Cultural Diversity and Performance: a Case Study among University Students

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Abstract
This report focuses on the effects of cultural diversity (CD) on team performance among university students and explores the relationship between team performance and CD. It identifies that there is a strong indirect relationship between these two concepts. Therefore, the nature of this relationship was investigated in details. The report identified that there are positive and negative effects of CD on intermediate outcomes of the team. The analysis has been performed to further develop the understanding of the subject of CD and the effects on team performance. The results of the analysis have been discussed in details with providing the required information in the analysis part..

Keywords: Cultural diversity (CD), Team performance, International students.

Introduction
Globalization has dramatically changed not only the way of conducting business but also other aspects of our lives today. One such aspect is the university life of students. Today, most universities and colleges around the world are experiencing the effects of globalization in their work: such as collaboration with other universities, diverse work pool of employees, and diverse groups of students. The number of international students is increasing year by year all around the world. A lot of studies have stated that students benefit from team-oriented learning activities in many ways.

According to Williams, Beard, and Rymer (1991), team interactions help students in the way of learning to work with each other; whereas, Quin, Johnson, and Johnson (1995) stated that group experiences encourage the development of skills such as problem solving. Furthermore, another study stated that team interactions can be used in order to develop powerful and effective future leaders (Thacker and Yost, 2002). Based on the above, it becomes clear that team-oriented learning activities are indispensable part of today’s education. The main assumption is that cultural diversity (CD) has an impact on team performance (Taras and Rowney, 2007; Webber and Donahue, 2001). There have been considerable researches on diverse teams in organisations. However, few focused on CD among university students. Therefore, this research aims to fill the gap in culturally diverse teams by investigating and analyzing teams at university level. The aim of this research is to investigate the main factors that affect the team performance in culturally diverse group of students at university. According to Slavin (1999), learning which takes place among group of students, who work on the common task is associated with both interpersonal skill development and improvements in student outcomes. Furthermore, when working together,
students tend to take responsibility both for own learning and their team mates. Thus, this research is highly important for students together with lecturers because it provides the opportunity to gain a better understanding on how CD may affect the performance in different ways.

**Diversity and performance**

Most quantitative and qualitative reviews done in the area of diversity take into account measurements of diversity like nationality, ethnicity, culture, age, and gender. The researchers concluded that findings of the studies are inconsistent (e.g., Kirkman, Tesluk and Rosen, 2004; Joshi and Roh, 2007). For instance, in some studies there were significant positive relationships between diversity including CD and team performance (e.g., Thomas, Ravlin and Wallace, 1996; Joshi and Roh, 2007). In contrast, other studies found significant negative relationships between performance and diversity (e.g., Cox and Blake, 1991; Kirkman, Tesluk, and Rosen, 2004). Some studies have identified no general connection between performance and diversity (e.g., Webber and Donahue, 2001; Bowers, Pharmer and Salas, 2000).

However, CD was not studied separately with due attention in many researches done to date. Majority of studies done to date, presume that teams are getting affected in the same way by all characteristics of differences between individuals. Though there are evidently certain parallels amongst different diversity sources, there is an indication that different forms of diversity can affect team performance in various different ways (Joshi and Roh, 2007). In particular, CD can affect teams in different ways from other sources of diversity (Lane et al., 2009). Often, cultural differences are beyond the consciousness level; therefore certain effects of cultural differences might not be recognized. Nevertheless, culture remains a strong source of stereotyping and categorization, thus compared to other sources the actual impacts of diversity might be bigger.

**Culture and Cultural Diversity**

Culture is, according to Hofstede (1980), “the collective programming of the mind which distinguishes the members of one group from another”. Culture comprises of commonly shared beliefs which determine the “oughts” and “shoulds” of the existence. For the members of the culture, it provides a source of identity. It is often common to talk about culture as country-based; however, culture also can develop around organizations, professions, and many other things. Besides, lots of countries include numerous ethnic cultures due to increased immigration and historical combinations (Tung, 2008). CD refers to differences in ethnicity, race, language, and nationality, which are represented within a group (Cox and Blake, 1991). CD impacts teams in three potentially opposing ways (Mannix and Neale, 2005). The first way is related to similarity attraction theory, where people are being attracted to work and collaborate with the ones they find similar to them in terms of attitudes, beliefs and values. The second way is related to the theory of social categorization, where individual inclined to classify himself as part of certain group, and see other individuals as belonging to different group or outsiders. Thus, individuals tend to treat those who are in their team with favoritism. They also might judge outsiders people in relation to traits of the group. The third way is related to information-processing theory, where diversity brings various different contributions to team (Stahl et. al., 2009). It can be seen that the first two theories propose that CD affects teams in a negative way, as it creates difficulties in social processes. The third perspective suggests a positive effect of diversity on teams. Thus, it can
be said that culturally diverse teams cover a broad area of information, and can result in a greater creativity, adaptability, and problem-solving (Horwitz and Horwitz, 2007).

