

Competency-based Talent Assessment System Study in China

-- The Perspective of Sales Managers

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Abstract

The individual competency model has been put into wide practice in Chinese government and enterprises. The related research on this field defines our research directions and practices of management, as all kinds of organizations are trying to recruit, select, cultivate, utilize and develop talents scarce by the special system and technique of human resource evaluation. By reviewing the competency models of the position of salesperson, this paper compares the current application of salesperson's evaluation in China and the U.S., sets out the conclusions on the differences between these salespersons from two countries, and further discusses its application in different fields of human resource management, such as recruitment, training and development, career planning, development and management, etc. The research results help us to establish the difficulties in the current situation and improve the efficacy of human resource evaluation systems in Chinese government and enterprises.

Keywords

Competency; Talent assessment; Sales manager.

1. Competency and Competency Model

Grossman (1983) proposed "principal - agent theory" based on the expansion of contract theory, pointing out that "moral hazard" and "adverse selection" problems caused by the interest conflicts and information asymmetry between the principal and the agent will result in damage to clients and organizations. In this situation, the business owners (the principal) will pay more attention to the operators' (the agent) competency and capability of the business management and operation. Academic research also transfers its focus to the motivation and stipulation of the managers, in other words, effective incentive and restrain mechanisms are needed to pursue high performance.

McClelland (1973) proposed the concept of "competency" for the first time. Later, Western scholars also gave their own interpretation of the competency. McClelland & Boyatzis (1982) viewed the competency as a kind of individual capability to satisfy the working requirements within the environment; in turn, this ability will bring the expected results. Spencer, McClelland & Spencer (1993) suggested that competency refers to the motives, traits, self concepts, attitudes or values, knowledge or skills, which can be reliably measured and can distinguish high performance employees from the general ones. Ledford (1995) viewed the competency as consisting of three elements: (1) personal characteristics, namely, knowledge, skills and behavior; (2) verifiable, identifiable parts shown by individuals; and (3) the possibility of performance. And Sandberg (2000) considered that the work competency does not include all the knowledge and skills, but only those at work. competency assessment is an approach used to focus and mobilize an organization's resources, especially human resources (David Trejo et al., 2002).

Above all, we can conclude that the concept of competency has three common characteristics: (1) related to a specific work or position; (2) be able to create high performance or with the potentiality to create it; (3) contain a number of individual features such as characters, motives, attitudes, values, knowledge and skills. Based on these concepts and features, this defines competency as: requirements for those undertaking business management and operational work, with the capability to create high performance of mental model, values, personalities and interests, and behaviors competent for management-related expertise, skills and abilities. Those individual competencies are measurable which can divide high performance employees and common ones. The competency model refers to a collection of several competencies required for a specific task or particular management position.

2. Competency and Performance

Talking about competency and performance, Sandberg (2000) argued that the organizational performance management system should be integrated with a three element competency model: individual-oriented, which means individuals themselves have the knowledge and skills which can improve performance; work-oriented, which means starting from the task itself, a measurement of integration of knowledge, skills and abilities required for completing the tasks; and modular, which means a collection of individual-oriented and work-oriented aspects. Later, some scholars pointed out that such "dual entity" of competency: the work and the individual, described work performance related competency model as too abstract, simple and narrow. In fact, competencies which produce high performance are more than the work or the individual itself. The individual cognition and complexity of the task not only depends on the static characteristics of the individual characteristics and tasks, but also, to some extent, depends on the emotional dimension from individual's work and the dynamic behavior process (Attewell, 1989). Subsequently, Sandberg (2000) again pointed out that the integration of individual and tasks at work together with the experience accumulated in the process of work and the perception of the work process will help to improve performance. This view was not intended to separate the individual from tasks but emphasized that the individual at work will dynamically developed its competency, which will promote individual and organization's performance based on work experience and perception of work processes as the process of individual's cognition on tasks is gradual and different.

In practical research, the research on competency and performance cover different industries, positions, functions and specific capability dimensions. For example, Duncan (1995) found that individual competency, job performance and customer satisfaction have a significant positive correlation, but the salary levels and timely incentives for performance played an important role in this kind of relationship, which mediate the relationship among them. Holly (2004) pointed out that the effective performer has good communication, motivation and communication skills; senior managers are more willing to communicate than his subordinates. However, the level of job performance and the level of management did not significantly affect individual's communication skills. Hagan (2006) compared the effectiveness of four different methods of evaluation for competency in organizational performance management system. The study found that 360 feedback is more effective than top-down evaluation and customers evaluation. Also, the assessment center has a high level of efficiency, but may not be economic. Molleman & van der Vegt (2007) pointed out that in some special areas of work; there is a high mobility of employees where new employees, especially those without work experience determined the overall efficiency of the organization. Therefore, organizations should put the training and development of the competency of these new employees a priority, in order to accelerate the process of their socialization, and assist them in achieving a high personal performance.

