

# **The Research on Constructing the Core Competence of Middle-Level Managers -Taking a High-Tech Company of Taiwan as an Example**

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## **Abstract**

With emergence of internationalization, high-tech companies operate within an increasing competitive market. High-tech companies are the mainstay of Taiwan's industry, and its challenges are very serious.

Human capital is a very important property for business organization. Same with the high-tech industry, to build the medium rank supervisor competent function, will contribute to enterprise development.

This research got the index of high-tech company medium rank supervisor function by interview with medium rank supervisors and Questionnaire, and used complied statistic to build the unique function model and core competence.

The result shows ten important core competence: successful team building, performance improvement, planning and organizational capacity, decision-making, mutual trust relationship, customer-oriented, developing human resources, authorize and select committee, continuous improvement, partnership; and according to the high-tech company management function, it will be provided to company, middle-level managers, and the further research.

**Keywords:** Human Resources, High-Tech Industry, Middle-Level Manager, Core Competence

## **Introduction**

There is rapid development in high-tech industry and demand for high-tech talent. Because high-tech industry to search high-tech talent, human resource and financial need to invest in human resource with a view to recruiting first-class talent. Technology industry in general deals with human resource management and recruitment, there is less literature in order to the middle-level managers for in-depth research. Middle-level managers play an important role at connecting businesses, conveying policy and job assignment. Middle-level managers are playing a decision-making role and contact with essential people in operation. In the current change, full of impact the operating environment, middle-level managers in the core functions have a decisive impact on the pursuit of growth enterprises are an important topic in industry.

With Taiwan's economic development and technological progress, the original labor-intensive traditional industries gradually adjust to the capital and technology-intensive high-tech industries. Taiwan's exports of high-tech industries have become the main product. According to the Ministry of Economic Affairs and Statistics in 2005, metal manufactures (such as iron and steel, other metals), mechanical electrical equipment (such as electronic products, machinery, electrical products, information and communications, household appliances), transport equipment and precision instruments, export amounted to 140.4 billion U.S. dollars, accounting for 71% for total exports. In 2006, 161.3 billion U.S. dollars, accounting for 72% of total exports. In 2007, 173.7 billion U.S. dollars, accounting for 70% of total exports. In 2008, 173.9 billion U.S. dollars, accounting for 68% of total exports. This shows that high-tech industry exports for the bulk of Taiwan's exports of products.

Thus, this study is directed toward the following research questions.

1. What is the content of core competencies for middle-level managers?
2. How to create competitive advantages by the core competencies of middle-level managers?

## **Literature Review**

This chapter reviews the main research in the field of core competences.

### **Competence**

Spencer and Spencer (1983) described competence at work is one of the potential ability of individuals (including individual motivation, characteristics, self-concept, expertise and technology, etc.) and explicit abilities. Competence and actual performance is a causal relationship. Knowles (1980) for the competence provides a wide range of definition: to perform a specific function or job to be included in knowledge, personal values, skills and attitudes. Parry (1998) considered competence as knowledge, attitudes and skills that affect people working. Parry finds competence is closely related to job performance, and competence is an acceptable standard. In addition, Parry argues that competence can improve by training and development.

### **Competence for R&D personnel**

Bliesener (1996) suggests in R&D personnel research, innovation or creativity rating is often used as indicators. Hsieh (1999) points out that creativity and performance are positively correlated. Spencer and Spencer (1993) consider the importance and technical personnel the ability as follows: achievement orientation, impact and influence, the concept of thinking, analytical thinking, proactive, self-confidence, interpersonal communication, attention to quality and precise, the search for information, teamwork cooperation, and expertise and customer service orientation. Wu (2000) explores competence of engineers in the high-industry, the indicators are 1. Make achievement orientation, setting challenging goals and focus and perseverance. 2. Take the initiative to gorge ahead, continuing to carry out problem solving, being asked before understanding the problem. 3. Team communication and cooperation, good communication with others to reach team goals. 4. Logical reasoning and analysis, a systematic analysis of questions to confirm the key actions and the potential problems derived logical conclusions. 5. Self-concept, understand self-strength and self-weakness, having confidence and courage to face challenge. Lin (2001) suggests the core competence for engineering staff on the manufacturing sector as follows. 1. Innovation refers to the application of new knowledge or key information, the formation of new innovation or intent. 2. Professional knowledge ability refers to individuals as a group of roles or duties, to achieve high-performance output or the creation of core values. 3. Leadership, to participate in incentive and catalyst for changing, using influences and setting up mutual trust and belongings to create a win-win situation. 4. Individual learning ability, the individual need to continue to learn, so as to enhance their market value, the work of career attitude of lifelong learning in order to increase workers' ability.

