



# Investigation of Enterprise WeChat Development Modes Based on a SWOT-PEST Model

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**Abstract.** Today more than ever before, the issues of communication and information sharing are much more closely linked to economic effect and quality of employees' work of enterprise, which is causing an increased interest for researchers from the information systems (IS) and management field. With the development and popularisation of network communication technologies and mobile devices, enterprise instant messaging (EIM) is set to improve information sharing and communication among employees as a result of integrating instant messaging and collaborative office. As one of the EIM tools, Tencent product Enterprise WeChat has been made publicly available and is gradually being extended and applied in organisations. Currently, Enterprise WeChat has a certain amount of market share and promotes the capabilities of overall communication and information sharing in enterprise. In this paper, the strategic analysis tools derived from the SWOT (strengths, weaknesses, opportunities and threats)-PEST (political, economic, social and technological) model has been adopted to investigate the development mode of Enterprise WeChat in organisations. Subsequently, on the basis of analysis results, several corresponding recommendations have been put forward in an attempt to achieve the rapid and sound development of Enterprise WeChat in organisations in the future.

**Keywords:** Enterprise WeChat · SWOT-PEST model · Strategic analysis · recommendation

## 1 Introduction

The demand for effective communication and information sharing in organisations has witnessed its role and significance in the development of enterprise for a long time. Effective communication and information sharing among employees are essential for a company to achieve success from a management perspective, since it can facilitate decision-making capabilities in the workplace, promote experience and tacit knowledge exchange amongst employees, build learning organisations particularly through a long-term mutual learning routine, and ultimately stimulate cultural change and innovation of enterprise [1]. Therefore, it is obvious that high-quality information sharing and effective

communication can bring a lot of benefits to a company where teamwork, remote working and advanced information technology are increasingly common.

However, in reality, poor communication and information sharing deficiency in organisations are a common sight and they are gradually becoming major issues that seriously affect the efficiency and productivity of enterprises, particularly in such sectors of enterprise as research and development (R&D), production, and logistics where these multi-department employees need to make concerted efforts to achieve business goals [2, 3]. To be specific, failure to share information and poor communication highly bound with data inconsistency and retardance can obviously affect the operating efficiency of enterprises and is thought of as a key factor giving rise to problems in the process of enterprise operational management, which, in turn, probably resulted in low production efficiency, slow response to raw material supply, even slow product delivery, particularly for some manufacturing companies [4, 5]. According to the research conducted by McKinsey & Co., the results showed that a failure to share information and poor communication can be catastrophic at the corporate level [6], in particular, due to the lack of information sharing mechanisms in business management, employees from various departments potentially find it difficult to communicate well with each other in terms of routine work, thus resulting in the disjunction of logistics, capital flow and information flow of enterprise [7]. In this case, it can further lead to such serious problems as out-of-control planning, excessive inventory, poor connection between procurement and sales, and ultimately causing the incalculable loss of enterprise [8, 9]. In addition, Six and Skinner [10] considered that effective communication and information sharing can have a positive and healing effect that facilitates employees to be engaged and closely connected to their organisations, and when they are, they will be happy, work hard in their workplace and be more proactive.

In response to confront the poor communication and failure of information sharing, instant messaging (IM), as a real-time and text-based internet service, has been developed and is being put into practice due to the prevalence of mobile devices and advancement of network communication technology. Faulhaber [11] defined IM as a text-based means of near-synchronised information exchange and communication between users who have registered for the service. On the other hand, instant messaging as a communication application which allows employees to send and receive real-time messages to connect with their co-workers in organisations [12, 13], therefore describes instant messaging as one type of information technology to facilitate communication and enhance work productivity. There are a number of instant messaging tools by different brands currently on the market, for instance, MSN Messenger by Microsoft, Yahoo Messenger by Yahoo, WhatsApp Messenger from Facebook, AOL Instant Messenger owned by AOL, and most of them were intended for personal use originally. However, promotion and application of instant messaging tools at a corporate level is much more urgent and significant [14]. Peng et al. [15] considered that the use of EIM tools to help employees to communicate in organisations is more efficient than email because it allowed messages to appear on the recipient's screen automatically, saving enormous amounts of time. Moreover, it can also reduce interruptions. Employees can communicate with one another while continuing with current work, because it does not require them to stop work to answer the phone or have a face-to-face conversation, and, more importantly, it is not subject to workplace

restrictions [16]; enterprise users can log on to internal servers as long as they have the network to communicate within a specific range of work.

