A STUDY OF WORKPLACE CONTEXT AND ITS RELATIONSHIP WITH TEAM COMPETENCES

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Abstract

The management of workplace context and organizational culture for knowledge workers is vital for nurturing good team competences. This paper presents a pilot study of the relationship between workplace context and team competences. The study has been conducted by a questionnaire-based assessment methodology named context-competence assessment method which makes use of a series of survey tools. They involve a self-administered questionnaire, an organizational climate tool, a Management Skills Assessment Tool and Values and Norms questionnaire. A case study has been conducted in a manufacturing company in China to realize the capability of the context-competence assessment method. The results show that it is able to determine the organization's context with the organizational culture, climate and hence their relationships with team competences. The level of the team competences can be also determined with a significant level of confidence. The process of determining context-competence relationship provides an important means to identify useful areas of improvements and recommendations for the company. This paper concludes with a discussion about the current culture, current competence, possible culture shifting and the reason why culture shifting may help to improve the organization’s future development.

Keywords: Workplace Context, Team competences, Organizational Culture, Organizational Climate, Knowledge Management, Performance

1. INTRODUCTION

Nowadays, increasing competition, fast developing technology, high diversity of workforce, and increasing need for productivity are the most critical factors for the individual firms to survive. Researchers have attempted to determine specific workplace contexts and systems that can nurture the growth of productivity and competitiveness. It is also contended that people is not a resource that can be controlled easily as it is easily affected by the environmental factors (Parks, 1995). Some research shows that culture would be indispensable in determining the degree of individual fits for an organizational context (Kilmann et al., 1986; Schein, 1985). For the people aspect of knowledge management, particular beneficial workplace contexts, systems and well-organized employee resources are the emphasis of increasing productivity for team performance in an organization.

The workplace context can be regarded as conditions and environment in which team members work. These aspects include Organizational Culture, Organizational Climate, Team, Manager and characteristics of those concepts. Appropriate and well-matched workplace context leads to higher individual and team performance. In the consideration of team building, team members should possess different abilities to meet different requirements in different positions. To match positions with people with proper abilities, the evaluation of the competence is indispensable.
Burgoyne (1989) defines competence as both ability and willingness to finish a task. Hayes (1979) supplemented this as knowledge, motive, social role, or skill of a person. The opinion from both Burgoyne and Hayes emphasizes on competence of an individual that can be defined when it can be applied to a work activity. Boyatzis (1982) and Spencer (1993) define competences as underlying characteristics that are manifested in behavior of an individual including skills and knowledge, which can causally predict his/her performance in a job. It is interesting to note that individual competencies can elevate a higher level of team performance.

Elwell (1984) defines workplace competence as application of knowledge, skills, attitudes and values in the engineering workplace. As the workplace and individual competences are emphases of increasing productivity, therefore seeking to know how to build a beneficial and proper phenomenon inside the organization should take both of these two factors into consideration. Employees are the resource for the productivity of an organization. Meanwhile, it is also well known as a factor that is difficult to be controlled as compared with physical resources. Performance is the most important criterion to evaluate and predict the productivity of a staff. The performance can be evidently evaluated in a data while competence cannot. However, people with low performance in their position may not stand for their poor competence. With proper exploitation of their competence, they can yield much better result.

To maximize of the productivity of the employees, the identification of expected competence is very important. Colleagues, learning, and workplace context can affect individual competence. However, teams with different workplace contexts may require different kinds of competences. As a result, this study aims to study the relationships between workplace environment and employees preferences to achieve improvements in team competency. In this paper, a case study has been done in a manufacturing company. The results can help the company to identify the workplace context and competence inside the company, and also the beneficial context and competence for the development in the coming years.

2. RESEARCH METHODOLOGY

In the present study, a context-competence assessment method has been developed which attempts to examine the performance of the workplace context and competence measurement tool. The context-competence assessment method is developed based on a series of tools which include a self-administrated questionnaire, an organizational climate tool, a management skills assessment tool and Values and Norms questionnaire. The self-administrated questionnaire mainly aims at collecting the target organization’s context data. It contains an "Organizational Culture Assessment Instrument" which analyzes the organizational culture with different culture dimensions. The "Organizational Climate" tool that aims at collecting culture and context data from another perspective. The "Management Skills Assessment Tool" aims to assess the managers' daily behavior and employees' attitudes towards it. A "Values and Norms" questionnaire is used to evaluate the competence that is considered to be critical for the organization. A competence-based questionnaire is used to assess the seven major competences of the organization.

2.1 Culture Assessment Instrument
2.1.1 Modified Organizational Culture Assessment Instrument (OCAI)

Organizational Culture Assessment Instrument (OCAI) is commonly used for assessing organizational culture (Cameron & Quinn, 1999). In this study, the OCAI method (Cameron & Quinn, 1999) is adapted to identify the current culture in the target organization. Moreover, it is also modified to determine the culture that is believed to be beneficial to match future demands of the external environment and opportunities that the organization should face.

The OCAI questionnaire consists of six dimensions with four alternatives for each dimension. Respondents are asked to think about their day-to-day experience with their organization recently, and finish the OCAI questionnaire. Each dimension has 4 options that indicate different cultures. For each option, respondents need to assign a score between 1 to 5 points. Meanwhile, both "now" and "preferred" option should be collected from the respondents. "Now" means the respondent reckons the organization as it is currently as while "Preferred" means what do the respondents think their organization should possess in order to be successful.

