

THE COMPARISON OF BUSINESS MODELS AMONG ELDERLY DAY CARE CENTRES IN TAIWAN

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ABSTRACT

Taiwan has entered the super-aged society, therefore, the demand of long-term care (LTC) system for elderly day care (EDC) centre is increasing. The government had also announced that it will promote the construction of more EDC centres. However, the establishment and operation of an EDC centre not only involves regulations, funds, medical care, psychology, etc., but also requires the use of business operation and management knowledge, otherwise it will not be easy to operate normally for a long time and provide better care services for the community. The present study adopts qualitative method which conducts in-depth interviews with five different types of EDC centres executors, there are owned by hospital, societies legal person, consortium legal person, company, personal. According to the competitiveness tool SWOT analysis, the Porter five forces model and the business model canvas, the data collected during the interviews were analysed to understand the business models, advantages, disadvantages, opportunities, and threats of different ownership types of EDC centres, as well as industrial competitiveness. Finally, this research provides reference and advice for new operators who are currently operating or are about to enter the EDC centre industry.

Keywords: Long-term care, Elderly day care centre, SWOT analysis, Porter five forces analysis, Business model canvas.

1. INTRODUCTION

In 2018, Taiwan's elderly population ratio reached 14%, and it has entered an elderly society. It will enter a super-aged society in 2025 (20%), and one out of every five people will have an elderly person over the age of 65 (National Health Administration of the Ministry of Health and Welfare, 2021). It is equivalent to three or four young people need to bring up an old man. The overall population structure of Taiwan is rapidly aging, resulting in a simultaneous increase in the number of people who need long-term care (LTC). In order to develop a perfect LTC system, the Executive Yuan approved the "LTC ten-year plan" (referred to as LTC 1.0) in 1996. To promote LTC business, we hope to provide diversified care services according to needs. Establish a community-based LTC service system. The Executive Yuan approved the "ten-year LTC plan 2.0" (referred to as LTC 2.0) in December 105, and implemented since January 106 to respond to the aging population (Department of Long-Term Care, Ministry of Health and Welfare, 2019).

According to estimates by the National Development Commission, the age structure of the elderly population is rapidly aging. In 2020, the super-aged (over 85 years old) will account for 10.7% of the elderly population, and it will increase to 27.4% in 2070 (Ministry of the Interior of the Republic of China, 2020). The aging of the population seems to have become one of the important topics discussed in daily life. However, the aging of the population will inevitably bring various impacts to the society, and the care of the elderly has become a major challenge in society.

Taiwan should study the dementia care model of EDC centres in Europe and the United States, and develop a unique localized dementia care system. Based on the above, the present study discusses the practical experience of EDC centre unit operation, investigates the current day care centre business model, and summarizes the different ownership management types.

The research objectives of the present study are summarized as follows:

- (1) Analyse the business models of different ownerships of EDC centres, and distinguish between the pros and cons of the environment.
- (2) Discuss the market competitiveness of different ownerships of EDC centres, and clarify the competitive situation of different business models.
- (3) Describe the key elements of the existing EDC centre through the nine-square grid structure, analyse the causal logical relationship between the important factors, and deduce the key factors for success.
- (4) Summarize the advantages, disadvantages opportunities and threats of the establishment of EDC centres due to different ownerships, analyse the industry competition, and collect information based on the issues for discussion, so as to provide the current operation or the new operators of the EDC centres that will be put into operation as a reference for operation with suggestions.

Literature Review

The content of the literature review mainly studies the literature discussion on the development of day care centre for long-term EDC services, the current situation of operating EDC centre, and its prospective development and predicament. The first section investigates the development and implementation of long-term EDC service policies and implementation status. Second section investigates the definition of day centre.

Long-term EDC Service Policy and Implementation Status

Development of long-term EDC services in Taiwan

The concept of "aging in place" originated from the Nordic countries in the 1960s, especially in Sweden. At that time, because of dissatisfaction with the elderly being restrained in institutions and losing their personal autonomy and privacy, the idea of returning to a social family came into being. It was not until the 1990s that the concept of care spread to other countries and became the goal of long-term EDC.

