

The Method of Enterprise Digital Management Transformation: Value Co-creation Initiated Dual AI Strategy

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Abstract

Digital management method centered on user value is the driving force for the transformation and upgrading of traditional enterprises. To share new thinking of value co-creation with users, to re-examine the core business and service capabilities within the enterprise, and to apply the dual AI strategy to strengthen the feedback speed of users to implement organizational transformation and innovation, are significant for deepening and improving the ability of enterprise transformation and innovation. Transforming thoughts and ideas, learning to use value co-creation thinking modes, strengthening internal and external information exchange, feedback and iterative ability, and breaking through the original constraints to let employees become internal makers are all the tasks that enterprises must face in transformation and innovation.

Keywords: value co-creation, dual AI strategy, digital management, transformation, innovation.

Since 2018, Chinese companies have been actively embracing the goal of industrial innovation and digital transformation, and top Internet companies such as Tencent and Alibaba have also made advances in mobile development, Internet finance, cloud services, and big data applications for a long time (Ji-Ji Cloud, 2019)—

However, for the majority of Chinese small and medium-sized enterprises, digital transformation is still a new thing, in which digital transformation must have the ability of data management and analysis. It ultimately brings a rapid response mechanism for enterprises, allowing internal members and external customers make dialogues in every production development and manufacturing process, and ultimately achieving the results of value co-creation. Therefore, to deeply understand the new perspectives and new thinking of digital transformation based on value co-creation, to unify understanding and reach consensus, and to re-examine and continuously promote enterprise transformation and innovation are of great practical significance in a new era.(Jibin Wang, 2015)

I Problems and causes in the process of promoting innovation and transformation

With the gradual application and popularization of digital management in traditional enterprises, many small and medium-sized enterprises promote technological progress and management mode innovation in the transformation, and are beginning to change the enterprise management mode and organization. However, in the process of promoting digital management transformation and innovation, various enterprises have encountered many difficulties. The main reason is that many leading cadres, who still have insufficient knowledge of the ways and means of its implementation, still have many misunderstandings on the meaning of digital management (Stephen,2018). The main performances are as follows:

(1) Insufficient attention paying to the importance of digital management in enterprise transformation and innovation

In the 13th Five-Year Plan of China (China Study, 2015) , the innovation strategy has been listed as the fourth largest strategy, which clarifies the new concept of China's industry from market-driven to innovation-driven, which creates first-mover advantage and transform the development momentum. It puts emphasis on

transformation from technological innovation to innovation of ideas, systems, management, culture, business models, information technology and technology. Management theory believes that enterprises should focus on the productivity and creativity at different development stages. Traditional enterprises should shift from focusing on productivity to focusing on creativity in the current historical stage. What is worrying is that many leading cadres of traditional enterprises are not ready to meet the challenges of corporate transformation and innovation in the mode of thinking.

(Huateng Ma, 2015)

At present, a new round of scientific and technological revolutions and industrial changes are taking place around the world. Major disruptive technologies are constantly emerging, and the transformation speed of scientific and technological achievements is accelerating. The integration of the Internet and various fields has become an irresistible trend of the times, which is influencing the economic and social development of all countries strategically and globally. In order to adapt to technological and industrial changes, developed countries have introduced countermeasures one after another. The US Industrial Internet and Germany's Industry 4.0 come into being. China has also successively introduced Made in China 2025, Action Plan for Promoting Big Data Development and Three Years Action Plan for Artificial Intelligence and other important documents, striving to deeply integrate the results of big data development innovation with traditional enterprises and form a new engine for China's economic development (Xiao-Jun Li, 2017).

The managers of company are usually busy with complicated business work. They have no time, no motivation to learn new knowledge of data management, and analyze the successful cases of traditional enterprises' implementation of digital management, let alone improve the ability of data management innovation and lead and promote the digital management transformation of enterprises (Pi-Sheng Xu,2001). The leading cause is that they are not deeply aware of the importance and urgency of digital management for the business. Yun Ma (Li- Míng Yu, 2013) once said

that many people lose their lives in the perception of new things, that is they are often invisible, despising, incomprehensible and late. As the middle- and high-level leading cadre of Chinese enterprises, we must attach great importance to it and take it as a warning.

(2) Insufficient understanding of the nature and connotation of digital management

Many corporate leaders and even professionals of the information department have proposed that digital management is just a concept following the fashion, merely new bubble. They think that the term digital management is not accurate enough. Instead, the concept of data management is more realistic since big data is only a tool used by enterprises. They think that the term data analysis management enterprise is right, but digitizing the enterprise is wrong.