## **Research Method**

This chapter outlines the inductive qualitative approach used in this study. The method through which the study was carried out will be discussed. The chapter concludes with a discussion of the design of the interview questions and questionnaires to evaluate the important core competences.

This study is to identify the core competence of middle-level managers in a high-tech company. Assessment based on Spencer and Spencer (1993), divided into explicit ability and potential ability. And on the basis of the literature review, the study identifies 15 core competences as key functions. 1.successful team building, 2.performance improvement, 3.planning and organizational capacity, 4.decisions-making, 5.mutual trust relationship, 6.customer-oriented, 7.developing human resources, 8.authorize and select committee, 9.continuous improvement, 10.partnership, 11.driven results, 12.innovation, 13.continuous learning, 14.coaching, 15.leading for changing. Questionnaires were also used in the study. The questionnaires were personally sent to the middle-level managers in a high-tech company. A total of 48 questionnaires were sent and 48questionnaires were received. This study sorts out the average and ranking of questionnaire scores to oppose the core competence for understanding and discussion.

## Results

Interviews with middle-level managers are summarized as follows.

1. Business strategy: (1) there is a consensus for multi-client business strategy and look forward it. But the follow-up must be comprehensive due to the deduction with the preparation. (2) Some middle-level managers considered to be more forward-looking about 3-5year direction and opportunities (product or market) and give R&D staff direction and vision.

2. Culture/values identify and practice: (1) R&D staff does not have recognition and understanding to exercise innovating, keeping quality and being open-minded. (2) Culture of company emphasis on harmony, tolerance, not management, reward and punishment are one of reasons for growth of stagnation. (3) Conservative and steady, in response to change in speed and flexibility as other ODM as fast. (4) Part of middle-level managers considered strengthening skills; adjusting staff are the key to changing behavior.

3. Organizations operation. (1) Key talent development is important but very little completed. There is also lack of systematic approach. (2) middle-level manager suggests senior staff need to input something new way or arrangements to make the best use of their capability. (3) The rule of man, not regulations and rules. There is non-complete for implementation. (4) The image of company is not clear. There is lack of recruitment and election systems and standards. It is disadvantage for talent competition. (5) Some middle-level managers consider the work flow and authority have blurred areas. It becomes a source of conflict.

4. Management and operation / skills. (1) middle-level managers deliver the superior's missions and make efforts, but they do not considered comprehensive demand of company. (2) middle-level managers often make their own or familiar with the matters, rather than the role required to do their duties. (3) There is much reactive problem-solving and less proactive problem prevention. (4) Independent decision-making and less rapid response are leading to bottleneck of problem-solving.

(5) There is a gap among middle-level managers' ability. Since middle-level managers are from different departments, there are many management styles and lack of common language. It is impact on inter-departmental efficiency. (6) Less rotation and long time at the same unit. There are fewer inter-departmental cooperation projects. Therefore are limitations of the phenomenon in decision-making. (7) External connections, trends and market sensitivity are not good.

By questionnaires, the evaluation of core competence indicators are show in Table \_. Ranking average is calculated by 48 subjects who ranked the 1st to the 15th. 48 subjects ranked the importance of core competence indicators. Score average is calculated by 48 subjects who score from 1 point to 5 points. The score average is average of each core competence indicators scores.

Table \_ Scores and ranking of core competence indicators

ranking	Core competence indicators	Ranking average	Score average
1	Successful team building	4.44	4.44
2	Performance improvement	5.21	4.31
3	Planning and organizational capacity	6.06	4.31
4	Decision-making	6.98	4.17
5	Mutual trust relationship	7.15	4.31
6	Customer-oriented	8.00	4.19
7	Developing human resources	8.02	4.25
8	Authorize and select committee	8.29	4.06
9	Continuous improvement	8.44	3.98
10	Partnership	8.77	4.04
11	Driven results	9.31	3.98
12	Innovation	9.42	3.90
13	Continuous learning	9.63	3.94
14	Coaching	9.92	3.98

15	Leading for changing	10.23	3.81
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The top 10 core competence indicators are main factors since interview summarization and results of questionnaires. The definition and behaviors of top 10 core competence indicators are as follows.

1. Successful team building:

Definition: to use appropriate methods and flexible interaction to build team and achieve team goals. Behaviors: set up the directions and goals for team. And build team architecture that can reach team goals. Encourage team members to participate and team members need to share important information. Set examples to show the commitment of team.

