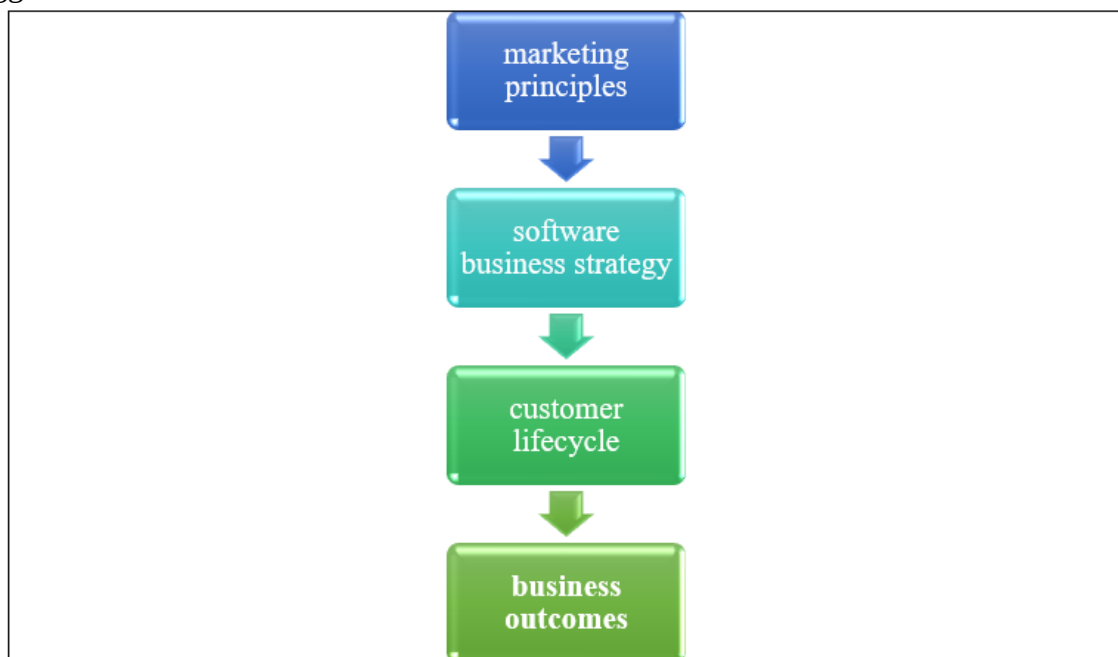


Figure 1. The proposed framework of the study

The first part of the framework includes marketing principles, which serve as the basis for knowing about the needs of customers, creating customer value, finding market opportunities, and creating market strategies. Such basic principles include customer orientation, value creation, market segmentation, positioning, product strategy, pricing, and promotions. These principles help software firms create their products in accordance with changing needs of the customers [1], [2].

The second part of the framework is software business strategy, which serves as a translation of the above-mentioned principles into practice. Software firms need to figure out what product features, pricing models, distribution channels, and promotions can be considered appropriate in relation to their target markets. SaaS and other digital models of software require constant product development, pricing, distribution, and promotion [3], [5].

Thirdly, the customer lifecycle is described as several steps through which customers engage with the software company. Lifecycle steps can include awareness, acquisition, evaluation, trial, conversion, onboarding, product adoption, retention, renewal, and advocacy. In contrast with typical software markets, the SaaS firms require maintaining relationships with the customers post-sales as subscriptions and usage are essential for the revenue generation and sustainable performance of the company [8], [10]. Hence, customer satisfaction, customer support, product adoption, and retention become the key components of software marketing.

Finally, business outcomes are discussed. Appropriate application of marketing principles and software business strategies during the customer lifecycle can lead to customer value, satisfaction, loyalty, retention, revenue growth, competitive advantage, and sustainable business performance. Such business outcomes will serve as evidence that the company has been able to translate marketing and customer relationships into sustainable business value.

The framework under consideration highlights the idea that marketing cannot be viewed as a separate promotional process. Marketing principles need to affect software business strategy, which will be applied continuously during the customer lifecycle. Such approach provides a good conceptual base for the analysis of software marketing and customer relationships.