3. Case Study---the Assessment and the Comparison Analysis of Chinese and American Sales Managers' Competency

3.1. Sales Manager's Assessing Competency Model——Caliper Profile Introduction

3.1.1. Brief Overview

Caliper profile is an effective assessment tool which measures 29 different personality traits and motivational factors that have been found to be highly predictive of job performance across many different jobs in most industries worldwide. In working with a very broad client base over the past 40 years, Caliper has consistently found that the employees who perform at high levels are those who are in work environments and positions that are congruent with their personality and motivational strengths. One's personality and set of motivational dynamics provides the psychological mechanism that gives rise to the observable behaviors that will lead to success in a job.

3.1.2. Scale Items of the Profile Definitions

The Caliper Evaluation is prepared to reflect the uniqueness of both job environment and the specific individual under consideration. There are typical 15 traits items of Caliper profile (Table 1).

4. Methodology

4.1. Accessing Questionnaire Introduction

The current version of the Caliper Profile contains 193 items. Items are presented in a: (a) semi-ipsative format (determining which one of four response options is "most like me" and which one is "least like me"); (b) Likert-type format; or (c) multiple-choice format.

4.2. Norm and Profile Scores Calculated

Norm is a referential criterion. When the candidate takes the Caliper test, he or she will get the original scores. By comparing to a certain Norm, the original scores could be converted into the standard scores which could be used in determining the rank of the candidate among the specific group. Caliper use more than 18 traits to describe the personality. For each trait, Caliper calculated the standard score by comparing the original score to a certain Norm. For instance, one individual's score of Abstract Reasoning is 75 in Chinese Norm, which represents that his or her Abstract Reasoning ability is better than 75% of the Chinese people.

4.3. Reliability & Validity

Reliability is one of the standard indicators of how well a measuring instrument works. There are two types of reliability: test-retest and internal consistency.

For the Caliper Profile, test-retest reliability, with a two-week interval between test administrations, has been computed in two separate studies for all of the CP scales. Test-retest reliability coefficients (r) across these two studies averaged + 0.82 on a scale between - 1.00 and + 1.00, where perfect consistency would achieve the + 1.00 result. Even more compelling are the results from a test-retest study with a one-year interval between test administrations, where the average reliability coefficient = + 0.78. So, Caliper scores are very stable over time. The CP scales also display good internal consistency, as measured by a statistic called Cronbach's alpha, also having a maximum value of + 1.00. For most Caliper scales, Cronbach's alpha = 0.60 or better. Validity is another desirable characteristic of a measuring instrument, reflecting the degree to which the assessment measures what it is supposed to measure. Since the Caliper assessments are designed to measure suitability for various jobs, their validity refers to the extent to which Caliper scores are associated with various aspects of job

performance. There are several different kinds of validity, and studies over the years have confirmed that Caliper assessments fare well on all of them. Perhaps the most critical type of validity for a selection and developmental tool like the Caliper is criterion-related validity with 0.76 in Criterion, which summarizes the extent to which assessment scores agree with measures of some external criterion, such as performance on the job.

Herb Greenberg & David Mayer (1964) demonstrated the accuracy of Caliper-based predictions of job performance for salespeople in several industries. Over the years since then, the ability of the Caliper assessments to identify top performers has been reconfirmed many times over, for a wide variety of jobs in virtually every industry.

4.4. Sample Selection

The sample was collected from competency assessment data base of Caliper Human Strategies China Company. The data base includes the traits information of the employees who come from different positions of the companies that Calipers have provided the competency assessment service in recent years. For the samples of the US top sales, according to their performance rank given by Caliper's customers, we select 180 top sales profiles. For the samples of the Chinese top sales, we selected 180 sales executives who are in high positions as well as good sales performance record to guarantee our sample qualified for "Top" in the whole data base of the traits of the employees Caliper have assessed in recent several years. As for the measure, the scale ranged from 0-100 to measure the significance of each trait.

4.5. Scale Items for Analysis

There are 17 traits to be scored in Caliper's profile. The 17 traits are: abstract reasoning, aggressiveness, self-structure, external structure, urgency, resilience, skepticism, risk taking, gregariousness, assertiveness, thoroughness, sociability, cautiousness, creative idea orientation, accommodation, level headedness and anxiety. Since Level headedness and anxiety have great relationship with personal mood and were seldom be used in sales competency analysis. So finally we pick up 15 traits for this study.

4.6. Analysis Tools

The study used the SPSS tool to analyze those profile statistics selected from Caliper's profile data base and use Paired Sample t-Test to compare means of talents of US and Chinese sales executives. Statistical significance was established at the level of 0.05. SPSS version 16 was used for data analysis.