Wu and Zhuang [1] pointed out that the current national EDC policy takes "aging in place" as the highest guiding principle, and believes that the elderly should age naturally in the community where they live, in order to maintain the quality of life of the elderly's autonomy, self-esteem and privacy. At present, when various countries plan their policies on long-term EDC for the elderly, the ultimate goal and direction are "aging in place" as the benchmark, which is also in line with the traditional concept of Chinese people returning to their roots; and can avoid excessive institutionalization, economic and cultural impact.

The current long-term EDC system in Taiwan includes:

- (1) Political system: It mainly focuses on chronic disease medical care and technical nursing care, such as nursing homes, home care, EDC centres and other long-term EDC institutions.

- (2) Social and administrative system: Provide assistance with general daily life care services, such as nursing and maintenance institutions, home services and day care institutions for the elderly.
- (3) The elderly service system of the National Military Retired Officers and Soldiers Guidance Committee of the Executive Yuan: including public or self-funded care for the veteran home.
- (4) The health preservation village of a private consortium or a corporate legal person [2].

Long-term EDC service ten-year plan 1.0

In 2008, the Executive Yuan approved a ten-year long-term EDC plan, providing services to various objects such as the elderly over 65 years old, aboriginal people over 55 years old, and people with disabilities over 50 years old. The public or their family members can apply to the long-term EDC centres for evaluation, determine the amount of subsidy and formulate an appropriate care plan.

The Ministry of Health and Welfare (2018) in order to expand the service target and make the long-term service resource network more complete, the Executive Yuan formulated the "National Long-term Care Ten-Year Plan~97-100 Years Medium-Range Plan" in 2009 to promote the medium- and long-term care plan. The painting is gradually built in three stages:

- (1) The first stage (2008-2015) - long-term EDC ten-year plan: for the construction of my country's long-term care system and the network pioneering plan, it is also a period when the long-term care service model is established and the capacity can be expanded.
- (2) The second stage (2010-2015) - the long-term EDC service network plan: to establish a long-term care service system in my country and formulate a long-term care service law; in order to increase the capacity of my country's long-term care services and make the service popularized, and as a The basis for the implementation of long-term care insurance.
- (3) The third stage-long-term EDC insurance law: After the long-term EDC service law is passed and runs smoothly, the legislative work of the long-term care insurance law will be started, and the long-term EDC insurance will be officially implemented, making the country's social security protection network more complete.

Long-term EDC service ten-year plan 2.0

Based on the above, the ten-year long-term EDC plan 1.0 is still faced with various problems and challenges. Therefore, the government has laid a foundation for overall service resources through the ten-year long-term EDC plan 2.0, and has actively responded to the diverse care needs of the public.

In 2017, the long-term EDC ten-years 2.0 officially launched. The care services established by each have been systematically formed into a comprehensive overall care model for the community. Large series, divided into A, B, C three levels (Figure 1).

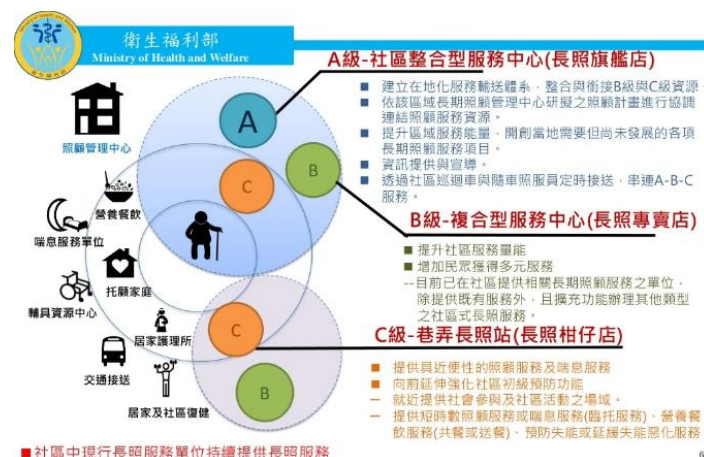


Figure 1. Holistic EDC Service System of Taiwan

It is convenient for people to find the help they need in each township and district office. If the services provided in this district cannot meet your needs, they can also provide the most real-time transfer service through the connection between each other to meet the care needs of different ethnic groups, and the community as a whole. Care is also more complete, enabling people to receive more complete and continuous care locally. The 10-year long-term EDC 2.0 service project is more flexible, innovative, integrated and extended to its service objects. (Table 1 Compared long-term EDC ten-year 1.0 with 2.0).

