

Analysis in Issues of Informationization Process in Medium-sized and Small Enterprises and Their Countermeasures

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Abstract

The rapid development of information technology enables informationization to become the necessary means for medium-sized and small enterprises to improve their competitive advantages. With efforts for several years, establishment of informationization in medium-sized and small enterprises has achieved some achievements. However, because they started later, together with disadvantages of the enterprises themselves, the overall application level of informationization is still low. Through analysis of the important significance of informationization implementation in medium-sized and small enterprises, this article summarized primary issues existing in the process of informationization in medium-sized and small enterprises and their causes, and proposed suggestions with operability on that basis. The conclusion of this article has extremely important significance to practices of informationization in medium-sized and small enterprises in China.

Keywords: Medium-sized and small enterprises, Informationization, Idea of informationization, System planning

1. Introduction

Medium-sized and small enterprises are an important component of the national economy. With development of computer, Internet and communication technology, informationization has become a necessary means for medium-sized and small enterprises to obtain and maintain their competitive advantages, and is an important direction for development of enterprises. However, at present, informationization in medium-sized and small enterprises is encountered with great hindrance in terms of capital, personnel, technology and management foundation, etc, which causes the process of informationization to lag behind. In this article, the author is going to make an in-depth analysis in causes of this phenomenon and put forward corresponding countermeasures and suggestions.

2. Significance of implementation of informationization in medium-sized and small enterprises

Informationization means that enterprises spread and apply modern information technology in all aspects of production and operation, explore and employ internal and external information resources to the full, set up an organizational mode corresponding with these resources, and, therefore, improve efficiency, level and operation benefit in the processes of production management and decision making, etc, and strengthen the progress of competitiveness. Implementation of informationization mainly has the following significance to development of medium-sized and small enterprises.

2.1 Informationization enables costs of medium-sized and small enterprises to be reduced and efficiency of operation to be increased.

At the time when informationization improves efficiency of operation of enterprises, informationization also makes cost of production, cost of transaction and cost of management reduced by means of accelerating flow of information and improving utilization rate of information resources. Informationization enables the basic management of enterprises to be completed conveniently online and to realize paperless office, facilitates simplification of organizational institutions and business flow of enterprises, makes enterprises come to know inventory information within the enterprises timely, conveniently and accurately via Internet, compresses stocks, reduces occupation of working capital of inventory, acquires information of the market through Internet so as to

promote their own products and services and steps over regional and spatial limitations to conduct a transaction with customers and suppliers, etc.

2.2 Information may improve management in medium-sized and small enterprises.

The essence of informationization is to improve competitive capacity of enterprises and it requires enterprises to establish a set of operation and management systems in accordance with informationization. Application of information technology involves economic activities of the whole enterprise, and combines information technology and management science of enterprises by means of electronization of data and flow. Reintegration of the current management flow of enterprises and improvement of the management of system of enterprises can more effectively change the status quo of incomplete management of enterprises themselves.

2.3 Informationization may reinforce the rapid reaction capacity of medium-sized and small enterprises to the market.

Faced up with endless emergence of new products in the market and individualization and diversification of demands of customers, competition among enterprises also becomes increasingly fierce. Informationization may break through temporal and spatial limitations, shorten distance between enterprises and consumers and improve the ability of enterprises to react rapidly to demands of the market. Informationization can enable enterprises to collect effective information of the market in a timely, accurate and complete way, and help decision makers to make correct decisions on the basis of a scientific analysis in the information. At the same time, through circulation of information within enterprises, informationization can rapidly split these decisions and put them into each aspect of production and operation of the enterprises.