5. Data Analysis

5.1. Descriptive Analysis for Chinese Top Sales

Figure 1 was drawn by using mean value of T-test for Chinese samples. In this graph, we found that Urgency, Cautiousness, Resilience, Assertiveness and Gregariousness score highly compared with other traits. Urgency ranks first with a mean value of 68.35, which means those Chinese top sales' urgency, is better than 68.35% of the Chinese people. The high score for urgency means Chinese top sales tend to take speedy action in order to achieve good results. Cautiousness ranks in second place with a mean value of 65.01, which means Chinese top sales' tend to be careful when deliberating options and calculating outcomes. Followed Cautiousness is Resilience and Assertiveness with 64.99 and 62.99 respectively, which suggests that those sales tend to be unconcerned by setbacks and are willing to communicate their ideas and opinions respectively. Gregariousness with a high mean value of 63.72 indicates that Chinese top sales have a strong willingness to establish contact and networking. External structure and Accommodation is lowly ranked with 31.9 and 31.78 respectively. The low ranking of External structure means those sales could be unresponsive to authority and unlikely to let rules

interfere with accomplishing work goals. Also, the low rating of Accommodation means Chinese top sales might be uninterested in providing assistance and are unlikely to let the need to help people interfere with their job performance.

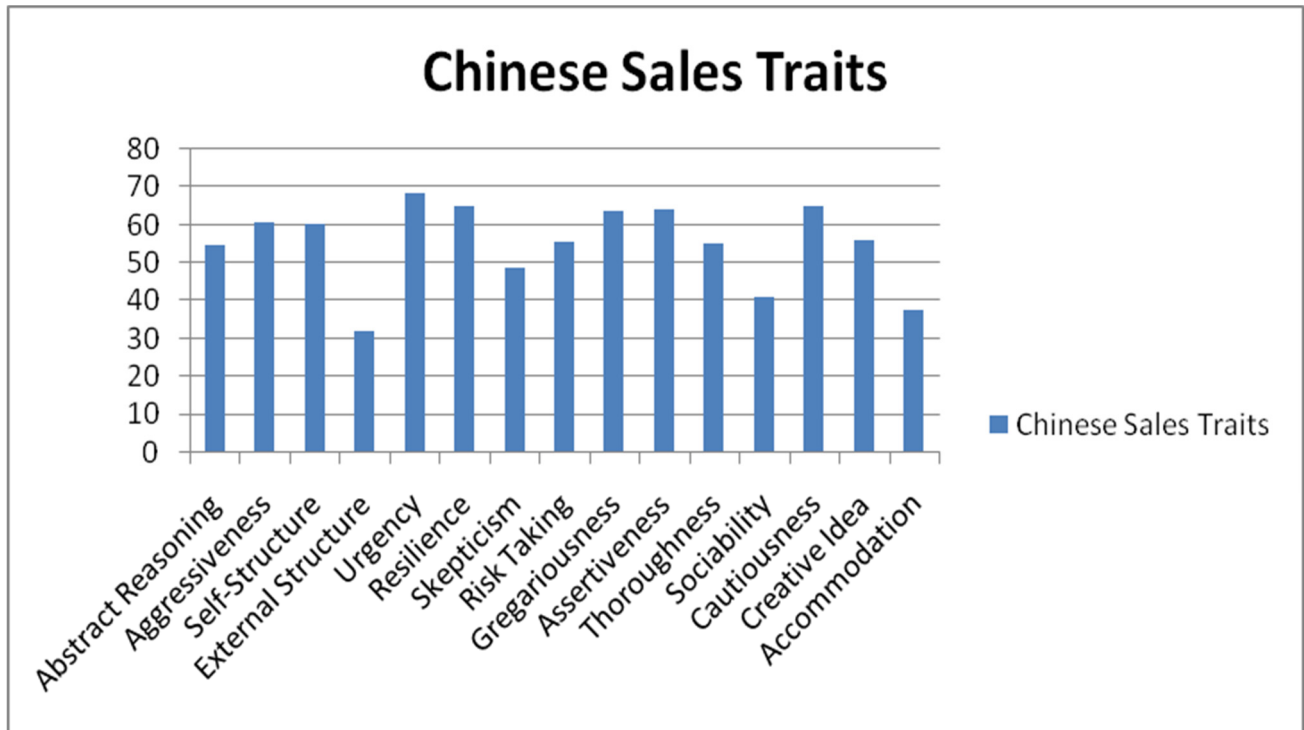


Figure 1. Chineses Sales Traits

Figure 2 was drawn by using mean value of T-test for US samples. In this graph, we found that Assertiveness, Gregariousness, Aggressiveness and Risk taking gain high scores compared with other traits. Assertiveness ranks top with a mean value of 73.53, which means those US top sales' Assertiveness is better than 73.53% of the US people. In this way, US top sales are willing to express their ideas and opinions. Gregariousness ranks second with a mean value of 70.96, which represents US top sales tend to establish contact and networking. Caliper's Performance Models indicate that Gregariousness can hinder performance in some Job Families. Sales with high scores could be motivated to network, which may detract from fulfilling position requirements. Following Gregariousness is Aggressiveness and Risk taking with mean values of 70.48 and 70.32 respectively, which indicate that US top sales tend to be forceful when defending their ideas or actions and are likely to take chances on untested initiatives in order to fulfill goals. Cautiousness and Thoroughness are lowly ranked with 39.99 and 40.59 respectively. The low ranking of Cautiousness means those sales have a tendency to act without thinking things through. Also, the low rating of Thoroughness means US top sales are unlikely to let rules interfere with accomplishing work goals and unresponsive to authority.