Table 1. Compared Long-Term Care Ten-Year Plan 1.0 with 2.0

	LTC 1.0	LTC 2.0
Service Object	1. Disabled elderly over 65 years old	Increase:
	2. Disabled over 55 years old	5. People with dementia over the age of 50 years old
	3. Aboriginal people over 55 years old	6. Flatland natives over 55 years old
	4. Over 65 years old who living alone and only need assistance	7. Disabled under the age of 49 years old
		8. Frail elderly people over 65 years old

Day Care Centre

Definition of Day Care Centre

The concept of "day care" originated from the idea of a nursery, but the object is changed to the elderly, people with disabilities and mobility imbalances, etc. It can also be called a kindergarten or a nursing home for the elderly. EDC originated in Mexico in the early 1920s, and was established to provide a place for short-term day care for mentally ill patients without institutionalized care [3].

Another argument points out that the day care service originated from the day care program for mental patients pioneered in Soviet Russia in 1942 [4;5]. Table 2 summarized the definition of day care centre.

Table 2. Definition of Day Care Centre

Year	Authors	Definition
2003	Wang [6]	For the elderly with physical, cognitive, or psychosocial disabilities, group care services of less than 12 hours are provided. The services include providing a safe and comfortable activity environment for the elderly, and taking care of them, catering, medical care, nursing care, recreation and leisure, rehabilitation exercise education, medication safety, transportation services, social activities, etc.
2011	Chen [7]	According to the attributes of the service objects, it is further divided into sunshine center for the elderly with dementia and general day care, both of which are collectively referred to as day care centers for the elderly.

Day Care Centre Functions and Objectives

Zhan [8] pointed the functions of day care services are extended as follows:

- (1) Maintenance and improvement of physical and mental functions (physical function, mental function, high-level brain function, physical strength).
- (2) Maintenance and improvement of activities of daily living and instrumental activities of daily living.
- (3) Maintenance and improvement of communication abilities.
- (4) Assisting in the selection of assistive devices and elderly products and related assistance in enhancing efficacy.
- (5) The restoration of self-confidence and the reinforcement of life motivation.
- (6) Setting life goals and adjusting the pace of life.
- (7) Interpersonal communication and expansion of the field of life.
- (8) Assistance for social participation and regaining of social roles.

Service Model of Day Care Centre

Robins (1981) was the first to put forward the theory of four models of day care services, mainly distinguishing the differences between the four models by three categories of service content, service objects and affiliated institutions:

Table 3. Classification of Day Care Centre

Model	Service Content	Service Object
A	Intensive rehabilitation, medical and nursing services.	Patients who are recovering after discharge.
B	Short-term rehabilitation, medical and nursing services.	Chronic patients discharged from hospital.

C	Long-term health maintenance services.	Avoid the elderly who are placed prematurely.
D	Preventive health services	Disabled seniors who need psychosocial activities

2. RESEARCH METHOD

The present study conducts qualitative research, mainly to understand the current business model of EDC centres in the LTC industry in Taiwan. Based on field observation and structured case interviews, the present study analyses and discusses the views and opinions on the operation of day care centres for those who currently operate LTC for the elderly.

After interviewing with operators, using SWOT, the Porter five forces model and the business model canvas, as the analysis tools of this study. Conduct mutual analysis and discussion with the literature, and compare the commonalities and differences of different types of business models through the analysis results, and then use objective and public information to provide business operators or those who intend to operate EDC centres in the future as suggestions for reference.

The research framework of present study is shows in Figure 2.

