Analyzing the Effects of Cultural Intelligence on Employee Performance in Azaran Industrial Group (Isfahan Province)

Dr. Ali Nasr Isfahani
Professor, University of Isfahan, Iran

Rayehe Bahrami Nejad Jooneghani
Master of Business Management (Marketing), University of Isfahan, Iran

Marsa Azar
Master of Education Management, Islamic Azad University of Shahrekord, Iran

Abstract

Cultural intelligence is one of the most effective tools in performing tasks in organizations that are culturally diverse. Organizations need more employees who have knowledge and skills in multiple areas in order to compete in today’s modern and ever-changing world. This research aims to analyze the relationship between cultural intelligence and employee performance in the taken sample. The required data were collected using 100 questionnaires that were distributed among the 200 employees of Azaran Industrial Group. The questionnaire designed by Early and Ang was used in this research. SPSS and Amos software programs were used to analyze the collected data. Results indicate that there exists a meaningful relationship between cultural intelligence and employee performance. Furthermore, results show that there exist meaningful relationships between cultural intelligence aspects and employee performance. The motivational aspect has the highest effect on employee performance while the behavioral aspect has the lowest.

Keywords: intelligence, culture, cultural intelligence, employee performance

1- Introduction

Globalization has made the world a smaller and more uniform place in many ways (Friedman, 2005) and is increasingly crossing borders and eliminating the barriers to business, immigration, travel, and information exchange. However, cultural borders are not easily eliminated. Unlike legal, political, or financial aspects that visible in business environments, culture remains invisible to a certain extent. Thus an aspect of global trade is often overlooked (Thomas DC and Inkson, 2008). Increasing cultural diversity creates challenges for individuals and organizations. In today’s society where cultural diversity is ubiquitous, good communication has become a more serious challenge. Recognizing, valuing, and supporting these differences can maximize individual efficiency (Bibikova A and Kotelnikov, 2006). On the other hand mankind’s biggest
failure is in achieving cooperation and understanding with others (Hersey and Blanchard, 2003). An organization's performance depends on the performance of its employees and managers, opportunities, resources, and facilities and is also affected by the environment and other organizations. Employee performance is a function of individual (intellectual and mental skills and abilities and life background), psychological (perception, attitude, personality, learning, and motivation), and organizational variables (resources, leadership, payment, structure, and career plan) (Dolan & Shouller, 2002). Research shows challenges caused by cultural diversity for working teams (Tsui AS & Gutek B, 1999). Early and Ang (2003) developed the definition of cultural intelligence based on the concept of intelligence (Sternberg RJ, 1986). They defined cultural intelligence as the ability to adapt to new cultural patterns in interactions and providing appropriate behavioral responses to them (Early and Ang, 2003). Cultural intelligence allows people to find out how others think and how they respond to behavioral patterns. It thus reduces intercultural barriers and enables people to manage cultural diversity (Fayazi and Jannesari Ahmad, 2006). Furthermore, cultural intelligence increases the effectiveness of the organization, managers, employees, and interpersonal interactions in social environments (Cultural Intelligence Center). Recent research analyzes cultural diversity in subcultures in national organizations and their effects. The present research aims to analyze the relationship between cultural diversity and employee performance in Azaran Industrial Group.

2- Literature Review

2-1- Culture

It’s not easy to describe culture. We can only understand our own culture when we are away from it and are exposed to another culture (Arabi and Yazdi, 2005). Culture considers beliefs and values that people can use to interpret their experiences and behaviors individually or in groups. Culture refers to groups or communities where an individual shares experiences that form the path to understanding the world. Similar people can belong to different cultures based on their birthplace, family status, gender, education, religion, job, workplace, and organizational culture. Culture is lens though which we see the world. This depends on what a person sees, what they feel, and how they represent themselves (www.1000ventures.com).

Gerard Hendrik Hofstede believes that culture is the collective programming of the mind that conditions the individual’s responses to the environment. This definition clearly states that culture is observable in everyday behaviors and in the way people interact with their environment. Hofstede distinguishes three levels of uniqueness in human mental programming: the lowest level, human nature, includes biological reactions such as hunger, territoriality, etc. which are common to all mankind. Because of human nature, there are many perceptions and behaviors shared among all humans; even humans grown up in different cultures. The highest level, personality, includes one’s genetic make-up and personal experiences which make each of us a unique individual. Because of personality, different behaviors and perceptions can be observed among members of the same culture. The intermediate level of culture includes experiences which we share with a group of people who surround us. Cultural values, attitudes,
and behaviors give us something in common with a certain group of people (Thomas and Inkson, 2003).

