

Analysis Of WeCom To Help Universities' Digital Transformation Strategy

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Abstract. As a corporate communication and office tool created by Tencent's WeChat team, WeCom has the same communication experience as WeChat, rich OA applications, and the ability to connect with the WeChat ecosystem, which can help enterprises connect with internal, ecological partners, and consumers. This article mainly analyzes that under the background of the normalization of the prevention and control of the new crown pneumonia epidemic, online office, and online classes have gradually become the norm, as an excellent communication and office tool, how WeCom can give full play to its unique advantages to help colleges and universities complete digital transformation. This paper uses network effect analysis, SWOT analysis and other methods to analyze its competitiveness, competing products, charging strategies, etc., and finally puts forward four suggestions for the digital transformation of colleges and universities through WeChat: using sticky social characteristics to spread widely, focusing on "private" "Domain management" to achieve precise marketing, with SCRM system to help the efficient operation and expand the field of use.

Keywords: WeCom, university, digital transformation, competitive strategy.

1. Introduction

1.1 Research Background

As an enterprise communication and office tool built by the Tencent WeChat team, WeCom has consistent communication experience with WeChat, rich OA applications, and the ability to connect WeChat ecology, which can help enterprises to connect internal, ecological partners, and consumers. It creates a communication experience consistent with WeChat to ensure that users get started at zero cost. At the same time, WeCom connects to WeChat, users can add customers' WeChat, provide continuous services to customers in single chat, group chat, moments of friends, video number, can also be combined with a small program, payment, and other capabilities to improve service efficiency, provide temporary consulting services for customers. The target customers of WeCom are college students, government workers, and employees of other enterprises. The participants of the WeCom platform can be divided into three basic roles: enterprise, employee, and customer. In addition, it can create certain connection values: On the one hand, WeCom maintains the same communication experience as WeChat, which is simple and easy to use and works familiarly. On the other hand, WeCom can provide collaboration tools and office applications, such as collaboration tools such as integrated documents and schedules, OA applications such as punching and approval, provide rich third-party applications, and support access to applications developed by service providers and self-built by enterprises. In addition, WeCom can provide a reliable guarantee for enterprise data security. In the way of digital transformation of colleges and universities, WeCom helps colleges and universities improve their digital levels, connecting offline management and school tasks with the Internet, effectively promoting the upgrade and transformation of college education in the use of the Internet.

1.2 Literature Review

At present, there is relatively little research on WeCom at home and abroad, and even less research on WeCom helping campus informatization transformation. Zhao Shuangjiao, Xing Fei, and Yang Darong (2022) analyzed the competitive strategy status of WeCom through the SWOT PEST matrix model and put forward strategic suggestions that WeCom should continue to strengthen innovation and implementation in various industry solutions, accelerate the pace of product function update, deepen enterprise application scenarios, and improve user loyalty [1]. Wang Zhuo, Qi Qiuyue, Zheng Yan, and Liu Jiuqing (2022) studied the operation and application of WeCom in the management of secondary colleges in universities in the past year under the background of normalized epidemic prevention and control and found that the digital management and mobile teaching and office of colleges have been improved [2]. Wu Weidong and Xu Lixin (2022) proposed that WeCom could better provide mobile application functions for campus cards [3]. Zeng Yuhong (2022) found that the in-depth docking between Fanwei OA and WeCom, that is, WeCom is the mobile terminal of Fanwei OA (the main function modules of its PC end are embedded in the workbench of WeCom in the form of H5 pages), to provide more convenient office forms for faculty and staff [4].

1.3 Research Content and Significance

As can be seen from the above literature review, although there has been some research on the competitiveness, competitive strategy, and application of WeCom in universities, there is no detailed research on whether WeCom can help universities complete digital transformation and how effective it is. Based on this, we analyzed the competitiveness, characteristics, methods, advantages, disadvantages, and effects of WeCom in assisting the digital transformation of colleges and universities under the background of COVID-19 epidemic prevention and control normalization, and put forward suggestions. This provides a good reference and helps universities to seek more efficient and reasonable office teaching methods under the influence of the COVID-19 epidemic.

2. Competitive Pattern And General Situation Of WeChat In Enterprises

2.1 Competitive Pattern Of WeCom

2.1.1 Product Positioning

Collaborative office products are internal office tools of enterprises. By integrating enterprise resources, they achieve organizational collaboration, business collaboration, and data collaboration, accelerate the flow of enterprise information, improve enterprise office efficiency, precipitate enterprise data, and enable managers to manage enterprises more effectively. At present, collaborative office products have two positioning meanings:

(1) shallow layer: internal office tools. Including message, approval, log, cloud disk, attendance, and other personnel, administrative, financial, and other office systems. The comparison between manufacturers is the richness and usability of the product.

