

OPTIMIZATION OF EDUCATION AND TRAINING STRATEGIES FOR EMPLOYEES IN SMALL AND MICRO ENTERPRISES IN XI'AN, CHINA

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Abstract: In recent years, with the rapid development of the Chinese economy, small and micro enterprises have played an important role in the national economy. The development of small and micro enterprises in Xi'an, Shaanxi Province is quite typical, reflecting the common difficulties faced by such enterprises in the central and western regions. Small and micro enterprises face problems such as insufficient investment in employee education and training, incomplete training systems, and training content that does not meet practical needs, resulting in poor skills improvement for employees and difficulty in improving overall enterprise efficiency. With the advent of global economic integration and the knowledge economy era, the core competitiveness of enterprises increasingly depends on the quality of human capital. Effective employee education and training are particularly important.

This study analyzed the current situation and influencing factors of employee education and training in small and micro enterprises in Xi'an, Shaanxi Province through a questionnaire survey. A total of 300 questionnaires were distributed in the study, and 271 valid questionnaires were collected with a response rate of 90.33%. Through descriptive statistical analysis, correlation analysis, and regression analysis, the impact of training teachers, training content, training methods, and training arrangements on training effectiveness was explored.

The research results indicate that the quality of training teachers, systematic design and practical orientation of training content, diverse training methods, and reasonable training arrangements have a significant positive impact on improving training effectiveness. Good training teachers and systematic training content can significantly improve the knowledge mastery and skill application level of employees. This study proposes suggestions to improve the quality of training teachers, optimize training content, enrich training methods, and arrange training reasonably, in order to enhance the effectiveness of employee education and training in small and micro enterprises and enhance their competitiveness. This study provides theoretical and practical guidance for the education and training of employees in small and micro enterprises, as well as a reference for local governments to formulate relevant policies.

Keywords: Small and Micro Enterprises, Employee Education and Training, Training Needs Analysis, Training Effectiveness Evaluation

Introduction

In recent years, with the rapid development of the Chinese economy, small and micro enterprises have played an increasingly important role in the national economy. According to data from the National Bureau of Statistics, small and micro enterprises in China account for over 99% of all enterprises, with employees accounting for over 80%. They hold an irreplaceable position in the national economy (National Bureau of Statistics, 2020). Especially in the central and western regions, such as Xi'an City in Shaanxi Province, small and micro enterprises are the main force of economic development, covering a wide range of fields from traditional manufacturing to modern service industry (Liu, 2019).

However, due to their small scale and limited funds, many small and micro enterprises face many challenges in business management and employee quality improvement. Firstly, limited resources often limit their investment and effectiveness in training due to the shortage of funds, manpower, time, and other resources (Li, 2021). Secondly, the market competition is fierce, and enterprises need to design practical and feasible training strategies to improve the professional abilities of employees, in order to cope with the challenges from competitors in the same industry (Wang, 2020). Furthermore, the diversity of employee learning interests also poses higher requirements for the formulation and implementation of training strategies. Enterprises need to customize training content and methods based on the different needs and learning backgrounds of employees (Zhang, 2019).

As an important economic center and cultural city in the northwest region, Xi'an City in Shaanxi Province has rich historical resources and unique geographical advantages. In recent years, with the deepening of the "the Belt and Road" initiative, Xi'an has made remarkable achievements in economic development and opening up, attracting a large number of small and micro enterprises to settle down. How to optimize the employee education and training strategies of small and micro enterprises in this context is not only related to the development of the enterprise itself, but also of great significance for improving the overall economic level and competitiveness of the city.

On the basis of combining theoretical and empirical research, this study will deeply analyze the key issues of optimizing employee education and training strategies in small and micro enterprises in Xi'an, Shaanxi, China. It will provide in-depth exploration and reference for similar research in the future and contribute new theoretical and practical experience to enhance the competitiveness of enterprises and promote local economic development.

This study aims to explore the main problems and challenges that small and micro enterprises in Xi'an, Shaanxi Province face in employee education and training. This study proposes effective

optimization strategies for employee education and training in small and micro enterprises through the analysis and research of the above issues, in order to improve training effectiveness and enterprise competitiveness. Ultimately, it also provides specific feasible measures for the government and enterprises to promote employee education and training in small and micro enterprises.

This study selects small and micro enterprises in Xi'an, Shaanxi as the research object, with a particular focus on their strategy selection, implementation, and effectiveness evaluation in the field of employee education and training.