This view sounds reasonable, but the mistake is the misunderstanding of the core of digital management, which is transformation and innovation.

As the infrastructure of the Internet era, data management can make information spread, flow and share as quickly as possible, and trigger a variety of creative applications. In this consumption upgrade, product life expectancy shorten era, how to rapid upgrade, how to accurately meet customer needs, and how to improve customer experience, have been a common test for all enterprises. From the case of P&G delisting recently (Xiao-Bian Mou,2019), we can find that no matter how big the company is, it will be cruelly eliminated if it can not pass this test.

Therefore, data management allows enterprises to have rapid response capabilities and interact with external users. However, general data management refers to the management and analysis of internal data of enterprises, which allows dynamical management of internal and external information of enterprises. We call it dynamic data management, and we can also call it a form of artificial intelligence, AI for short.

However, the case of P&G can also be proposed to us for reflection. Since P&G is actually a highly data-managed enterprise, why is it still unable to effectively

respond to the market and make adjustment?

The reason is that dynamic data management is a rigid institutional system, which requires flexible collaborative system support, i.e. the actual communication way between employees. If everyone just communicates via data without any personal opinions, feelings and emotions, the working environment of this company may be quite cold, in which employees are prone to lack of passion and imagination, and are easier to lose the enthusiasm to satisfy the user experience.

Therefore, another AI tool comes in handy (Active Inquiry) active inquiry, which is an effective way in positive psychology to help organizations build the good vision and expectations, and to unite the beliefs of all employees to achieve goals. When we apply this method to an organization, we can greatly promote understanding and trust among members, and reduce conflicts and misunderstandings.

Therefore, when the dynamic data management capability runs in the organization, members can also use mutual communication to understand and cooperate with each other. When the system is open to the inside and outside, the organization has the most efficiency and transparency, because and internal members and external users have the strongest ability to create value together. It can easiest produce the best results that can meet the needs of the enterprise and meet the expectations of customers. This system of internal and external value co-creation is called double AI strategy. (Ming-zēng, 2019)

(3) Unclear understanding of the relationship between digital management and enterprise informationization

Many leading cadres believe that after years of informationization construction, many information systems have be greatly improved in efficiency and management, which would provide strong support for the development of the main business, and it is enough for each enterprise to follow the group informationization construction plan without the need to emphasize digital management, which they think is unnecessary and add to the trouble.

In fact, the traditional enterprise informationization and the current digital

management are still different. The traditional informationization mainly relies on the intranet of the enterprise, which realizes the datamation and networking of the business in a closed department, a professional line or an enterprise. However, we need to be wary that although we have built a large number of information systems, they are generally limited to the application of a strapped, vertical signal business, which is often a reporting system that satisfies the high-level management of the company. It does not really release the enterprise information mobility, nor contribute to the wide sharing and use of information. It can be said that the enterprise business and information system are largely two pieces of skin, which have not reached a true integration with the production process and management process of the enterprise, and it does not really reflect the value of informationization. Dynamic digital management takes the Internet as the infrastructure and has opened up the boundaries of internal and external networks of enterprises, which can achieve internal and external collaboration, horizontal coordination and vertical coordination and making informationization return to the essence of promoting the wide flow, sharing and use of information. It reconstructs the business model and production mode of the enterprise with the open thinking, which is an upgrade and transformation of the traditional industry. Therefore, digital management can not be equated with traditional enterprise informationization, and it can break the limitations of traditional informationization. Or it can be considered that digital management gives new meaning to enterprise informationization, and double AI strategy redefines the enterprise information more completely.

(4) Insufficient preparation for the complexity of digital management to drive change and innovation

The digital management transformation of traditional enterprises is a complex system engineering. Although many companies have made very useful attempts, such as opening WeChat public accounts, establishing e-commerce platforms, actively investing in cloud computing and big data, many new online systems, newly introduced practices and measures are often much cry and little done, even like the

morning dew, and no one has ever been interested, which has greatly damped the enthusiasm and initiative of enterprise innovators. In fact, this is not difficult to understand. Take a look at the history of the once glamorous corporate giants in the past decade, they didn't make a big mistake in terms of capital, technology, market, etc., but in not keeping up with the times in organization, culture and management. If enterprises lack of rethinking the entire business model and fail to re-engineer the internal management system and business processes of the enterprise, even if they have invested a lot of manpower, material resources and financial resources, and have achieved some achievements or effects, the process of change and innovation is difficult to sustain. In the end, it is likely to fall into image project.