(2) deep level: the entrance of the internal information system. Including business platform, data platform, support platform, open platform, operation, and maintenance platform, bearing the comprehensive integration of enterprise internal applications, data, and resources, truly realize the "one end connected N systems", break the traditional "chimney" construction, to achieve data sharing, business collaboration.

From this, two product forms are derived: Firstly, the Internet is the main collaborative product, featuring the public cloud free strategy, small and medium-sized enterprises use such tools, can save money, can regulate the daily work, such as "Dingtai", "WeCom", "Feishu". The second is the OA system based on traditional OA manufacturers, which focuses on private customization. The use of such products by large and medium-sized enterprises can improve the informatization process, standardize process management and ensure data security, such as "Pan-Micro", "Zhiyuan" and "Tongda".

2.1.2 Competitive Relationship

Taking Internet companies and traditional OA software companies as examples, this paper comprehensively summarizes and compares the advantages and disadvantages, business side and function side of products of different types of companies.

Table 1. Comparison of collaborative office products of different types of companies

type of enterprise	Strengths	Weaknesses
Internet companies	strong platforms, sufficient funds, good experience,	standardization, monopoly and high posture
Traditional corporation	channel wide, brand ring, deep relationship	poor experience, high price, weak service

Internet companies, with strong capital power and cross-border advantages, such as mobile and platform, can establish cooperative relations with local governments in a short time. It can invest in R&D personnel, funds, and technical support at no cost to build a collaborative platform for customers from multiple dimensions, and does not focus on project revenue. With time for space, technical staff in-depth research and cooperation, and strive to solve customer problems. Most Internet-based products copy successful cases through generalization and configuration. However, because of this, standardized products cannot be replicated in large enterprises, and customer personalized needs are difficult to quickly respond to support. It includes the relationship between interests and the ideology of managers. It is not that products can solve problems, but that products become tools to serve enterprises. Enterprises are the main ones, followed by products.

Traditional software manufacturers have been deeply involved in the OA field for decades and accumulated a large number of project cases and customer relationships. And they can bring projects to enterprises through word of mouth. After more than ten years of publicity and promotion, the brand goes deep into the public and is often the first choice of general large enterprises. However, traditional software manufacturers will not be able to change the situation of "glide", software interface experience difference. The function is not general, custom time is long, the selling price is high, the after-sales service, and a series of difficult situations in the short term it is difficult to improve. So software vendors will gradually withdraw from or to survive, rely on the Internet companies moving essence content into the Internet, not competitive products will be eliminated. Such as the deep cooperation between Lanling and Dingnail, all applications and functions will be migrated to the Dingnail system.

2.2 WeCom Network Effect Is Strong

In the context of the Internet economy, the diversity of network products and services is increasing day by day, and the resulting impact of information networks on the behavior of market participants is called the network effect. Under network effects, the value of a product will increase with the increase in the number of consumers. WeCom creates strong network effects through the connection with the WeChat platform, which is mainly reflected in the same-edge network effects of platform participants themselves and the cross-edge network effects between enterprise and ISV.

