Abstract—The competition for higher vocational colleges to survive is fierce increasingly. Higher vocational colleges should research five factors and make SWOT analysis for their own competitive advantages, then identify the main direction. Reform of specialties setting, teachers & faculty improvement, combination of production & research and practical base construction should be carried out as the core competence, based on the key technologies in the industrial groups to embark on a path to survive in the fierce competition.

Keywords—higher vocational college; poter model; swot analysis; core competence

I. INTRODUCTION

As China's rapid economic and social development, a large number of blue-collar and gray collar workers increased in the past two years. This, with the changes in people's employment concept and an oversupply of university graduates undergraduate status, makes the vocational education a strong vitality. The number of vocational institutions and the scale of enrollments have been accounted for almost half of the higher education, and vocational colleges have become an important force in the whole higher education. History is giving a rare opportunity to the development of higher education, but as the state management to the vocational education is relatively loose, plus many vocational colleges did not find a suitable position for themselves, vocational education is facing a great challenge now. How to make vocational colleges survive and develop in the fierce competition of the present market is a major problem to be solved.

II. THE COMPETITIVE STATUS OF VOCATIONAL COLLEGES SEEN FROM THE PORTER MODEL

Management expert Michael Porter once mentioned in his book Competitive Advantage of Nations that the competitive competence of the enterprises depends on five basic competitive forces, that is, Barriers to entry, threat of substitutes, Supplier power, buyer power, and the rivalry. The model expressed is shown in "Fig. 1":

![Fig. 1. The competitive competence of the enterprises depends on five basic competitive forces.](image)

All industries who want to make their own survival and get healthy development must know the five competitive forces of their organization. They must find their own path of development based on the balance of these five forces. Using Porter Model as a framework, higher vocational colleges are also among the five different competitions as shown in "Fig. 2":

![Fig. 2. The five different competitions.](image)
It can be seen from the chart that, after the development of ordinary colleges and universities becoming steady and regular, the higher vocational education has become a central issue, "competition is a fight or contest for a certain goal or interest between two or more parts." Competition in higher education colleges primarily refer to the enrollments of students and the scarce financial resources from the government. In terms of competitors, not only the adult colleges, private colleges are the rivals of vocational colleges, but colleges and universities (mainly three-years college, Independent University) are also joined the fray to fight against vocational colleges. But the latter two colleges are high in tuition and low in return; seen from the angle of barriers to entry, the vocational middle school would like to enhance their level, vocational college, adult college want to find a way out; three-years college will lower their entrance threshold to facilitate the enrollment. In terms of the threat of substitutes, self-examination school, adult college, entrance examination training school and other kinds of short-term vocational training school gain a good market. Students will choose to make money while they study in these schools or to participate in short-term training. From the view of supplier power, the size and speed of development of the higher vocational colleges depends on the acceptance of students, parents and the enterprises’ training programs; seen from the buyer’s power, the employment and prospects for the students in higher colleges depend on the economic condition and the employers’ demand for the employees.

Economists believe that competition is the actors’ (individuals, organizations) fight to protect their own interests and the process of this fight, and industrial competition is based on the scarcity of resources. As the government gave more freedom to the higher education, universities gained more access to the school’s autonomy, and thus made vocational colleges develop on their own. If the most important task for ordinary colleges and universities is the quality of the faculty and the research capability, then, for vocational colleges, the source of students is ranked first to their survival, because in terms of both enrollment and employment, the lower the threshold is, the more intense the competition will be. Therefore, if the vocational colleges cannot develop fast in the present age of an excellent opportunity, they can not to go very fast ever after. They should find their own competitive advantages as soon as possible, and make a brand of their own. Otherwise, a few years later, when the number of high school students decreased, when the government investment to vocational colleges fall, it will be rather difficult for most vocational colleges to hold on.

III. THE ANALYSIS OF COMPETITION BASED ON SWOT

SWOT analysis is also called trend analysis. It is an accurate and objective way to analyze the real situation of an organization. S stands for strength, W means weakness, O refers to opportunity, and T implies threat. We will use the above four dimensions to analyze the living conditions of higher vocational colleges, with "Table I" as follows:

<table>
<thead>
<tr>
<th>External conditions</th>
<th>Internal conditions</th>
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<tbody>
<tr>
<td>Opportunities (O)</td>
<td>Strengths (S)</td>
</tr>
<tr>
<td>Threats (T)</td>
<td>Weaknesses (W)</td>
</tr>
<tr>
<td>The first kind: SO</td>
<td>The second kind: WO</td>
</tr>
<tr>
<td>The third kind: ST</td>
<td>The fourth kind: WT</td>
</tr>
</tbody>
</table>