2.4 Informationization may help enterprises expand the room for subsistence and development

Under the current circumstance of the market, as a result of limitations of technical resources of medium-sized and small enterprises themselves and dependence on external resources, enterprises have to build a flexible and extensive cooperative partner relationship with external organizations. Through Internet and computer, the enterprises can conveniently communicate with external organizations and seek for cooperative partners to maintain their relations with cooperative partners. Informationization can enable enterprises to better participate in various forms of cooperation and operation, such as strategic alliances, innovation of Internet and supply chain, etc, resort to the cooperative system of social division of labor based on specialization and employ to the full internal and external resources to bring opportunities for exploration of new products in the enterprises.

3. The status quo of development of informationization in medium-sized and small enterprises

With efforts for several years, informationization in China has made progresses and attained achievements. Besides, when such international giant manufacturers as SAP and ORACLE declared to entirely enter the informationization market of medium-sized and small enterprises in China, informationization of medium-sized and small enterprises in China had entered a stage of rapid development. For the time being, a large majority of medium-sized and small enterprises have started informationization contact and exploration, and employment of information technology and equipment by medium-sized and small enterprises has witnessed great increase. Medium-sized and small enterprises have improved their recognition of informationization, and informationization in medium-sized and small enterprises has seen its initial fruit. Informationization has brought or is bringing positive influences to enterprises.

However, since informationization has started later in China, together with disadvantages of enterprises themselves, the overall level of informationization application is still low. At present, establishment of informationization in many medium-sized and small enterprises is still restricted to propaganda of the corporate image and information inquiry, and application of computer still remains in the stages of office automation and labor and personnel management, such as word processing and financial management, etc. Not only internal network interworking is not fulfilled, but assistance of computer in the process of business is seldom used. According to the survey, transaction conducted through Internet in medium-sized and small enterprises accounts for less than 20% of the total and there are less than 10% enterprises that have completely fulfilled computer aided design system, office automation system and information management system. There have been merely 2.9% of enterprises that have employed the most central ERP system of informationization. Application of informationization which involves the mode of collaborative commerce is still in a burgeoning stage, and its utility ratio is less than 1%. What's more, there are almost half of enterprises that haven't been equipped with computers. Compared with first-class enterprises in the world, level of informationization in medium-sized and small enterprises in China at least lags behind 10 to 20 years.

4. Primary factors that hinder informationization of medium-sized and small enterprises

There are various reasons which cause the serious laggard phenomenon of informationization in medium-sized and small enterprises in China, not only including reasons on the part of enterprises themselves, but also including reasons on the part of the market and the government. There are mainly the following several aspects:

4.1 Laggard idea of informationization

The idea of informationization affects the progress and level of informationization establishment in medium-sized and small enterprises. Since informationization in enterprises is a long term and enormous project which requires continual investment of the enterprises, and, meanwhile, the risk of informationization is relatively high, the enterprises may not obtain benefits within a short period of time, and may also fail due to various causes. In addition, some entrepreneur don't have a clear idea about challenges and opportunities brought by the informationization society, don't have an in-depth understanding in significance of the informationization, have lots of worries about the prospect of informationization and are worried that the cycle and profit of return of investment in IT information system established with quite a large amount of resources may be limited, some enterprises still take a wait-and-see attitude towards whether they should conduct informationization.

4.2 Lack of system planning and blind following suits

Some enterprises are relatively blind in the process of informationization, without accurate informationization target, which leads to serious phenomenon of following suits. Some enterprises have misunderstanding in the essence of informationization, and mistake informationization simply for allocation of computer, for which they set up an information management system or corporate website. The phenomenon of emphasizing equipment and ignoring information is extremely serious. Quite a lot of enterprises make a heavy investment into basic network facilities, whereas their investment is obviously insufficient in development of basic information database and application information system, which restricts the role of value of hardware devices. Establishment of informationization in a great deal of medium-sized and small enterprises is confined to the form, and these enterprises do not select a system suitable for their own development on the basis of an overall and systematic analysis of characteristics of corporate operation, advantages and disadvantages of the enterprises. They are lacking in a feasible and long term plan for development of informationization of the enterprises, which leads to waste of man power, material resource and financial resource and even brings about serious constraint and risk to development of the enterprises.