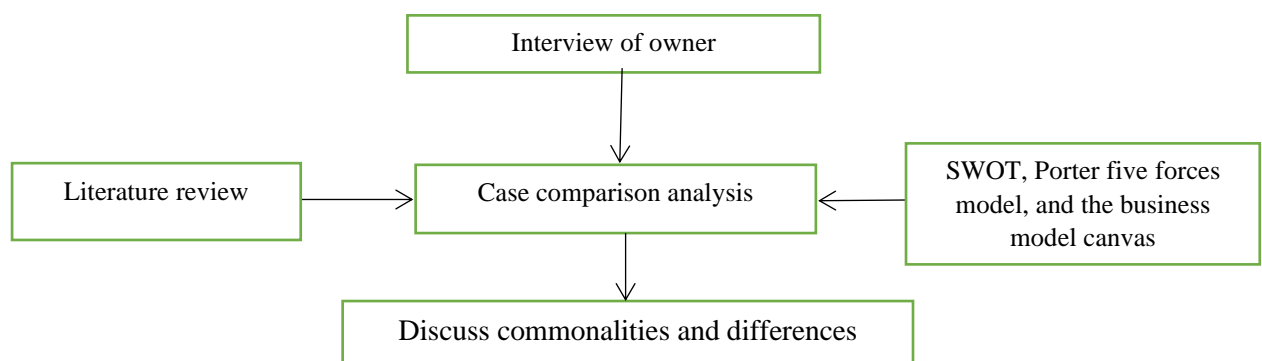


Figure 2. Research Framework

CASES ANALYSIS

EDC Centre Set up by Hospital

Mainly based on hospital health insurance income, due to the rapid increase in the demand for LTC in the aging society, it has been transferred to set up an EDC centre to serve the elderly with mild dementia and moderate to severe disability. It also accepts government respite care service cases. In the field of LTC, in addition to the day care centre, there are also nursing homes and LTC 2.0 transportation.

EDC Centre Set up by Societies Legal Person

Formerly a Nursing Home, a group of LTC professionals was established. The service targets are mainly moderate to severe dementia and disability. The institution itself has the resources and manpower to take care of, and it is more convenient than the general practitioners to enter the EDC market with the service site of the LTC 2.0.

EDC Centre Set up by Consortium Legal Person

Originally a welfare organization for the disabled, it mainly provided EDC centre services for children and disabled care centres. In addition, home care services, nursing homes, and meal delivery services are supplemented. As Taiwan is moving towards an elderly society, it has stepped into social welfare services and LTC work for the elderly, and has established EDC centres one after another.

EDC Centre Set up by Company

There are a number of EDC centres, located in different areas, where they communicate, learn and discuss. The service targets are mainly mild, moderate and severe dementia and healthy elderly.

EDC Centre Set up by Personal

Formerly known as Nursing and Care centres, it mainly serves patients with severe dementia and disability. Since the government encourages organizations to set up EDC centres, and the organizations themselves already have care resources and capabilities, it is more difficult than ordinary operators to enter the day care market.

3. RESULTS AND DISCUSSION

Through the analysis of the similarities and differences of five different types of institutions are compared and analysed, and the descriptions are as follows:

Environmental Comparative Analysis

In terms of advantages, except for the EDC centres established by consortium corporations, the rest are based on local brand awareness. The establishment of EDC centre in Hospital is an advantageous resource in terms of medical teams and medical resources. Institutions established by corporate legal persons and individuals are better than others. The two operating advantages are institutional background, complete professional team, rich care experience and sufficient equipment; EDC centres established by consortium legal persons and groups have the advantages of rich resource systems and special car transfers

In terms of disadvantages, except for the establishment of hospitals, there is a lack of medical system background, and the disadvantage of setting up EDC centres in hospitals is due to the limitation of application for transportation expenses.

In terms of opportunities, the five business models all believe that the market demand will increase in the aging society, and the government's subsidy is the most favourable opportunity,

followed by the increase of the elderly population year by year, creating market opportunities, and the government's LTC plan can provide industry players apply for funding.

In terms of threats, hospitals set up EDC centres because of their small activity space and lack of green space, which is a great threat. Furthermore, they feel that the increase in raw materials reflects rising costs and rolling policy changes. There is a policy of one EDC in the middle school, the demand for EDC centres is large, the market investment increases, and the competition is large.