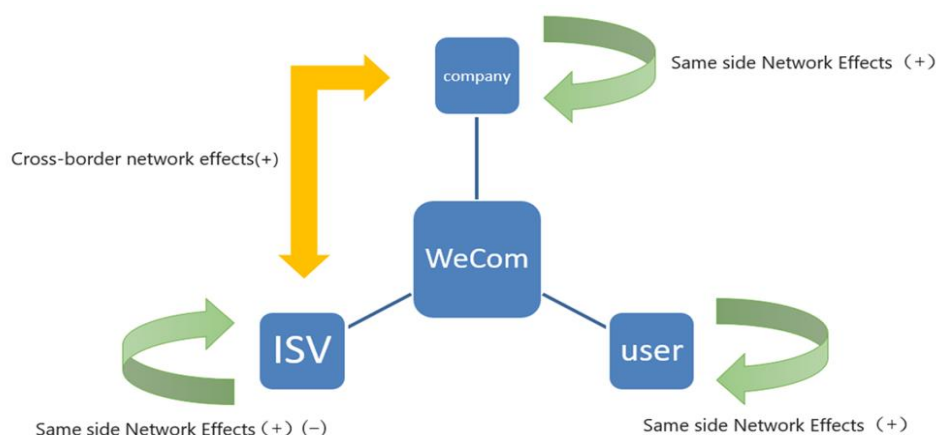


Fig. 1 Positive feedback diagram of the network effect of WeCom

On the same side of network effects, three platforms participant enterprises, isis, and users can through the WeCom platform to realize the strong positive with network effects, using WeCom enterprise, the closer ties between enterprises, information communication more convenient, users also can use to achieve fast and efficient communication platform, Isis will also develop a good competitive relationship and synergistic relationship. In terms of the cross-edge network effect, there is a positive network effect between enterprises and ISVs. The more enterprises use WeCom, the more ISVs are willing to provide IT applications. In this way, they can attract more enterprise users with rich application platforms, thus forming a virtuous cycle.

2.3 WeCom Charging Strategy Promotes Ecological Development

On May 9, 2022, the official WeChat of the enterprise released the "Instructions on adjusting the charging mode for service providers" to make adjustments to the charging strategy. First of all, the adjustment of WeCom is not a sudden increase of fees to service providers, but an adjustment of the previous charging method. After the adjustment, the fee will be charged according to the interface call license, and the "technical service fee" charged according to the fixed proportion of the received funds will be canceled. Before the adjustment, the charging method of WeCom is similar to the charging model of Apple App Market. The charging strategy is to charge 10% of the revenue of third-party apps, which is used as the platform technical service fee, as the fee of the platform for application access, release, and use. After the adjustment, the interface license account is charged according to the enterprise dimension in a progressive ladder, and the range pricing is purchased and charged according to the different number of accounts. It is worth noting that the adjusted fee pricing will be more friendly to some micro, small, and medium-sized enterprises and enterprises with less number of interface functions. Compared with the previous technical service fee model, the fee model will be directly charged according to the number of interface accounts used, which is more reasonable for the supply and demand sides.

The adjustment of the WeChat interface charging mode is not an immediate way to take effect. There is a corresponding transition period. For all newly authorized service provider applications of enterprises, including third-party applications and self-built applications developed by agents, the WeCom interface can be invoked free of charge for 90 days. 7 days before the expiration, when enterprise members open the application, WeCom will give the corresponding prompt in the application; After the expiration, if the application does not have an interface call license, the application cannot call the WeCom interface. For the stock customers of the service provider, WeCom provides a free migration strategy, that is, the history of valid orders between the service provider and the stock enterprise. The WeCom will provide a mechanism to migrate these application orders for free to the account charged by the interface, without the service provider paying additional fees. For

this part of the stock of customers' historical valid orders, the customer can still use the normal, the stock of customers does not need to pay fees to WeCom.

Whether individual or as a service provider, the adjustment of WeCom to maintain an optimistic attitude, although the whole platform market will produce pain, the whole WeChat platform ecology will usher in further development. For enterprise users/service providers, B-end services will further standardize the enterprise service payment normal, but a free enterprise service can not continue to output product value. An excellent B terminal platform is based on win-win logic. It can't grow excellent service products to B terminal for a free or excessive charge. As a service provider, it should pay more attention to the value of enterprise products.

3. SWOT Analysis Of The Competitiveness Of WeCom

This paper mainly uses SWOT analysis to analyze the core competitiveness of WeCom in detail. In this paper, S(Strengths) refers to the internal Strengths of the digital construction of colleges and universities in the competitive environment, W(Weaknesses) refers to the internal Weaknesses of the digital construction of colleges and universities, and O(Opportunities) refers to the Opportunities that are easier to get profits compared with other competitors. T(Threats) refers to the challenges brought by the external environment and Threats to the digital construction of universities [5].