As one type of instant messaging tool for organisational use, Enterprise WeChat has received a lot of attention from both academia and industry [17–20]. Enterprise WeChat, known in Chinese as “企业微信”, is a foremost messaging app for sending text, voice, video and files to internal colleagues and external business partners. Enterprise WeChat was launched in 2016 by Chinese technology company Tencent, one of the world’s most valuable technology conglomerates and one of the largest social media companies worldwide [17]. Enterprise WeChat has become the second largest organisational service market share in China and it is used to help employees stay connected with colleagues and customers and help companies to improve their operating efficiency, so as to increase the core competitiveness of the enterprise [21]. Therefore, Enterprise WeChat has important strategic significance in China, even in the world. For the moment, little research has been studied due to the short release time of Enterprise WeChat, wherein most of the research concentrates on technical aspects like system modelling and algorithm optimization [22] and user behaviour dimension [21, 23, 24]. However, no study has been found so far reporting the development modes of Enterprise WeChat from a strategic perspective using the integrated SWOT-PEST model. In this paper, the strategic analysis tool stemming from the SWOT-PEST model has been adopted to explore the development modes of Enterprise WeChat. The results of this research have a great significance for strategic development of Enterprise WeChat in the future, which can help organisations enhance communication effectiveness in the workplace.

In what follows, the SWOT-PEST model is introduced and reviewed first. Subsequently, development modes of Enterprise WeChat are investigated and discussed in depth. Finally, the recommendations of its future development strategy and conclusion are put forward.

## 2 SWOT-PEST Model

SWOT is a strategic planning tool to help organisations gain a better insight of their internal and external business environment by evaluating four areas: strengths, weaknesses, opportunities and threats [25]. Strengths and weakness can be considered as two internal factors that support or hinder organisations’ growth and these two factors are controllable. Nevertheless, opportunities and threats are two external factors that enable and disable organisations from achieving their mission, they are comparatively uncontrollable [26]. Specifically, S (strengths) represents the advantages that the organizations have; W (weaknesses) are properties of stopping an organisation from performing at an optimum level; O (opportunities) refer to favourable external elements that can bring advantages to organisations; T (threats) define the negative factors that do harm to an organization [27].

PEST is a measurement tool that is used to assess markets for a specific product or application within a given time frame. PEST has political, economic, social and technological dimensions [28]. In PEST analysis, P (political) refers to how and to what degree the government regulations influence organisations’ economy; E (economic) is associated with external economic factors like interest rates, economic growth, inflation rate

and exchange rates; S (social) refers to social factors that form the macro environment, including population growth, working attitude, age distribution, etc.; T (technological) is related to technological aspects, such as factors of technology incentives, technological innovation rate, and automation [29].

SWOT mainly concentrates on the internal micro-environment analysis in an organisation whereas PEST is more commonly adopted and implemented in analysing external macro-environmental regions [30]. Analysis results are not comprehensive when they are used separately. However, the SWOT-PEST model can be integrated from a comprehensive point of view to better analyse the current and prospective advantages, disadvantages, opportunities and threats in the field of political, economic, social and technical dimensions, the integrated analysis matrix is illustrated in Table 1. To date, some research has been undertaken using this type of model to do analysis from a top-level strategic point of view. For instance, Ha & Cogill [29] determined the development situation of e-government in Singapore. Zhu et al. [30] explored the development modes of the bio-energy industry in China based on the SWOT-PEST model. Andoh-Baidoo et al. [31] investigated the e-government readiness in Ghana through a SWOT and PEST analysis. Therefore, the SWOT-PEST model can, without doubt, help to identify determinants of facilitating Enterprise WeChat development in a strategic manner.

