Conference Paper

Study on the Path of Virtualization Management of Wisdom Education Platform

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Abstract

Under the Internet thinking, more and more enterprises are turning to the virtualization business model and striving to break through the original production boundary. As the carrier of the education model of 'Internet plus', the education platform has a great difference with the development path of traditional education enterprises. Through the case analysis of typical platform enterprises such as Apple and Haier, the following conclusion was made: Internet platform enterprises should pay more attention to building 'essence' rather than 'big'. In the fierce market competition environment, only the master of the core competitiveness of the virtualization business will achieve efficiency; the essence of the real platform enterprise is that it can create the system environment on both sides of the perfect cohesive platform, and in the new value network architecture, the interest distribution and cooperative competition relationship of relevant subjects are coordinated, which has a certain guiding effect on the development path of education platform in the future.

Keywords: wisdom education platform, Internet thinking, virtualization management, development path

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1. Introduction

Appeared since the 1990s, the international education is characterized by information technology, the development trend of it is associated with the mobile Internet, Internet of things, big data and cloud computing and the development of new information technology such as intelligent terminals in a creative education mode, domestic scholars known as "education wisdom" phenomenon. At present, China is in the primary stage of the development of wisdom education, which is the carrier of the new education mode, it determines that the development path of the traditional education enterprise will be very different.

Under the Internet thinking, more and more enterprises are turning to the virtualization business model. They strive to break through the original production boundaries of the enterprise, maintain the core advantages of their most competitive advantages, and carry out "virtualization" of other auxiliary functions through "outsourcing". In

this way, enterprises can make full use of limited resources to generate more efficient marginal revenue in the fierce competition environment. Through the empirical analysis of typical Internet platform enterprises, it will lead to the development path of education platform in the future.

2. Development Status at Home and Abroad

At present, domestic and foreign scholars mainly focus on the operation mode of wisdom education, For example, Malaysia puts forward the idea of building a wisdom school, attaches great importance to the combination of production and learning, and actively introduces the management talents of enterprises, focusing on cultivating the employment-oriented labor talents; South Korea proposed digital teaching material development and application, giving full play to the advantages of their own information communication, making the online learning of students become normal, at the same time to strengthen the training of teachers' intelligence education practice ability; Singapore actively use ICT technology to promote the development of teaching wisdom, promoting the "future school" and "education lab construction, at the same time strengthening the wisdom education talent on virtual simulation technology, cloud computing and other aspects of skills training. In terms of typical enterprise education wisdom, IBM will focus on education informatization construction, provide network in and the software and hardware technology support for the school, improve the campus ERP, intelligent building management service level, assist schools in big data analysis system; Lenovo, Intel and Microsoft have proposed the SMILE digital campus program, applying Intel processors and Microsoft's cloud platform to Lenovo server terminal, help the school set up by the wisdom of the digital technology as the core education mode, promote students to carry out exploratory, interactive mode of learning.

Most of the existing research focuses on the development mode and solution of the wisdom education, while ignoring the attention to the operation mode of the wisdom education platform itself. As a new platform model developed by the new education system, the intelligent education platform is still in the immature stage of its market operation. Due to the commonweal characteristics of education industry itself, there is a great difference between the traditional education enterprise and the Internet platform enterprise. Therefore, it is very important to explore the development path suitable for new wisdom education platform.

3. China's Domestic Wisdom Education Platform Development Dilemma

At present, the domestic cutting-edge wisdom education platform has Weihai wisdom education, Dalian wisdom education platform, Ningbo wisdom education platform, Kunshan wisdom education platform, etc. Through literature review and field research, this paper makes an in-depth investigation and analysis of the abovementioned platforms, and the development difficulties encountered by them mainly include the following points:

3.1. The rigid product supply relies more on the existing online education resources

Research findings: The education resources supported by the education platform are not real-time and novel, just a simple online push of education video in the provincial and municipal excellent education units. The supply of education products cannot meet the diversified needs of students and deviates from user-centered basic orientation.