4.3 Inadequate capital for establishment of informationization

Establishment of informationization system is an enormous project, with long cycle and huge investment. Investment of capital is indispensable from purchase of hardware equipment, such as desktop computer and notebook computer through construction of the Internet and purchase of large-scale management software. In addition to initial purchase, subsequent running and maintenance is also a long term project, which requires continuous investment and support of a large amount of man power, material resource and capital. According to statistics, annual maintenance expense of informationization system in the enterprises accounts for 10% to 20% of the total construction expense of the entire system. Medium-sized and small enterprises have low survival rate, low credit degree and few pledged assets, so it is extremely difficult for them to ask for financing from commercial banks. Expenditure of informationization in medium-sized and small enterprises mainly relies on internally accumulated capital. However, due to small operation scale and high operation risk, earning of medium-sized and small enterprises is limited and their cash flow is generally strained, with relatively inadequate equity fund. As a consequence, investment of capital by the enterprises in basic construction of Internet, system development and maintenance, etc. Thus, some medium-sized and small enterprises shrink back at the sight of informationization. And even if they have finished initial investment, inadequate subsequent capital may indirectly cause waste of the initial investment.

4.4 Lack of technical talents and weakness of technical strength

Establishment of informationization of enterprises is a complicated and systematic project, with high technical content, and calls for a batch of inter-disciplinary talents who are not only proficient in corporate management, but also in information technology, which can guarantee a benign running state of the information system. Professional IT personnel tend to need more space to learn, exchange and apply. At present, restrained by funds and management level, medium-sized and small enterprises are lacking in highly effective talent conservation and training mechanism, scientific and perfect incentive mechanism and rational performance evaluation system. On one hand, it is difficult for enterprises to absorb talents for system management and network management

with high level. On the other hand, even if such inter-disciplinary talents are trained within the enterprises, it is difficult to retain them. Lack of technical talents and weakness of technical power lead to low efficiency of application of information system in medium-sized and small enterprises and difficult comprehensive and in-depth application of information resources.

4.5 Irregular internal flow

Informationization of the enterprises is not purely application of information technology, but involves a series of problems in the enterprises, such as business and management flow, organizational structure and management system, etc. It is required that basic management of the enterprises should be based on standardization and routinization of the system. However, at present, there are a lot of medium-sized and small enterprises that are evolved from previous family business, so they are rooted in the social relationship, and their management is obviously with the characteristics of "governance by people". There lacks scientific planning and system within the enterprises that is relevant with informationization, which results in great arbitrariness in management. The management system, management means and management technology of the enterprises still rest on the traditionally less advanced stage, which does not correspond with requirements of informationization. Thus, informationization of the enterprises can not be integrated with specific management mechanism of the enterprises, and informationization of the enterprises is difficult to fulfill.

4.6 Unsound social supporting system

For the time being, there are various social intermediary services and supporting institutions in China that are unsound, with low service level, such as, modern credit service system and logistic distribution and delivery system, etc. At the same time, social economic order is not standardized. All the above makes it difficult for enterprises to sell online, purchase online and financial settlement online, etc. Informationization in a large majority of enterprises is merely confined to information issue, collection and communication, whereas formal signing of an order and a contract, payment and logistic delivery can not be completed online. Establishment of informationization public support environment lags behind application system construction and development, together with incomplete and obsolescent database information of relevant industries and departments, which makes it difficult for informationization of medium-sized and small enterprises to be promoted towards a higher level.

5. Suggestions for informationization in medium-sized and small enterprises

Considering issues above, construction of informationization in medium-sized and small enterprises should start from the following several aspects:

5.1 To update the idea, with participation by all employees

The concept obstacle and artificial obstacle encountered in elimination of informationization construction will turn out to be the atmosphere and common view for positive participation in informationization of the enterprises and may promote rational and ordered development of informationization construction. We should strengthen learning of relevant knowledge about informationization, change our ideas and concepts and recognize the necessity and urgency of implementation of informationization in medium-sized and small enterprises in a correct way. Change of the concept does not only occur among the executive level of the enterprises, but also include professional technical personnel and common employees of the enterprises.