**Table 1.** SWOT-PEST analysis matrix.

SWOP-PEST model		Political	Economic	Social	Technological
Internal factors	Strengths	SP	SE	SS	ST
	Weakness	WP	WP	WS	WT
External factors	Opportunities	OP	OE	OS	OT
	Threats	TP	TE	TS	TT

### 3 SWOT-PEST Model Analysis of Enterprise WeChat

According to the current status of Enterprise WeChat and its existing issues, the main elements that have an impact on the development of Enterprise WeChat have been identified and summarised as shown in Table 2. Based on the analysis results of the SWOT-PEST model, from an internal point of view, it is easy to draw the conclusion that the advantages of Enterprise WeChat are obvious, such as policy support, rapid progress in the Tencent R&D research team and low cost for enterprise users. Several disadvantages like lack of publicity, long product revenue return cycle, individual or enterprise-level information security problems can be minimised or even dealt with by taking appropriate strategies through the development of national policy and advanced technology in the future. On the other hand, in terms of external factors, the opportunities co-exist with the threats, a series of uncertain and uncontrollable factors might increase. At the same time, the main barrier of Enterprise WeChat use in China is the habits of enterprise users; to be specific, users in enterprise are more accustomed to communicating with their colleagues through the personal WeChat platform.

## 4 Development Modes of Enterprise WeChat

With the development of economy and increasingly fierce business competition, it is crucial for enterprise employees to break through the limitations of time and space to realise mobile office, that is, employees can deal with anything related to business at anytime and anywhere. As one of the mainstream products in collaborative office and mobile office, Enterprise WeChat has a large market share due to its rich and distinctive functions. This section discusses the current development modes of Enterprise WeChat based on the SWOT-PEST model, as shown in Table 2.

**Table 2.** SWOT-PEST matrix model analysis of Enterprise WeChat

SWOT-PEST model		Political	Economic	Social	Technological
Internal factors	Strengths	<ul style="list-style-type: none"> <li>• Adequate internal investment</li> <li>• Integrate enterprise account into Enterprise WeChat</li> <li>• High level of openness</li> </ul>	<ul style="list-style-type: none"> <li>• Sufficient funds for R&amp;D</li> <li>• Attractive third-party APP market award policy</li> <li>• Subsidy support for new enterprise users</li> </ul>	<ul style="list-style-type: none"> <li>• Rich human resource</li> <li>• Low cost for users' learning</li> <li>• Complete company's business ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>• Strong technical team</li> <li>• Strong scalability</li> <li>• Mature interworking technology with WeChat</li> </ul>
	Weaknesses	<ul style="list-style-type: none"> <li>• Lack of teamwork</li> <li>• Conservative product function development</li> <li>• Lack of publicity</li> </ul>	<ul style="list-style-type: none"> <li>• Long product revenue return cycle</li> <li>• Overlap with enterprise QQ business</li> </ul>	<ul style="list-style-type: none"> <li>• Users expansion takes a long time</li> <li>• Low acceptance of enterprise decision-makers</li> </ul>	<ul style="list-style-type: none"> <li>• Information security problem</li> <li>• Function update is limited by WeChat</li> <li>• Imperfect chat function</li> </ul>
External factors	Opportunities	<ul style="list-style-type: none"> <li>• Strategic direction of national digital economy development</li> <li>• Paperless office in enterprise</li> <li>• Strong demand of enterprise users</li> </ul>	<ul style="list-style-type: none"> <li>• Big quantity of companies</li> <li>• Strong demand for refinement management</li> </ul>	<ul style="list-style-type: none"> <li>• Public willingness to distinguish between work and life</li> <li>• Great influence of WeChat</li> </ul>	<ul style="list-style-type: none"> <li>• Good communication network equipment</li> <li>• Obvious trend of home office</li> </ul>
	Threats	<ul style="list-style-type: none"> <li>• Information security risk of enterprise</li> <li>• Overseas enterprises cannot pass the certification</li> </ul>	<ul style="list-style-type: none"> <li>• Slow economic development</li> <li>• Large number of competitive products</li> </ul>	<ul style="list-style-type: none"> <li>• Entering the market late</li> <li>• Many alternative products</li> </ul>	<ul style="list-style-type: none"> <li>• Slow product function update</li> <li>• Users' information security needs cannot meet with high quality</li> </ul>