3.2. The functions provided by the platform are relatively simple, and data management becomes a big problem that restricts its development

At present, several education platforms can only provide a single intelligent query service, internal information transmission platform only from top to bottom of one-way transmission channels, not for deep processing of new information achievement. Its basic reason is that the storage of massive amounts of data creates a crisis of data overload, especially in the education developed areas, only rely on the internal data processing platform system has been far cannot cope with the huge education data processing requirements, technology has become an important factor which restrict the development of the platform.

3.3. The platform lacks publicity channels, and users have low recognition of education online

Under the Internet economy, the wisdom education platform should establish its own "wisdom education ecosystem", and it is necessary to strengthen the publicity of the client side of the platform to improve its recognition. But at present our country

intelligent education platform client haven't form the habit of paying to download applications, users pay intention is low, this is not only related to product supply the lack of diversity, and closely related to the user's recognition. The lack of diversity of products leads to the reduction of users' recognition, which in turn affects the profit level of the platform, further reduces the innovation intention of the supplier and forms a vicious circle. Field research findings: At present several big wisdom education platform independent brand publicity channels, and the functions of internal management decision-making, technical support and sales service have not formed clear module boundaries, resulting in unclear power and responsibility between departments and management of congestion.

4. Case Analysis of Typical Platform Enterprises

Roger proposed the concept of virtualization: In order to gain the greatest advantage of competition, enterprises only retain the most core functions, while other sub-functions are "outsourced" to other enterprises. It will help enterprises to make more efficient use of limited resources to generate higher marginal revenue. Aoki and Tadaoando put forward from the perspective of industrial organization theory system elaborated the information caused by industrial structure modularization, put forward the enterprise only to join in open form modular value network can be more conducive to innovation. The traditional enterprise theory mainly explores how to maximize the value of the enterprise from the value chain. However, in the context of "Internet plus", the value chain has evolved into a value network, and it is no longer appropriate to apply traditional enterprise value chain theory to the age of Internet economy. Based on the analysis of the virtualization operation of apple and Haier, this paper finds out the experience of the development path of education platform.

4.1. Apple's virtualization business model

Apple's unique business model is, connecting channels, app applications and terminal products, and place the channel in the terminal product, then, through channel direct link app application. The launch of the "ipod+iTunes" marked the success of Apple's transition from hardware maker to platform enterprise, the combination successfully connects music and music lovers to meet the different needs of bilateral users. In 2007, Apple introduced the iPhone, with its exquisite appearance, humanized operation mode quickly occupied the smartphone market. With the "ipod+iTunes" model, Apple

launched the APP Store, which allows users to select apps to download based on their own personalized needs. At the same time, due to the high recognition of Apple products in the market, Apple has embarked on a unique path of virtualization, mainly in the following aspects:

1. Designed and developed by Apple, master the core functions, such as operating systems, such as multi-touch technology and outsourcing other functional departments, respectively, such as parts manufacturing subcontracting the Samsung group, terminal equipment manufacturing subcontract Foxconn, At the same time, the company will give AT&T network operations of the subcontract, the subcontract to a third party APP content development, develop community formed by Apple users as the center, the value of the network architecture of apple as a platform, at the same time according to the changing market environment to dynamically adjust their value network architecture, realize the efficient integration of internal and external resources.

2. Always be customer-oriented product design, adhere to the design concept of the imperfection, and remain highly sensitive to market changes. As a typical case company of "Say's Law ", Apple has always insisted on innovation to lead the market. As jobs said, "offer to tell consumers what they need. "Because of this, Apple can occupy the commanding heights of intelligent terminals.

3. Apple company internal module boundaries clear, divided into sales module, design module, operation module and production modules, each module has an independent business philosophy, and common to companies operating efficiency maximization as the goal. The head of each module is responsible to the CEO, and the front-line employees are only responsible for the head of each module, which can ensure the efficient delivery of the internal information of the company, thus establishing a highly sensitive feedback mechanism for the market.