2-2- Cultural Intelligence

Humans have always emulated natural phenomena in their scientific and technological advancements. Organizations, similar to humans have features such as learning, memory, knowledge, thought, intelligence, etc. as well as lifecycle, which starts at birth and seemingly ends with death. This is because they are created by humans for humans. One feature which was considered an individual matter for a long time is intelligence (Faghihi, 2009). Intelligence in reality focuses on certain content aspects such as social intelligence, emotional intelligence, practical and applied intelligence. Emotional intelligence assumes that people are familiar with their culture, and thus use cultural methods in order to communicate with others. Cultural intelligence comes in where emotional intelligence fails. Cultural intelligence confirms practical facts and focuses on cultural aspects (Cavanaugh N and Gooderham P.N, 2007). The concept of cultural intelligence has attracted a large audience. It plays an important role in political and financial relations, developing and deepening social values, customer satisfaction, and developing intercultural relationships (Asgharizadeh and Ghasem, 2010).

![Diagram: Three levels of uniqueness in mental programming](Abzari and Khani, 2010)

The concept of cultural intelligence was first proposed by Earley and Ang. They defined cultural intelligence as the ability to adapt to new cultural patterns in interactions and providing appropriate behavioral responses to them (Early and Ang, 2003).
Cultural intelligence is a new domain of intelligence which is closely related to diverse work environments. Cultural intelligence allows people to find out how others think and how they respond to behavioral patterns. It thus reduces intercultural barriers and enables people to manage cultural diversity (Abzari and Khani, 2010). Cultural intelligence is understanding people on the inside and outside both theoretically and practically. It also provides us with a framework and a language to understand the differences and capitalize on them, not just tolerate or ignore them (Plum E, Achen B, Dræby I and Jensen I, 2007). An individual with a high cultural intelligence is able to learn in new cultural environments and enjoys encountering new cultures (Deng and Gibson, 2008).

Earley and Mosakowski present two major types of cultural intelligence:

1- Organizational cultural intelligence and 2- racial and geographical cultural intelligence to learn about a country’s culture (Lugo, 2007)

Cultural intelligence is an individual’s ability to understand, interpret, and effectively act in culturally diverse situations (Peterson, 2004). Cultural intelligence has three aspects: 1- cognitive, 2-physical, and 3-emotional-motivational (Earley and Mosakowski, 2004). Ang, Van Dyne, and Ke (2006, 2007), Earley and Ang (2003), and Van Dyne (2005, 2006) considers four aspects for cultural intelligence as explained in the following:

Metacognitive aspect: it’s a method which a person uses to reason in intercultural experiences. This aspect of cultural intelligence considers the process which people use to obtain and understand cultural knowledge, for instance when a person adapts their mental images after an experience that does not match their expectations.

Cognitive aspect: it’s a person’s cognition about similarities and differences of cultures and reflects their general knowledge of cultures for instance information about beliefs, religious faith, values, and beliefs about work, time, family communication, traditions and customs, and language.

Motivational aspect: it’s a person’s faith in that they can adapt to a new culture. The motivational aspect of cultural intelligence shows the amount and direction of energy people need to have effective interactions in the new culture. This aspect includes the level in which people are certain about their abilities in intercultural interactions.

Earley and Ang (2003) believe that there are two general motivational frameworks useful for the motivational aspect: self-efficacy and self-adaptability (Earley and Mosakowski, 2004). Bandura defines self-efficacy as “the belief in one’s abilities to organize and execute the courses of action required to manage prospective situations” (Chen and Gilad, 2002).

Behavioral aspect: it’s the ability to give verbal and non-verbal cues in interactions with people of different cultures. Culturally intelligent people tweak characteristics of their verbal communication (such as tone or accent) as the need arises. They also adapt the length of their speech to the host culture. It is worth mentioning that in rich cultures such as East Asian
cultures verbal communication is much less common compared to western cultures. Culturally intelligent people use non-verbal communication as well as body language appropriate to the host culture.

In cultural intelligence, several innate and acquisitive characteristics help in increasing the motivation to learn: They are as follows:

1- Self-awareness: the first step in achieving cultural flexibility is understanding one’s own culture and how it affects one’s interpretations of other people’s behavior. This is an important part of cultural mix and stereotyping which is very likely to be used in every intercultural situation.

2- Openness: respecting people and desire to learn from them which is the same as thinking without bias.