## 5 Recommendations

### (1) Relying on internal advantages to seize external opportunities

Enterprise WeChat depends on their internal advantages to seize external opportunities, in order to look for the best development opportunities and strategies. To be specific, Enterprise WeChat was released as the strategic product of Tencent, meanwhile, Tencent has integrated multiple internal resources to fully support the development and promotion of Enterprise WeChat. It should be noted that the successful application of small programmes in 2017 gave WeChat more possibilities, and, therefore, brought more development opportunities to Enterprise WeChat. As Hao et al. [32] discussed, the lightweight characteristics of small programmes fully facilitate personal use, that is to say, users can have multiple applications through one-stop App, which gives Enterprise WeChat a broader application scenario.

In recent years, the development pattern of enterprise has changed greatly. Specifically, some enterprises have changed from high-speed development to high-quality development, which, thus, puts forward new requirements for enterprise production efficiency and employee work efficiency. As a result, Enterprise WeChat should fully tap its internal advantages in order to explore more functions and broaden the scope of business applications rooted in many scenarios such as enterprise production, management and other external business.

### (2) Take advantage of external opportunities to adjust internal disadvantages

Mobile office has become an unchangeable trend and fact for most enterprises, especially for commercial companies [33]. At present, WeChat has been most widely used in enterprise users' daily work because of its convenience. As a result, many people add a lot of colleagues to their personal WeChat platform, mixing together their working and personal lives. However, considering the strong social attributes of WeChat and the difficulties of collaborative office access, which leads to the inadequacy of WeChat as the main communication tool for office. With the increasing willingness and demand to separate work and life, Enterprise WeChat has huge advantages in the acceptance of enterprise users due to its similar user experience. Therefore, the entry threshold of Enterprise WeChat is low, employees at any level of enterprise can realise barrier-free communication in the applications.

As the development and dissemination of network communication, mobile office has existed for a long time. Before the official release of Enterprise WeChat, some high-quality products have gradually entered the market and affected users' working habits [34]. As a result, enterprise instant messaging tools already have a certain market awareness, which is helpful to the promotion of Enterprise WeChat. In order to deal with the existing problems of internal disadvantages of Enterprise WeChat, the opportunities in the external environment can be made full of to adjust. For instance, information security problems can be improved and solved by applying for a variety of internationally recognised network information security certificates, or drawing support from the combination of third-party evaluation and authentication to improve their own information

security assurance [35]. At the same time, Enterprise WeChat should give full play to the media influence for publicity, so as to obtain public psychological recognition.

### (3) Utilise internal advantages to overcome external threats

Based on the results derived from the SWOT-PEST model analysis, it is apparent that several external threats hinder the development of Enterprise WeChat to some extent. For example, first of all, in addition to the basic instant messaging function, most of the applications that meet the enterprise office usage scenarios are developed and accessed by third-party partners. In this case, information security will become the most obvious problem. Secondly, the cooperation mode between enterprises and third-party partners is complex and changeable, and it is obvious that several large Internet companies are incompatible with each other, which results in low acceptance of common mobile office products.

As a consequence, faced with the external threats discussed above, Tencent utilised several internal advantages to overcome them. To be specific, firstly, ‘Enterprise WeChat’ was officially promoted as a strategic plan in April 2018 [36]. As the most important product to open up the enterprise level market, a large number of high-level talents are gathered to work together in terms of Enterprise WeChat’s technology development or business expansion. Besides this, the operational team of Enterprise WeChat was established separately, the independent team can, therefore, expand the new user group of Enterprise WeChat with the strong influence of Tencent. Secondly, in order to meet the changeable needs of different enterprises and effectively deal with the relationship between enterprises and third-party partners, the operational team of Enterprise WeChat attracts more excellent and influential application developers to work together through industry salon and public speaking [37]. At the same time, the Enterprise WeChat operational team can formulate personalised products according to the different needs of enterprise. Finally, the information security of enterprise has attracted extensive attention; for instance, as Steinbart et al. [38] discussed, failure of data or information protection can result in the loss of key customers and even lead directly to the loss of businesses’ confidential documents. Therefore, in some industries like finance, banking and high-tech, enterprises put forward higher requirements for information security. In this situation, Tencent can give full play to its influence and social recognition to eliminate users’ doubts by establishing a perfect and reliable information security system, which aims to escort all kinds of information for enterprise users.