Differences due to the culture are related to all the three theories over which CD impacts teams and their performances. For example, people will have apparent similarity-attraction among them, when they are aware of sharing and having common beliefs and values (Triandis, 1960). Through the history, nationality, ethnicity and race, all were amongst shared social classifications by the mean of which individuals classify themselves (Maznevski, 1994). Lastly, individuals from diverse cultures bring completely new means and sources of information-processing to the group (Stahl et al., 2009). Therefore, the overall impacts of CD are expected to multiply.

**Cultural Diversity and Team Performance**

It is essential to develop a better understanding about the possible opportunities and barriers which CD offers (DiStefano and Maznevski, 2000). Research by Williams & O’Reilly (1998) proposes that team input is diversity and team performance is an output. Diversity impacts many processes of the team and those sequentially have an effect on team performance. In order to simplify the effects of CD on performance of the team, the model by Stainer (1972) will be used which classifies variables on condition of leading to process gains or process losses.

There are processes which bring different ideas and values to the team and contrast them one another other (Thomas, Ravlin and Wallace, 1996). The differences are likely to be recognized through the social categorization similarity-attraction theories, rather than being ignored. Some of the processes create process gains, which mean that they positively contribute to the team performance. These processes are important as they enable the team to accomplish much more than members could, if working individually. Illustrations can be creativity and brainstorming sessions (Adler, 2002). However, these processes also may decrease the team’s performance, in the case when the differences are perceived as being disparaging from the purpose of the team. The negative process which produces loss is called conflict. Some of these processes positively contribute to the team performance, and thus aids the team to accomplish the intended result. Among positive processes is social integration, or in other words development of team unity, and communication, or in other words sharing of common meanings. On the other hand, there are processes that negatively contribute to team performance due to the fact that they get the team locked to the new information from outside, while the novel information is very crucial for making good and effective decisions. One such example can be found in the real world is group-think or according to Janis (1972), the tendency for premature concurrence-seeking which affects the group’s effectiveness in decision making.

**Team Performance**

As a starting point, we will try to explore the relationship between performance and CD. The definition for team performance is the extent to which the group executed the objective and achieved the results it was intended to achieve (Thomas, Ravlin and Wallace, 1996). Some researchers used more neutral indicators of performance, for example, quality of customer service (Jackson, Joshi and Erhardt, 2003). Since this study is focused on students, the performance will be indicated as the degree to which the group achieved its purpose. In performance of the team creativity, conflict, communication effectiveness, satisfaction, and social integration are discussed.
(Stahl, Maznevski, Voigt, & Jonsen, 2009). The literature review helped to develop the following specific hypotheses for empirical testing.

\[ H_1: \] CD will be associated with more creativity.

\[ H_2: \] CD will be associated with more conflict.

\[ H_3: \] CD will be associated with less effective communication.

\[ H_4: \] CD will be associated with lower satisfaction.

\[ H_5: \] CD will be associated with lower social integration.

**Creativity**

In performance of the team, creativity defined as consideration of an extensive diversity of alternatives for assessing those alternatives (O'Reilly, Williams and Barsade, 1998). In this study, creativity is assessed from the perspective of new ideas created through brainstorming sessions and the ability to produce creative resolutions to problems.

**Conflict**

The definition of conflict is the awareness of variances in opinions related to the task which the team is intended to accomplish (Horwitz and Horwitz, 2007). Besides, it is also can be described as a feeling tension experienced by the members of the team (Jehn and Mannix, 2001). Thus the conflict will be measured by the awareness of differences in viewpoints and feeling of tension experienced by members.

**Communication effectiveness**

Numerous researches tried to measure communication effectiveness among members of the team. Some of the researches emphasized on qualitative aspects of communication of the team, and thus studied whether the individuals talking openly with one another (Maznevski, 1994). In this research, communication effectiveness is assessed in terms of open communication between members of the team.