IV. FINDINGS AND DISCUSSIONS

The review reveals that even though marketing has transformed with time, there are some concepts which are still applicable to software companies. Customer orientation remains relevant because software products must serve customers by solving their problems and not being just a functional product [1], [2]. Segmentation, targeting and positioning help to find appropriate market niches and distinguish the product in the competition environment.

The concept of marketing has also been changed significantly. Software products require continuous update, security, support, integration and customer experience [3]. Pricing has transformed from licensing to subscription, freemium, tiered, pay-per-use, and hybrid models [11], [13]. Distribution has turned into digital one, while promotion includes SEO, content marketing, social media, e-mail, webinars [3], [6].

Another distinctive feature of marketing modern software is customer retention. In SaaS environments, the acquisition process is just the start of the relationship with the customer. The client should successfully adapt the product and find enough value to keep paying for the subscription [8], [10].

The review highlights the necessity to integrate marketing and software development processes. Customer feedback may affect product development processes, whereas product usage data may provide valuable information about segmentation and marketing [4], [7].

Artificial intelligence will play a critical role in changing software marketing practices due to the implementation of such practices as

personalization, predictions, automatic CRM, customer service, and intelligent pricing [12]. Nevertheless, responsible usage of those technologies will be required.

Despite considerable body of literature dedicated to marketing and software business practices, there are some research gaps that require filling. First, further empirical research is necessary to investigate the connection between marketing factors and software customer satisfaction, adoption, and retention. Secondly, comparative studies are essential to understand the impact of different types of pricing (subscription, freemium, usage-based, tiered, and hybrid) on customer lifetime value and churn [11], [13].

Fourthly, more research must be done to look at how artificial intelligence can be used in software marketing. Segmentation, personalization, CRM, churn prediction, and pricing intelligence are some areas that require research [12]. Finally, issues of trust, privacy, and data protection should be studied more since software companies are relying more on behavioral and personal information [16], [17].

Fifthly, more research should be done into software marketing in developing countries. Issues related to the digital infrastructure, cost of access, payment methods, technology knowledge, and trust can affect software adoption and retention.

There are several important implications of the findings for software business management. Firstly, marketing activities must be linked to software development and not just seen as an advertisement activity. Secondly, organizations must define the clearly identified target segment and develop the product based on customer problems [1], [2]. Thirdly, the price must be developed considering the customer value, competition, usage, and retention [11].

Fourthly, the complete customer lifecycle must be managed from acquisition, onboarding, adoption, retention, renewal to advocacy [8], [10]. Fifthly, CRM and product analytics must be linked to

identify customer behavior and possible churn [15]. Finally, software businesses must be prepared for the growing role of artificial intelligence and do that while respecting customer privacy and transparency [12], [16].

V. CONCLUSION

This literature review looked at the application of marketing concepts in modern software companies and found that despite many developments in the field of digital businesses, traditional marketing concepts are still very relevant. Customer orientation, value proposition, market segmentation, market targeting, positioning, product concept, price, promotion, and relationship management form the basis of effective marketing decisions [1], [2]. But the fact is that digital nature of software and the development of SaaS have changed the way these concepts are used.

The results of the literature review showed that software companies need to go from transactional marketing to customer life-cycle management. In traditional software industry, maybe the main task of marketing was the formation of purchase decision, while in SaaS business, companies should continually create value to make people use their products, be satisfied, stay loyal and renew services [5], [8], [10].

In addition to these points, the review shows that the marketing mix has developed in the context of digital transformation. Modern software solutions provide continuous updates, support, security, integration, and user experience. Pricing has become more complex, including different forms such as licensing, subscription, freemium, tier pricing, usage pricing, and hybrid models [11], [13]. The distribution has become more digitalized, and SEO, content marketing, social media, email marketing, webinars, and other digital channels have become key tools for customer acquisition and communication [3], [6].

It is also essential that marketing has been integrated with software development, CRM, and analytics. Customer feedback could influence the

development process, and product usage data could help with segmentation and personalization of the offers [7], [15]. Thus, software businesses have more chances to create products that correspond to customers' demands.