2. Performance improvement:

Definition: guild others to complete job objectives. Behaviors: assist R&D staff to establish goals, to create the learning environment, and set development plans with staff, therefore the middle-level class and staff can track performance. Evaluate methods to assess the performance efficiency and achieve performance.

3. Planning and organizational capacity:

Definition: on behalf of middle-level managers and staff, set up small items on action program. Ensure the effective completion of goal. Plan the appropriate personnel arrangements and resource allocation. Behaviors: priority, mission and resources required to decide. Make timetable for distribution and set the effective use of available resources to effectively complete the project on time.

4. Decision-making:

Definition: identify and understand issues, problems and opportunities. Compare with information from different sources before making a conclusion. Use effective methods to select actions and solutions. In accordance with the existing facts, constraints and results, pre-take the necessary action. Behaviors: find issues, problems and opportunities. Collect information, interpret information, develop options, and select the appropriate program. Make a decision before the time limit and invite others to participate in the decision-making process.

5. Mutual trust relationship

Definition: when interacting with others, try to build confidence between others and self. Establish confidence between others and self-organization. Behaviors: match words with behaviors. Express self's position. Listen and objectively consider about others' comments and suggestions. Respect and fair treat others. Attribute to the credit of the people who deserve. Even facing the resistance, middle-level managers will support others' good ideas.

6. customer-oriented

Definition: to meet the needs of customers is priority. Establish and maintain positive cooperation relationships with customers. Behaviors: take the initiative to understand customer needs and educate customers. Set up interactive and cooperative relations. Build customer feedback system.

7. Developing human resources:

Definition: Plan and support personal skills and ability development. Therefore

Staff can be more effectively reach responsibilities and roles of the present or future job. Behaviors: work together to build goals and develop plans. Create a learning environment. Monitor the process.

8. Authorize and select committee:

Definition: the mission or the power of decision-making delegated to the appropriate people. Increase the effectiveness of organizations and individuals. Behaviors: decision-making power appropriately assigned to suitable people. Clearly assign to extent of duty. Give support to being authorized people and encourage their responsibility. Track the development of appropriate methods and understand the results of duty assigned.

9. Continuous improvement:

Definition: for the current flow or lob performance, appropriate methods need to identify opportunities for improvement. The development of action programs would improve to the situation. Evaluate the performance and effectiveness. Behaviors: evaluate the various opportunities and identify a causal relationship among the situations. Set the main objectives to improve the program and the program implemented effectively.

10. Partnership:

Definition: identify opportunities and take action. In staff's respective fields, team, department and organization,

build a strategic relationship. Assist organization to achieve business goals. Behaviors: share information with partners. Describe cooperation benefits and questions. Clarify details about expectations of both sides and areas, and to ensure meet needs of each other. Make a common consensus that goal of organization is more important than personal goal. Encourage others to support one another. Use effective methods to track and evaluate the relationships of partners and performance.

## Conclusion

The purpose of this study is to identify the core competences of middle-level managers in a high-tech company. The core competences indicators as follows: successful team building, performance improvement, planning and organizational capacity, decision-making, mutual trust relationship, customer-oriented, developing human resources, authorize and select committee, continuous improvement and partnership.

When an enterprise view inherent advantage, it should be noted how to cultivate middle-level managers' core competence and to foster individual ability due to the pursuit of excellent performance. Because of core competence linking organization and individuals, thus core competence can crease organization capability to achieve organizational objectives. It can be said that core competence is key advantage competitive that organizations can adapt to rapidly changing high-tech environment.

Here are the recommendations on technology companies. 1. Teamwork is the good way to performance well. Superior and staff need to have a good rapport and relationships, therefore to overcome internal and external environment problems. 2. Management and decision-making ability are important competence. For a fast-changing technological environment, good and appropriate decision-making ability and management are helpful to competitive advantage and performance. 3. Customer needs is the greatest value of business survival. Business need to focus on customers' needs therefore business can create profit. Middle-level managers have to take the initiative to understand the needs of customers thus to design products. Also, customer service is significant factor for business of technology companies. 4. Communication and coordination ability is important. Middle-level managers should focus on communication between individual and individual, between individual and department, between department and department, between subsidiary and subsidiary. If there is good communication, it allows the good progress of working.

However, there are limitations in this study. The sample for this study does not consist of all middle-level managers in the high-tech company. Therefore its findings cannot be generalized across to other companies' middle-level managers. The cross-sectional research design of this study eliminated the possibility of testing can be implemented. Future research should employ longitudinal research to overcome this limitation. Further study is needed to examine how core competence of middle-level managers affects business performance in high-tech companies.

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