

# Research on the Optimization of Marketing Strategies for Valve Enterprises in the Context of Digital Transformation

## -- A Case Study of Wenzhou Dingjin Valve Co., Ltd.

Yiqi Zheng<sup>1</sup>, Yiyi Huang<sup>1</sup>, Zhiliang Xia<sup>2,3,\*</sup>, Weikai Wang<sup>2</sup>

<sup>1</sup> Zhejiang DongFang Polytechnic, Wenzhou, Zhejiang, 325000, China

<sup>2</sup> Blch Pneumatic Science & Technology Co.,LTD, Wenzhou 325000, Zhejiang, China

<sup>3</sup> Wenzhou Polytechnic, Wenzhou 325000, Zhejiang, China

### Abstract

Against the backdrop of the deep penetration of the digital economy into various industries, industrial product enterprises are confronted with the contradiction between traditional marketing models and technologically complex products. Digital transformation has become a key path to break through development bottlenecks. This paper takes Wenzhou Dingjin Valve Co., Ltd. as the research object, adopts literature research, field investigation, and case analysis methods to systematically diagnose the current situation and pain points of the enterprise's digital marketing. Drawing on the practical experience of industry benchmarks and combining the characteristics of Wenzhou's valve industrial cluster, it constructs an optimized marketing strategy system from four dimensions: content communication, channel integration, customer operation, and implementation guarantee. The research results can provide practical references for the digital marketing transformation of similar valve enterprises and contribute to the digital upgrading of regional industrial clusters.

### Keywords

Digital Transformation; Valve Enterprises; Marketing Strategy; Industrial Product Marketing; Industrial Cluster.

## 1. Introduction

With the rapid advancement of digital technologies such as big data, artificial intelligence, and the industrial internet, profound transformations have taken place in the production models, marketing logic, and competitive landscape of traditional manufacturing industries. As an indispensable core component in industrial production, valves are characterized by complex technical parameters, prominent customized requirements, and long customer decision-making cycles. These attributes have rendered traditional marketing models-relying heavily on offline visits and exhibition promotions-confronted with issues such as high customer acquisition costs, insufficient precision, and weak customer loyalty.[1]

Wenzhou stands as the core agglomeration area of China's valve industrial cluster. Boasting a complete industrial chain supporting system and mature production and manufacturing capabilities, it has gathered thousands of valve production and supporting enterprises, with an annual output value consistently ranking among the top in the country, forming a highly regionally distinctive industrial ecosystem. Wenzhou Dingjin Valve Co., Ltd. (hereinafter referred to as "Dingjin Valve"), founded in 2015, is deeply engaged in the R&D, production, and sales of industrial valves. Its product portfolio covers gate valves, ball valves, butterfly valves, and other series. Leveraging stable product quality and certain technological R&D advantages,

the company's customers have spread across more than 20 provinces and cities nationwide, with an annual sales volume reaching 80 million yuan. However, at the same time, the enterprise is still in the initial exploration stage of digital marketing layout and has not yet formed a systematic digital marketing system. The limitations of traditional marketing models have gradually become prominent, becoming a key bottleneck restricting the enterprise's further market expansion and core competitiveness enhancement. Therefore, there is an urgent need to achieve transformation breakthroughs through the optimization and upgrading of marketing strategies.

At the theoretical level, current research on digital marketing of industrial products mainly focuses on general fields. For products with prominent technical complexity such as valves, research on the industrial adaptability of their digital marketing is still relatively scarce. This study aims to combine the characteristics of valve products and industry development laws, construct a theoretical framework for digital marketing of technologically complex products, fill the gap in existing research regarding application scenarios in the valve industry, and enrich the theoretical system of digital marketing for industrial products. At the practical level, the research will accurately focus on the core pain points of Dingjin Valve's digital marketing. Through systematic diagnosis and strategy optimization, it will provide the enterprise with a implementable marketing transformation plan, helping it reduce customer acquisition costs, improve marketing efficiency and customer satisfaction, and enhance market competitiveness. Meanwhile, relying on the regional background of Wenzhou's valve industrial cluster, it will extract replicable and promotable digital marketing transformation paths, providing practical references for similar valve enterprises in Wenzhou and even the whole country, and promoting the digitalization and high-quality development of the entire industrial cluster[2].