Apple became the typical cases of virtualization strategy, its essence is to always grasp the core of the design research and development department, always adhere to the supremacy of the user experience, always remain highly sensitive to the market, which makes the company in the fierce market competition intelligent terminals can keep themselves at the core of competitiveness, makes itself can be more efficient use of limited resources to produce a higher marginal revenue.

4.2. Platform operation of Haier model

The operation of "Haier model" is to divide a large enterprise into numerous small enterprises, and each employee is the CEO of "micro-module". It is this radical reform that makes the online transactions of Haier group grow exponentially. The "Haier model" has the following characteristics:

1. Under the mode of "Haier", the enterprise the highest level of from internal control to the investment and resources supporters of the "small" module, to a greater extent, stimulate the creativity of grassroots employees and work enthusiasm. At the same time, each "small and micro" module is endowed with independent decision-making power, and the operating efficiency of the module is the highest evaluation standard, which will promote the efforts of each module to create new value.

2. "HOPE platform" integrates users, resources and enterprises through integrating online and offline social innovation resources. Technology the demand can be released through the crowdsourcing platform need technical support or solution, and platform of "frog eye" monitoring system according to the individual needs of technology, the demand to precise pushed to counterpart community, while technology suppliers can choose whether to make a reply according to oneself circumstance, thus effectively improve the efficiency of the docking.

Haier company is a typical "big enterprise disease", because the enterprise scale is too large, the functional department is too bloated, resulting in the interdepartmental rights and responsibilities unclear, the action is slow. The "small and micro mode" really divides Haier's huge enterprise into a small and micro module that can maintain a high sensitivity to the market, so that large companies also have keen insight into the market. In the future, Haier's hierarchy will be divided into platforms, platform managers and micro-creators. Because it can meet the needs of both sides of the platform to diversify their products, Haier will become the leader of "smart platform" enterprises.

5. Revelation and Outlook

5.1. Case revelation

Zhou Hongyi, chairman of 360, has made four points about Internet thinking: first, users first; Second, experience is king; Third, free business models; Fourth, disruptive

innovation. It tells us to do the Internet platform enterprises, the main profit is not the hardware facilities, relying instead on attached value-added services, to give priority to with user experience at the same time, create personalized products which can meet the general public. The era of Internet economy, enterprise should pay attention to the construction of "pure" rather than "big", suitable for their own development efforts to build the value of the network, only with the most complete, the most advanced enterprise value network will be the most powerful competitiveness. Based on the experience analysis of the virtualization operation of Apple and Haier company, combining with the characteristics of the public welfare of education platform, the following inspirations for its future development path are as follows:

5.1.1. Modular business strategy

Change the traditional integrated management mode and introduce other interest subjects into their own ecological system. Build the value of the related network structure based on interests, such as sales services can be outsourced to a professional to do sales channel development, community groups, the data storage and data processing system is outsourced to a professional management company, etc. In order to improving the efficiency of the platform for the guidelines, coordination between various modules more fully interactive integration.

5.1.2. Meet the diversified product requirements of platform users

Actively develop innovative products of online education resources, establish the wisdom of the online and offline education resources. Will online personalized product demand can accurate delivery to the ability to cope with and is willing to solve the counterpart of the community, to establish a reasonable pay system, at the same time develop habit of users to download the application to pay.

5.1.3. "Mini maker" mode

Traditional enterprise top-down "decision - the execution" model is no longer suitable for the Internet economy era, to fully arouse the enthusiasm of every employee, especially in the forefront of market contact frontline employees, the best way is to make every employee itself "small micro module" of a guest. Therefore, platform of top decision layer to change the traditional imperative management method, investors

transition from controller role to module, coordinate the relationship between coopera-
tion and competition between each small module, and establish a system environment
conducive to the development of modules.