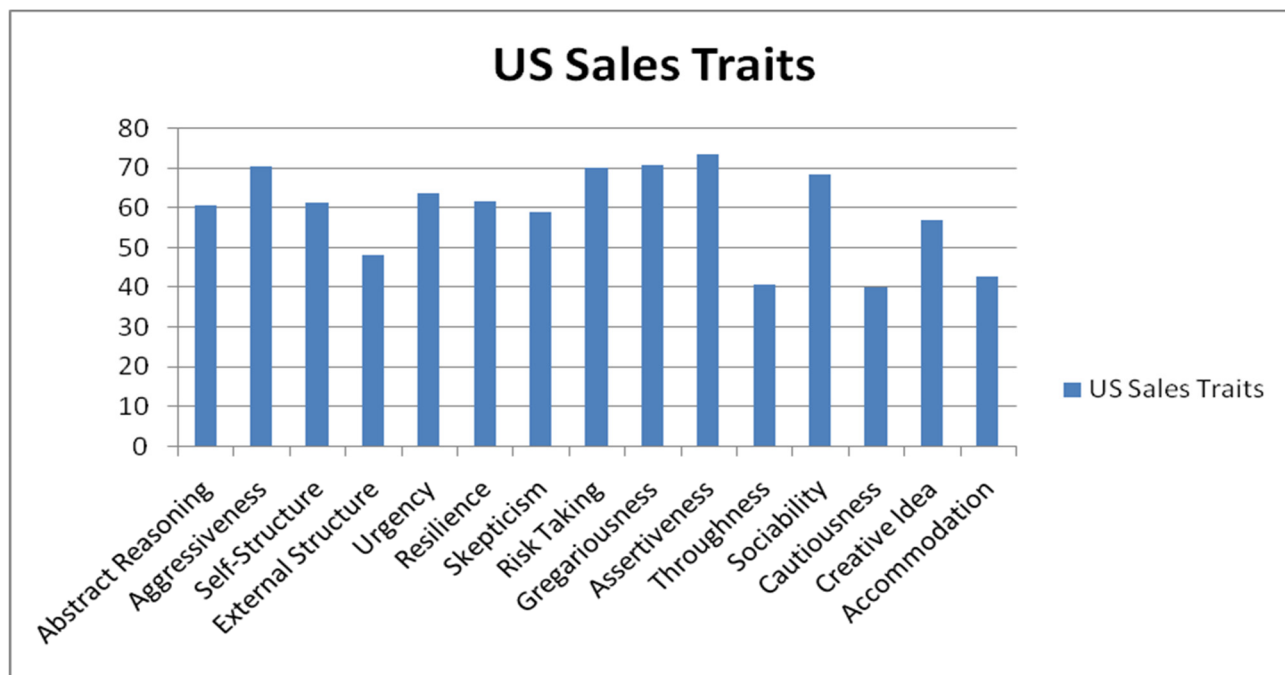


Figure 2. US Sales Traits

5.2. Gap Analysis for Paired Sample

From this paired sample table (Table 2), the conclusion is that US top sales and Chinese top sales have a lot in Common and there are no obvious differences in Self-Structure, Urgency, Resilience, Creative Idea and Accommodation. In particular, Self-Structure-US (M=61.27, SD=28.13) groups and Self-Structure-CN (M=60.33, SD=26.68) groups indicate great similarity (t=0.75, P>0.05), which means both groups of sales are apt to be motivated to independently determine their work approach. Also, Creative Idea-US (M=56.81, SD=28.55) groups and Creative Idea-CN (M=56.11, SD=28.63) groups indicate high degree of similarity (t=0.23, P>0.05), which suggests that both US top sales and Chinese top sales own high preference for thinking creatively and generating new ways to solve problems.

