

Received: June 29, 2017

Revision received: July 2, 2018

Accepted: July 7, 2018

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DOI 10.12738/estp.2018.6.169 • December 2018 • 18(6) • 2699-2706

*Research Article*

# Education and Training Management Model and Incentive Mechanism based on Core Employees of Scientific and Technological Small and Micro Enterprises\*

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## Abstract

The core employees are the key resources of gathering strength and innovating for scientific and technological small and micro enterprises (STSMEs). Aiming at the status quo of the education and training of core employees of STSMEs, as well as the solidification of the current incentive mechanism, the unreasonable salary system, the imperfect training mechanism and the lack of corporate culture, this study starts with the influence of core employees on STSMEs, and analyzes the problems existing in the education and training model and incentive mechanism of core employees of STSMEs. Combined with the characteristics of STSMEs, this study proposes specific measures to improve the incentive mechanism of core employees to stimulate the potentials of core employees, give full play to the value of core employees, and enhance the market competitiveness of STSMEs.

## Keywords

Scientific and Technological Small and Micro Enterprises • Core Employees; Education and Training • Incentive Mechanism

\*This work was supported by 2016 Humanities and Social Sciences Project of Chongqing Education Commission Project: Research on the Incentive Mechanism of Core Employees in Small and Micro-Technological Enterprises in Chongqing (16SKGH212).

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**Citation:** Liu, Y., Zhong, W. (2018). Education and Training Management Model and Incentive Mechanism based on Core Employees of Scientific and Technological Small and Micro Enterprises. *Educational Sciences: Theory & Practice*, 18(6), 2699-2706. <http://dx.doi.org/10.12738/estp.2018.6.169>

STSMEs generally have significant technical advantages, and their core technologies or products contain high technical content. As China attaches more and more importance to the development of independent knowledge or technology, STSMEs usher in good market opportunities and put forward higher requirements for the quality of employees (Breslin & Buchanan, 2008). The core employees are the key resources for the innovative development of STSMEs with a small number, high quality, strong ability and great contribution. Therefore, how to strengthen the education and training of core employees, establish a scientific and perfect incentive mechanism, retain core employees more effectively and deeply explore core employees has become an important issue in the competition and development of STSMEs. At present, most STSMEs rely on their own realities, make extensive use of social resources, conduct various forms of education and training for core employees, and draw on experience from multiple parties. They gradually explore appropriate incentive mechanisms and have made certain achievements. However, the existing problems can't be ignored, which not only affects the expected effect of the enterprise's incentive mechanism, but also is not conducive to mobilizing the enthusiasm of core employees. In view of this, this study starts with the concept and characteristics of core employees, analyzes the problems existing in the education and training model and incentive mechanism of core employees of STSMEs, and explores how to improve the incentive mechanism of core employees.

### **Influence of core employees on STSMEs**

#### **Resource advantage of core employees maintains the competitiveness of enterprises**

Core employees often have resources that ordinary employees don't have. For example, core employees master professional knowledge or skills closely related to the production and operation of the enterprise; master the core technologies of enterprise product development, design or production; boast rich experience in mature enterprise operation management and extensive interpersonal network and good social relations. These resources manifest the soft power of an enterprise, which are an important part of the core competitiveness of enterprises to maintain or add value, as well as a key element to promote the sustainable development of enterprises.

#### **Loss of core employee increases the labour cost of enterprises**

With the advent of the era of knowledge economy, the demand for core employees has become stronger and stronger and the competition for human resources has been more intense. The needs of core employees are diversified and multi-level. When an enterprise can't meet the needs of core employees or their own value and career vision can't be realized, the enterprise is easy to lose core employees, which is a huge resource loss for STSMEs and increases the labour cost of enterprises (Enaleev, 2017). The core employees are scarce resources required by major enterprises and their salary is relatively high. Once the core employees are lost, the key technologies, resources and relationship networks are lost, which brings great market risks to STSMEs. Thus, when STSMEs need to re-recruit or introduce employees, they will invest more expenses, which will not only increase the cost of enterprises, but even affect their normal operation.