Rosabeth Moss Kanter (Kanter, 2015) chief professor of business administration at Harvard Business School, once said in the article *The Classic Trap in Innovation* in *Harvard Business Review*, "Every generation of leaders in the company all face the same challenge: how to resist the factors that stifle innovation?" "After the publication of the rhetoric of innovation, the following implementations were lackluster and the achievements were few. Finally, the innovation team was dissolved under the pressure of cost reduction - which was not uncommon." The author pointed out that the company often has problems with excessive control over innovation in the process. Because of the inevitable uncertainty in the innovation process, it is inevitable that companies will take some detours or change the direction. It is not appropriate for companies to copy the planning, budgeting and evaluation methods of existing businesses to the innovation process. It is unfortunate that the mistakes pointed out by the author have been confirmed in the digital management reform and innovation practice of various enterprises. The author's point of view of the transformation and innovation of many state-owned enterprises strikes home.

II Exploring the Ways of Digital Management transformation and Innovation

Promoting change and innovation with digital management is a new opportunity and new challenge faced by enterprises in the new era. There is no direct success experience to learn from, and no mature theory to guide by. We need to constantly

practice and grasp the law to guide the practical. We can analyze the ideas and practices advocated by well-known Internet companies in recent years, and summarize the lessons learned from the transformation process of digital management in other traditional enterprises. We should focus on the following aspects in reform and innovation:

(1) Change the concept of thinking, and learn to think in the way of value co-creation of data management

Changing ideas is an inevitable requirement of adapting to the development of the times. Professor John Kotter of Harvard Business School has studied the transformation of a large number of large enterprises (Cao, 2017) and found that most companies ended in failure. He points out that the root cause is the conventional thinking of entrepreneurs, that is, accustomed to observing the present and predicting the future according to past thoughts. Over the years, Chinese companies have been accustomed to the extensive growth of thinking in the background of high demand, high prices, and high growth. In the face of new situations and new changes, their sense of crisis is not strong, and generally lack of business innovation. Their willingness to reform and innovate is weak, and they are often accustomed to using administrative instructions to promote production, management, and operations. It can be said that the conventional thinking of various enterprise managers has become the biggest hidden danger of the digital management transformation and innovation of the enterprises.

The entrepreneur capping rule tells us that the ambition and pursuit of entrepreneurs determine how far this enterprise can go, and the realm of entrepreneurs determines the boundaries of this enterprise's growth. This rule is still applicable in the digital transformation of traditional enterprises. If the thinking mode of our senior leadership has not yet switched to digital thinking, or even double AI thinking, it is obviously impossible for the entire enterprise to achieve innovation and transformation.

Minhong Yu, (Yu,2017) founder of New Oriental, once said that it is not easy to reconstruct the original business model with digital management thinking. The first

step is to change his inertia thinking, or it would be very difficult to further change the team together. Therefore, the senior leaders of the company should set a good example to the lower level to change their thoughts and ideas, and more importantly, learn to think with new thinking, that is, re-examine the market, the users, the products, the corporate value chain and even the entire business ecosystem in the context of the continuous development of (mobile) Internet, big data, cloud computing and other technologies. (Prahalad, 2014)

(2) Strengthen the top-level design and combine it crossing the river by feeling the stones

In the process of promoting Dynamic Digital Management and Double AI Strategy, the combination of strengthening the top-level design and crossing the river by feeling the stone is an image representation that insists on the unity of theory and practice. In fact, it is the primary foundation viewpoint for adhering to the philosophy of Marxism- the practical point of viewpoint.

Digital management is not only a technical issue, but a more important and arduous task is to integrate deeply with the business, involving all aspects and many links of the enterprise. Therefore, the transformation should be planned to abandon yesterday's experience, not to be unplanned, and innovation should be systematical to find tomorrow's opportunity, but not choosy. We must focus on strengthening the top-level design, taking into account the various elements at all levels, systematically thinking about the overall problem at the highest level, and paying attention to the overall relevance and practical operability, avoiding attending to one thing and losing another, confusing the primary with secondary, and the chaos and disorder. Google's 70/20/10 resource allocation guidelines, that is, 70% of the resources allocated to the existing core business, 20% of the resources allocated to the emerging business, and the remaining 10% of the resources placed in the exploratory business, which is worthy of our reference on the top design. At the same time, we should also be clearly aware that the transformation and innovation in traditional enterprises is a new field

that has no reference. Even if we have established various rules for promoting transformation and innovation, no one can predict the changes in every stage of development in the future. We can pilot first, and cross the river by feeling the stones. By respecting practice, respecting creation, daring to explore, we can sum up, summon the law through trial and error, create new ways in practice, and find ways of transformation and innovation. And then, we constantly test, correct, enrich and develop the concept and content of top-level design in practice.