5.2. Future prospect

In the future, market competition is not only the competition between individual enter-
prises, but also the competition between "enterprise ecosystem". Wisdom education
platform for the future development path is to build itself as the core of ecological
system, coordinate the interests of the related subject of the value network distri-
bution and competitive relationship of cooperation, common perfect platform for the
construction of the ecological system. The basic form of traditional wisdom education
platform and wisdom education platform ecological system in the future are shown
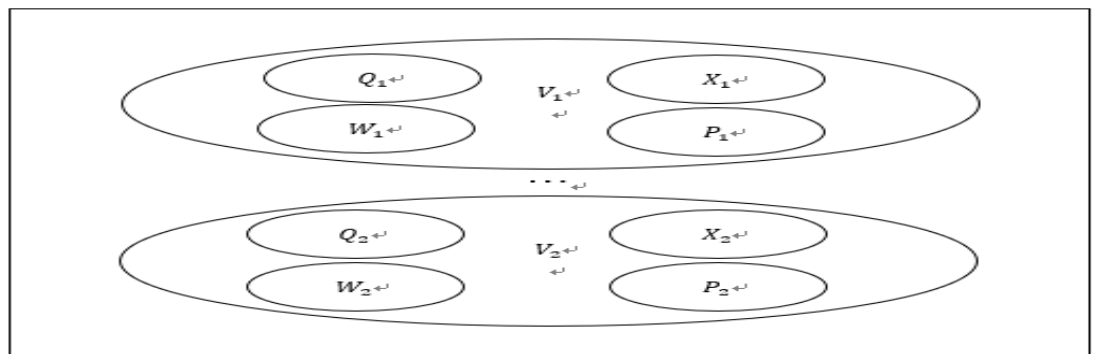below:

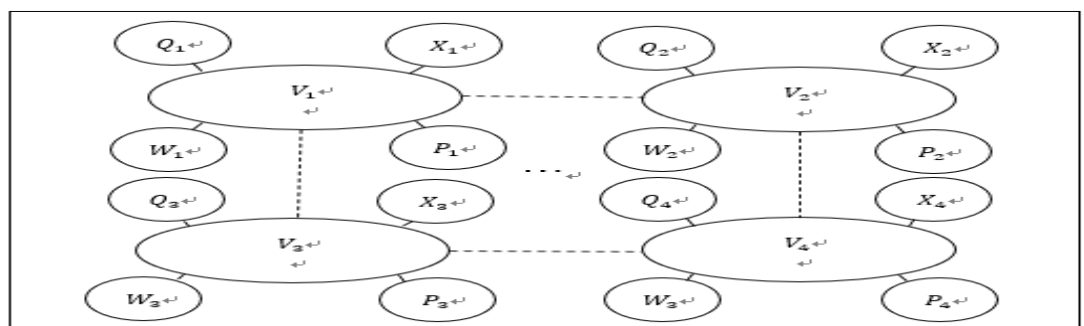**Figure** 1: Traditional wisdom education platform basic form.

Figure 2: Future wisdom education platform ecosystem.

In the figure, V_i represents the wisdom education platform; Q_i, X_i, W_i and P_i:
in Figure 1, represent the various functional departments within the platform; in Figure
2, the functional modules of virtualization management in value network are rep-
resented. In Figure 1 the basic form of traditional wisdom education, between each

platform independent and interactive relationship between platform is less, platform integration strategy on inside, cause platform running efficiency is generally low. In Figure 2 the future ecological wisdom education platform system, the interactive relationship between platform, realize the online and offline resources sharing, each platform has the value of their own network architecture, and cross each other between each platform to build the value of network integration, there are both competition and cooperation between platform. By outsourcing the various functional modules within the platform to professional community organizations, the platform itself focuses on building a system environment that can more effectively connect the users on both sides.

6. Conclusion

Under the Internet economy, virtualization management is the inevitable trend of enterprise development, the development of the enterprise key no longer blindly pursue individual enterprises on a large scale, but should strive to build a large based on their ecological system, make full use of the relevant stakeholders in the value network of the development of production capacity to make itself more efficient. Wisdom education platform is in its infancy, with the development of the optimistic expectations. Through using the experience of the development of the typical platform virtualization management, will help to build intelligent education platform for the future development direction, realize wisdom education normalization construction.

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