## Education and training model of core employees of STSMEs

### Training in the way of method of lecture

At present, method of lecture is one of the main models to conduct education and training on core employees for STSMEs which are mainly engaged in R & D and production of high and new technologies. The core employees have higher professional skills and professional qualities. Enterprises employ technical experts, well-known scholars or industry elites to conduct education and training on core employees at a fixed time and place in terms of ideas, skills, cognition, and culture (Becker & Gary, 1962). For STSMEs, this kind of education and training model can expand the scope of communication and reduce training costs, which is a preferred education and training model for enterprises. For core employees, this kind of education and training model is one-way information transmission with poor interaction and insufficient feedback. For example, Ningxia Yixin Environmental Protection Technology Co., Ltd has conducted a training course for core employees on the theme of "Advanced Treatment of Municipal Waste Water" (as shown in Table 1).

Table 1  
*Pedagogical Training*

Theme	Advanced treatment of municipal waste water
Lecturer	Professor Xu Zhibing
Place	Company office conference room
Time	October 11 at 8:00 am-11:00 am 2:00 pm-5:00 pm
Matters needing attention	Notify staff to be present on time and sign in record

As can be seen from the above table, Ningxia Yixin Environmental Protection Technology Co., Ltd. invites Professor Xu Zhibing to conduct centralized lecture training for core employees, and requests the notified core employees to attend the training on time on October 11. This kind of education and training model is simple to apply, but it is so monotonous that it is not conducive to mobilizing the enthusiasm of core employees. In practice, it can add some discussion contents to enhance the interaction and feedback of training, which is more conducive to the learning of core employees.

### Training in the way of discussion method

Discussion method is one of the main models to conduct education and training on core employees for STSMEs. This kind of education and training mode mainly refers to that trainers and core employees or core employees learn or solve problems through discussion (Lepak & Snell, 1999). In practical application, STSMEs have carried out various reforms or innovations in discussion method, developed various forms, and even integrated into corporate culture construction, such as salons, group discussions, speeches and committees. Discussion method is one of the favourite education and training models for core employees. When using the discussion method to educate and train core employees, we must first clearly define the objectives of the discussion so that every core employee involved should be clear. Second, discussion is rhythmical instead of being without rules, and the process of discussion should be made in advance, such as the specific arrangement and time of each link so that each core employee can speak and actively express their own opinions or feelings. At last, the discussion should have a result. Every discussion should end with timely summaries and feedback

to ensure that core employees benefit from it. The advantages of this kind of education and training model lies in low training costs, flexible and diverse training forms, and high enthusiasm for the participation of core employees, which are beneficial to core employees to actively explore and actively think about, learn from each other's strengths, exchange and share with each other, and expand knowledge and ability (Zheng, 2014). The main disadvantages lie in that the effect of education and training is closely related to the core employees' own ability and level and the penetration of theories or skills in the process of discussion is complicated and disorderly, which isn't conducive to systematic mastery of knowledge and skills for core employee.

### Training in the way of scenario simulation

In recent years, in addition to the traditional education and training model, STSMs rely on practice, and gradually try more training models, such as scenario simulation. STSMs mainly focus on environmental protection, new energy, new materials, and biotechnology and so on. They must withstand multiple market tests and grasp market trends. They propose high requirements for professional, innovative and communicative competences of core employees. For core employees of different positions, the effect of using the scenario simulation for education and training is very significant (Manuti et al., 2016). The scenario simulation contains a wide range of contents and can be flexibly designed and applied according to different needs of education and training (as shown in Table 2).

Table 2

*Scenario Simulation Training*

Simulation contents	Training ability
Dialogue and negotiation	communicative ability
Leaderless group discussion	organizing ability, Logical thinking ability, Language ability
Simulation experiment	technical ability
Role play	Cognitive ability, communicative ability

It can be found from the above table that the different simulation contents of the scenario simulation focus on different training abilities. When STSMs apply scenario simulation to educate and train core employees, they should select different simulation contents according to the core employees' job positions and work needs, carry out corresponding simulation designs, and use the resources or conditions to provide space or environment required by simulation training so as to achieve the desired education and training effect.