The six dimensions assessed by the OCAI questionnaire merely describe several organizational culture's fundamental manifestations. They include:
(i) **Clan culture:** It is a "friendly" culture. The characteristics of Clan culture would be a lot of "sharing" among each other. Managers play the roles of the mentors and the culture contains a high commitment. Organization emphasizes on long-term development of human resource. Cohesion and morale, sensitivity to customers and concern for people are vital to organization’s success. With a clan culture, teamwork participation and consensus are highly promoted.

(ii) **Adhocracy culture:** It is a dynamic, entrepreneurial, and creative culture. Leaders are considered to be risk takers and innovators. The commitment to experimentation and innovation is a key to hold the organization together. The organization emphasizes on the leading edge as well as growth and acquisition of new resources. Gaining unique and new products or services are considered to be the means for success. With an adhocracy culture, individual initiative and freedom are encouraged.

(iii) **Hierarchy culture:** It is a formal and structured culture with well governance procedures for people work. The leaders are highly recognized as good coordinators and organizers. The most critical thing would be maintaining a smoothly running organization. Stability and performance with efficient, smooth operations are long-term concern. Organization success relies on dependable delivery, smooth scheduling, and low cost. It also takes to account of secure employment and predictability in management of employee.

(iv) **Market culture:** It is a result-oriented organizational culture which emphasize on getting work done. Employees are competitive and goal oriented while the leaders are hard drivers, producers and competitors. Winning, reputation and success are common concerns of the organization. Competitive actions and achievement of measurable goals and targets are long-team focus. Market share and penetration are used to define the success. It is vital to achieve competitive pricing and market leadership.

The present study aims to determine the relationship between the context and the competences, the more important data are about the situation of the context instead of expected shift. In this study, some modifications have been made in the scoring method. For the original OCAI method, instead of the scoring is about allocating 100 scores into the 6 dimensions. The modified OCAI asks the respondents to give a score between 1 to 5 to describe the degree of expectation and current performance of the 6 dimension. The modified 1 to 5 points assessment can assess objectively about each culture dimension's performance and expectation separately. The data for each dimension of culture is aggregated for both “Expected” and “Current” scores which are referred to the score for rating “Preferred” and “Now” options, respectively. The final result contains four parts which include:

(i) current culture assessed by employees,
(ii) expected culture of employees,
(iii) current culture assessed by managers,
(iv) expected culture of managers.

The analysis method makes use of the "Expected" scores to subtract the "Current" scores to observe the differences for each culture dimension. The differences between the current score and the expected score can also be divided by the "Current" scores to see the percentage of culture difference. The calculation of the culture difference for employee and the manager can be expressed in Eq. (1) and Eq. (2).

Employee culture difference = \[ \frac{\text{expected score of employee} - \text{current score of employee}}{\text{current score of employee}} \times 100 \] \hspace{1cm} (1)

Manager culture difference = \[ \frac{\text{expected score of manager} - \text{current score of manager}}{\text{current score of manager}} \times 100 \] \hspace{1cm} (2)

### 2.1.2 Management Skills Assessment Tool (MSAI)

A change of culture is an enduring, continuous process inside a company. According to Cameron and Quinn (1999), culture change depends on the implementation of individual behavior in the organization are used to define the success. The Management Skills Assessment Tool (MSAI) can help to determine the desired culture and design strategies and activities to produce such change. The MSAI is closely related to the OCAI tool as they are designed with the same value profile. In the MSAI questionnaire, there are 60 questions which describe daily behavior of the managers. The MSAI is used to
both managers and employees to collect the managers’ behavior data as well as the employees’ expectation of behavior.

As mentioned in the OCAI value profile, the culture is divided into 4 types which include clan, adhocracy, hierarchy and market, respectively. These four types of culture are also the basis of the questionnaire design. To collect more detailed information about the manager competences, 3 competencies are assigned to each of the existing culture. The relationships between the manager competences and the types of culture are shown in Figure 1.

![Figure 1: Relationship between the manager competencies and the culture types](image)

According to Figure 1, the manager competencies corresponding to the culture dimensions are explained as follows:

(i) For clan culture, managing teams means the managers’ competence about facilitating effective, cohesive, smooth-running teamwork as well as managing interpersonal relationships. Managing the development of others measure whether the managers are both willing to and able to help individuals to improve themselves and also their performance, expand competencies, and obtain further development.

(ii) For adhocracy culture, managing innovation infers that the managers encourage individuals to innovate, expand alternatives, try new methods, being creative and facilitate generating new ideas. Managing the future is an ability of communicating a clear future plan to the subordinates and facilitate its accomplishment. Managing continuous improvement asks the managers to attach importance to continuous improvement, flexibility, and productivity change among individuals.

(iii) For Market culture, managing competitiveness means managers are able to foster a competitive and aggressive phenomenon. Energizing employees is about motivating and inspiring individuals to be proactive and willing to pay extra effort. Managing customer service is ability of fostering a phenomenon of concerning customers, involve customers and aim at exceeding their expectations.

(iv) For Hierarchy culture, managing acculturation means managers are able to help individuals to be clear about the expectation of them, the current culture of the organization, and the way to fit their work and working context. Managing the control system means managers pay attention to ensuring the procedures, measurements and monitoring systems are under control and running smoothly. Managing coordination means fostering coordination
inside the organization and enabling sharing of
information across boundaries of external units
and managers.