5.2 To make clear the target and to rationally make the plan

We should make clear that the target of informationization is to improve the level of operation. We should plan the progress of informationization in the enterprises according to the demand and capacity of the enterprises themselves and the long range perspective and target of the enterprises. We should start from resolution of prominent issues of the enterprises, analyze the status quo of the enterprises in a systematic way and carry out an overall plan with both strategic vision and operability, which corresponds with practice of the enterprises. In the process of implementation, we should act according to our own abilities, follow in a proper sequence, and conduct the implementation by steps, which can guarantee that advancement and sequencing of all systems coordinate with production and operation of the enterprises. We have to avoid purchase a large amount of expensive software and hardware facilities at one go.

5.3 To invest in a rational way and to expand the financing channel

The enterprises themselves have to employ limited funds to appropriate places, bearing in mind the principle of what to do and what not to do. Also, the enterprises may expand the financing channels by means of financial lease, etc. employment of existing funds has to be based on rational planning. According to practical situation,

the enterprises can purchase at any time what they are in need of, and apply investment in tranches. Enterprises may develop new technologies by means of mutual cooperation to introduce new resolutions for informationization, which can in turn reduce too much investment of funds in informationization and can enable these enterprises to rationally explore their own resources. For instance, rent of the excellent service offered by ASP not only requires investment in infrastructure, but also doesn't require development and maintenance of application software.

5.4 To strengthen training of employees in the enterprises

Talents are the most active factor in the enterprises, and quality of personnel determines the effect of any tool employed and the efficiency it should bring into play. Medium-sized and small enterprises should set up perfect informationization talent recruitment and training mechanism. In the process of informationization of the enterprises, training is a sort of basic task, which combines in an organic way "people" and "business flow" in the enterprises. By means of multiple training methods, such as on-the-job training and intensive training, the enterprises should make a plan to organize learning and skill training of the basic knowledge of informationization among employees of the enterprises, so as to improve the informationization quality and creative awareness of the whole employees.

5.5 To intensify basic management and to standardize business flow

Establishment of informationization should be combined with reinforcement of basic management of the enterprises and based on solid basic management work of information resources. All departments of the enterprises should make an effort to realize accurate, complete, objective and timely data in each aspect of the production and operation of the enterprises, and provide sufficient fundamental support for implementation of informationization. The enterprises should bring in modern management ideas in combination with the progress of informationization, optimize the organizational structure and standardize the process of business flow of management information, vigorously carrying out the system of the enterprises, the technology and management innovation.

5.6 To make perfect the social supporting system

Relevant department in charge should unite strengths from all aspects, try to set up the supporting system of informationization in the enterprises, positively develop all sorts of modern professional intermediary services, establish perfect "expert service" system, vigorously develop newly emerging professional intermediary services and enhance modification strength on traditional intermediary services, so as to better and faster promote establishment of informationization in the enterprises.

6. Conclusion

Through analysis, this article points out, informationization of medium-sized and small enterprises can reduce costs of these enterprises and improve their operation efficiency, improve management in medium-sized and small enterprises, intensify the ability of medium-sized and small enterprises to react rapidly to the market and help enterprises expand the room for subsistence and development. All the above has extremely important practical significance to enterprises. However, in the process of informationization of medium-sized and small enterprises, there exist the phenomena of laggard idea of informationization, lack of system planning, blind following suit, inadequate capital for establishment of information, lack of technical personnel, weakness of technical strength, irregular internal flow and unsound social supporting system, which constrain effective development of informationization. With regard to these issues, this article has proposed corresponding countermeasures and suggestions.

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