June 2010

Using Delphi Panels to Assess Soft Skill Competencies in Entry Level Managers

Melvin R. Weber  
*East Carolina University*

Alleah Crawford  
*East Carolina University*

David Rivera Jr.  
*East Carolina University*

Dori A. Finley  
*East Carolina University*

Follow this and additional works at: [http://scholarworks.gvsu.edu/jti](http://scholarworks.gvsu.edu/jti)

Recommended Citation

Available at: [https://doi.org/10.9707/2328-0824.1011](https://doi.org/10.9707/2328-0824.1011)

Available at: [http://scholarworks.gvsu.edu/jti/vol1/iss1/12](http://scholarworks.gvsu.edu/jti/vol1/iss1/12)

This Article is brought to you for free and open access by ScholarWorks@GVSU. It has been accepted for inclusion in Journal of Tourism Insights by an authorized editor of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.
Using Delphi Panels to Assess Soft Skill Competencies in Entry Level Managers

by

Melvin R. Weber, Associate Professor, Alleah Crawford, Assistant Professor, David Rivera, Jr., Assistant Professor, and Dori A. Finley, Professor, Department of Hospitality Management, East Carolina University

Abstract

The identification of competencies needed by hospitality managers has been investigated since the 1980’s. In all of the competency research relating to hospitality management, essential competencies include skills that can be classified as soft skills, yet a comprehensive list of these soft skills has not been identified. The purpose of this project is to have industry professionals in human resources and educators who teach human resources, to rate the importance of soft skill competencies found in the literature. This study serves as the beginning of a comprehensive study of soft skills needed in entry-level hospitality management positions.

Introduction

Many times companies will discuss the knowledge, skills, and abilities (KSA’s) of their applicants in order to select the ‘best fit’ for the company. Most companies assess the knowledge of their applicants by testing. Companies are not often concerned with the technical skills and abilities of their entry-level managers because they will train them according to their company standards. Most companies want their future managers to have the soft skills needed to be successful within the environment of their organization and will select from applicants with those soft skills.

Definitions of the terms hard skills and soft skills have been proposed by many authors (for example Clark, 1993; Wellington, 2005; and Rainsbury, Hodges, Burchell, & Lay, 2002). Hard skills are associated with technical aspects of performing a job. These skills usually require the acquisition of knowledge, are primarily cognitive in nature, and are influenced by an individual’s intelligence quotient score. Soft skills are defined as the interpersonal, human, people, or behavioral skills needed to apply technical skills and knowledge in the workplace (Kantrowitz, 2005; Rainsbury, Hodges, Burchell, & Lay, 2002). The terms hard and soft skills have developed over the years as a way of identifying characteristics and skills needed to be successful in management positions.

Companies spend billions of dollars on training and the identification of hard and soft skills. Plus companies spend on methods to develop the skills that will help maximize these dollars. According to Roberts (2000), U.S. businesses spend $62 billion a year on training. According to Roehl and Swerdlow (1999), the largest companies in the U.S. spend an average of 2% of their total time on training, while Japanese and German companies spend 10% of their time on training. These statistics indicate a need to hire the best possible talent. Recruiters wish to match the right individual to their organization in the hope of ensuring retention. This research is just the beginning process in order to enable recruiters to be more successful with matching the best applicant with their position.

The purpose of this project is to establish two Delphi panels, one comprised of hotel and restaurant human resource professionals, the other comprised of educators who teach human resources at four year institutions of higher learning. The two panels will evaluate a list of soft skill competencies found in literature (Weber, Finley, Crawford, and Rivera, 2009). By studying the soft skills essential to success in the business environment, a company can 1) improve their selection process, 2) enhance their initial training process, 3) improve their development program, 4) strengthen the performance evaluation process, and hopefully 5) reduce turnover. Thus, reducing the costs associated with operating a business, and increasing profitability.