After the collection of different competence
data, a comparison can be done between the manager
behavior and employees' expectation of behavior to
see the differences and similarities. It can also be
used to compare with the culture result to identify the
difference between the manager's acknowledgement
of the organizational culture and manager's behavior.
After the expected culture is identified, how this
culture meets with the four types of organizational
culture of "Clan", "Adhocracy", "Market" and
"Hierarchy" become clear. The expected behavior
pattern would be made to meet the expected culture
with a key dimension. Furthermore, some of the
competencies are recognized to be very important for
the culture conversion. The behavior pattern helps
to recommend the target organization about how to
achieve a beneficial culture in the future.

2.2 Organizational Climate

Organization climate is a relatively enduring
quality of internal organizational environment which
can be experienced by people while the people
behavior can also be influenced by it. Moreover, it
can be described by a particular set of characteristics
(or attributes) of the organization (Stringer, 2002).
Internal means that it is within the boundaries of the
organization. Stringer (2002) stated that the
Organizational Climate exists as it is perceived by the
organization members. In other words, organization
members' experiential reality forms the perception of
climate. The perception of organization members is a
reality that can be collected and defined whatever the
level of the awareness is inside the organization.
Furthermore, the Organizational Climate influences
the employee behavior in the organization, which is
usually regarded as enthusiasm of initiative of employees.
The purpose of conducting the Climate survey is to understand the perception and how it
relates to the motivation and the performance of the
organization members. Furthermore, those data can
be used as workplace information.

Stringer (2002) identified several characteristics
of climate that seem to correlate different types of
aroused motivation. There are six dimensions that
can best describe the Organization Climate in
different points of view include Structure, Standards,
Responsibility, Recognition, Support, and
Commitment. Climate can best be described and
measured in terms of six distinct dimensions which
are explained as follows:

(i) Structure is defined by Stringer (2002) as
"something reflects employees' sense of being
well organized and of having a clear definition
of their roles and responsibilities." High
structure means people feel that jobs are well
defined as low structure means people usually
feel confused about tasks' belonging and who
has decision-making authority.

(ii) Standards measure the feeling of being urged to
improve performance. It also affects the degree
of pride employees have in daily work. High
standards describe the atmosphere that people
keep looking for improving performance. Low
standards reflect that the organization does not
have high expectations for performance and people
treat their work freely.

(iii) Responsibility indicates employees' feelings of
"being their own boss". High responsibility
organization means that people inside do not
have to double-check decisions with others. A
sense of high responsibility builds up
employees' confidence and makes them feel
they are encouraged to solve problems on their
own. Low responsibility infers that the
organization does not tend to encourage risk
taking and testing of new approaches.

(iv) Recognition reflects that employees feel being
rewarded if they had done a well job. This
dimension is a measurement about placing
emphasis on reward versus criticism and
punishment. For high-recognition climate, an
appropriate balance of reward and criticism is
anticipated. If good works are inconsistently
rewarded, low-recognition climate will be built.

(v) Support measures the atmosphere of trust and
mutual support that prevails within the
organization. High support can be released
through a well-functioning team in which they
can get help if need. Employees feel isolated
and alone inside a low support organization.

(vi) Commitment measures the loyalty of the
employees and their commitment to achieve the
organization's goals. There is strong relationship
between strong commitment and high personal
loyalty. Lower level of commitment can be
defined as "employees feel apathetic toward the
organization and its goals".
In the organizational climate questionnaire (Maryam Omari, 2007), respondents are required to answer 24 questions about the climate. There are four questions for each dimensions mentioned above. The average score of each dimension is calculated. The final score is used to judge which level each dimension belongs to.

2.3 Values and Norms

Recent research mentioned that culture may be an important factor in determining the degree of individual fits and organizational context (Kilmann et al., 1986; Schein, 1985). Nadler and Tushman (1980) also stated that the notion of the personal culture fit is important in both psychology and organizational behavior. To measure the personal culture fit of target organization, the Organizational Culture Profile (OCP) that was introduced by O'Relly et al. (1991). Chatman et al. (2012) has simplified the OCP into a seven-factor solution with 43 value statements. The seven solutions are Adaptability, Collaborative, Results-Oriented, Integrity, Customer-Oriented, Detail-Oriented, and Transparency.

In the value and norms questionnaire (see Appendix), respondents are provided with a set of values and norms, considering about how those values and norms are related to their organization, and has asked to allocate 1 to 5 points for each statement. This tool is used by both managers and employees to see the similarities and differences between different parties. With the collected data, the most important values for the target organization are determined to stand for the values with the highest level of concern. Those values are interpreted with the purpose of defining the expected competencies of the target organization.

2.4 Competence-based questionnaire

In the competence-based questionnaire, seven sets of descriptions are involved with seven major competencies are assessed during the filling of the questionnaire. The seven chosen competencies include "Achievement Orientation", "Concern for Order", “Quality and Accuracy", "Information Seeking", "Initiative", "Innovation Oriention", and "Teamwork and Cooperation". The competence dictionary was introduced by Spencer and Spencer (1993) which is referred to a study with Boyatzis (1984) about the competence found in more than 200 jobs to make a competence dictionary. For each competence, a set of descriptions are provided to describe the situation of having different levels of competence. Each question asks the respondent to assess and give a score that indicates the extent to which their colleagues behave in specific way at workplace. The score for each description contains both self-assessed score and score assessed by colleagues. They are summarized as a score for the "overall" assessment of corresponding competence that can be calculated.