However, Aggressiveness-US (M =70.48, SD=26.36) groups and Aggressiveness- CN (M =60.74, SD=24.88) groups indicate a significant difference (t=3.809, P<0.01), which means although both US and Chinese top sales own high rating of aggressiveness, US top sales still tend to be more aggressive and be more forceful when defending their ideas or actions if compared with Chinese sales. External structure-US (M=48.02, SD=27.83) groups and External structure-CN (M=31.90, SD=20.68) groups indicate a very significant difference (t=6.31, P<0.01), which means US top sales with relatively high mean value tend to be more sensitive to existing rules and are likely to be receptive to a structured environment with rules if compared with those of China. Risk taking-US (M=70.32, SD=24.57) groups and Scepticism (M=55.54, SD=20.69) groups indicated a significant difference.(t=6.17, P<0.01), which means that although both groups gained high rating of Risk taking, US top sales are more likely to take risk and chances on untested initiatives if compared with those sales in China. Assertiveness-US (M=73.53, SD=23.46) groups and Assertiveness-CN (M=64.29, SD=25.36) groups also are significantly different (t=3.83, P<0.01), which indicates that both group of sales with high score of Assertiveness, but US top sales are more willing to communicate their ideas and opinions. Thoroughness-US (M=40.59, SD=26.938) and Thoroughness-CN (M=55.22, SD=26.237) also indicate a significant difference (t=-5.27, P<0.01), which means US top sales have a higher tendency to pay attention to detail and to be attentive when handling detail-intensive tasks. Sociability-US (M=68.47, SD=23.664) groups and Sociability -CN (T=40.97, SD=27.37) also show a great significant difference (t=10.66, P<0.01), which indicates that US top sales differs

greatly from those top ones in China and US top sales are more likely to be motivated to interact with others and involved in frequent social interaction than those Chinese top sales. Cautiousness-US (M=39.99, SD=27.81) groups and Cautiousness-CN (M=65.01, SD=27.95) groups still yield a significant difference (t=-8.07, P<0.01), which means that US top sales have less inclination to make decisions carefully and think through relevant facts and alternatives if compared with Chinese top sales. Besides, Abstract Reasoning(t=2.015,P<0.05), Skepticism (t=3.424, P<0.01), Gregariousness(t=2.833,P<0.01) also shows significant difference between top sales from two countries which indicates different behavioral trends according to the definition (Table1 and Table 2).

Table 1. 15 traits items

Traits Items	Definition	Performance
Abstract Reasoning	Potential to solve problems and understand the logical relationships among concepts.	H: Be capable of understanding complex issues and integrating information. L: Be most effective when handling issues that have straightforward solutions.
Aggressiveness	Potential to communicate information and ideas in a direct manner.	H: Be willing to communicate their ideas and opinions. L: Be uncomfortable expressing their viewpoints.
Self-Structure	Preference for independently determining work methods.	H: Be motivated to independently determine their work approach. L: Be unlikely to define their own work methods.
External Structure	Degree to which a person is sensitive to existing rules.	H: Be likely to be receptive to a structured environment with rules. L: Be unresponsive to authority.
Urgency	The tendency to take quick action in order to obtain immediate results.	H: Be driven to act quickly. L: Be inclined to take time when handling tasks.
Resilience	Capacity to handle rejection and criticism.	H: Be unconcerned by setbacks. L: Be sensitive to criticism or rejection.
Skepticism	Inclination to doubt or question others' motives.	H: Be guarded and wary of others' intentions. L: Be trusting and willing to give others the benefit of the doubt.
Risk Taking	Willingness to take chances.	H: Be likely to take chances on untested initiatives. L: Be reluctant to risk failure.

Gregariousness	Comfort with meeting new people and initiating conversations.	H: Be comfortable establishing contact and networking. L: Be uneasy about taking the initiative in social situations.
Assertiveness	Potential to communicate information and ideas in a direct manner.	H: Be willing to communicate their ideas and opinions. L: Be uncomfortable expressing their viewpoints.
Thoroughness	The tendency to pay attention to detail.	H: Be attentive when handling detail-intensive tasks. L: Be uninterested in focusing on fine points.
Sociability	The enjoyment of being around people and working with others.	H: Be motivated to interact with others. L: Be uninterested in having frequent social interaction.
Cautiousness	Inclination to make decisions carefully and think through relevant facts and alternatives.	H: Be careful when deliberating options and calculating outcomes. L: Suggest a tendency to act without thinking things through.
Creative Idea Orientation	Preference for thinking creatively and generating new ways to solve problems.	H: Be motivated to develop, creative, original solutions. L: Be inclined to use well-established methods.
Accommodation	Desire to help others.	H: Be motivated to help people. L: Be uninterested in providing assistance.

Reference: Caliper Technical Manual, 4th edition, 2005.