## **2. Current Status and Pain Points of Digital Marketing in Valve Enterprises--A Case Study of Dingjin Valve**

### **2.1. Basic Overview of the Enterprise**

Founded in 2015 and located in Longwan District, Wenzhou, Dingjin Valve specializes in the R&D, production, and sales of industrial valves. Its product range includes gate valves, ball valves, butterfly valves, and other series, which are mainly used in fields such as petrochemicals, water conservancy and hydropower, and municipal engineering. The enterprise currently has more than 120 employees and an annual sales volume of approximately 80 million yuan. Its customers are distributed in more than 20 provinces and cities across the country, but its international market share is relatively low.

### **2.2. Diagnosis of Current Digital Marketing Status**

Through field investigation, it is found that Dingjin Valve's current marketing model is still dominated by traditional methods, and digital transformation is in the initial exploration stage. The specific status is shown in the following table:

**Table 1.** Diagnosis Table of Dingjin Valve's Digital Marketing Current Status

Diagnosis Dimension	Specific Status	Level of Digital Application	Existing Problems
Marketing Channels	Dominated by offline exhibitions, dealer agency, and offline visits; Attempted to settle in 1 B2B e-commerce platform but did not conduct operational optimization	Low	Single channel, weak online traffic acquisition capacity, and lack of omni-channel collaboration
Customer Management	Used Excel spreadsheets to record customer information without establishing a customer database; Lack of hierarchical customer management, and maintenance mainly relies on telephone communication	Low	Scattered customer information, inability to accurately identify customer needs, and difficulty in improving repurchase rate
Digital Tools	Only used WeChat and QQ for simple communication, without applying professional digital tools such as CRM systems and marketing automation tools	Low	Low marketing efficiency and inability to achieve full-life-cycle management of customers
Content Communication	Product promotion mainly relies on paper manuals and product samples, lacking digital promotional materials; No online content marketing carried out	Low	Difficulty in intuitively presenting the technical complexity of products and insufficient brand exposure
Data Application	No marketing data statistics and analysis mechanism established, unable to quantify marketing effects, and decision-making relies on experience judgment	Low	Unreasonable allocation of marketing resources and difficulty in achieving precise marketing

### 2.3. Extraction of Core Pain Points

Dingjin Valve is currently facing several core problems in digital marketing: Firstly, there is a mismatch between products and marketing models. Valve products have complex technical parameters and often require customization, and traditional marketing methods cannot intuitively clarify the product value, making it particularly difficult for customers to understand; Secondly, the channels are too single, overly relying on offline channels, resulting in increasing customer acquisition costs, while the online channels are not well laid out, making it impossible to reach more potential customers; Thirdly, data management lags behind, lacking a unified customer database and marketing data management system, which makes it impossible to accurately depict customer portraits and predict customer needs through data; Finally, the team capacity is insufficient. The professional level of the digital marketing team cannot keep up, and they lack a systematic understanding of how to use digital tools, create online content, and operate omni-channels.

## 3. Learning from Benchmark Experience in Digital Marketing of the Valve Industry

To address Dingjin Valve's digital marketing pain points, 5 benchmark enterprises in digital marketing of the global valve industry (such as Tyco Flow Control in the United States, China Liangong Valve, Shanghai Kaiweixi Valve, etc.) were selected for case analysis, and the transferable experience models are summarized in the following table:

**Table 2.** Practical Experience of Benchmark Enterprises in Digital Marketing of the Valve Industry

Benchmark Enterprise	Core Digital Marketing Practices	Key Success Factors	Transferable Experience
Tyco Flow Control (USA)	1. Built a 3D product visualization platform to support customers in viewing product structure, parameters, and simulated operation effects online; 2. Established a global customer data management system to achieve precise matching of customer needs	Strong technological R&D capabilities and improved global layout	Product visualization communication methods; Refined customer data management
China Liangong Valve	1. Settled in multiple mainstream B2B e-commerce platforms (Alibaba, <a href="http://Huicong.com">Huicong.com</a> , etc.) and optimized store operations; 2. Released product installation and maintenance tutorials through short video platforms (Douyin, Video Account, etc.)	Outstanding channel integration capabilities and content close to customer needs	close to customer needs Multi-platform online channel layout; Practical content marketing
Shanghai Kaiweixi Valve	1. Deployed a professional CRM system to achieve full-life-cycle management of customers; 2. Carried out online live investment promotion and technical seminars to enhance brand influence	Mature application of digital tools and innovative marketing activities	In-depth application of CRM systems; Online interactive marketing models
Krupp Valve (Germany)	1. Constructed an industrial internet platform to support customers in online ordering, submission of customized demands, and order tracking; 2. Conducted market trend prediction and product R&D based on big data analysis	Leading industrial internet technology and strong data application capabilities	Construction of digital service platforms; Data-driven decision-making mechanisms
Zhejiang Chaoda Valve	1. Combined the advantages of Wenzhou's industrial cluster to participate in the construction of regional industrial internet platforms; 2. Carried out university-enterprise cooperation to cultivate professional digital marketing talents	Strong regional resource integration capabilities and improved talent training system	Collaborative transformation of industrial clusters; Establishment of digital talent teams

Through the analysis of the practical experience of benchmark enterprises and combined with Dingjin Valve's actual situation, the core direction of its digital marketing optimization can be clarified: taking product visualization as the foundation, omni-channel integration as the path, data-driven as the core, and team building as the guarantee.

## 4. Optimized Digital Marketing Strategy Plan for Dingjin Valve

### 4.1. Product Visualization Communication Strategy

Considering the technical complexity of valve products, it is necessary to build a multi-dimensional digital communication system to promote products: First, develop a 3D visualization platform and create 3D product models and animations, allowing customers to clearly view the internal structure, technical parameters, installation process, and simulated operation effects of products online, which makes it much easier for customers to understand; Second, create a variety of digital content, such as product operation tutorials, maintenance short videos, technical white papers, and industry solutions, and then release them through

channels such as official websites, short video platforms, and industry media to clarify the product value; In addition, regularly invite industry experts and customer representatives to hold online technical seminars to answer customer questions, which can also enhance the professional image of the brand [3].

#### **4.2. Omni-Channel Integration Marketing Strategy**

It is no longer possible to rely solely on offline channels for marketing; instead, an omni-channel collaborative system with "online + offline" joint efforts must be built. Online, first improve the layout of B2B e-commerce platforms, optimize store page design, improve product keyword rankings, and make online customer acquisition more efficient; then build an official enterprise website, do a good job in SEO/SEM promotion, and build the website into an exclusive platform for official brand information release and customer consultation; also use social media such as WeChat Official Account, Douyin, and LinkedIn to increase brand exposure, interact with customers, and attract potential customers' attention. Offline, optimize the strategy for participating in exhibitions, focus on participating in high-end industry exhibitions, and enhance the exhibition effect through pre-online promotion and offline experience; at the same time, provide digital empowerment for dealers, supply corresponding digital marketing tools and professional training, and realize collaborative marketing between manufacturers and dealers. In addition, it is necessary to establish a data intercommunication system between online and offline channels, enabling the collaborative linkage of customer information, order information, and marketing activities, so as to provide customers with a consistent and smooth marketing experience [4].

#### **4.3. Data-Driven Customer Operation Strategy**

Taking customer data as the core to achieve precise marketing and efficient maintenance:

First, deploy a set of CRM system, integrate customer basic information, communication records, purchase history, and demand preferences into a unified customer database, so as to accurately depict customer portraits. Then, divide customers into three categories-core customers, important customers, and potential customers-based on dimensions such as purchase amount, purchase frequency, and industry attributes, and formulate different marketing and maintenance strategies for customers at different levels-for example, providing customized services for core customers and conducting precise outreach marketing for potential customers.

In addition, establish a marketing data index system including customer acquisition cost, conversion rate, repurchase rate, and customer lifetime value, conduct regular data statistics and analysis, and optimize the allocation of marketing resources and adjust marketing strategies based on the analysis results.