Literature Review

Delphi Panels

The Delphi method was developed during the 1950s at Rand Corporation to make effective use of potential intra-group interaction (Breiner, Cuhls, & Grupp,
1994). The method has proved to be especially appropriate when the subject matter lends itself to conducting subjective (qualitative) rather than quantitative analysis (Linstone & Turoff, 1975). The central aim of the Delphi method is to eliminate any direct confrontation among the experts and to allow judgment to be reached by consensus based upon increasing amounts of information becoming available (Prendergast & Marr, 1994). A Delphi study involves a number of considerations, including: (a) the selection of panelists, (b) the design of the questionnaire, (c) the provision of feedback, and (d) a decision on the number of rounds to be conducted (Yong, Keng, & Leng, 1988).

This research used a roundless form of the Delphi panel. The roundless method involves the use of continuously updated, on-line questionnaires to communicate with the expert panel members. This method was preferred as a way to decrease the amount of time required to administer the series of questionnaires (versus the more traditional paper and pencil format). Gordon (2007) reported the use of a global Delphi panel of experts who predicted energy forecasts using the roundless method for collecting panel responses. Brill, Bishop, and Walker (2006) used a similar approach when they determined the competencies of a project manager. The web-based method was evaluated as a very efficient method for conducting Delphi panel research (Brill, Bishop, & Walker, 2006).

**Soft Skills in the Workplace**

In 1974, Katz placed the skills required by effective managers into three categories, technical, human, and conceptual. Technical skills are detail oriented skills that are required for entry-level managers. An example is calculating food cost in a restaurant. Human skills are those interpersonal skills needed in order to manage a group of people or interact in a one-on-one format. Team building and communication skills are examples of human skills. Conceptual skills are the planning and visioning skills needed by managers. Decision making and forecasting are examples of conceptual skills (Katz, 1974).

Sandwith (1993) identified five competency domains for management training: (a) conceptual/creative, (b) leadership, (c) interpersonal, (d) administrative, and (e) technical. These domains are similar to the categories identified by Katz (1974). The conceptual/creative domain corresponds to the conceptual skills category, the technical and administrative domains correspond to the technical skills category, and the leadership and interpersonal domains correspond to the human skills category.

The terms hard skills and soft skills are based on these categories and domains. Hard skills correspond to the skills in the technical and administrative categories and soft skills correspond to the skills in the human, conceptual, leadership, and interpersonal categories. Rainsbury, Hodges, Burchell, and Lay (2002) classified the competencies of superior managers identified by Spencer and Spencer (1993) as hard skills or soft skills. Only three of the twenty competencies were classified as hard skills with the remaining seventeen classified as soft skills. The categories of the soft skills included: (a) achievement and action, (b) impact and influence, (c) managerial (team management and developing others), and (d) personal effectiveness (Rainsbury, Hodges, Burchell, & Lay, 2002).

**Management Competencies**

In continuing the search for competencies, Boyatzis (1982) was among the first to study the topic of managerial competencies. His goal was to complete a comprehensive list of competencies that relate to performance effectiveness in managers, regardless of the organization. Boyatzis found his list of competencies did distinguish superior, average, and poor managers. His set of competencies account for 27% of the variance in the performance effectiveness of the managers, or approximately one-quarter of the variance in performance could be attributed to his list of competencies. Boyatzis also found evidence for 6 clusters of competencies; they included: (a) goal and action management, (b) leadership, (c) human resource management, (d) directing subordinates, (e) focus on others, and (f) specialized knowledge. These clusters can be found in the basic functions of management tasks, including planning, organizing, controlling, motivating, and coordinating (Boyatzis, 1982).