Table 2. SWOT Analysis of WeCom

Strengths (S) 1. WeCom is a strategy-level product of Tencent, with large investment and sufficient resources 2. Merge the enterprise number into the WeCom, promote the promotion of WeCom 3. Tencent has invested enough money in the WeCom project 4. Excellent incentive policies for third-party app market partners 5. Subsidy support for new user registration 6. Strong business development ability 7. Low user learning cost 8. Strong technical capability 9. The communication technology between WeChat and WeChat is mature	Weaknesses (W) 1. Lack of cooperation with universities and relatively isolated business development 2. Product function development is too conservative 3. Lack of publicity 4. Product revenue return cycle is too long 5. The third-party application market is not perfect, and the cooperation with ISV is not enough 6. User expansion and business follow-up cycle is long and time-consuming 7. Colleges and universities do not have sufficient recognition of the service, and the leadership of colleges and universities does not accept it well 8. Information security is a serious problem 9. Communicate with WeChat, and its function update is limited by WeChat update schedule
Opportunities (O) 1. The trend of the paperless office is obvious, and the demand for office process optimization is increasing 2. There is a great demand for university business expansion and docking with customer groups	Threats (T) 1. Information security requirements 2. Overseas universities do not have the certification conditions, and cannot pass the certification, the current acceptance is limited to a small number of universities in China

3. There are a large number of colleges and universities with great market potential 4. The demand for digital construction and fine management in colleges and universities is gradually strong 5. Strong willingness to differentiate work from study and life 6. WeChat has a great influence 7. Complete network communication facilities 8. Colleges and universities have a strong demand for instant communication tools with high recognition	3. The overall development of the domestic economy has slowed down in recent years 4. The advantage of demographic dividend has gradually disappeared 5. The competition in the third-party app market is fierce and the price war is fierce 6. There are many alternatives 7. The overall promotion speed of college-oriented services is slow 8. Features of other competing products are updated fast 9. Information security needs cannot be met
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3.1 Strength-Opportunity Strategy

In 2018, Tencent officially announced WeCom as a corporate strategic product, integrating multiple internal forces to support the development and promotion of the WeCom business. The successful application of mini program in 2017 gives WeChat more possibilities and therefore brings more opportunities to the development of WeCom. Under the background of the normalization of epidemic prevention and control, the digital transformation of universities is becoming increasingly important. With the help of WeCom, colleges and universities can realize the functions of epidemic prevention and control registration, online class schedule, and online check-in, realizing the seamless online connection between colleges and students, and promoting the efficient and high-quality development of university office. WeCom should fully exploit its internal advantages and be rooted in many scenarios such as university teaching, management and external business, to explore more functions and broaden the scope of business application.

3.2 Strength- Threat Strategy

In addition to the basic instant messaging function, more applications satisfying the office and production scenarios of colleges and universities are mostly developed and accessed by third-party partners. With enterprises and third-party partners' cooperation pattern complicated and the domestic several big Internet companies camp pattern obviously and incompatible barriers to strong, WeCom should timely cooperation with a third party, such as industry salon or public speaking and so on way to attract more outstanding and influential application developers, to build more in-depth cooperation.

In recent years, colleges and universities have paid more and more attention to information security. As a domestic Internet industry leader, Tencent can give full play to its influence and social recognition, eliminate doubts through the perfect information protection system, and pay more attention to information security protection in the process of development.

3.3 Weakness-Opportunity Strategy

Due to the large user group and convenient communication, WeChat has become the main office communication tool. However, due to its strong social attributes, WeChat cannot meet the needs of collaborative office applications, which makes WeChat less and less suitable as the main communication tool for the office. With the improvement of people's living standards, the public's willingness to separate work and life is becoming stronger and stronger. WeCom has a very similar user experience to WeChat, which has a strong advantage in the acceptance of user groups and a low entry threshold for use.

Given the existing problems of the internal disadvantages of WeCom, we can make full use of the opportunities of the external environment to adjust. For the information security problems that university management attaches importance to, WeCom can improve the information security

guarantee by applying for a variety of internationally recognized network information security certificates and combining them with third-party evaluation and certification, to obtain public psychological recognition.

3.4 Weakness-Threat Strategy

Throughout the development path of WeCom, its entry into the market in time behind the main competitive product-Alibaba's DingTalk and its product function is not as focused on enterprise collaboration tools cloud home. In recent years, there are many substitutes in the external competition environment, and the development momentum is rapid while the intention of carving up the market is obvious. WeCom needs to overcome its inherent disadvantages in time and make more efforts to improve its product functions. Early WeCom product functions are relatively thin. With the version update, WeCom gradually opened the third-party application market and achieved the transformation from a single internal communication tool to enterprise collaborative office tools. WeCom in publicity fully reflects the influence of advertising and media. Expand visibility, and appropriate use of Tencent's other quality products for traffic guidance can improve the internal cognition of enterprise-level products.