#### **4.4. Implementation Guarantee Strategy**

First of all, it is necessary to form a professional digital marketing team, clarify the job responsibilities such as content creation, channel operation, and data analyst; then improve the team's professional digital marketing capabilities through internal training, external recruitment, and university-enterprise cooperation.

In addition, formulate management specifications for the collection, storage, use, and confidentiality of customer data and marketing data to ensure the safe and compliant use of data. Finally, build a digital marketing effect evaluation system, conduct effect reviews every quarter, adjust marketing strategies according to market changes and customer needs, and form a closed-loop iterative model of "diagnosis-implementation-evaluation-optimization", so as to make the marketing plan more effective in practice.

## 5. Conclusion and Outlook

This research specifically focuses on Dingjin Valve, carefully analyzes the current marketing status and existing problems of valve enterprises under the background of digital transformation, refers to the experience of outstanding benchmark enterprises in the industry, and finally builds a digital marketing strategy optimization plan including product visualization communication, omni-channel integration, data-driven customer operation, and implementation guarantee. The research finds that for valve enterprises to carry out digital marketing transformation, they must combine the technical characteristics of their own products, rely on digital tools as support, take data as the core, and always focus on customers. Only in this way can they break the limitations of traditional marketing and further enhance their market competitiveness. Looking forward to the future, with the continuous development of technologies such as industrial internet and artificial intelligence, the digital marketing of valve enterprises will surely move towards a more intelligent, personalized, and ecological direction. In the future, further research can be carried out on the practical application of artificial intelligence technology in customer demand prediction and precise marketing push for valve enterprises, as well as the collaborative mechanism of digital marketing for valve enterprises from the perspective of industrial clusters, so as to provide more in-depth theoretical and practical support for the digital transformation of the entire valve industry.

## 6. Conclusion

Digital transformation is now a key driving force for the high-quality development of the manufacturing industry. As an important part of the industrial field, the valve industry must upgrade its marketing model in line with digitalization-this is not only a practical need to respond to market competition but also an inevitable trend of industrial upgrading. This research is carried out in accordance with the actual needs of Wenzhou Dingjin Valve Co., Ltd. It first clarifies the current status of the enterprise's digital marketing, then refers to the experience of excellent benchmark enterprises in the industry, and finally puts forward a set of practical and implementable marketing strategy optimization plans. During the research process, Dingjin Valve and Zhejiang DongFang Polytechnic cooperated closely. The enterprise provided real production and sales scenarios and first-hand data, while the university gave play to its advantages in academic research and talent, and together completed the entire process from problem identification to solution formulation. The research results can not only help Dingjin Valve solve the old problems of traditional marketing and improve its market competitiveness but also serve as a reference example for the digital transformation of Wenzhou's entire valve industrial cluster. It is hoped that Dingjin Valve can take this research as a starting point, steadily promote the implementation of digital marketing strategies, and continuously optimize and improve them; it is also expected that through this cooperation, the university and the enterprise will further deepen industry-university-research cooperation, carry out more extensive cooperation in areas such as digital talent training and technological innovation application, and jointly help regional manufacturing achieve digital transformation and high-quality development, contributing to the in-depth integration of the digital economy and the real economy.

## Acknowledgments

Fund Projects:

Horizontal Project: Research on Product Marketing Strategy of Wenzhou Dingjin Valve Co., Ltd. in the Digital Context, No. ( ZJDF-HX2026002 ); 2024 Yueqing Industrial Technology Plan Project - Pressure Reducing Valve with Counterflow Function ( 2004G007).

## References

- [1] Li Fei. Research on the Innovation of Digital Marketing Models for Industrial Products [J]. China Industrial Economics, 2023 (05): 123-135.
- [2] Wang Jianguo. The Path of Digital Transformation of Manufacturing Enterprises from the Perspective of Industrial Clusters [J]. Economic Management, 2022 (11): 89-102.
- [3] Zhang Ying. Current Status and Development Trend of Digital Marketing in the Valve Industry [J]. Valve, 2022 (03): 210-213.
- [4] Chen Qiang. Research on Big Data-Driven Customer Relationship Management for Industrial Products [J]. Commercial Research, 2021 (07): 78-85.