A. The First Type: the Competing Type

The conditions of the various aspects within this kind of college are relatively good, the quality of teachers, school conditions, major settings, integration of industry and learning, the school management, and the school culture are good. This kind of vocational colleges have solid foundation of development, under a hopeful opportunity given by government, they gain a lot government support and own a high social prestige. This kind of schools is booming at a competitive advantage status, they should keep their good enrollment and improve the quality of their education. For this kind of colleges, making a brand and keep their good features in the development are very important. Most of this kind college comes from the traditional prestigious ones.

B. The Second Type: the Rising Type

This kind of colleges encounters a good opportunity for development, but their school history is short, therefore they are lack of experience. The quality of faculty and their practicing and training bases are still low in number and poor in quality. Though their enrollment is good now, but there are many hidden crisis. Once their graduates cannot get the acceptance of the enterprises, their social prestige will be hurt deeply and their opportunities for development would be lost. Therefore for this kind of vocational colleges, the main task of them is to improve their teaching standards and education quality. They should seize this golden opportunity to improve their faculty, set reasonable majors, and form their own advantage. Such institutions are often schools of new technologies.

C. The Third Type: the Maintaining Type

As the industrial structure adjustment, economic recession, political changes and other factors, this kind of colleges are facing great threats, but they still keep some advantages of their own. Such schools should save some energy, wait for good opportunities, or to create opportunities themselves. They should utilize their advantages to adjust their positions, and create their brands. Such institutions are often run by the newly-born higher vocational school, adult vocational college or some other industry counterparts.

D. The Fourth Type: the Developing Type

This kind of colleges are not only facing external threats, but also meeting many serious problems in the faculty quality, students’ training, and school conditions. They are lack of school culture and experience. These schools should do enough survey and research to find out their own development orientation. They should carry out their development strategies, strengthen their internal management and increase their investment. By stimulation,
they should develop step by step. Such institutions are often new born higher vocational colleges.

Currently, many vocational colleges in China are stagnant because they do not know the proper position for themselves; discipline-based mode in vocational education hinder their innovation; "dual-qualified teachers" restricts the level of education, the mechanism of "production-learning-researching in all" is merely a slogan which can hardly improve the quality of students’ training. To improve their competitive ability, vocational colleges should see their internal and external conditions clearly to make correct analyses of themselves, therefore they can determine which type they belong to, after this they should make reforms to find the main direction for the whole college, and make the optimal allocation for school financial and management resources. They also need to plan their own development strategies. Only in this way, can the vocational colleges form their own core competence to embark on a sustainable development.

IV. THE COMPETITIVE STRUCTURE OF VOCATIONAL COLLEGES

Vocational education is employment-oriented, and its goal is to enable students to meet the needs of production, construction, management and service and other business lines so that they can be highly applicable when they start their career. The competence of higher vocational education is the ability to survive and to grow in the development process. Through the accumulation of cultural heritage, the improvement of teaching conditions, the optimization of major settings, the promotion of the faculty qualifications, the implement of learning-and-research mode, the cultivation of high-quality students, the higher vocational colleges get their competence which is hard to imitate by others. These key advantages of the vocational college are its core competitiveness. The structure is shown in "Fig. 3":

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**Fig. 3.** The competitive structure of vocational colleges.

External Competence includes two factors, environmental and institutional. But from the broad sense, external Competence includes the country's political, economic, cultural, institutional, and ideological situations, and even people's lifestyle. From the narrow sense, it refers to the environment of higher vocational colleges and the political, economic, cultural, social and social development situations of the environment. All these factors provide an important background for the development of the vocational colleges. This background is objective, and we cannot change it.

The internal competence includes the basic competence and the core competitiveness. The basic competence means the most important supportive factors in for the colleges and the foundation of vocational college’s development. These factors are essential and necessary for all the colleges, the difference only lies in the quality of the factors. These factors are: school buildings, libraries, student activity place, practice areas, teaching equipment, teaching management, student management, learning culture, school culture and so on. These factors can not only guarantee the daily operation of a school and its further development, but also provide a platform for the college’s development. However these factors cannot form a competitive advantage for the colleges. Only with core competence can make the colleges invincible. This means our vocational colleges have to master industry and enterprises' core technology, and to learn the basic knowledge of the relevant professional, the vocational colleges should set majors based on its key technologies and advantages. Using modern management to consolidate the college management and make continuous reform and innovation at colleges, thus we can survive and develop our higher vocational education.