Table 2. Paired Sample Statistics

		Mean(M)	N	Std Deviation	Paired Difference	df	Sig. (2 tailed)
Pair 1	Abstract Reasoning_US	60.61	180	27.081	2.015	179	.045
	Abstract Reasoning_CN	54.60	180	26.358			
Pair 2	Aggressiveness_US	70.48	180	26.364	3.809	179	.000
	Aggressiveness_CN	60.74	180	24.884			
Pair 3	Self-Structure_US	61.27	180	28.133	.323	179	.747
	Self-Structure_CN	60.33	180	28.682			
Pair 4	External Structure_US	48.02	180	27.830	6.130	179	.000
	External Structure_CN	31.90	180	20.677			
Pair 5	Urgency_US	63.76	180	27.162	-1.755	179	.081
	Urgency_CN	68.35	180	22.247			
Pair 6	Resilience_US	61.61	180	26.809	-1.366	179	.174
	Resilience_CN	64.99	180	23.337			
Pair 7	Skepticism_US	59.07	180	26.954	3.424	179	.001
	Skepticism_CN	48.97	180	25.243			
Pair 8	Risk Taking_US	70.32	180	24.568	6.165	179	.000
	Risk Taking_CN	55.54	180	20.694			
Pair 9	Gregariousness_US	70.96	180	23.192	2.833	179	.005
	Gregariousness_CN	63.72	180	24.536			
Pair 10	Assertiveness_US	73.53	180	23.456	3.838	179	.000
	Assertiveness_CN	64.29	180	25.357			
Pair 11	Thoroughness_US	40.59	180	26.938	-5.267	179	.000
	Thoroughness_CN	55.22	180	26.237			
Pair 12	Sociability_US	68.47	180	23.664	10.656	179	.000
	Sociability_CN	40.97	180	27.373			
Pair 13	Cautiousness_US	39.99	180	27.808	-8.070	179	.000
	Cautiousness_CN	65.01	180	27.947			
Pair 14	Creative Idea_US	56.81	180	28.545	.234	179	.815
	Creative Idea_CN	56.11	180	28.625			
Pair 15	Accommodation_US	42.86	180	28.184	1.803	179	.073
	Accommodation_CN	37.68	180	25.230			

From the above comparative graph (Figure 3), we may observe that both statistics of those traits show similar tendencies and both US sales and Chinese sales own much similarity, especially in Self-Structure, Resilience and Creative Idea. However, External Structure, sociability and Cautiousness indicate great differences.