(3) Break through the original constraints and let employees become internal makers

Most of the traditional enterprises have strict organizational structure, rigorous management system and strict cultural style. They are good at large-scale operation and stable control, while focusing on the minimization of production and operation risks, and tending to penalize innovation failure. Large state-owned enterprises are even more dragged down by big enterprise diseases with bloated management institutions, duplicating functions, complicated system processes, long decision-making chains, and inefficient organization operations, all of which are incompatible with the freedom and speed maximization pursued by the digital transformation of enterprises. Chunhua Chen, a well-known management expert, believes that management services for business. If there is a business model, there should be a matched management system, and the management level cannot exceed the business level. If an enterprise's original management system is too strong and exceeds its ability of innovation for a long time, it will be more difficult to promote digital management within its internal transformation and upgrading. It must be restricted, or even strangled, by various aspects such as the original system and mechanism.

Based on common sense of management, it is easy to know that the control mechanism with layer-by-layer pressure helps to strengthen discipline and execution, but is not conducive to the occurrence and advancement of transformation and innovation. How can we enable large enterprises to return to the era of creation, and

re-fill them with fighting spirit and innovation bravery to be as sensitive, flexible and responsive as small and micro enterprises? Management master Drucker tells us that large companies can overcome the bad symptoms of big business diseases through internal entrepreneurial activities and achieve the same excellent market performance as small businesses. Amazon's approach is the best interpretation of this assertion. Amazon has established an innovative laboratory internally to continuously develop innovative Internet products. A product once matured is handed over to the original system and quickly commercialized, which not only ensures the stability of the original business, but also ensures the flexibility of digital transformation. Haier further promotes enterprise platformization, employee creation and customer personalization, and adjusts its organizational structure to transform 80,000 employees into more than 2,000 small and micro companies, which improve the company's innovation ability and feedback speed. It can be seen that the establishment of an entrepreneurial platform and the foundation of a flexible small micro-team will enable the company's leaders and employees to become internal entrepreneurs. This will be an effective way to break through the original system barriers.

(4) Reinvent corporate culture and stimulate the transformation and innovation potential of our employees

Marxism believes that the human is the most active factor in productivity, and the people are the creators of history and the fundamental force for promoting social development. General Secretary Jinping Xi also points out that we must fully promote democracy, broadly gather the wisdom of the people, maximize the power of the people, and form a vivid situation in which everyone participates, everyone does their best, and everyone has a sense of accomplishment.

In this rapidly changing, highly uncertain Internet era, front-line employees who hear the roar of guns are more sensitive to changes in aspects of users, markets, and businesses, more likely to find problems and opportunities, and more likely to contribute ideas and creativity. Innovation begins with creativity, and transformation

must begin with changing the individual's mental model. Really innovative talents cannot be obedient subordinates, but precisely those faultfinders with keen sight and perseverance who dare to think and do and are not afraid of making mistakes under the traditional concept. In the traditional enterprises that emphasize execution, it is difficult to make innovative talents suitable for digital transformation emerge spontaneously. Only when the employees have the willingness and ability for digital transformation, can transformation and innovation actually take place. It is not enough for traditional enterprises to only adjust organizational structure. Only by reshaping corporate culture, establishing appropriate incentive mechanisms and fault-tolerant mechanisms, and creating environmental conditions suitable for transformation and innovation, can we give full play to the enthusiasm, initiative and creativity of employees, and release enormous potential of transformation and innovation. After Gerstner assumes office in IBM, IBM revives and realizes the successful corporate transformation owing to the core culture of strive for victory, quick execution, and team spirit.

III Several key points in promoting the process of transformation and innovation with Double AI Strategy

Practice is the sole criterion for testing truth, seeking truth from facts, and be realistic in everything one does are the essence of Marxist philosophy. Advancing the Dynamic Digital Management transformation and innovation can not only be a theory, but must be combined with the actual situation of the enterprise to solve key problems.

(1) Abandon false respect and pay attention to the feasible promotion

Faced with the uncertainty of the future and the strong resistance to transformation and innovation, many of the companies have long been accustomed to the strategic planning and framework assumptions on paper, the tactical implementation is often far away, and the ultimate fate is often shelved and forgotten. The world today is complicated and changeable, in which the huge opportunities of

digital management are fleeting. It is the modern version of false respect that only do the transformation in theory and verbal without actual transformation action. That Empty talks would lead the country astray, and hard work can rejuvenate the nation requires us to actually implement, try and advance. The British writer Dickens said in the first volume of *A Tale of Two Cities* that it is the best era and the worst too. If we just sit and prattle about the general principle, this era will be our worst era, but if we can get it, it will be our best.