V. THE SURVIVAL OF HIGHER VOCATIONAL COLLEGES

The survival of higher vocational colleges will not be like that of undergraduate universities ⑥. The differences lie in:

- a) the training objectives. Vocational schools aim at training...
skilled workers; undergraduate universities focus on training academic talents with profound theoretical knowledge and applied research abilities; while higher vocational colleges are targeted at training senior practical talents, as proposed by Shenzhen Polytechnic—“the highly skilled gray collar” talents, craftsmen with university degree, and craftsman-type students. b) The career-and-job targeted training program. With a “double- certificate” system, the vocational college graduates will get graduate certificates and qualification certificates. The vocational colleges will develop the needed talents in the human resource market. Such skilled talents possess not only the technology and practical knowledge, but also professional knowledge, sound psychological state, and innovative ability. c) The flexible and diversified major setting and talents-training model. The higher vocational colleges are close to the regional economy, job market, industrial structure and production and management. As a saying goes, “The major setting should follow the economic development.” The talents-training models are diversified, such as work-study, internship, theoretical study and practice. d) The dual-qualified teachers. The vocational college teachers have both professional knowledge and practical application abilities. That is to say, they have pedagogical content knowledge and teaching skills as well as “engineer” techniques and practical skills.

From the above analysis of the characteristics of higher vocational education, we may conclude that, if higher vocational colleges only train skilled workers to master the specific technological knowledge like technical schools, their graduates will not have solid basic knowledge about the industry group, will not have sound creative spirit and practical ability and will not apply the learned knowledge into the enterprises’ technological innovation. And if the higher vocational colleges blindly imitate the undergraduate universities which focus on the principle-centered curriculum, they will lose the profession-centered characteristic and the students will lack social adaptability. Again, higher vocational colleges should not focus on the major setting and teachers’ training as the core competitiveness. Because the complex and varied major setting will be restructured according to the change of the industrial structure, the faculty is indeed one of the core factors of the school development, while the teachers’ development should not focus on academic research like universities or the skilled engineers like vocational schools. This determinates the embarrassment of the higher vocational college teachers’ training. The teachers’ concentrated major maybe will be adjusted after a few years. If teachers cannot stay on the production lines for a long time, it will not feasible to consider the factor of teachers as a key advantage of higher vocational colleges.

In summary, the advantages of higher vocational colleges are neither simple production techniques nor situation of academic abilities, major setting or faculty structure. It should be the reproduction of the core production technology. Under the leadership of the industry or industry groups, the vocational colleges should implement the major setting, teachers’ training, and learning-research-practice system and practice bases. It is like a domestic vehicle. Its engine is the core technology which cannot be imitated by someone else. The four interdependent wheels are faculty, major setting, and learning-research-practice system and practice bases as in "Fig. 4":

![Fig. 4. Relationship between core technology, faculty, major setting, learning-research-practice system and practice bases.](image)

American management scientists Prahalad and Hamel, who first proposed the concept of core competitiveness, states that, “In the short term, the quality and performance of the products decide the company’s competitiveness, but in the long run, the core competence plays a decisive role in the company’s development.” They define the core competence as a unique technique or skill to provide the company and customers with special interest ①.

The aim of vocational colleges is to train senior applied talents. Once lacking technology they will lose development. In the short-perspective, the expansion of scale and number are the relative competitive advantages. From the long run, the core competence is indeed the sustainable development.

VI. CONCLUSION

Our existing vocational colleges can be divided into industry-concerned and complex type. The former balances a particular industry (or profession) and other majors, and the latter follows the market into all areas of social life extensively. Needless to say, the industry-concerned type depends on the technology. The complex type will not last long if only by professional expansion to occupy the new industry. Because universities are entities without walls
whose competitive advantages are easily imitated or replaced by rivals. Furthermore without great power the practice bases are difficult to establish. In a word, only by getting the industry’s core technology and relying it to establish the appropriate majors, recruiting the appropriate teachers and carrying out the learning-research-practice system to reproduce the core technology, the higher vocational colleges will form the soft resources such as corresponding culture, way of life, professional characteristics, academic strengths, campus culture, social reputation etc., which cannot be imitated by other colleges in short term by introducing talents or studying. In this way, higher vocational colleges form their competitive advantages, core competence and development.

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