4. WeCom Application Advantages Of Digital Transformation In Colleges And Universities

4.1 More Efficient Connection And Assisted Management

WeCom follows WeChat and focuses on connection. Functionally, WeCom users can add WeChat users, create WeChat groups, send mass messages and release circles of friends. This is a connection scheme between enterprise employees and customers given by WeCom. For large enterprises which have numerous internal systems and long history, WeCom is to assist the management through the enterprise internal application access to the WeCom platform rather than to give the management scheme like DingTalk [6].

In the early stage of the digital transformation of colleges and universities, the development of a smart campus system is the core, and its platform construction mainly relies on WeChat. The implementation of the application of WeCom is linked with WeChat so that colleges and universities can realize further deepening the digital transformation based on the full application of the existing smart campus platform. At the same time, the connection with WeChat makes it unnecessary for college students to set up a separate class group, and WeCom supports teachers to publish class group notices. Audio and video assignments can be assigned and grading and correction can be made. Rich campus templates can be quickly used within the group to collect information quickly. Teachers can also use live classes and conferences for online teaching and online Q&A, making communication more efficient.

4.2 More Precise Management Scope

Different from Feishu and DingTalk, the basic IM module of WeCom is very similar to WeChat in terms of functions and interactions, which makes users lower costs and have a better experience. The connection with WeChat is the characteristic of WeCom. WeCom can connect small programs, add WeChat users, and WeChat groups, send customer circles of friends, etc., providing convenient customer operation and management for enterprises.

When applying to colleges and universities, WeCom can achieve rapid and comprehensive application coverage through the WeChat platform. Its convenient operation greatly reduces the possible application generation gap between young students and older teachers and ensures efficient application to the greatest extent. WeCom will divide the student group according to the class standard and carry out small unified management, which saves cost and improves efficiency compared with the management of scattered WeChat users [7].

4.3 Comprehensive And Rich Management Background Configuration

WeCom management background has powerful and comprehensive functions, especially in the configuration of some functions, such as enterprise internal member data display configuration. The configuration of WeCom is flexible and powerful, which can cover all scenarios and meet the needs of enterprise internal differentiated management. At the same time, for customer management, WeCom also gives a lot of solutions. It can be seen that the target users of WeCom have a considerable proportion of large enterprises, which means the management methods will be different because of different departments or responsibilities. So WeCom provides a lot of customized flexible configuration functions for large enterprises and uses flexible background configuration function to assist management.

For colleges and universities, students can experience the services of various departments of the school online after binding the school account, such as academic affairs department score query, study room query, library reservation, campus card recharge , and so on. College teachers and administrative department staff can also punch out commuting, report health information, approve applications, and participate in conferences through WeCom. WeCom provides targeted service modules for users with different identities. Colleges and universities can also have more personalized choices in the process of digital transformation with the help of WeCom.

4.4 With Targeted Personalized Features

WeCom has realized the interconnection between the education bureau and the universities under its jurisdiction. Through the education bureau, colleges and universities under the jurisdiction can join the bureau and school interconnection, unified management of the interconnection address book and use of applications, helping the education bureau better connect and manage colleges and universities. At the same time, a variety of connected applications, such as announcements, approval, reporting, conference, health report, and collection forms, support the use of the bureau and the school, and the transaction collaboration efficiency is higher. The education bureau can also share the application to the colleges and universities under its jurisdiction for common use, making informatization deployment easier.

During the epidemic prevention and control period, colleges and universities can use the health report to remind teachers and students to fill in the health information at regular times every day, and the information is unified to the administrator to ensure the safety of campus resumption. Colleges and universities can use the re-enrollment code function to help the university manage access to the campus. It can also manage epidemic prevention and temperature measurement by connecting intelligent temperature measurement equipment and realizing contactless temperature measurement at the entrance of the school gate, dormitory building, teaching building, canteen, library, and other entrances.

In terms of school management, the education bureau with colleges and universities can use WeCom to store teaching materials and important documents and support the setting of security permissions to make sure that file management is more secure. The rich templates provided by the collection table function support colleges and universities to easily collect teachers' and students' information. WeCom also presets OA applications such as punching in, approval, and reporting, which makes it convenient to count the punching in, help teachers complete the examination and approval of internal affairs such as class adjustment, leave and reimbursement, and report other daily affairs [8].