Five Forces Analysis and Comparison

Potential entrants are in a strong position in the five different types of operators, each with its own advantages, which can prevent new entrants from entering. Whether it is the popularity in the region or the rich care experience, it is in a strong position, especially the establishment of day care centres in hospitals. Take advantage of strong economies of scale.

In terms of the bargaining power of suppliers, the threat of competitors and the bargaining power of customers, day care centres established by consortiums and organizations, and individuals established by individuals have encountered difficulties in changing the venues when they are established.

In terms of the threat of alternatives, the establishment of day care centres by individuals is the most threatening. It is believed that due to the impact of the epidemic in recent years, the elders at home have not gone out to participate in group activities, and have switched to home services that receive home services.

The bargaining power of the buyers and the hostility of the existing competitors, the five different ownerships all believe that the competition with the same type or different types is fierce. The key factor for family members and cases to choose a day care centre first, the environment is the largest Factors; the second consideration is transportation, course content, and meals, in addition, the quality of staff and whether they can provide convenient services according to the needs of family members are also competing with each other.

Business Model Canvas

Customer Segments

The common target customer segments of EDC centres are mainly divided into the elderly over 65 years old, the aboriginal elderly over 55 years old, those with disability certificates, and those with dementia over 50 years old.

Value Proposition

Value proposition types can be divided into novelty, performance, customization, completion, design, brand and status, price, cost control, risk control, accessibility, convenience and ease of use.

Channels

Channel types can be divided into direct channels such as human sales and online sales. Direct channel such as LTC centre dispatching cases, human sales, introduction of family members, cooperative hospitals, communities, newspapers and publicity on transportation vehicles; online sales such as YouTube and Facebook.

Customer Relationship

The customer relationship established by the EDC centre operation is mainly based on communication software and telephone as the core of communication services at any time, and the basis for providing services is to hold seminars and family health education training camps every six months or three months.

Revenue Stream

Most of the revenue stream included in the EDC centre is fixed from the LTC subsidy type, and a small part is paid by the family members, etc. Other income such as the EDC centre established by the hospital provides a 1% equipment subsidy from the government, and a consortium legal person, additional home services established, and donations.

Key Resources

The key resource types included in the innovative business model can be divided into intelligent resources, physical resources, human resources, and financial resources.

Key Activities

In addition to organizing group activities in most EDC centres, it is necessary to connect with external resources; rehabilitation activities, health education courses or social welfare group performances can delay the time of aging and disability.

Key Partners

Key partners mainly include government departments in charge of long-term care business promotion, medical institutions, regional health centres, barrier-free transportation operators, riviera chiefs, social welfare groups and schools that hold regular events.

Cost Structure

In order to allow more manpower to devote to the work of EDC services, the Ministry of Labour has forced the formulation of staff salaries and raised staff salaries, which will lead to an increase in institutional care costs, communication costs are hidden costs.

4. CONCLUSIONS AND RECOMMENDATIONS

There are five EDC centres with different ownership types: hospital establishment, a corporate legal person, foundation of a legal person, company establishment and personal establishment, each with three different analysis models: SWOT, the Porter five forces model and the business model canvas.

In terms of the advantages of SWOT analysis, the establishment of EDC centres in hospitals is an advantageous resource in terms of medical resources. Because of the background of long-term EDC, the establishment of corporate legal persons and individual institutions are more capable than ordinary operators; except for the establishment of consortium legal persons. The EDC centres were originally mainly a welfare institution for the disabled. Because it has recently stepped into the long-term care work for the elderly, its popularity in the local area does not have the advantages of the other four. In terms of disadvantages, only hospitals have medical resources; other EDC centres lack medical support. However, this deficiency also depends on cooperation with medical institutions to achieve medical purposes, and stable elderly people with dementia and disability can only need regular Taking chronic drugs, the chance of seeing a doctor is not high, so the disadvantage is not large. The five EDC centres agreed that the aging society has created a demand for care, which has led to market opportunities but also caused market competition due to this business opportunity.

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