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Research on the Marketing Strategy of Chinese Orthopedic High-value Consumables Enterprises Based on the Value Chain Perspective--Multiple Case Study

（Thesis submitted for the degree of Executive Doctorate in Business Administration）

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ABSTRACT

As the reform of the medical and health care system deepens, it's a pivotal step for orthopedic high-value consumables companies to develop a marketing strategy model attuned to environmental changes and industry characteristics. With traditional operating patterns becoming increasingly inapplicable, medical consumables industry is undergoing radical reform to the effect that uproots competitions and environment. This brings about great challenges to Chinese orthopedic high-value consumables companies, and promising opportunities for the innovation practices of such companies. Therefore, the paper proposes research questions like what are internal and external environmental changes faced by medical high-value consumables manufacturers under the background of New Health Care Reform, the innovation and choice of enterprise marketing strategy model, the identification of an innovative marketing strategy adapted to China's medical high-value consumables companies based on the value chain theory, and further exploration of the interrelationship among enterprise marketing strategies with industry characteristics and satisfying customer needs, enhancing enterprise competitiveness and achieving sustainable development of enterprises.

Guided by Value Chain Theory and marketing strategy innovation, the author uses multi-case study, grounded theory-based qualitative study and empirical consumers study methods, and selects four Chinese orthopedic high-value consumables companies for case study using SWOT analysis and IFE/EFE analysis matrix methods to analyze China's market status and the changing marketing environment of orthopedic high-value consumables companies against the backdrop of the new health care reform, and point out six challenges facing orthopedic high-value consumables companies through research: first, core product has not been sufficiently established; second, market demands are diversified and brand management awareness is weak; third, foreign enterprises' expansion constrains domestic firms and domestic enterprises are mostly family-owned; fourth, apart from governance risk, the new health care reform brings significant impact on the existing channels; fifth, price regulation risk escales, and product changes quickly; sixth, higher requirements are imposed on innovation capabilities and the policy environment becomes more uncertain. All these require

organizations to be more resilient. To address such six challenges, from the perspective of Chinese orthopedic high-value consumables companies, the author conducts three layers of coding on such four companies' data, namely open coding, axial coding and selective coding, and concludes four main characteristics. Then the author comes up with the "Four Forces" model applicable to high-value consumables industry. To be specific, the internal supporting force means that an organization creates a good corporate culture through construction of core product ecosystem and team structure and obtains competitive advantages in a dynamic environment. Value co-creation force works on the two-way exchange chain between the organization and external environment, whereby through channels established by the organization and the market, partnership is established to provide diversified services, and price adjustment is promptly made according to market reaction so that the organization can obtain competitive advantages by interacting in the ever-changing environment. Innovation-driven force means that the enterprise continues innovating products with innovative way of thinking and funds, and obtains policy protection after completing innovation. The innovative products produced thereby will be put in the market, and at the heart of marketing. Situational extension force indicates that enterprises can gain market information and public trust through corporate social responsibility, brand effect and information acquisition in the changing policy environment, which provides a better information and consumer environment for the implementation of marketing strategies.

The four forces marketing model is an equibilium model for the enterprise from the inside to the outside, from the production end to the terminal end, and the feedback from the terminal end to the production end. It helps enterprises to put forward dynamic marketing strategies and make breakthroughs in a dynamic and complicated environment. From the perspective of the orthopedic high-value medical consumables (HVMC) industry, this model is established based on four dimensions, and is expected to cope with and solve the six major challenges met by HVMC companies specialized in orthopedic implants, and help Chinese companies avoid risks, seize opportunities, and gain advantages in the fierce global competition. Then the author adopts empirical research method, verifies these four forces from the side of consumers and internal level, and comes up with an empirical research model with internal supporting force, value co-creation force, innovation-driven force and situational extension force as independent variables and enterprise competitiveness as dependent variable, to explore

the relationship between the four driving forces and enterprise competitiveness. After relevant data processing, the author verifies that internal support, value co-creation, scenario extension and innovation drive have a significant positive effect on enterprise competitiveness. Then the Core Categories Model is proposed. Combing with existing relevant literature, the paper further explains impacts of internal supporting force, value co-creation force, innovation-driven force and situational extension force on enterprise competitiveness.

The theoretical significance of this paper is as follows. Based on previous theories on marketing, this research presents a marketing model fit for orthopedic high-value consumables companies to complement and extend the existing theories, and provide theoretical support for these companies to choose and adjust marketing strategies according to their own and industry characteristics. In terms of practice, the author analyzes the existing marketing problems of orthopedic high-value consumables companies according to their development patterns and trends, and presents an innovative marketing strategy that fits them given the micro and macro marketing environment and industry demand environment, which is very meaningful for industrial peers to develop and adjust their marketing strategies.

Keywords: Marketing strategy; Value chain innovation; Changing environment; High-value consumables; Enterprise competitiveness

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2020 is an unusual year where the black swan event COVID-19 pandemic swept across the globe, bringing severe trauma to world economy and complexities to social environment. As both a student and an entrepreneur, I bear the thought and obligation to shoulder more responsibilities. I will make the best of my learning and gains, and advance with firm spirits!

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