Taking a different approach to managerial competencies, Bray and Howard (1983) were interested in studying personality via the assessment center method. They reported the importance of two motives/traits, the need for advancement and inner work standards. The need for advancement was the motivation to be promoted faster and further than one’s peers. Inner work standards equated to having high standards of work performance even though a lower standard may be sufficient to satisfy the manager’s superior (Bray & Howard, 1983).
Similar to managerial competencies, Stevens and Campion (1994, 1999) suggested a taxonomy of individual competencies in teamwork. They wanted to develop a measure of knowledge, skills, and abilities for staffing teams within the organization. Their taxonomy defined 5 dimensions of competencies: (a) conflict resolution (managing effectively and resolving conflict), (b) collaborative problem solving (recognizing opportunities and involving all teams), (c) communication (including establishing communication networks, verbal, and nonverbal), (d) goal setting and performance management (establishing specific, challenging, and realistic goals, then monitoring feedback on performance), (e) planning and task coordination (coordinating tasks and information to establish role expectations). Their results from a variety of employment tests (verbal, quantitative, perceptual speed, and mechanical ability) showed criterion-related validity of teamwork performance, task performance, and overall job performance. An unexpected finding was a high correlation with employment aptitude tests. This suggests that KSA’s associated with working with others (a soft skill competency) relates to performance effectiveness (Stevens & Champion, 1994, 1999).

Chen, Donahue, and Klimoski (2004) built upon the work of Stevens and Champion (1999) by studying different types of skills within a team environment. Their subjects were college students. Using the same teamwork tests as Stevens and Champion, they found that after taking a course designed to improve teamwork skills, knowledge and skills significantly increased.

Using the studies by Boyzatis (1982) and Stevens and Campion (1994), four categories for soft skills can be identified:

1. Leadership/people/relationship skills - These skills are those needed to negotiate with others, to participate in a team environment, to provide service to clients/customers/peers, and to resolve conflict. This is important because it will aid in helping individuals and organizations accomplish goals (Kantrowitz, 2005).

2. Communication – These skills are associated with listening, presenting, verbalizing, and nonverbal communications. Riggio (1986) used the Social Skills Indicator (SSI) to assess social and communication skills. He found that higher scores on the SSI related to better job performance. Also, Riggio, Riggio, Salinas, and Cole (2003) found that groups chose leaders who had higher levels of communication skills (as measured by the SSI).

3. Management/organization – These skills include articulating goals, organizing people and resources, monitoring progress, and resolving problems (Kantrowitz, 2005). Mintzberg (1975) sought to determine how managers spend their time. He used structured observation methods. The roles he developed were categorized as decisional roles (resource allocation, resolving conflict, negotiation, and entrepreneurs), information roles (monitoring, disseminating, and speaking), and interpersonal roles (leader, figurehead, and liaison).

4. Cognitive skills and knowledge – These skills relate to creative thinking, making sound decisions, and solving problems within the workplace (Conrad, 1999). Kesselman, Schneider, Vance, and Hezlett (2000) also found that in-basket performance significantly and positively correlated with management potential scores.

**Soft Skills in Hospitality Management**

These management competencies are also used in the area of hospitality management. The identification of competencies needed by hospitality managers has been investigated since the 1980’s. Tas (1988) reported a list of 36 competencies required for management trainees. These competencies were divided into essential, considerable importance, and moderate importance. The six competencies in the essential category were soft skills needed to develop good working relationships with customers and employees. In 1994, food and beverage management competencies were reported by Okeiyi, Finley, and Postel (1994), identifying soft skills as essential competencies for food and beverage managers. The literature has seen a continued interest in competencies specifically related to hospitality, including competencies for club managers (Perdue, Ninemeier, & Woods, 2002), hospitality managers at different organizational levels (Kay & Russette, 2000), in the United Kingdom (Baum, 1990), and in Australia (Dimmock, Breen, & Walo, 2003). There is a need to continue the investigation into specific soft skills that are vital to hospitality management, as well as a need to study methods by which these skills may be developed and utilized.
Methodology

Of the 107 soft skill competencies discovered in the literature review, 101 required a scale of 1 to 5, with 1 = No Importance, and 5 = Essential. The last six competencies also used a 1 to 5 scale, but required reverse coding because they listed counterproductive competencies (i.e. Gains power to exercise influence over others). Prior research on the 107 competencies has been conducted (Weber, Finley, Crawford, & Rivera, 2009). These researchers placed the competencies into seven categories. The categories were: (a) Communication/Persuasion, (b) Performance Management, (c) Self Management, (d) Interpersonal, (e) Leadership/Organization, (f) Political/Cultural, and (g) Counterproductive.