The meaning of the competences is introduced. The "Achievement Orientation" is concerning about how to work well or acting under a standard of excellence. The "Concern for Order, Quality and Accuracy" is an underlying drive to reduce the uncertainty of the environment. It can be expressed as a concern about maintaining the smooth-running of the organizational system. The "Information Seeking" is an underlying curiosity, a desire to know more, and do not just accept the situation "at face value". Seeking means contribution to get more information. "Initiative" is a preference of taking action that exceeds the requirement or expectation of the current job. "Innovation Oriented" implies the willingness to do new things, find new method that is not used in the organization, or not by anyone else yet. "Teamwork and Cooperation" means a genuine intention to be willing to work with others cooperatively, be a member of a team. The sorted collected data is about the overall scores for each respondent and each competence, which can stand for the project team's competence.

2.5 Data Processing and Analysis

After the acquisition of data information from the survey tools, the situation of the target organization's workplace context and project team competence is identified for relationship analysis. The relationship analysis starts with the specific findings from each of the survey tools of both context and competence. The findings from different tools may show the reasons why the weakness or superiority appears. After the identification of the relationship, what context results in the improvement of expected competences or context can be defined.

To determine the beneficial context for the target organization, the major factor to be considered is the existing project team competence. If the
competence can be better utilized, the efficiency and effectiveness of the organization will be improved. As a result, the first concern during finding the beneficial context is how to adjust the context model to better utilize the existing competence. The expectation of culture is also a reference for discovering the culture type that may benefit the organization most.

3. CASE STUDY AND DISCUSSION

To realize the context-competence assessment method in practical application, a case study has been conducted in a manufacturing company in China. This study was conducted in the quality department of the company. The study involved 9 managers and 15 employees and a total of 24 respondents participated. It aims to investigate how project context which is considered as the workplace context affects the competencies and performance of project teams. It is a set of conditions where team members act in terms of organizational culture, organizational climate, team, manager and characteristics of these concepts. This case study aims to determine how to improve organization performance by studying the appropriate competencies and project context inside the organization. As a result, the data collected contain both the culture factors and competencies factors.

3.1 Culture Assessment Instrument Analysis

The data analysis for culture assessment tool is based on the "Difference" introduced in the methodology. The results of the culture assessment are summarized in Table 1. The total score for a 9-person sample is 45 for each dimension. The data analysis has two main concerns:

(i) The relationship between total scores of employees' and managers'

(ii) The relationship between the percentage of differences.

The analysis is based on the total score which aims to see what is each dimension of culture assessed by managers and employees. The difference between scores and the difference percentage are discussed to analyze the target organization's current performance and expectation for each dimension.

Table 1: Total Score and Differences of Culture

<table>
<thead>
<tr>
<th>Type of culture</th>
<th>E-CU</th>
<th>E-CUC</th>
<th>E-EX</th>
<th>E-EXC</th>
<th>Diff</th>
<th>Diff-Con</th>
<th>Diff-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clan</td>
<td>48.75</td>
<td>29.25</td>
<td>62.40</td>
<td>37.44</td>
<td>13.65</td>
<td>8.19</td>
<td>28%</td>
</tr>
<tr>
<td>Adhocracy</td>
<td>47.55</td>
<td>28.53</td>
<td>57.90</td>
<td>34.74</td>
<td>10.35</td>
<td>6.21</td>
<td>22%</td>
</tr>
<tr>
<td>Market</td>
<td>46.65</td>
<td>27.99</td>
<td>55.35</td>
<td>33.21</td>
<td>8.70</td>
<td>5.22</td>
<td>19%</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>49.20</td>
<td>29.52</td>
<td>59.40</td>
<td>35.64</td>
<td>10.20</td>
<td>6.12</td>
<td>21%</td>
</tr>
<tr>
<td>Clan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhocracy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hierarchy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
The "E" in the table stand for "Employee" as "M" stand for "Manager".
The "CU" means "Current" and the "EX" means "Expected".
The "Diff" is the difference between the expected and current score of data, and the "Diff-%" is the percentage of difference that use the formula: [Diff] / [X-CU] as X can be "E" or "M".
The "Con" means convert. As the sample size is not the same, the comparison cannot be done directly by comparing the total scores. The conversion here is about changing the score of the 15-person employee sample to a 9-person sample to fit with the 9-person manager sample.

The results show that the clan culture is highly ranked by both managers and employees. The scores of employees are even higher than the managers' perspective for both current culture and expected culture. The employees' expectation of the clan culture is the one with the highest total score. It can be assumed that the clan culture is the culture that the employees desire the most. The expectation score of managers is also highly ranked and very close to the highest one.

For the difference, the clan culture is the dimension that the largest gap between the scores of
The current and expected appeared for both managers and employees. The "Diff-%" of both parties exceeds 25% largely, which can be considered to be significant. As a result, the "Clan" culture can be considered as a culture that the organization admitted to be expected.

The adhocracy culture is the dimension that is most differently assessed by managers and employees. For the employees, the score of expectation still exceeds the current score with about 20%, which is average level. For the managers, the current score is quite high but the expectation score is lower than the current score. This is the only dimension that the expectation score is lower than the current score.

For the organization, managers appear to prefer a much lower level of "Adhocracy" culture, or to say, innovation spirit. "Adhocracy" culture can be concluded as an innovative, creative culture. For the managers, they may think that "innovative" might not be very critical for the company's development and it might harm the organization's stability as innovation always means doing things that is different from the methods before and the risk is unavoidable. The managers' perspective may concern more about the stability of the organization, this is the possible reason why the negative Diff-% appears.