3- Perseverance and toughness: toughness is the boldness and ability to adapt to undesirable conditions. Bold people are able to overcome mental and psychological pressures and shocks and view them as opportunities to learn and grow. Meeting members of other cultures whether in one’s own country or in a foreign country can bring along stress, tension, and even excitement. Only a tough and bold person can overcome the mental and psychological pressures and shocks and view them as opportunities to learn and grow. Increasing cultural intelligence requires consecutive interactions which can only be achieved through perseverance and boldness (Mirsepaasi, et al, 2008).

2-3- Performance

Performance has many definitions and each scholar discusses a certain aspect of it. Armstrong (1994) defines performance as achieving goals with defined quality and quantity. The Oxford dictionary of English defines performance as “the act of doing or executing anything organized or promised (Armstrong, 1994:7). This definition not only considers input and output but also shows that performance is related to doing an activity and the results. Therefore performance can be considered as a kind of behavior. Another scholar defines performance as the shared function of effort and ability (Trance, 1997:22). Kane (1996) argues that performance is a process which the person pays no attention to and is in fact separate from the goal. Bernadin (1995) believes that performance should be defined as work results because these results have the strongest relationship with the company’s strategic goals, customer satisfaction, and economic involvement.

Brumbach (1998) presents a more comprehensive view of performance which includes behaviors and results. He suggests that performance means behavior and results. Behaviors are initiated by the agent and turn performance from a thought into action. Not only are behaviors not tools to achieve results but also are in turn consequences of mental and physical activities. They thus can be considered separate. Performance factors
Performance factors (indexes) in general include behavioral factors and process factors (Jalali, 1998). 

Behavioral factors
- Conformance to administrative rules: on-time arrival and completion of assigned tasks;
- Appropriate behavior towards clients: appropriate reception, effort to solve and follow up on the client’s problem, friendly relationships with co-workers;
- Enthusiasm: carrying orders out quickly, following up on assigned tasks;
- Learning effort: making efforts to improve job-related skills, learning different skills, taking part in training programs;
- Flexibility: accepting one’s mistakes, not insisting on one’s own opinions more than necessary and accepting guidance from others
- Reliability: knowing one’s job well and doing it without constant supervision, attention to the correctness and accuracy of the performed task, compassion in doing one’s job, sense of responsibility, maintaining the tools for the job in good condition;
- Spontaneity: recognizing the needs and problems of one’s department and offering solutions, being motivated to work, volunteering to do job-related tasks.

Process factors
- Factors related to work conditions: procuring suitable equipment, job security, liability insurance;
- Factors related to respect and appreciation: getting respect of management, friendly relationships, encouragement, lack of prejudice
- Factors related to training and achievement: retraining courses, the ability to do research, improving information flow;
- Factors related to collaboration: collaboration in decision making, asking for opinions from people involved
- Factors related to having qualified and competent management.

2-4- Cultural intelligence and performance

Many organizations have extended their operation domains for a long time. Extending operation domains does not only affect financial and business institutions. It also affects political, social, scientific, moral, cultural, and religious entities. Extending certain operations has forced organizations to deal with diverse cultures among workers and customers. Diversity is actually a fact in our lives nowadays and no organization can avoid it. Organization use communication and decision making methods bearing in mind that their customers and employees have different cultural backgrounds and associations (Zahedi, 2000). Statistics show that many companies go bankrupt when people don’t have a clear understanding of different cultures (Thomas and Inkson, 2004). There is a large range of emotions and feelings in every culture, even in the subcultures of a national culture. In a way that differences in language, ethnicity, policies, etc. can become sources of conflict that if not well understood may hinder working relationships (Triandis, 2006). Therefore the effects of these differences and managing them are very complex matters (Harris and Moran, 2004). Research shows that difference in
national cultures is one of the most important determinants of the type of behavior (Braker, 2005; Green and Hill, 2005). In order to establish relationships and overcome problems caused by cultural difference, people need certain capabilities and interactions for interpersonal communication in different cultures. One of these capabilities is cultural intelligence. Cultural intelligence refers to an individual’s abilities to establish effective communication in diverse cultures. Cultural intelligence helps individuals be sensitive towards different cultures and analyze new cultures they come across (Imai, 2007).

Since many organizations like to improve and optimize their performance, they must first improve their employees’ performance. Performance is defined as a set of tasks and activities employees perform in order to achieve defined organizational goals. Performance is a function of knowledge, skills, capabilities, and motives. Regarding this matter the fact is that cultural intelligence is the most important capability in today’s organizations. Recent research studies cultural diversity in subcultures of a national culture. The current research aims to analyze the relationship between cultural intelligence and employee performance in Azaran Industrial Group. The following hypotheses are proposed based on theoretical literature on the subject:

Main hypothesis: cultural intelligence has a positive and meaningful effect on employee performance in Azaran Industrial Group.