Before contacting potential panelists, the researchers defined the intent of the two rounds of the Delphi panels. The first round of the Delphi panels was to assess the necessity of the soft skill competencies. Directions to panel members were to indicate the competency as not necessary, or if the competency is necessary, to indicate its importance by using a scale of limited importance, moderate importance, considerable importance, or essential.

The second round of the Delphi panel was to change the emphasis, from importance of the competency, to how much an entry-level manager uses the competency. The scale was changed from 1 to 10, with 1 = Uses the competency 0 to 10%, 2 = Uses the competency 10.1 to 20%, 3 = Uses the competency 20.1 to 30%, and eventually 10 = Uses the competency 90.1 to 100%.

After the intentions were defined, the lead author contacted 10 industry human resource professionals to participate in the two rounds of the Delphi panels. Out of these ten individuals, six agreed to participate. Next, the second author contacted 10 educators who taught human resource management at 4 year institutions of higher learning. To keep the panels even, 6 were chosen to participate. It must be noted, for the second iteration of the Delphi panel, only 5 members completed the assignment. (The sixth member did not give a reason for not completing the task.) For each of the two rounds, panel members were asked to complete a rating of the competencies, and the members were given a dialogue box with unlimited space to provide more specific feedback.

Findings

Results: First Iteration

After the first iteration it was recommended by the Delphi panelists that several additions and changes be made to the competencies in the following areas: Communication/Persuasion, Performance Management, Self-Management, Leadership/Organization, Political/Cultural, and Counterproductive. The soft skill additions that were suggested for the Communication/Persuasion category were listens attentively, demonstrates sound adjustments, effectively gives feedback, receives feedback, and provides clear direction. The suggested Self-Management additions were to include provides follow-up, willing to change after incorrect decision, and has time management skills. The only addition suggested for the Counterproductive category was to include acts aggressively. No additions were suggested for the Performance Management, Leadership/Organization, or Political/Cultural categories.

Changes also were suggested by the panelist to several of the category areas. It was suggested that delivers presentations be changed to delivers professional presentations in the Communication/Persuasion category. Recognizes limitations in the Performance Management section was suggested to be changed to recognizes their own limitations. In the Self-Management category the panelist suggested that acts aggressively/assertively be changed to acts assertively to resolve challenges. In the Leadership/Organization category it was suggested that organizes work be changed to organizes work effectively. In the Political/Cultural category the suggested change was to change political/cultural to understands the political/cultural environment within the organization. No suggested changes were made for the Counterproductive category in this study. After these changes and additions were made, a total of 116 soft skill competencies were included in the second iteration of the Delphi panel.

Means ranged from 2.6 to 5.0 (only 2 below 3.0) and the counterproductive criterion were all above 3.9 (reverse coded). Next, independent t-tests were calculated to test the variance of scores for the two groups (academic and industry) for equality. If the significance level of Lavene’s Test for Equality of Variance is larger than .05, the equal variances statistic is used. If Lavene’s test is less than or equal to .05, then equal variances not assumed statistic is used (Pallant, 2006). Completing the t-tests between the two groups (each N = 6) revealed 3 significant results (p < .05) and an additional 9 significant results with
Data did show normality with 12 criteria with kurtosis above 3.0. This was the result of the respondents rating the criteria with a score = 5. See Table One for results.

**Results: Second Iteration**

For the second round of the Delphi panel, means ranged from 4.3 to 9.7, with six criteria having means below 7.0 (and this considered the reverse coding for the ‘Counterproductive’ category). The six criteria were: 1) Gains power to exercise influence over others = 6.2 (Counterproductive), 2) Shows an entrepreneurial spirit = 6.1 (Self Management), 3) Acts creatively/tries new ideas = 5.9 (Communication/Persuasion), 4) Negotiates = 5.7 (Communication/Persuasion), 5) Uses humor to make a point = 4.4 (Communication/Persuasion), and 6) Delivers formal presentations = 4.3 (Communication/Persuasion). Notice that four of the six are in the Communication/Persuasion category.