The market and hierarchy culture are assessed almost the same by both parties. This may imply that the managers and employees hold the same view that these culture dimensions are not attached with lots of importance. The overall understanding of these two dimensions is "good" but the target organization does not show a desire of improving it or put them in a leading edge. However, this result does not mean that the market culture and hierarchy culture is useless. Although these two culture dimensions are not highly valued now, it shows good evidence that employees do not reject the management style if the organization is converted and the leading culture is changed to one of them. The organization refers this result if it tends to change, or has to change its management style.

On the whole, the clan culture is the dimension where the target organization already own now. The high expectations of both parties also reflect the consensus the organization reached and that is the clan culture is expected both for the organization's current and future developments.

3.2 Management Skills Assessment Instrument (MSAI)

The questions of the Management Skills Assessment Instrument (MSAI) tool were designed to measure competencies of 4 quadrants: Clan, Adhocracy, Hierarchy, and Market, which are the same as the quadrants of the OCAI method. There are 3 categories in each quadrant and each category is formed by 5 questions in the questionnaire. A spider diagram is shown in Figure 2 which shows how the questionnaire result fits the Competing Value Framework of MSAI. 12 categories and corresponding 4 quadrants are shown in Figure 2. Large quantities of numbers are simplified into a shape for more concise analysis. The lines stand for the result of manager and employee, respectively.

![Figure 2: Manager Skill Assessment Results](image-url)
As shown in Figure 2, it is interesting to note that manager and employee reach an agreement about the manager competencies in most of the categories. The higher score indicates more competent or effective of the person who is rated. Although the manager and the employee assign almost the same score for all of the categories, there still exists some difference. The most significant difference between manager and employee appear in "Energizing Employees". Employees assign an overall higher mark than managers.

The difference appears in the "Market" quadrant, which is between "Control" and "External". This area covers the ability of managing the productivity of the employees. The score of employees is almost the same as what they gave to other categories. For the managers, a significant lower score is given as compared with score for other categories. For the managers, a significant lower score is given as compared with score for other categories, which may indicate that managers do not think they had done well in energizing employees.

3.3 Organizational Climate Analysis

Table 2 shows the average scores for each question after conversion, the final scores, and which degree of each dimension belongs to. The meaning of the degree of dimension is discussed as follows:

(i) Low Structure often drives performance when creativity and innovation are required. However, for inexperienced employees, low scores infer that they may feel somewhat disorganized, confused, or out of control.

(ii) Moderate Standards indicate less pressure even the management still has high expectations. This is an effective climate for most employees in most companies.

(iii) Moderate responsibility may work for some highly regulated industries or where risk avoidance is important. This is particular true if managers are new to their jobs.

(iv) Moderate recognition is the most normal range. It shows a healthy "pay for performance" equation.

(v) Moderate support is either related to high performance in collaboration and teamwork are needed or high performance in collaboration if close boss-subordinate relationships are needed.

(vi) Moderate commitment characterizes most high performing companies. It means there is good loyalty bonding employees to the company, but it's not blind loyalty.

As a result, the company has a moderate level of "standards", "responsibility", "recognition" and "commitment". The "Moderate" here usually stands for the most "suitable" level for an organization. Most of them are of the "suitable" level for most companies so my conclusion is that the company is doing well in these areas. "Support" is judged to be especially good in the company. "Structure" is the only dimension that is considered as "low" in the questionnaire. In most of companies, this result may reflect that employees feel confused, disorganized in the company, but in some innovation oriented companies it would be good because lower structure can build a more liberal phenomenon for employees, which is good for the employees to generate their own ideas.

Table 2 Results of Climates Analysis

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Bonded Question: Score</th>
<th>Average Score (%)</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>Q3 ^a: 2.17</td>
<td>Q6 ^a: 3.33</td>
<td>Q9 ^a: 1.83</td>
</tr>
<tr>
<td>Standards</td>
<td>Q7 ^a: 3.67</td>
<td>Q10 ^a: 4.00</td>
<td>Q12 ^a: 3.92</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Q4 ^a: 3.83</td>
<td>Q13 ^a: 1.67</td>
<td>Q18 ^a: 3.75</td>
</tr>
<tr>
<td>Recognition</td>
<td>Q1 ^a: 3.75</td>
<td>Q5 ^a: 3.67</td>
<td>Q17 ^a: 1.42</td>
</tr>
<tr>
<td>Support</td>
<td>Q2 ^a: 4.18</td>
<td>Q8 ^a: 2.00</td>
<td>Q14 ^a: 1.83</td>
</tr>
<tr>
<td>Commitment</td>
<td>Q11 ^a: 4.17</td>
<td>Q15 ^a: 3.92</td>
<td>Q21 ^a: 2.33</td>
</tr>
</tbody>
</table>

Remark: ^a denotes the question number corresponds to that for the Climates Survey Questionnaire by Maryam Omar (2007).

3.4 Values and Norms Analysis

With the Values and Norms data, the average scores for each value are calculated. The 5 highest scored values are selected for both employees and managers for identifying the similarities and differences. Then the findings are used to compare with other tools to find relationships. The data for the company is shown in Table 3.

Table 3 summarizes the highly assessed values for both managers and employees. The average scores are also listed. The average score is about 3.7
and the total scoring range is from 1 to 5. The values with score higher than 4 are selected as the values stand for the “outstanding” values, which mean they are attached with higher "expectation" as compared with other values and it may be useful for identifying expected competences. The data of this part are interpreted along and used in the relationship analysis as a reference of how each dimensions are ranked to be "Important" to be a member of the organization.