The study will explore in detail the various practical experiences of small and micro enterprises in Xi'an in optimizing education and training strategies, including but not limited to the design of customized training programs, the application of diversified training methods, and the establishment of employee participation and feedback mechanisms. Pay special attention to how enterprises can effectively enhance the professional abilities and teamwork level of employees in complex environments such as limited resources, fierce market competition, and diverse learning interests of employees.

This study has important theoretical and practical significance. In terms of theory, this study will enrich the relevant theoretical research on employee education and training in small and micro enterprises, fill some research gaps in this field in China, and propose new theoretical models and analytical frameworks, providing reference and reference for subsequent research. By delving into the influencing factors and effects of employee education and training in small and micro enterprises, this study will provide empirical support for the development of human resource management theory.

In practice, this study will provide practical employee education and training strategies for small and micro enterprises in Xi'an, Shaanxi Province, to enhance their overall quality and market competitiveness. At the same time, this study will provide a basis for local governments to formulate and improve policies to support the development of small and micro enterprises and promote the healthy development of regional economies.

By identifying and solving practical problems encountered by small and micro enterprises in education and training, this study will help improve the skill level and work efficiency of employees, thereby achieving sustainable development of the enterprise.

Research Objectives

The objectives of this study are as follows:

- 1) To analyze the current situation of employee education and training in small and micro enterprises in Xi'an, Shaanxi Province, and identify the main problems and challenges that exist. systematically
- 2) To analyze the specific impact of resource constraints on the implementation of education and training strategies in small and micro enterprises.

- 3) To explore strategic methods for small and micro enterprises to choose and optimize education and training strategies in the context of fierce market competition.
- 4) To evaluate the impact of diverse learning interests of employees on education and training strategies and propose adaptive strategies.

Literature Review

Current research status abroad

Training needs analysis is the beginning of the training system and a key link in training activities. McGehee and Thayer (1961) proposed a model for conducting training needs analysis at three levels: organization, personnel, and task, providing a foundation for subsequent research.

In terms of training effectiveness evaluation, the Kirkpatrick four level evaluation model proposed in 1959 has been widely recognized and applied worldwide. Subsequent research has also developed a five-level evaluation model. In addition to the above models, satisfaction utility ratio theory, success case model, multi-level evaluation model, and goal-oriented model are also important theoretical innovations in the field of training effectiveness evaluation, which can be combined and applied in practice according to different applicability.

In terms of practical application research on training transformation, Roy Pollock et al. (2006) summarized the 6D rule. The successful application of the 6D rule provides practical guidance for enhancing the value of enterprise training.

Domestic research status

In terms of training needs analysis, Wang (2020) identified the current training problems and analyzed the training needs of technical personnel by understanding the current training status of workers in the steel structure industry through questionnaires and interviews. Zhao (2020) found in her research on the training needs analysis of small and medium-sized enterprises in China that the training needs of small and medium-sized enterprises have relatively short goals, and human resource protection cannot effectively match the needs of enterprises. Traditional training needs analysis methods cannot be combined with employee competence. Liao (2021) mainly analyzed the current situation and needs of employee training in power production enterprises, and proposed suggestions such as establishing a hierarchical and hierarchical training needs analysis model, clarifying the review objectives of training plans, conducting scientific preliminary preparation analysis, and developing implementation plans.

In terms of training effectiveness evaluation, Liu and Wang (2021) studied the problems in current enterprise training effectiveness evaluation, pointing out problems such as simple evaluation methods, lack of systematic training evaluation work, and unreasonable resource distribution. Liang (2021) used G Company as an example to analyze the current problems in post training evaluation, including unreasonable dimension selection, lack of unified evaluation scale and weight setting. Yang

(2021) pointed out the problems of non-standard training system, incomplete training objects, and lack of systematic training evaluation in M Company's training system and conducted a systematic optimization study using the Kohl's four level evaluation theory.

In terms of specific measures during the training process, Wang (2020) pointed out that employee training has great appeal to employees, which can unleash the high value-added of talents and create more economic benefits for enterprises. Lin (2021) conducted a study on the training system for improving employee vocational skills, pointed out the problems and solutions in the system construction, emphasized the principle of comprehensiveness and specialization, and suggested establishing a vocational qualification system, implementing diversified training programs, and applying incentive policies. Gan (2011) studied the issue of training expenses in enterprises, pointing out that managers' awareness, supervision and evaluation of training processes are key factors affecting the utilization of training resources in enterprises, and proposing specific suggestions for optimizing the utilization of training resources.