**Satisfaction**

This aspect was measured in the following way: members of the group were asked about whether they are satisfied with their group. According to O'Reilly, Caldwell and Barnett (1989), satisfaction can originate from pleasant social interactions or from performing acceptably as a team. In this research, the concept hence captures satisfaction within the team in general as well as with the performance.

**Social integration**

The aspect can be defined as the perception of affecting dimensions of team processes (Maznevski, 1994), like trust, satisfaction, and morale. In this study, the author omitted satisfaction aspect due to the fact that this concept was separately analyzed.

**Research Methodology**

In this research paper, the method that will be used is the quantitative approach. Thus, the questionnaires were distributed to students of an international university which is located in Malaysia. The targeted respondents belong to 19 different countries, different majoring schools and educational level. Non-probability sampling strategy is being used. It provides a range of
alternative techniques to select samples, the majority of which include an element of subjective judgment (Saunders, Lewis and Thornhill, 2012). Therefore, purposive sampling technique was chosen. With purposive sampling the author used her judgment to select cases that will best enable answering the research questions and meeting research objectives. The key goal of purposive sampling is to emphasis on particular characteristics of a population that are of interest, in this case students of the selected university. Total set of 150 questionnaires was distributed and the data collection was done online.

Data Analysis

After the information from questionnaires were collected, the next stage was to conduct the analysis. The software which has been used for data analysis in this research paper is the Statistical Package for the Social Sciences (SPSS).

None of the 150 questionnaires was missing and all were completed. The information in the table 1 represents the respondents’ gender.

<table>
<thead>
<tr>
<th>Table 1. Respondents’ gender</th>
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<tbody>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The age group is divided into three categories. First category is from 16 to 18 years old, followed by second group 19 to 21 years old and third group 22 and above. Table 2 shows the graphic illustration of the age information. 12.7% of the respondents fall under the age group of 16-18 years old, 38.0% fall under second age group of 19-21 years old, and 49.3% fall under third age group of 22 and above. The table 3 demonstrates the nationality of the respondents. The majority of the respondents are Malaysian nationals, which is 32.7%. This is due to the fact the research has been conducted in the selected university. The frequency test shows that second group of respondent are Indonesians, followed by Chinese which represent 12.0% and 10.7% of the respondent respectively. Also the respondents were divided into three categories based on their educational level. First category is students from Foundation, Diploma, and A-levels and they represent 22.0% of total sample. Second category is Bachelors and they represent 73.3% of total sample. And third category is Masters, represented by 4.7% of total sample.
Table 3: Nationalities’ of the respondents

<table>
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<tr>
<th>Nationality</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
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<td>32,7</td>
<td>32,7</td>
<td>32,7</td>
</tr>
<tr>
<td>Indonesian</td>
<td>18</td>
<td>12,0</td>
<td>12,0</td>
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<tr>
<td>Chinese</td>
<td>16</td>
<td>10,7</td>
<td>10,7</td>
<td>55,3</td>
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<tr>
<td>Kazakh</td>
<td>10</td>
<td>6,7</td>
<td>6,7</td>
<td>62,0</td>
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<tr>
<td>Pakistani</td>
<td>7</td>
<td>4,7</td>
<td>4,7</td>
<td>66,7</td>
</tr>
<tr>
<td>Sri Lankan</td>
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<tr>
<td>Burmese</td>
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<td>Russian</td>
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<tr>
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<td>Total</td>
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<td>100.0</td>
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</table>

A sequence of analyses has been done in order to inspect the effect of CD on team performance among the students of the selected university. First, we investigated the impact of CD on creativity. 83.7% of respondents agreed that CD is associated with more creativity, which shows that CD positively affects creativity. Therefore our first hypothesis has been supported.

Second, the investigation of the conflict showed 40% of respondents disagreed with the hypothesis. Hence, our second hypothesis is not supported. This suggest that CD is associated with less conflict, however, there are 38% of respondent who agreed with the statement. This may suggest that the hypothesis is partially supported.

The analysis for the third hypothesis showed 79.3% of respondents disagreed with the fact that CD is associated with less effective communication. This suggests that CD does not have a negative effect on communication effectiveness of the team. Hence, hypothesis 3 is not supported.

The analysis for the fourth hypothesis indicated 68.7% of respondents disagree on the question regarding satisfaction. This suggests that CD is related to higher level of satisfaction as opposed to our hypothesis. Thus, the hypothesis is not supported.