3.5 Competence Analysis

The competence data is very objective and the scores for each competence just represent the level of existence. The respondents are asked to assess both themselves and also some of their colleagues. The overall score for each individual respondent is calculated with the average number of self-assessment and colleagues’ assessment. Also, the overall competence makes use of the average score of all the overall individual scores to define. The scores for the competences are used as indicators of existence of each competence. The result of the competence questionnaire is shown in Table 4.

From Table 4, the performance of the competences is classified into 3 levels: Outstanding, Average, and Weak. The "Outstanding" level contains the competences with higher than 0.4 score. The "Weak" may stand for the competence with score below 0.3. Moreover, the "Average" stands for the competence between these two levels, which means to be ranged from 0.3 to 0.4. However, the competences level themselves do not provide a lot of useful information. The "level" stands for the performance of each competence as compared with other competences. It only provides a "high" or "low" level inside the target organization but not stands for the general performance inside the whole industry or higher level. To get more information, it is used in the relationship analysis for further interpretation.

3.6 Relationship Analysis

The best way to interpret the data is to find the deviation from general trends, which means exceptionally high or low scores. The relationship analysis is undertaken based on this method to identify noteworthy features from different tools and find the interrelationship between them.

For the "Clan" dimension, the difference in percentage seems to be relatively significant that both managers and employees get consensus about better clan culture in the future. The "Adhocracy" dimension is the most evidential one for identifying some significant findings. Firstly, this dimension is the only one assigned with the "negative" expectation. However, the "negative" expectation is only assessed by the managers as employees seem to hold an average level of expectation. Lastly, the existing level is similarly assessed by managers and employees. The same existing assessment may bring more confidence to say the "negative" expectation do exist in the case company.

<table>
<thead>
<tr>
<th>Table 3: Highest Assessed Values for Values and Norms Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Managers</strong></td>
</tr>
<tr>
<td>Being team oriented</td>
</tr>
<tr>
<td>An emphasis on quality</td>
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<tr>
<td>Taking initiative</td>
</tr>
<tr>
<td>Being aggressive</td>
</tr>
<tr>
<td>Working in collaboration and cooperation with others</td>
</tr>
<tr>
<td>Achievement Oriented</td>
</tr>
<tr>
<td>Average Overall Score</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4: Results of competence analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competency</strong></td>
</tr>
<tr>
<td>Average score</td>
</tr>
</tbody>
</table>

For most of the climates data, most of the climates are assigned with a "Moderate" level after data and there is only one low climate identified. As it mentioned in the methodology part, the "Moderate" level is generally the most "appropriate" level of climates for almost all of the organizations. The "Moderate" means to make the employees feel comfortable and relaxed but not unnoticed about
those climates. This phenomenon is generally beneficial for the organization and the data itself is not able to provide very useful data and it is also recorded for further comparison.

The values and norms data ask the respondents to assess the importance for the all values in the value table. The highly concerned value is considered as values attached with high importance and these values are desired by the organization. The scores for the "Values and Norms" tool collect data from two sides: managers and employees to see the differences and similarities from different side and study whether it affects some other features in the organization. Different values may reflect different aspects of a competence in different sides. The values table is used with the reference of the competence dictionary to identify the possible relationship.

3.7 Relationship between Culture and Competence

The findings from the culture data is concluded into two parts: the differently assigned adhocracy culture and quite high expectation on clan culture. Analysis about adhocracy culture is discussed. The clan culture is discussed with the values and norms data since there exist some similarities.

From the culture data, the most important and significant finding is the differently assessed "Adhocracy" culture. This culture is defined as a dynamic, entrepreneurial, and creative culture. For the leaders, they would be considered as risk-takers and innovators. The core spirit glues the organization together is the commitment to experiment and innovation. Also, to be on the leading edge of the whole industry is also highly concerned in the organization. For the long-term goal, growth and acquiring new resources are always concerned. The criteria of success are defined as gaining unique and new products or services.

The culture result reflects that managers and employees have got consensus about the current performance of the adhocracy culture but the expectation differs from each other a lot. The employees assessed a moderate level of expectation which is just like the expectation for hierarchy and market culture. Meanwhile, managers assessed a negative expectation for this dimension, which is the only negative expectation here. The negative expectation means that managers still want even lower level of the adhocracy culture. As there is such a difference about the opinion of expected culture, whether adhocracy culture is assessed differently by different parties should be proven. In order to check the "expected" culture, the organizational values and norms are very useful to refer to. With the definition and description of the adhocracy culture, the main specifications involve "innovation", "risk-taking", and "commitment to experiment". With the specifications in mind, values that are related to these specifications can be identified in Table 5.

### Table 5: Innovation Related Values

<table>
<thead>
<tr>
<th>Culture specifications</th>
<th>Managers</th>
<th>Employees</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Taking</td>
<td>3.44</td>
<td>4.00</td>
<td>0.56</td>
</tr>
<tr>
<td>A willingness to experiment</td>
<td>3.44</td>
<td>3.60</td>
<td>0.16</td>
</tr>
<tr>
<td>Being Innovative</td>
<td>3.22</td>
<td>3.64</td>
<td>0.42</td>
</tr>
<tr>
<td>Flexibility</td>
<td>3.22</td>
<td>3.93</td>
<td>0.71</td>
</tr>
</tbody>
</table>

As mentioned above, the criteria to choose the values are based on the adhocracy culture specifications, i.e. the innovative culture specifications. The value "Being Innovative" is obviously the value that fits with the requirement. Secondly, the description about the "risk taker" can also define the "Risk Taking" as related value. The third value to be identified is based on the "commitment to experiment". The value "A willingness to experiment" describes the same attitude. What's more, the "Flexibility" is something not directly mentioned in the definition. The "Flexibility" in work about making changes to better meet individual and business needs.