Theoretical Basis

The theory of training needs analysis is the foundation of the enterprise training system. This theory aims to identify and analyze the gaps in knowledge, skills, and abilities between enterprises and their employees through a systematic approach, in order to determine training needs. The three-level model proposed by McGehee and Thayer (1961), which includes organizational analysis, task analysis, and individual analysis, has become an important framework for training needs analysis.

The Kirkpatrick's Four Level Training Evaluation Model is currently one of the most widely used training effectiveness evaluation models, proposed by Donald Kirkpatrick in 1959. This model comprehensively evaluates the training effectiveness through four levels: reaction level, learning level, behavior level, and outcome level.

Methodology

This study will adopt a mixed research method that combines quantitative and qualitative methods, mainly including questionnaire surveys and case analysis methods. Research collects data through questionnaire surveys; Select several representative small and micro enterprises in Xi'an region for in-depth case analysis. Using statistical analysis methods for data processing and analysis, in order to provide scientific suggestions and strategies for employee education and training in small and micro enterprises. These methods can help to gain a deeper understanding of the specific problems and challenges faced by different enterprises in the design and implementation of education and training strategies, as well as the response measures they have taken and the results they have achieved.

The independent variables in this study include training content, training methods, training frequency, etc., while the dependent variables are employee skill improvement and job performance.

Each variable is measured through multiple choice questions and rating scales in the questionnaire. For example, satisfaction with training content and methods is evaluated using the Likert 4-level scale (1=very dissatisfied, 2=dissatisfied, 3=satisfied, 4=very satisfied).

The overall population of this study is employees of small and micro enterprises in Xi'an, Shaanxi Province. Using random sampling method, 300 employees were randomly selected from 7 small and micro enterprises in different industries as the survey subjects.

A total of 300 questionnaires were distributed in this study (see Annex 1 for the questionnaire content), and 271 valid questionnaires were collected, with an effective response rate of 90.33%.

The data was collected through a questionnaire survey. The questionnaire includes multiple parts such as basic information, training content, training methods, and training effectiveness. The questionnaire is distributed and collected through a combination of online and offline methods.

Data analysis methods and their indicator significance

Data analysis mainly adopts methods such as descriptive statistical analysis, correlation analysis, and regression analysis. Descriptive statistical analysis is used to summarize and describe the basic situation of questionnaire data; Correlation analysis is used to explore the relationships between variables; Regression analysis is used to validate research hypotheses and evaluate the degree of influence of independent variables on dependent variables.

This study used Cronbach's Alpha coefficient to analyze the reliability of various scales. It can be seen that the Cronbach's Alpha coefficients of each scale are all greater than 0.7, indicating that the questionnaire has high internal consistency. Among them, the Cronbach's Alpha coefficient of the training content is the highest, at 0.771, indicating a high reliability of the scale. The total Cronbach's Alpha coefficient is 0.935, further indicating that the entire questionnaire has good internal consistency and reliability.

Validity analysis

This study used Kaiser Meyer Olkin (KMO) sampling suitability scale and Bartlett's sphericity test to analyze the validity of the questionnaire. It can be seen that the suitability of KMO sampling is 0.958, which is much higher than the standard value of 0.7.

Results

This study presents the data analysis results collected through a questionnaire survey. Firstly, the main variables are statistically described, followed by descriptive statistical analysis to reveal the current situation and characteristics of employee education and training in small and micro enterprises in Xi'an, Shaanxi Province. The analysis includes multiple aspects such as training needs, training effectiveness, and training arrangements.

1) Descriptive statistical analysis

Descriptive statistical analysis is the basic statistical description of collected data to

understand the overall distribution of the data. This study analyzed 271 valid questionnaires and summarized the basic information of the respondents and their feedback on training.

2) Correlation analysis

In this study, the correlation between the five variables of training teacher, training content, training methods, training arrangement, and training effectiveness was analyzed. The Pearson correlation coefficients and their significance levels among various variables.

3) Regression analysis

In order to further explore the impact of each variable on the dependent variable, this study used multiple regression analysis to analyze the data.