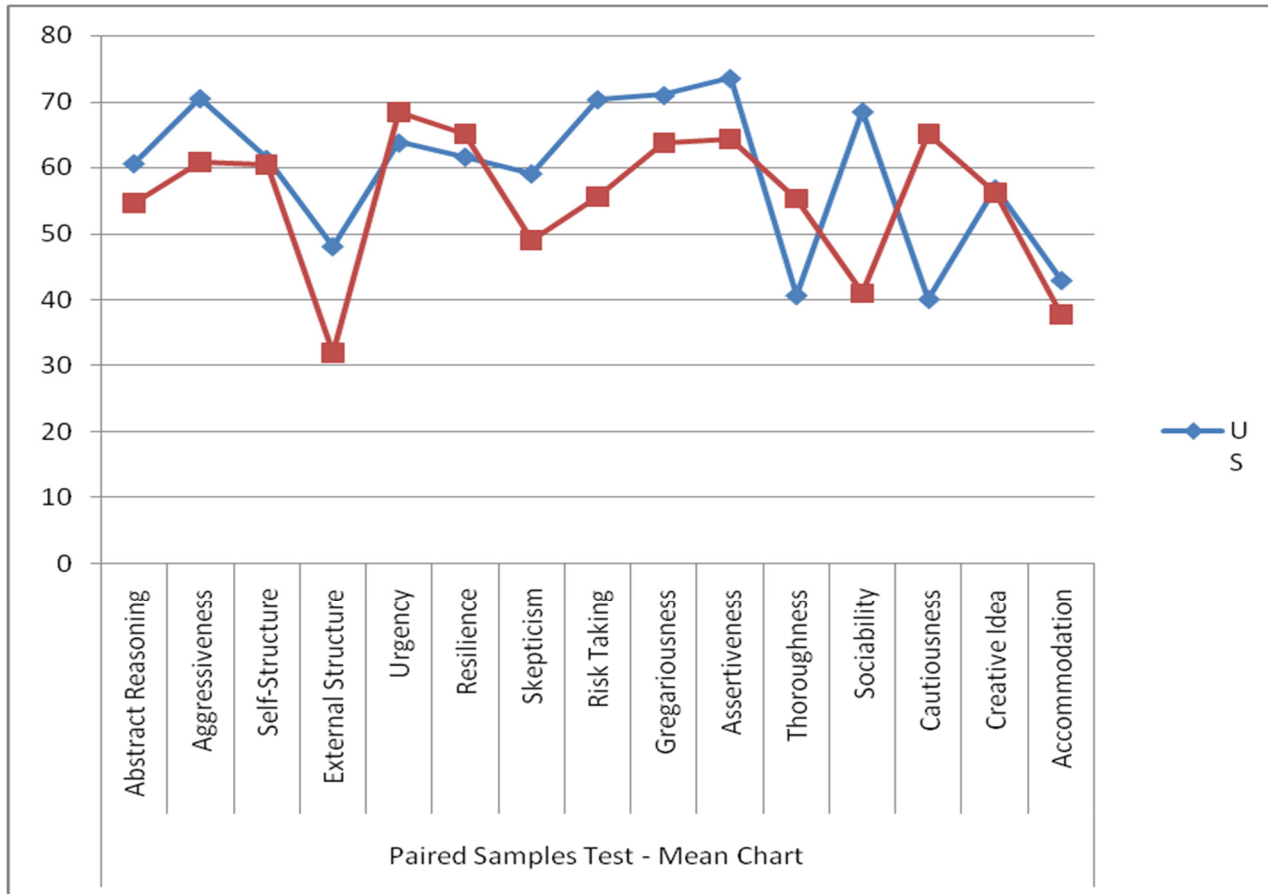


Figure 3. Paired Samples Test –Mean Chart

6. Conclusions and Applications

6.1. Conclusions

This analysis helps us to arrive at three conclusions: (1) Chinese top sales’ profiles analysis shows Assertiveness, Gregariousness, Aggressiveness and Risk-taking stand out as their typical traits with high scores if compared with other traits. (2) US top sales’ profile analysis illustrates that Urgency, Cautiousness, Resilience, Assertiveness and Gregariousness stand out as their typical characteristics. (3) The comparative analysis tells us that US and Chinese top sales have no obvious differences in the traits of Self-Structure, Urgency, Resilience, Creative Idea and Accommodation, but have significant differences in the traits of External Structure, sociability and Cautiousness, Aggressiveness, Skepticism, Risk-taking, Assertiveness, Gregariousness, Thoroughness, Sociability, and Cautiousness.

6.2. Applications in Competency Development and Talent Assessment

Competency model, as a basic model, plays a decisive role in human resource management. This model can provide powerful support for job analysis, recruitment, performance evaluation and motivation. Competency Characteristics’ practice and effective development have an important significance for personal and companies’ development and promote added value of human resource management.

In a previous study, we found three approaches to competency characteristics' development are motivation, training and assessment. First, a fair motivation system based on individual competency characteristics should be constructed, including a reasonable and fair performance management system. That is to say, performance goals should be established based on trust and smooth communication between superiors and the subordinates. Employees should be given full authority, guidance, support and backup in performance management with fair and just evaluation procedure; meanwhile, the value management system which matched the needs of knowledge employees should be constructed. In this system, the practice of multiple value allocation method should be based on the correct evaluation for the competency characteristics of the employees. Second, a training system based on competency characteristics should be established. This training system could assist companies to provide key competency training for certain positions with the purpose of enhancing employees' performance, accommodating them to the future environment and realizing their potential ability. For the training targets, contents and methods, companies should break down personal competency characteristics to sort the training targets and provide them with the proper training matched well with position and organization, since the competency model varies with different position, different industry and different culture environment. Finally, as for competency assessment, many approaches including psychological tests, interviews, behavior events interviews and assessment centres all contain their advantages and disadvantages. Different assessment methods combinations will provide future competency assessment with effective complement. Take, for example, sales managers' assessment, personality assessment and situational assessment can be applied to competency evaluation. Personality assessment is a proprietary assessment that objectively measures an individual's potential motivation and behavioral traits and helps provide insights into an individual's work style. Employees who perform at high levels are those who are in work environments and positions that are congruent with their personality and motivational strengths. One's personality and set of motivational dynamics provides the psychological mechanism that gives rise to the observable behaviors that will lead to success in a job. Personality assessment proves to be a powerful assessment tool to predict employee's possible personality and behavior. Situation assessment has a strong relationship with daily work and the assessment process will help to strengthen managers' motivation to participate in the assessment and promote participant' cognition to the fairness of the assessment. Thus, situation assessment is more likely to raise the fairness, scientific nature, accuracy and effectiveness of the recruitment. Besides, situation assessment helps to identify and select the outstanding sales talents through participants' behavior in certain situation, which will cut the cost and resource wasting in different aspects of employee's job adaption and orientation training. Meanwhile, situation assessment could further recognize employees' potential ability from the observation of their emotions and behaviors and provide training and career development of relatively well targeted. Situation assessment can effectively assess participants' competency, promote efficacy of management staff recruitment and selection and even promote personal career development. All in all, the new pattern of HRM, based on competency characteristic theory, will make companies strong in the intense competitive environment and further strengthen their core competencies.

References

- [1] AbouRizk, S. M., & Chehayeb, N. N. (1995). A hypertext decision support model for contractor prequalification. *Microcomput. Civ. Eng.*, 10(2), 111-121.
- [2] Armour, H. O., & Teece, D. J. (1978). Organizational structure and economic performance: A test of the multidivisional hypothesis. *Bell Journal of Economics*, 9 (1), 106.
- [3] Arrow, K. J. (1962). The economic implications of learning by doing. *The Review of Economic Studies*, 29(3), 155-173.