Secondary hypotheses:
1- The metacognitive aspect has a positive meaningful effect on employee performance.
2- The cognitive aspect has a positive meaningful effect on employee performance.
3- The motivational aspect has a positive meaningful effect on employee performance.
4- The behavioral aspect has a positive meaningful effect on employee performance.

Figure 2 presents the conceptual model of the research.

Figure 2 – Conceptual model of the research

3- Research methodology

This research has practical purposes and is a descriptive survey regarding data collection methods. It aims to analyze the effect of cultural intelligence on employee performance. The statistical population includes the 200 employees of Azaran Industrial Group in the business department and sales representatives in different provinces. 100 of these employees were
chosen as the sample. The Earley-Ang questionnaire was used to collect data. This questionnaire has four sections evaluate cultural intelligence strategy, knowledge, motivation, and behavior respectively using a Lickert scale of 1 to 5. In order to evaluate performance, the performance evaluation form of the company was used. This evaluation form includes behavioral and process factors of performance. Validity of research variables was verified using content validity and the overall reliability of the tools was measured using Cronbach’s alpha and was equal to 0.81 and 0.78 for the questionnaire and the evaluation form respectively which is high. Earley and Ang considered four aspects (metacognitive, cognitive, motivational, and behavioral) for cultural intelligence. This research thus analyzes the relationships between the metacognitive, cognitive, motivational, and behavioral aspects and employee performance.

### 3.1 Results of analyzing the conceptual model

The first step is to evaluate the fit of the measurement models. Table 1 presents the model’s fit indexes.

#### Table 1 - overall fit indexes of the model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indexes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>0/03 0/000 0/1 0/107 0/05</td>
</tr>
<tr>
<td>Behavioral</td>
<td>1/62 2/39 1/1 1/36 1/48</td>
</tr>
<tr>
<td>Motivation</td>
<td>0/94 0/98 0/9 0/94 0/93</td>
</tr>
<tr>
<td>Cognitive</td>
<td>0/04 0/01 0/0 0/05 0/05</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>0/98 0/98 0/9 0/97 0/96</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0/07 0/02 0/0 0/05 0/060</td>
</tr>
</tbody>
</table>

Measurement models are well-fit and in other words, overall indexes verify that the data supports the models well.

After analyzing and verifying the measurement models in the first step, the second step is to analyze the structural equations model in order to test the hypotheses. Furthermore, Table 2 presents the overall indexes of model fitness.
Table 2- overall indexes of model fitness

<table>
<thead>
<tr>
<th>RMR</th>
<th>CFI</th>
<th>p</th>
<th>GFI</th>
<th>RMSEA</th>
<th>CMIN/df</th>
<th>CMIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/04</td>
<td>0/98</td>
<td>0/03</td>
<td>0/94</td>
<td>0/05</td>
<td>1/40</td>
<td>61/99</td>
</tr>
<tr>
<td>Close to zero</td>
<td>0.90&gt;</td>
<td>0.90&gt;</td>
<td>0.90&gt;</td>
<td>0.08&lt;</td>
<td>1&gt;</td>
<td>3&lt;</td>
</tr>
</tbody>
</table>

The output obtained from Amos software program in estimating the standard model suggests path analysis to be a suitable model. The Chi-square value equals 1.4 that falls between 1 and 3. The RMSEA of the model is 0.05 which is appropriate, also GFI and CFI are both above 90 percent. All model fitness indexes have values in the reception area and these indexes indicate that model has a goodness-of-fit which is obtained by the data and the collected data support the model well. Table 3 shows the hypotheses along with their regression coefficients and partial index values.

Figure 3: the main structural equations model

Table 3- results of testing the main hypothesis

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Sample size</th>
<th>Significance number</th>
<th>Corroboration coefficient</th>
<th>Critical ratio</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI → Performance</td>
<td>100</td>
<td>0.000</td>
<td>0/38</td>
<td>15/09</td>
<td>accepted</td>
</tr>
</tbody>
</table>

Main hypothesis: cultural intelligence an effect on employee performance. 
Secondary hypotheses:

First secondary hypothesis: The metacognitive aspect has an effect on employee performance.
Second secondary hypothesis: The cognitive aspect has an effect on employee performance.
Third secondary hypothesis: The motivational aspect has an effect on employee performance.
Fourth secondary hypothesis: The behavioral aspect an effect on employee performance.