3.8 Relationship between Climate and Competence

The findings in the climate survey are about the "Low Structure". The "Moderate" level is proven to be appropriate for most of the organizations, so these climates are not interpreted individually. In this part of analysis, the structure climates are discussed about their performance, situation and effect to the
organization. The related competences are also identified to study the relationship. For the support climate, it is also discussed with the clan culture and value table as similarities exist among these results.

Referring to the competence result, the "Achievement Orientation" is assessed to be "Low" in the case company. The conclusion can be drawn that the poor performance of this competence is partially resulted from the low structure in the organization. As the current situation is about a negative effect on the "Achievement-Orientation" competence, the expectation of it is also noteworthy. To identify the expectation about the competence, we refer to the value table to find useful values and put them out in Table 6.

### Table 6: Achievement-Orientation Related Values

<table>
<thead>
<tr>
<th>Competence</th>
<th>Manager</th>
<th>Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Oriented</td>
<td>4.11</td>
<td>3.93</td>
</tr>
<tr>
<td>Taking initiative</td>
<td>4.22</td>
<td>4.27</td>
</tr>
</tbody>
</table>

As shown in Table 6, "Achievement Oriented" is the most obvious value to have relationship with the "Achievement Orientation" competence. The score for it is very close to 4.0, which is attached with quite high concern. The "Taking initiative" is chosen based on the attitude of individual who acts to be achievement oriented. The definition mentioned about acting to achieve under a "standard of excellence", which require the individual to contribute more effort to their job. The attitude can reflect relationship between these two features here. The score of this value is also very high with higher than 4. With the high score values identified, the "Achievement Orientation" seems to be highly welcomed by the case company.

To conclude, the existing competence level mismatches the expectation about the "Achievement Orientation". The poor performance of it is defined to be affected by the poor structure in the organization. With these findings, the "Achievement Orientation" can be defined as a competence with potential to be developed in the case company.

The analysis above refers a lot of information from the values table. The values can be referred to with specific purpose-identifying expectation of specific competence. As a result, high expectation of specific competence can also be identified according to the values table with the highest ranked values. Table 7 contains values with higher than score 4. It is interesting to note that one competence can be affected by more than one value. One significant finding is that the "Being team oriented" and "Working in collaboration and cooperation with others" describe the willingness and ability of working with others, which can also be found in the competence "Teamwork". There is no other value that is strongly related to the "Teamwork" in the value table. With two values in the highest value table, the "Teamwork" ability can be predicted to be highly expected. For the current performance of "Teamwork" competence, the level it belongs to is only average. To see the context for developing this competence, some findings from culture and climate result are discussed.

### Table 7: Highest Assessed Values

<table>
<thead>
<tr>
<th>Competence</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being team oriented</td>
<td>4.33</td>
<td>4.27</td>
</tr>
<tr>
<td>An emphasis on quality</td>
<td>4.20</td>
<td>4.33</td>
</tr>
<tr>
<td>Taking initiative</td>
<td>4.22</td>
<td>4.27</td>
</tr>
<tr>
<td>Working in collaboration and cooperation with others</td>
<td>4.13</td>
<td>4.11</td>
</tr>
</tbody>
</table>

The Clan culture is a highly "expected" culture for both managers and employees. The clan culture stands for the existence of high level of commitment and the phenomenon is quite friendly. People under a clan culture would like to share a lot about themselves and they would like to help other members in the organization. Support each other is an ability resulted from the "friendly" phenomenon as described in the clan culture, and it can also help to build the relationship among team members. The better relationship and sharing can make team members know more about each other, which can also make the cooperation easier. From the culture and climate result, they seem to provide a healthy context for "Teamwork" in the organization. To conclude, the expectation and context are both beneficial for the growth of "Teamwork" competence, this competence is also potential to be developed in the case company. Recommendations about this competence are also discussed in the following parts.

### 3.9 Recommendations

With the analysis above, the competences that are worth developing have been defined. The "Achievement Orientation" is a competence that is
possibly limited by the negative "Low Structure" phenomenon. The managers and employees assessed a high level of expectation to the values related to this competence. With the high expectation, conclusion can be drawn that the elimination of the negative phenomenon can improve the performance of this competence. The achievement orientation can directly affect the performance. Project team with high achievement orientation competence sets a higher standard to the assigned job and acts under a standard of excellence. This competence is valuable in the workplace and it can produce high value with improvement on task quality.

The "Teamwork" competence is defined from the value table to be highly expected. Teamwork is described as genuine intention to be willing to work with others cooperatively, be a member of a team. This competence describes how smooth a team can run to perform a task, or to say, the productivity of a team. As this competence is only assessed to be in an "Average" level, there is still room for improvement. The data result also proved that the context factors may be useful to apply the "Reflection" activities in improving the teamwork competence. With the identified competences to be improved, three recommendations about how to increase the responded competencies are discussed as follows:

(i) Reflection
Katzenbach and Smith (1993), and Larson and LaFasto (1989) argued that experience alone does not help people learn what high-performing teams seek. With this assumption, Hirsch and Mckenna (2007) stated that the best way to develop teamwork skills is to combine experience with reflection, and they introduced a tool about improving "Teamwork" ability. The reflection activities are used as a central component of team instruction. This method requires the team members to describe the success and difficulties they experienced recently. One of the findings is that the team members are required to reflect regularly about their team experience and their own strengths and weaknesses as a team member can be useful. With the combination of these findings, it may be useful to apply the "Reflection" activities in the case company to improve the "Teamwork" competence. The reflection suggested here is a combination of two methods. The detailed activity contains a regular "sharing" inside a team.