- [4] Athey, T., & Orth, M. (1999). Emerging competency methods for the future human resource management. *Human Resource Management*, 38, 215-26.
- [5] Attewell, P. (1989). Human resources, personnel, and organizational behavior -- the process of technological change: New technology and social choice in the workplace. *Industrial & Labor Relations Review*, 43 (1), 145.
- [6] Augustine. A. Lado & Mary. C. Wilson. (1994). Human Resource Systems and sustained competitive advantage: a competency-based perspective. *Academy of Management Review*, 19(4), 699-727.
- [7] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), 99.
- [8] Camp, R. C. (1989). Benchmarking: The search for industry best practices that lead to superior performance - part v: Beyond benchmarking. *Quality Progress*, 22 (5), 66.
- [9] Crosby, Lawrence A., Evans, Kenneth A., Cowles, Deborah. (1990). Relationship quality in services selling: an interpersonal influence perspective. *Journal of Marketing*, 54(3), 68.
- [10] David, Mayer., & HERBERT, M. Greenberg. (1964). What makes a good salesman? *Harvard Business Review*, 42(2), 119-125.
- [11] David Trejo., A. M. ASCE., Shekhar Patil., Stuart Anderson., A. M. ASCE., & Elizabeth Cervantes. (2002). Framework for competency and capability assessment for resource allocation. *Journal of Management in Engineering*, 44-50.
- [12] Galang, M. C., & Ferris, G. R. (1997). Human resource department power and influence through symbolic action. *Human Relations*, 11, 1403-1426.
- [13] Grossman, S., & Hart, O. D. (1983). An analysis of the principal—agent problem. *Econometrica*, 51(1), 7-46.
- [14] Guest, D., & King, Z. (2004). Power, innovation and problem-solving: The personnel managers' three steps to heaven. *Journal of Management Studies*, 41, 401-423.
- [15] H. Heinsman., Annebel H. B. de Hoogh., Paul L. Koopman., & Jaap J. Van Muijen. (2007). Competencies through the eyes of psychologists: A closer look at assessing competencies. *International Journal of Selection and Assessment*, 15(4), 412-427.
- [16] Holly, J. P. (2004). Reconceptualizing social skills in organizations: Exploring the relationship between communication competence, job performance, and supervisory roles. *Journal of Leadership & Organizational Studies*, 11 (2), 63.
- [17] Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305-360.
- [18] Jones, T. M., & Wicks, A. C. (1999). Convergent stakeholder theory. *Academy of Management Review*, 24, 206-221.
- [19] Keenan, William Jr. (1993). Measuring skills that improve performance. *Sales & Marketing Management*, 145, 29-30.
- [20] Ledford, G. E., Jr. (1995). Paying for the skills, knowledge, and competencies of knowledge workers. *Compensation and Benefits Review*, 27 (4), 55.
- [21] Levin, R. C., et al. (1987), Appropriating the returns from industrial research and development; comments and discussion. *Brookings Papers on Economic Activity*, 78, 3.
- [22] Maral. Muratbekova-Touron. (2009). why a multinational company introduces a competency-based leadership model: a two- theory approach. *The International Journal of Human Resource Management*, 20(3), 606-632.
- [23] Mary, E. Graham. & Lindsay M. Tarbell. (2006). The importance of the employee perspective in the competency development of human resource professionals. *Human Resource Management*, 45(3), 337-355.
- [24] McClelland, D. C. (1973). Testing for competence rather than for intelligence. *American Psychologist*, 28(1), 1-14.
- [25] Mcevely, S. K., Das, S., & McCabe, K. (2000). Avoiding competence substitution through knowledge sharing. *Academy of Management Review*, 25(2), 294-311.

- [26] Molleman, E., & Van der Vegt, G. S. (2007). The performance evaluation of novices: The importance of competence in specific work activity clusters. *Journal of Occupational and Organizational Psychology*, 80, 459-478.
- [27] Nord, W. R. (1969). Beyond the teaching machine: the neglected area of operant conditioning in the theory and practice of management. *Organizational behavior and Human Performance*, 4: 375-401.
- [28] Nordhaug, O. (1998). Competence specificities in organizations. *International of Management & organization*, 28, 8-29.
- [29] Ouchi, W. (1979). A Conceptual Framework for the Design of Organizational Control Mechanisms. *Management Science*, 25, 833-848.
- [30] Penrose, E. T. (1960). The growth of the firm - a case study: The Hercules powder company. *Business History Review (pre-1986)*, 34 (01), 1.
- [31] Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based. *Strategic Management Journal*, 14 (3), 179.
- [32] Roth, K., & O'Donnell, S. (1996). Foreign Subsidiary Compensation Strategy: An Agency Theory Perspective. *Academy of Management Journal*, 39(3), 678-703.
- [33] Russell, J. S., Benson, C. H., & Fox, P. J. (1990). "A stochastic decision model for contractor prequalification." *Microcomput. Civ. Eng.*, 5(4), 285-297.