Again, independent t-tests were calculated to test the variance of scores for the two groups (academic and industry) for equality. The t-tests between the two groups (each N = 5) revealed 10 significant results (p < .05) and an additional 10 significant results with p < .10. In all the cases, the industry representatives’ means were greater than the academic means. Data did show normality with only 5 criteria with kurtosis above 3.0. This was the result of the respondents rating the criteria with a score equal to 9 or 10. See Table Two for results.

The purpose of this study was to use the expertise of human resource professionals and academicians to further the importance of soft skill competencies. In both rounds of the Delphi process, the experts deemed the competencies to be important and necessary. The range of the means revealed 79 means in round one in the 4.0 to 5.0 range, and showed the panelists agreed with the need for these skills. In round two, 87 means were in the 8.0 to 10.0 range, again showing the panelists wanted entry-level managers to have these skills. Also for round two, all category means were above 7.39, with the category means of (a) interpersonal = 8.78, (b) performance management = 8.73, (c) political/cultural = 8.58, (d) leadership/organization = 8.35, (e) self management = 8.33, (f) communication/persuasion = 7.96, and (g) counterproductive = 7.39 (reverse coded).

<table>
<thead>
<tr>
<th>Competency</th>
<th>Acad. Mean</th>
<th>Ind. Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shows enthusiasm</td>
<td>4.17</td>
<td>5.00</td>
<td>.042</td>
</tr>
<tr>
<td>2. Controls emotion</td>
<td>3.67</td>
<td>4.33</td>
<td>.049</td>
</tr>
<tr>
<td>3. Shows confidence</td>
<td>3.67</td>
<td>4.33</td>
<td>.049</td>
</tr>
<tr>
<td>4. Promotes product/service/business knowledge</td>
<td>3.67</td>
<td>4.50</td>
<td>.065</td>
</tr>
<tr>
<td>5. Develops a strategy/plan</td>
<td>4.00</td>
<td>4.67</td>
<td>.073</td>
</tr>
<tr>
<td>7. Delegates</td>
<td>4.17</td>
<td>4.83</td>
<td>.086</td>
</tr>
<tr>
<td>8. Overcomes setbacks</td>
<td>4.17</td>
<td>4.67</td>
<td>.092</td>
</tr>
<tr>
<td>9. Greets employees and coworkers</td>
<td>4.17</td>
<td>4.67</td>
<td>.092</td>
</tr>
<tr>
<td>10. Sets goals</td>
<td>4.17</td>
<td>4.67</td>
<td>.092</td>
</tr>
<tr>
<td>11. Accepts feedback</td>
<td>4.83</td>
<td>4.33</td>
<td>.092</td>
</tr>
<tr>
<td>12. Handles delicate/confidential situations carefully</td>
<td>4.17</td>
<td>4.33</td>
<td>.092</td>
</tr>
<tr>
<td>13. Undermines others (reversed scored)</td>
<td>4.33</td>
<td>3.83</td>
<td>.092</td>
</tr>
</tbody>
</table>

*Scale: 1 = Not necessary, 2 = Limited importance, 5 = Essential*
Even though there were some differences between the ratings for some of the skills, overall the two groups responded in like fashion. For round one, eleven percent (or 12 out of 107) of the skills were rated differently by educators and human resource personnel. For round two, 11 out of 116 had significant t-test results indicating 9.5% of the skills were rated differently by educators and human resource personnel. Overall, both groups had similar results for the competencies.