### (4) Overcome internal weaknesses to respond to external threats

Based on the results of the SWOT-PEST model analysis, in recent years, there have been many substitutes in the external competitive market. These alternative products are developing rapidly and they are dividing the market with obvious intention. To be specific, in view of the development path of Enterprise WeChat, there is no advantage for it to enter into the market, it lags behind the ‘Nail’ of Alibaba and is known in Chinese as “钉钉”, which is the main competitive product for recent years in terms of time [39]. Besides this, in terms of product functions experience, Enterprise WeChat is

far less than the ‘Cloud Home’ developed by Kingdee Group that focuses on enterprise collaboration. According to this, Enterprise WeChat is confronted with a huge threat from similar external products. At the same time, Enterprise WeChat is also facing some difficulties and challenges within the organisation such as lack of close cooperation between different departments, lack of product popularity, long business development cycle of enterprise users, low acceptance of enterprise decision-makers, etc.

In this situation, when facing the external threats above mentioned, Enterprise WeChat needs to take timely measures to overcome their internal weaknesses and make more efforts to improve product functions. First of all, the product function of Enterprise WeChat was relatively weak in the early stage. However, with continuous product updates and gradual opening of the third-party application market, Enterprise WeChat has also realised the transformation from a single internal communication tool to an enterprise level collaborative office tool. Therefore, it can be concluded that the continuous upgrading of product functions and versions is one of the most effective measures. Secondly, Enterprise WeChat’s operational team should make full use of the influence of advertising and media to expand its popularity. In addition, the needs of enterprise users should be fully considered in the development process of Enterprise WeChat, which aims to provide a personalised mobile office service for enterprises based on their business process. Eventually, cooperation between different departments within the company should be strengthened, which is beneficial to product development. As Ernst et al. [40] discussed, a successful product involves the research team, manufacturing team, market team, service team and finance team, etc. Innovative products can be created only through hard work. Therefore, Enterprise WeChat’s operational team should coordinate the internal resources of the company to the greatest extent.

## 6 Conclusions

The emergence of the Internet provides human beings with new technologies, new approaches and new media for information exchange. With the development and popularisation of network communication technologies and mobile devices, enterprise instant messaging (EIM) is set to improve information sharing and communication among employees as a result of integrating instant messaging and collaborative office. In order to promote EIM technology and tools to better serve enterprise in the world, one of the world-class EIM tools developed by Tencent, Enterprise WeChat, was investigated and analysed based on the SWOT-PEST matrix model. A SWOT-PEST matrix model analysis of Enterprise WeChat was built up (see Table 2), several current problems and issues of the Enterprise WeChat product were explored and discussed from the internal micro perspective and the external macro environment. In general, from the internal point of view, policy support, rapid progress in Tencent R&D team, low cost for enterprise users, etc. are the main advantages of Enterprise WeChat. However, several weaknesses like lack of publicity, long product revenue return cycle, individual or enterprise-level information security problems can be minimised or even dealt with by taking appropriate strategies through the development of national policy and advanced technology in the future. On the other hand, in terms of external factors, some uncertain factors might increase, the main barrier of Enterprise WeChat use in China is the habits of enterprise



users. In this regards, the Enterprise WeChat operation team should increase product exposure, so as to gradually develop user habits.

Enterprise strategy is a long-term and overall plan made by an enterprise for continuous development in the future. Enterprise WeChat is a strategic product for Tencent in their future plan. As one of their most competitive products, Enterprise WeChat is not only a key product that helps Tencent to enter the enterprise market, but it is an efficient tool that transforms Tencent from an individual level to business level market. Therefore, the following points should be considered in the future development of Enterprise WeChat, 1) build a more perfect partner ecosystem to make up for shortcomings in the enterprise market; 2) explore potential customer groups and become a service tool for the whole scene of the enterprise; 3) establish product advantages in the fierce competition, particularly in the future intelligent era.

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