## Problems in the incentive mechanism of STSMs

### Solidification of incentive mechanism

From a practical point of view, STSMs generally realize the role of talent incentives and establish a specific incentive system, but the incentive system is solid and lacks flexibility. On the one hand, it is based on traditional incentives and lacks innovation. The management mode of STSMs is simple and routine. Their understanding of incentive theory isn't deep. The incentives are based on traditional wages, bonuses, and vacations. For core employees, these can only meet the minimum level of needs but can't satisfy their higher level of needs. This can just produce temporary incentives, but doesn't continue to generate incentives. On the other hand, they use

a universal incentive but ignore individual differences among core employees. The incentive mechanism of STSMs is designed for all employees but doesn't consider the uniqueness of core employees different from ordinary employees or ignores the individual differences of core employees (Rynes et al., 2010). Core employees are the most active resources in the human resources market. They pay more attention to the realization of value and the development of their careers. Their needs are hierarchical and diverse. Material incentives have a significant effect on ordinary employees, but they can't meet the psychological needs of core employees. It is difficult to achieve the expected incentive effect because they can't bring core employees with a sense of belonging and responsibility.

### **Unreasonable salary system**

Through a survey of a number of STSMs, we find that the core employees' salary is mainly composed of wages, subsidies and welfares. The wages include basic wage, working-age wage, title wage, post wage and performance wage; subsidies include living subsidies and work subsidies; welfares mainly consist of five insurances and accumulation fund and paid vacation (Mak & Sockel, 2001). In the current salary structure, the proportion of wages is 70%, of which post wage accounts for the largest, so the irrationality of the salary system is reflected. The technologies and resources mastered by core employees are intangible wealth for enterprises, and can generate huge value. The fixed post wage in the salary structure ranks first and the performance wage only accounts for a little, that is, regardless of what the core employees create, their performance depends mainly on the post. Such a salary structure can't match the value of core employees with high quality and high ability. It can't reflect the contributions of core employees to enterprises, and naturally can't meet the needs of core employees.

### **Imperfect training mechanism**

From the survey, it is found that STSMs have many education and training methods for core employees with strong flexibility, but they lack a perfect training mechanism. First, the training planning is unscientific and unchanged. There is no dynamic adjustment based on the market situation and the actual development of enterprises, which weakens the effectiveness of various types of education and training. This doesn't meet the training needs of core employees but causes waste of education resources of enterprises. Second, education and training lack purpose. Most training carried out is based on the needs of enterprises rather than the needs of core employees. The training doesn't consider training needs of core employees in different posts or self-development at different stages (Sterk, 1993). Therefore, education and training don't produce the expected effect on the development of core employees' skills or qualities. Third, assessment and evaluation of education and training are insufficient. The assessment is the means to test the training effect of core employees, and is also the basic information for improving and perfecting the training. After the training, core employees return to work, but the effect of training can't be quantified or get timely feedback, which affects the effectiveness of education and training.

### **Lack of corporate culture**

In the environment of STSMs, core employees have relatively high work pressure and high work intensity, so they need recognition and encouragement of enterprises instead of blindly request or arranging tasks. However, in addition to subsidies and welfares, STSMs seldom organize the gatherings and fellowship activities of core employees, or organize group training, employee competitions, annual meetings. They don't hold colorful activities to convey the corporate culture to core employees and to close the emotional distance between the core employees and enterprises. The lack of corporate culture leads to that core employees don't integrate their future development with the development of enterprises. Besides, the potentials and responsibilities of core employees aren't stimulated.