Finally, the analysis for social integration showed 32% of respondents agree that CD negatively affects trust dimension which was measured in this research as part of social integration. Hence the hypothesis has been supported. However, the percentage of those who disagree is 28.6% which suggests that CD has a positive effect on social integration for a big number of people.

From hypotheses testing we found that team can gain from CD in teams of high creativity, effective communication, and satisfaction, but also loss in terms of increased conflict.
Besides hypothesis testing, Independent Sample t-test was performed. From this test we can see that age group of 22 and above had a higher mean score on creativity compared to the age group of 16 to 21. This can be explained that elder group had more experience of working in culturally diverse teams than younger group of respondents. Therefore, the age group 22 and above rated brainstorming, creative solutions, and broader variety of experiences shared, higher than younger age group.

As for conflict section, both age groups’ mean was almost the same. Thus, both age groups answered same for tension, different viewpoints, and disagreement dimension of conflict section. This suggests that conflict exist no matter how old the person is or whether the person has experience in working with culturally diverse teams.

As for communication effectiveness, it is clear from the t-test that no matter what is the age of respondents they communicate with one another openly. The mean was close between two age groups which suggest that CD does not have a negative effect on communication effectiveness, as also was shown in the hypothesis.

Satisfaction section was presented in the study by two dimensions, which are satisfaction with culturally diverse team and satisfaction with performance of those teams. The mean for satisfaction with teams shows that elder group satisfied more than younger group. This can be explained by the fact that those from elder group learned how to work in diverse team and how to achieve satisfaction with such teams, whereas younger group may not yet possess the communication skills which are necessary for culturally diverse teamwork.

Finally, social integration section was presented in the study by trust and morale dimensions, which were assessed in the survey. The mean for morale shows that both groups rated their responses similar to each other, and that CD helps to boost morale for all ages of respondents. Whereas, “trust” produced mixed results which show that slight majority does not agree that CD team interaction helps to build trust with people from different backgrounds.

Besides hypotheses and t-test, we also performed cross-tabulation analysis. In the analysis we showed only one cross-tabulation analysis due to word limit constraint. It can be seen that 39 (50.6%) respondents at the age of 22 and above agree that in culturally diverse team they talk open to one another, followed by 28 or 36.4% of respondents at the age of 19-21, and 10 respondents or 13% at the age of 16-18 also agree. Similar pattern can be seen in the row of strongly agree, where 52.4% of the age group 22 and above, 33.3% of the age group 19-21, and 14.3% of the age group 16-18, all strongly agree on the communication effectiveness dimension of open talk. We can see that percentage increases with age, which suggests that with age students develop communication skills which enable them to interact with one another in an effective way.

Conclusion

The overall results suggest that cultural diversity does not have a direct effect on team performance. The author did not find the way to investigate the direct relationship between CD and team performance. Thus, the author investigated the nature of the relationship in more details, by looking at intermediate outcomes between CD and team performance.

The results of the analysis show that culturally diverse teams experience increased creativity, which is a process gain (Adler, 2002). But they also experience the process loss of increased conflict. Besides, culturally diverse team experiences the loss process due to low social
integration. However, opposing to the hypothesis, culturally diverse team did not experience communication ineffectiveness. Besides, such teams also showed higher satisfaction compared to what the research hypothesized.

The results also show that the age, which is surface level diversity, affects the way different age groups perceive the creativity and satisfaction. Thus, satisfaction is higher in culturally diverse teams where respondents are at the age of 22 and above. Respondents at this age tend to be at the last year of their Bachelor’s or doing Master’s degree. This suggests that at this stage respondents possess more knowledge and skills on how to work in culturally diverse teams compared to younger group of respondents who come from Foundation or first years of their Bachelor’s.

Furthermore, analysis shows that the age does not affect conflict and social integration, as both age groups answers were close to each other. Therefore, conflict can occur in culturally diverse teams any time and it does not depend on the experience of team members. On the other hand, social integration produced mixed results, as respondents agree that CD helps to boost morale, however, they disagree that it helps to build trust. This pattern of answers came from both age groups which suggest that building trust among members of culturally diverse team is a challenging task. Future research undertakings may focus on mechanisms through which CD affects team dynamics and performance such as team tenure, team size, as well as on conditions that help or obstruct effective students’ team performance.

References


Taras, V. and Rowney, J. (2007). Effects of cultural diversity on in-class communication and student project team dynamics: creating synergy in the diverse classroom.


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