In summary, technological advancements alone cannot ensure sustainable software business. Software firms must integrate their technological know-how with customer-oriented marketing, proper pricing strategies, communication, relationship building, analytics, and product improvements. The integration framework outlined above serves as a basis for linking these functions within the customer life cycle of software products. Emerging technologies in AI, software pricing, personalization, and data-driven marketing will undoubtedly have important impact on the interaction of marketing and software business in the forthcoming. The organizations that will integrate these functions while preserving the trust of customers are likely to benefit from them.

REFERENCES

- [1] P. Kotler and K. L. Keller, *Marketing Management*, 15th ed. Pearson, 2016.
- [2] G. Armstrong and P. Kotler, *Marketing: An Introduction*, 13th ed. Pearson, 2019.
- [3] P. Chaffey and F. Ellis-Chadwick, *Digital Marketing: Strategy, Implementation and Practice*, 8th ed. Pearson, 2022.
- [4] D. Chaffey and P. R. Smith, *Digital Marketing Excellence: Planning, Optimizing and Integrating Online Marketing*, 6th ed. Routledge, 2022.
- [5] M. A. Cusumano, A. Gawer, and W. Y. Kim, *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*. Harper Business, 2019.
- [6] N. Pandey, P. Nayal, and A. S. Rathore, "Digital marketing for B2B organizations: Structured literature review and future research directions," *Journal of Business & Industrial Marketing*, 2023.
- [7] A. Gurunathan and K. S. Lakshmi, "Understanding the relevance and significance of different digital marketing frameworks: A review," *European Economic Letters*, vol. 15, no. 2, pp. 324–337, 2025.
- [8] J. Schleckser, "Increasing Software as a Service (SaaS) customer retention: Do intangible factors matter?," *Engaged Management ReView*, vol. 6, no. 1, 2023.
- [9] R. Ahmad and F. Buttle, "Customer retention: A potentially potent marketing management strategy," *Journal of Strategic Marketing*, vol. 9, no. 1, pp. 29–45, 2001.
- [10] N. Ross, "Customer retention in freemium applications," *Journal of Marketing Analytics*, vol. 6, pp. 127–137, 2018.
- [11] A. García-Fernández, J. A. Parejo, and A. Ruiz-Cortés, "Pricing4SaaS: Towards a pricing model to drive the operation of SaaS," *arXiv*, 2024.
- [12] F. J. Caverio, J. C. Alonso, and A. Ruiz-Cortés, "From static to intelligent: Evolving SaaS pricing with LLMs," *arXiv*, 2025.
- [13] A. García-Fernández, J. A. Parejo, and A. Ruiz-Cortés, "Pricing-driven development and operation of SaaS: Challenges and opportunities," *arXiv*, 2024.
- [14] A. García-Fernández, J. A. Parejo, P. Trinidad, and A. Ruiz-Cortés, "Pricing4SaaS: A suite of software libraries for pricing-driven feature toggling," *arXiv*, 2024.
- [15] F. Buttle and S. Maklan, *Customer Relationship Management: Concepts and Technologies*, 4th ed. Routledge, 2019.
- [16] P. Kotler, H. Kartajaya, and I. Setiawan, *Marketing 5.0: Technology for Humanity*. Wiley, 2021.
- [17] P. Kotler, H. Kartajaya, and I. Setiawan, *Marketing 6.0: The Future Is Immersive*. Wiley, 2023.
- [18] C. Grönroos, "From marketing mix to relationship marketing: Towards a paradigm shift in marketing," *Management Decision*, vol. 32, no. 2, pp. 4–20, 1994.
- [19] R. T. Rust, V. A. Zeithaml, and K. N. Lemon, *Driving Customer Equity: How Customer Lifetime Value Is Reshaping Corporate Strategy*. Free Press, 2000.
- [20] V. A. Zeithaml, L. L. Berry, and A. Parasuraman, "The behavioral consequences of service quality," *Journal of Marketing*, vol. 60, no. 2, pp. 31–46, 1996.