## **Measures to improve the incentive mechanism of core employees of STSMs**

### **Innovating on incentive mechanism**

STSMs should grasp the uniqueness of core employees and innovate on incentive mechanism. First, material incentives and spiritual incentives shall be combined. In addition to direct wages, bonuses and other material rewards, enterprises should understand the spiritual needs of core employees, recognize their capabilities and values through the award of honorary certificates, visits and exchanges, forums to enhance their beliefs. The second is cultural incentives by attaching importance to the stimulating role of corporate culture. Enterprises should mobilize the enthusiasm of core employees through the selection of post competent employees, excellent employees and other activities. Besides, they can report the typical deeds of core employees on the corporate website or in the internal magazine to set the strength of example and inspire the potentials of core employees. At the same time, the selected core employees shall be taken as the reserve cadres of enterprise, which is linked to the promotion and development of core employees. The third is differentiated incentives. The core employees are different from ordinary employees, so enterprises should have a deep understanding of their needs and implement differentiated incentives to better meet the needs of core employees based on the actual situation of enterprises.

### **Building a scientific salary system**

STSMs should improve the unreasonable salary structure and build a more scientific salary system. First, they need to adhere to the principle of internal and external balance. Externally, enterprises should conduct adequate market research and understand the overall salary level of core employees. The salary of core employees shouldn't be lower than the market level. Internally, the salary should match the value of the post. Different posts undertake different responsibilities with different achievements and value, so salary levels should be different. Second, salary shall be based on post salary and increase the proportion of performance wages to maintain the flexibility of the salary system (Sheridan & Abelson, 1983). Enterprises should adhere to the principle of setting salary according to post and horizontally expand the proportion of performance wage, bonus commission and equity dividends to enhance the incentive of the salary system. At the same time,

according to the development of enterprises and the creative value of core employees, STSMEs should optimize and improve the salary system in a timely manner to maintain certain flexibility.

### **Improving training mechanism of core employees**

First of all, STSMEs should establish a scientific training plan, understand the training needs of core employees through research, formulate training plan, clarify the training objectives and the resource guarantees learned by the training, and organize the training of core employees at different stages. Secondly, core employees of STSMEs have strong desire to learn. The human resources department should formulate corresponding training contents according to the different posts and positions of core employees, and choose appropriate training methods, such as professional technical training, management training, and interpersonal relationship development training to meet the different needs of core employees and improve the effectiveness of training. Finally, attention should be paid to the assessment and evaluation of education and training. A sound evaluation system should be established and assessment teams should be set up for different training courses. Quantitative or qualitative evaluation can not only test the training effect of core employees, but also help to summarize the training experience to improve the quality of education and training.

### **Strengthening the construction of corporate culture**

STSMEs should strengthen the construction of corporate culture and attach importance to the cohesive effect of corporate culture on core employees. Firstly, they should carry out rich cultural and sports entertainment activities so that core employees can feel the warmth of the big family, such as organizing holiday dinners, holding annual meetings, organizing employee sports meetings. Besides, combined with posts, they shall hold various core skill competitions, which not only mobilizes the enthusiasm of core employees, but also facilitates interpersonal interaction and enhances the emotion between core employees and enterprises. Secondly, STSMEs should not only provide a good working environment for core employees, but also strengthen communication between core employees and senior leader through discussions and meetings of exchange to understand their needs. They should reform the management model of enterprises, and enhance trust of core employees in enterprises. Thirdly, corporate spirit should be cultivated. Corporate spirit should be passed on to core employees through education and training or cultural propaganda so that core employees will have emotional resonance and corporate belief that core employees create value.

## **Conclusions**

In summary, core employees play an extremely important role in the development of STSMEs. Based on the reality of STSMEs, this study introduces the education and training model widely used by STSMEs, believing that the problems in the incentive mechanism of STSMEs are mainly solidification of incentive system, unreasonable salary system, imperfect training mechanism and lack of corporate culture. Then corresponding improvement measures are proposed to improve the effect of the education and training of core

employees of STSMes, improve the incentive mechanism of enterprises, better play the value of core employees, and promote the sustainable development of enterprises.

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