The team is required to hold meetings regularly, and team members share their reflections about their
encouragement. Stringer (2002) also mentioned in the climate improvements that the managers' encouragement is more effective than employees'. This finding can support the effectiveness of more frequent encouragement.

(iii) Improve Sense of "Structure"

According to the result findings, the "Low Structure" climate limits the performance of the "Achievement Orientation" competence by confusing the understanding of expected outcomes. Under this concern, conclusion is drawn to improve the low structure climate that can reduce the negative effects it brought, and facilitate the growth of achievement orientation competence furthermore.

The method of building a high "Structure" climate had been discussed in the climate survey of Stringer (2002). Two methods are selected from the discussion and introduced here to provide some examples of improve "Structure" climate. The first method is to set clearer goals and clarify the expectations for the employees. As mentioned in the analysis, the unclear expectation is the most important factor that affects the "Achievement Orientation" climate. If employees cannot understand the expected outcomes from their job instructions, the easiest method to improve is to clarify clearly about what the expectation is and what outcomes can be recognized and rewarded. The "reward" part also mentioned the importance of the benefits of producing superior performance, and these two methods also affect each other to improve the competence.

The other method is to "Uncover mix-ups and confusion, eliminate duplication or overlapping responsibilities". This method is used to reduce the time wasted by the mistakes and confusions, which means to be an improvement made on the whole workflow and system. The improved overall workflow and system can also increase the employees' sense of belonging to a well-organized team and increase the productivity and willingness to contribute in another aspect.

4. CONCLUSION

Employees working in team become more popular and those project teams are important for an organization's productivity and competitiveness. In people aspect of knowledge management, the culture for nurturing good team competency is vital. In order to support the development of the competency of the employees in project work team, specific workplace context is useful to facilitate the growth of employee’s competency. This paper attempts to study the relationship between employees, the workplace context and the effective way to achieve higher performance. The study is conducted in two steps. The first step covers the methodology of defining the workplace context and competences inside an organization. The second step attempts to discuss the possible relationship between the workplace context and the competences.

The workplace context is measured by the culture, climate, values and norms tools. A competence-based survey tool is designed to measure the competences of team members in project team. The tool is trial implemented in a manufacturing company. The results show that there are potential relationships between specific context-competence pairs and the findings can be utilized to provide suggestions to enhance the worth-developed competences. The results are based on the findings from the different tools applied for collecting data and combination of data which is the core process to identify relationship. The process of determination of the context-competence relationship is supported by logical analysis and it can also be applied to other companies to identify the useful areas of improvements and recommendations for the company.

ACKNOWLEDGMENT

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REFERENCES


### Appendix: Values and Norms Assessment Tool Sample

<table>
<thead>
<tr>
<th>Organizational Values</th>
<th>Very Uncharacteristic</th>
<th>Uncharacteristic</th>
<th>Neutral</th>
<th>Characteristic</th>
<th>Very Characteristic</th>
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</thead>
<tbody>
<tr>
<td>1. Achievement orientation</td>
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<td>2. Action orientation</td>
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<td>3. Being aggressive</td>
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<td>4. Being analytical</td>
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<td>5. Paying attention to detail</td>
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<td>6. Avoiding Conflict</td>
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<td>7. Being calm</td>
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<td>8. Being careful</td>
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<td>9. Working in collaboration and cooperation with others</td>
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<td>10. Being competitive</td>
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<td>11. Confronting conflict directly</td>
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<td>12. Being Customer Oriented</td>
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<td>13. A willingness to experiment</td>
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<td>14. Fast-moving</td>
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<td>15. High Level of Conflict</td>
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<td>16. Having High Ethical Standards</td>
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<td>17. Having high expectations for performance</td>
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<td>18. Being Honest</td>
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<td>19. Being innovative</td>
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<td>20. Having Integrity</td>
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<td>21. Learning from Mistakes</td>
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<td>22. Listening to Customers</td>
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<td>23. Autonomy</td>
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<td>24. Being Market Driven</td>
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<td>25. Being quick to take advantage of opportunities</td>
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<td>26. Putting Organization’s Goals Before Personal’s Goals</td>
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<td>27. Being precise</td>
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<td>28. Predictability</td>
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<td>29. An emphasis on quality</td>
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<td>30. Being results oriented</td>
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<td>31. Risk taking</td>
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<td>32. Security of employment</td>
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<td>33. Sharing information freely</td>
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<td>34. Being supportive</td>
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<td>35. Taking initiative</td>
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<td>36. Being team oriented</td>
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<td>37. Tolerance and cultural openness</td>
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<td>38. Being demanding</td>
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<td>39. Fairness</td>
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<td>40. High pay for good performance</td>
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<td>41. Being highly organized</td>
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<td>42. Being people oriented</td>
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<td>43. Continuous professional growth</td>
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<td>44. Respect others</td>
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<td>45. Being rule oriented</td>
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<td>46. Being socially responsible</td>
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<td>47. Stability</td>
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