Therefore, the promotion of the dual AI strategy must be occupied with a timetable and clear steps. First, in the process of data management, it can generally be divided into four stages: (Shijun Liu, 2015)

1. Unit Datamation: First, the data of a certain department is first filed and become a digital system.
2. Data management: It can turn all the data of each department into the digital which are easy to obtain.
3. Data analysis: Data content can be analyzed in depth, so as to identify problems and conduct business forecasting.
4. Fully digital: data content can be hosted in the cloud method, and can be used for internal and external queries, or various data analysis, forecasting, information feedback and achievement output.

However, the common enterprises did not have a large budget to invest in comprehensive digital engineering, and the enterprises that have already invested in digital engineering failed to invest a new amount of funds for system update at the fixed time after the system went online. The consequence is that the system and enterprise demand are disjointed, and ultimately the company lack interest in digital engineering.

But in fact, each company does not need to achieve a comprehensive digital transformation, but should perform corresponding work according to actual needs. In addition, today's SAAS collaboration platform should be quite mature, and the updating and cost investment to the enterprise has been greatly reduced. The most

importantly, the company must do two things in the process of digital transformation: (Xingfeng Zhao, 2015)

1. Key business digital management: the most efficient digital transformation of the most core capabilities for improving efficiency.
2. Everything is centered on value co-creation: the purpose of digitization is to promote communication and trust, efficiency and expectation satisfaction. If this goal is deviated, the meaning of digitization will no longer exist.

Again, also very importantly there are four steps to establish the ability to Active Inquiry in a dual AI strategy in the enterprise: (Whitney, 2015)

1. Discovery: Search for positive expectations, best practices, and possible success factors.
2. Dream: Set the active, clear, result-oriented target image.
3. Design: Clarify the various conditions for achieving the goal, construct an idealized organization or product, and make various suggestions.
4. Destiny: Develop action consensus and plans to promote positive action and improvement motivation.

While promoting the digital transformation of key businesses, enterprises must pay attention to whether the dynamic interface of the system has a communication platform. Allowing internal and external information to communicate and co-create can meet the purpose of value co-creation. The Active Inquiry management is used solely in the internal collaborative process traditionally, however, in the dual AI strategy, it is used to support the process mechanism of external and internal value co-creation. The enterprises should take the above steps based on their own capabilities and needs.

(2) Not go in for grandiose projects and pay attention to small micro enterprise iteration

The transformation and innovation in the digital age are not replica of the relevant theories of the industrial age, and cannot be carried out in the way we were used to, because in the rapidly changing environmental conditions, perfect planning

can not be implemented without the slightest error. The digital transformation of traditional enterprises will be influenced even by a tiny part. The goal of transformation and innovation set too high may be highly risky for us. Therefore, the transformation and innovation of Double AI Strategy pursues trial and error with the least cost and the fastest speed. The best way to do this is to start with small and micro innovations, update and iterate the prototypes through development. We should find the right direction, increase investment after finding value-added points, and then build new business models after maturity. On the other hand, only when the innovation project is small enough to break through the original institutional and institutional barriers, can we have the opportunity to open up the internal channels of the enterprise in the process of gradual growth and improvement and create possible new advantage business for the company. So in the progress, you can start with a key business or a potential business without thinking once for all.

(3) Don't curry favour by claptrap and pay attention to actual results

The transformation and innovation of enterprises are not the slogan of the leaders when making reports. The double AI strategy is not the concept or tool of digital management introduced for the corporate image, but means the upgrade of the business model and management methods of the enterprise. The actual economic benefit is the company's achievement of tangible growth. We should not only focus on the external form of digital management while deviating from the important strategic goal, i.e. transformation and innovation for the purpose of value co-creation of enterprises. The digital transformation practice of large traditional enterprises such as Haier and Huawei tells us that once the traditional enterprise's research & development capability, technical capability, production capacity and digitalization are deeply integrated, huge competitive advantage will be formed. Therefore, it is not important whether there are terms of intelligence and big data in the name of the innovation project, but we should see if it really brings faster demand response, higher efficiency and lower cost better products and services to the enterprise, and most importantly, whether it has truly achieved the purpose and results of value co-creation.

IV Conclusion

In short, it is impossible to accomplish enterprise transformation and innovation with digital management at one stroke and once and for all. We must continue to gain new understanding, take new steps, see new results, accumulate new experiences, continue to enhance the ability of transformation and innovation of enterprises, and continue to make greater contributions to enterprise development and innovation.

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