Table 4- overall fit indexes of structural equations modeling of secondary hypotheses

<table>
<thead>
<tr>
<th>RMR</th>
<th>CFI</th>
<th>p</th>
<th>GFI</th>
<th>RMSEA</th>
<th>CMIN/df</th>
<th>CMIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/06</td>
<td>0/92</td>
<td>0/005</td>
<td>0/91</td>
<td>0/07</td>
<td>2/80</td>
<td>101/01</td>
</tr>
<tr>
<td>Close to zero</td>
<td>0.90&gt;</td>
<td>0.90&gt;</td>
<td>0.90&gt;</td>
<td>0.08&lt;</td>
<td>1&gt;</td>
<td>3&lt;</td>
</tr>
</tbody>
</table>

Figure 4 - structural equations model of secondary hypotheses
Table 5: Results of hypotheses test

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Sample size</th>
<th>Significance number</th>
<th>Corroboration coefficient</th>
<th>Critical ratio</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metacognitive → Performance</td>
<td>100</td>
<td>0.000</td>
<td>0/36</td>
<td>7/91</td>
<td>accepted</td>
</tr>
<tr>
<td>Cognitive → Performance</td>
<td>100</td>
<td>0.000</td>
<td>0/47</td>
<td>9/64</td>
<td>accepted</td>
</tr>
<tr>
<td>Motivational → Performance</td>
<td>100</td>
<td>0.000</td>
<td>0/69</td>
<td>12/45</td>
<td>accepted</td>
</tr>
<tr>
<td>Behavioral → Performance</td>
<td>100</td>
<td>0.000</td>
<td>0/19</td>
<td>4/74</td>
<td>accepted</td>
</tr>
</tbody>
</table>

4- Results and discussion

The concept of intelligence has been studied for many years by researchers in many different studies. There are different kinds of intelligence and researchers have paid attention to cultural and emotional intelligence in the recent years. Cultural intelligence is a kind of intelligence that has recently emerged in the management field and is closely related to culturally diverse workplaces. Research on cultural intelligence has mainly focused on organizations with employees of different nationalities but cultural diversity of ethnic groups i.e. subcultures must also be studied. There have also been several studies that study ethnic and tribal differences in nation. Findings of the current study prove that there is a positive and meaningful relationship between cultural intelligence and employee performance in Azaran Company. Furthermore, there are positive relationships between the aspects of cultural intelligence: the motivational aspect with a coefficient of 0.69 has the highest effect and the behavioral aspect with a coefficient of 0.19 has the lowest. Metacognitive cultural intelligence affects performance because people with high metacognitive cultural intelligence are able to use their culture correctly; they plan their behavior in their mind before encountering the new culture and thus they behave as expected in different cultural situations. Cognitive cultural intelligence also assists correct and expected perceptions with knowledge of the language and other cultural systems and thus affects employee performance. Based on motivation theories, motivational cultural intelligence affects employee performance because the individual's desire to test other cultures and interact with people of those cultures help people in doing their jobs better and is effective through flexibility in verbal and non-verbal communication in fulfilling job expectations. Since an important part of cultural intelligence is skills and capabilities that are related to employee performance, managers inevitably have to develop or improve this intelligence among their employees. Employees also must find their strengths and weaknesses in cultural intelligence. This can serve as a starting point for further effort in improving their performance by eliminating their weaknesses. Cultural training for employees, familiarizing them with values, norms, behaviors, differences, and similarities of different cultures, improving conditions for people to interact more with each other, paying attention to symbols, rituals, and occasions of different cultures in organizations, roleplaying different situations in classes, and using the Internet are among the ways of developing and improving cultural
intelligence in employees. Employees can overcome their weaknesses through such educational programs. Therefore, as most cultural intelligence skills and capabilities are acquisitive Azaran Company can designate special importance to improving such intelligence among their employees and move towards improving cognitive and behavioral skills among their employees using formal and informal training. Furthermore, since the hypotheses of the research were proven we can say that cultural intelligence is one of the most important factors that affect employee performance and thus can be used as a criterion in selecting and assigning employees based on their activities and determining the necessary kind of training for employees as well as selecting criteria for evaluating employee performance which will eventually lead to improved organizational efficiency and effectiveness.

5-References

Faqihi, AS. (2009). "What organizational intelligence and how to increase the organizations". First meeting organizational intelligence and business intelligence.


www.1000ventures.com