Table 2: Round 2, Lavene’s Test of Equality Results (Academic n = 5, Industry n = 5, and N = 10)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Acad. Mean</th>
<th>Ind. Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides follow-up</td>
<td>8.40</td>
<td>9.80</td>
<td>.002</td>
</tr>
<tr>
<td>Models positive behaviors of others</td>
<td>9.00</td>
<td>10.00</td>
<td>.013</td>
</tr>
<tr>
<td>Identifies talent</td>
<td>6.60</td>
<td>9.20</td>
<td>.014</td>
</tr>
<tr>
<td>Gets buy in</td>
<td>6.40</td>
<td>8.80</td>
<td>.015</td>
</tr>
<tr>
<td>Attends to details</td>
<td>7.00</td>
<td>9.20</td>
<td>.017</td>
</tr>
<tr>
<td>Handles objections</td>
<td>7.20</td>
<td>9.20</td>
<td>.020</td>
</tr>
<tr>
<td>Overcomes setbacks</td>
<td>7.60</td>
<td>9.00</td>
<td>.025</td>
</tr>
<tr>
<td>Acts creatively/tries new ideas</td>
<td>4.40</td>
<td>7.40</td>
<td>.026</td>
</tr>
<tr>
<td>Controls emotions</td>
<td>7.20</td>
<td>9.00</td>
<td>.027</td>
</tr>
<tr>
<td>Consider the consequences when making decisions</td>
<td>7.40</td>
<td>9.40</td>
<td>.035</td>
</tr>
<tr>
<td>Adjusts message to audience</td>
<td>7.20</td>
<td>9.20</td>
<td>.051</td>
</tr>
<tr>
<td>Persuades</td>
<td>5.60</td>
<td>8.60</td>
<td>.057</td>
</tr>
<tr>
<td>Gets dissimilar people to work together</td>
<td>7.40</td>
<td>8.80</td>
<td>.058</td>
</tr>
<tr>
<td>Builds and maintains relationships</td>
<td>8.20</td>
<td>9.40</td>
<td>.060</td>
</tr>
<tr>
<td>Acts assertively to resolve challenges</td>
<td>6.40</td>
<td>8.40</td>
<td>.071</td>
</tr>
<tr>
<td>Earns the respect of others</td>
<td>7.80</td>
<td>9.80</td>
<td>.080</td>
</tr>
<tr>
<td>Recognizes people’s efforts</td>
<td>8.40</td>
<td>9.80</td>
<td>.083</td>
</tr>
<tr>
<td>Tolerates stress</td>
<td>8.20</td>
<td>9.60</td>
<td>.083</td>
</tr>
<tr>
<td>Acts straightforward and honestly</td>
<td>9.00</td>
<td>10.00</td>
<td>.089</td>
</tr>
<tr>
<td>Evaluates performance</td>
<td>6.80</td>
<td>9.00</td>
<td>.097</td>
</tr>
</tbody>
</table>

* Use of Competency: 1 = 0 to 10%, 2 = 10.1 to 20%, 10 = 90.1 to 100%
Discussion/Conclusions

The competencies with the highest means involved working effectively with employees and customers, setting a positive example, displaying honesty/commitment, and developing creative solutions to problems. The panelists also wanted the six counterproductive competencies to be stated as positive competencies.

This research supported the importance of the soft skill competencies included in this study for entry-level hospitality managers. Using the Delphi panel method, agreement was garnered for the importance of these skills by those educating and those hiring entry-level managers. Agreement between these two groups of professionals provides support for these skills to be further studied via research and developed within the classroom.

With the understanding of the importance these competencies play in the success of an entry-level manager, a practitioner can select the right candidate that will be successful in the management position. This understanding ultimately provides industry with the resources vital to (1) improve the selection process, (2) enhance the initial training process, (3) improve the development program, (4) strengthen the performance evaluation process, and (5) reduce turnover. A further explanation of these resources can be seen in Figure 1.

The researchers recognized limitations to this research project. The respondents were asked to give honest responses to the web based survey. The researchers gathered their subjects by using their own network of colleagues, and the researchers kept the overall participation of the panel members at 12.

Figure 1: Application of soft-skill competencies.
References


**Author’s Biography**

Melvin Weber is an Associate Professor at East Carolina University in the Department of Hospitality Management. He joined the faculty in 2003 after completing his PhD at the University of Missouri at Columbia. He has professional experience working in quick service restaurants, casual restaurants, fine dining restaurants, and various positions within a hotel. He has four research threads: 1) soft skill competencies, 2) assessing teaching effectiveness, 3) core self evaluation, and 4) sustainable practices in tourism. He can be reached at weberm@ecu.edu