4.5 More Complete Structure

Compared with WeCom 3.0, the overall iteration of WeCom 4.0 focuses on the opening up of WeChat ecology and the solution integration of SaaS manufacturers. In terms of API interface square, service providers are an important force in the WeCom ecology. Over the years, WeCom adhere to the open, cooperative mentality to do a good job of bottom connection, achieve a win-win situation with service providers, and help enterprises complete the digital transformation of the key leap. The

needs of enterprises are changing dynamically. To better serve customers and meet their needs, WeCom has announced the launch of three functions for applications: "Fast Launch", "Quick Installation" and "Interface Square". Those functions let the ecological products quickly online to the enterprise workbench, then the product option is devolved to the enterprise staff to let the applications better find the customer who needs it. Service providers are allowed to team up to cooperate to achieve more value. WeCom new release data show that the current WeCom has 1232 open interfaces, 6000+ high-quality service providers, and 1900 high-quality third-party applications/joint products, which also shows that the enterprise microecology is rapidly expanding.

In addition, in the concept of "get through", WeCom has achieved Tencent documents, WeCom, Tencent conference three collaborative tools get through, WeCom Channel and WeChat ecology gets through, upstream and downstream enterprises between the communication gap through, sales and customer communication and service get through. Among them, the opening of collaborative tools can not only help the internal collaboration of colleges and universities to be more smooth but also can safely and reliably support the real-time communication and collaboration of multiple people across the boundary. The interconnection of upstream and downstream groups is likely to bring another digital management upgrade to colleges and universities, creating a new connection, bringing new concepts, new models, and new talents, and alleviating the communication gap between colleges and universities, and between colleges and students and faculty. In addition, under the power of WeCom, universities, and students realize a more efficient and safer close link, which not only continues the emotional experience of WeChat private social interaction but also combines the official nature of the email, customer system, and other channels. Under this kind of link, both colleges and students can get a better experience. The authentication of students' university identity through WeCom also enhances their sense of identity [9].

5. Suggestions

5.1 Use Vicious Social Characteristics To Spread Widely

As software, it is no use has some loose users, subscribers will still exist, so we suggest enterprises WeChat can build a strong knot together through social relations network relations, and continuous communication between users, therefore, forming a kind of interdependent relationship is fundamental, because it is the people's actual social network together, Make people's communication very close and full of affinity, so the use of this sticky social characteristics, WeCom can achieve a wide range of diffusion, to consolidate the connection between users and soft WeCom, but also play the role of old users to introduce new users.

5.2 Precision Marketing Centering On "Private Domain Management"

WeCom can focus on marketing and sales in the enterprise business value chain link, the development around the "private domain management" as the core functions of products, at the same time take an interactive marketing strategy, to achieve precision marketing, production can meet the demand of customer preferences, service, as the private domain operations and core idea, make the user a good friend. Therefore, WeCom can provide users with better products, more efficient services, and more detailed functions through online and offline integrated operations. It can quickly seize people by seizing the minds of users, so it can improve the degree of love and dependence of users on WeCom [10].

5.3 With SCRM System To Facilitate Efficient Operation

WeCom can reach customers through the SCRM system to achieve semi-automated operation. SCRM itself can be regarded as a plug-in. Compared with the traditional CRM system, the SCRM system is more portable and easy to use. It can grasp the customer dynamics in real-time, and will not have the disadvantage of entering the working state only under the fixed network environment. There is no need to install any infrastructure, so the later upgrade and maintenance costs will not be involved,

so a lot of costs are saved. Secondly, it is conducive to mass management and more convenient for business, including customer acquisition, retention, referral, and re-purchase. Moreover, it can help the efficient operation of users, which is more conducive to business.

5.4 Expanding Application Areas

WeCom continues to focus on the marketing and sales links of enterprises, but the excessive focus will also limit the play of WeCom in a wider field. For example, in government affairs and other organizations, the penetration rate of WeCom is not very high, and the accumulation of WeCom in finance and supply chain management and other fields are relatively weak. Therefore, WeCom can choose to fully expand the use of scenarios and fields [11].

6. Conclusion

This paper uses network effect analysis, SWOT analysis, and other methods, combined with the relationship between the current WeCom and the current environment, to conduct a comprehensive study on its competitiveness and charging strategy. Analyzes that in the context of the epidemic prevention normalization and the imperative digital transformation of universities, compared with its competitors, WeCom itself advantage and its powerful help for the universities to realize the digital transformation, in addition, according to the WeCom today's weakness, as well as the problems found during the research process, put forward four proposals to its, first of all, is the WeCom it by viscous widespread social characteristics, second, is suggested that the precision marketing around the "private domain operation", third, It is suggested that WeCom help SCRM system operate efficiently and expand the use of the field.

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