Discussion

The results of this study indicate that training teachers, training content, training methods, and training arrangements have a significant impact on training effectiveness, which is consistent with the conclusions of existing literature. Specifically, good training teachers and systematic, practical oriented training content can improve employees' knowledge mastery and skill application level; Diversified training methods can meet the learning needs of different employees, enhance the attractiveness and effectiveness of training; A reasonable training arrangement can provide a good training environment and support, ensuring the smooth progress of training activities.

However, this study also has some limitations. Firstly, the research sample is limited to small and micro enterprises in Xi'an, Shaanxi Province, and may not fully represent the training situation of small and micro enterprises in other regions and industries. Secondly, the data from the questionnaire survey mainly relies on the self-report of the respondents, which may have some subjective bias. Finally, the study only used quantitative analysis methods and failed to delve into the specific implementation mechanism of training effectiveness.

Conclusions

This study analyzed 271 valid questionnaire data from 7 small and micro enterprises in Xi'an, Shaanxi Province, and explored the impact of training teachers, training content, training methods, and training arrangements on training effectiveness. Research has found that the quality of training teachers has a significant positive impact on training effectiveness. A good teacher attitude, solid basic knowledge, and rich practical experience in enterprises can significantly improve training effectiveness. The systematic design and practical orientation of training content can significantly improve training effectiveness. The content is closely related to practical work, and the training that can combine theoretical knowledge with practical skills has a more significant effect. Diversified training methods have a positive impact on training effectiveness. Centralized face-to-face teaching, role-playing, case analysis, and demonstration demonstrations can meet the needs of different students

and improve the effectiveness of training. The rationality and completeness of training arrangements have a significant impact on the effectiveness of training. A scientific training schedule, a good training venue, high-quality auxiliary services, and advanced software and hardware facilities can all improve the effectiveness of training. In summary, training teachers, training content, training methods, and training arrangements are key factors that affect the effectiveness of training. Optimizing these factors can significantly improve the training effectiveness of employees in small and micro enterprises, thereby enhancing the overall competitiveness of the enterprise.

References

- Argote, L. (2011). *Organizational Learning: Creating, Retaining, and Transferring Knowledge*. New York: Springer.
- Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: University of Chicago Press.
- Cao, B. (2020). Analysis of the impact of human resource constraints on the selection of training teachers in small and micro enterprises. *Human Resources Research*, 28(4), 89-102.
- Li, M. (2019). Research on resource constraints in education and training for small and micro enterprises. *Educational Research*, 35(2), 45-56.
- Li, Q. (2021). Analysis of the impact of resource constraints on employee training in enterprises. *Journal of Management*, 38(2), 89-102.
- Liao, S. C. (2021). Analysis of training needs for employees in power enterprises based on safety production risk management system. *China Electric Power Education*, (03), 22-24.
- Liu, X., & Wang, R. (2021). Current situation and improvement suggestions for evaluating the effectiveness of employee training in enterprises. *Talent Resource Development*, (21), 81-82.
- National Bureau of Statistics. (2020). *China Statistical Yearbook Beijing*. China Statistical Publishing House.
- Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Qu, F., Li, C. H., & Zhao, W. X. (2017). Comparative study on typical training needs analysis models at home and abroad: Taking environmental and meteorological training as an example. *Continuing Education*, (11), 74-77.
- Smith, J., Brown, L., & Jones, P. (2018). The impact of training and development on employee performance and organizational growth. *Human Resource Development International*, 21(1), 1-15.
- Wang, X. (2020). A decision model for the selection of education and training strategies for small and micro enterprises in the context of fierce market competition. *Southern Economy*, 25(3), 56-63.

- Wang, X. H. (2018). Research on employee training in small and micro enterprises under the influence of time pressure. *Research on Educational Development*, 42(3), 56-69.
- Wang, Y. F. (2020). *Analysis of training needs for technical workers in China's steel structure industry*. Beijing Jiao Tong University.
- Yuan, L., & Zhu, R. J. (2004). Comparative analysis of training effectiveness evaluation methods for foreign enterprises. *Journal of Hunan Economic and Management Cadre College*, 15(4), 37-39.
- Zhang, X. Y. (2019). Research on the impact of diversified employee learning interests on enterprise education and training strategies. *Educational Science Research*, 41(2), 78-89.
- Zhao, Y. N. (2020). Reflections on the training needs analysis of small and medium-sized enterprises in China. *Chinese Journal of Small and Medium-Sized Enterprises*, (07), 101-102.