International Journal of Business, Law, and Education
Volume 4, Number 2, 2023

# WORK TEAM COHESIVENESS: REFINING THE CONCEPTUAL DEFINITION

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**ABSTRACT**
The results of studies on the relationship between work team cohesiveness and team performance are still not conclusive. Inconsistencies in the results, caused by a shifting conceptual definition, have become a problem in cohesiveness measurements. This inconsistency in a conceptual definition exists in the literature and is based on the antecedents or the consequences of team cohesiveness. This study aimed to test the conceptual definition of work-team cohesiveness that had been proposed and to build a measurement for work-team cohesiveness. The respondents of this study were work teams from manufacturing and services companies. The results of this study support the conceptual definition proposed by the author.

**Keywords:**
Cohesiveness, Conceptual Definition, Measurement of Team Cohesiveness

## INTRODUCTION

The source of the main problems dealing with the inconsistency of the results between cohesiveness and performance due to the disparity in definitions and measurements is still not identified. Thus an agreement on the conceptual and operational definitions of cohesiveness remains unresolved. Friedkin (2004) found various patterns in the definition of cohesiveness, namely: (1) Cohesiveness defined as the duration of the membership; (2) cohesiveness defined as one of the antecedents that influenced the duration of membership, such as the intention to remain a group, identification with a group, or the interpersonal relationship; (3) the definition of cohesive being defined by consequences from the kinds of antecedents, such as the susceptibility to interpersonal influences from other group members, participation in group activities and, cooperative or other contributions to the welfare of the group. The authors assume that the problem caused by inconsistencies in teams' cohesiveness will not solve as long as the problem of the conceptual definition still exists because the definition of cohesiveness has implications for (a) The measurement of a team's cohesiveness; (b) the development of a hypothesis about the importance of the cohesiveness dimension; (c) the development of a hypothesis about the relationship between the cohesiveness dimension and the other construct (Carron and Brawley 2012).

The Meta-analysis of the consequences of cohesiveness had been done previously, but the review of the antecedents of cohesiveness had received less attention from researchers. Lott and Lott (1965) reviewed the antecedents, but they defined team cohesiveness as an interpersonal attraction. This interpersonal attraction was the antecedent of attractiveness to a team, so the literature review of the antecedents of interpersonal attraction was not similar to the review of the antecedents of team cohesiveness. However, there was the possibility that the antecedents of interpersonal attraction were also the antecedents of team cohesiveness. Examining the various cohesiveness antecedents from the cohesiveness definition will contribute to this construct's development.

Team cohesiveness can be analyzed using the Social Identity Theory (SIT) and the Social Exchange Theory (SET). Both of these theories are usually used separately for analyzing different social phenomena. Team cohesiveness is formed as the result of an individual's identification with team members to fulfill the affective needs and, at the same time, a process to evaluate the benefits derived from being an individual in a team. The conceptual definition proposed by the authors for work-team cohesiveness is based on integrating these two theories. Thus this study will contribute to integrating the two theories mentioned above, which will be used to analyze work-team cohesiveness.

## LITERATURE REVIEW

### Social Identity Theory (SIT) and Social Exchange Theory (SET)

Work team cohesiveness is a dynamic behavior process, so the degree of cohesiveness does not remain static. The phenomenon of work-team cohesiveness can be viewed from the perspective of the SIT and SET. SIT comes from the individual identification process, and how he relates to a group, so SIT is a theory for group identification (Tolman 1943). The process of the formation of work team cohesiveness, based on the SIT, is an individual one when personnel joins (assigned by their organization) into a team, and it will conduct a test for self-definition and then look for any similarity in the individual identity of other team members (Hennessy and West, 1999). The individual will more quickly identify himself as connected with the group when the group has unique values and practices, prestige, and individual awareness that being in the group is important (Asforth and Mael 1989). Individuals who become members of a group will transform themselves when they see themselves through the self-redefinition process (Hennessy and West 1999), so the longer an individual remains in a group, the higher the degree of connectedness and unity within the group.

The SET, built by Blau in 1964, refers to the voluntary actions of individuals motivated by the hope of getting a reply from others about their actions. The basic mechanism of the SET is a need for reciprocal benefits (Blau 1964). The SET explains why a person who interacts socially with others depends on other people as a result of fulfilling the resource that requires the person to carry out social exchange through reciprocal social interactions (Molm 1997). When an individual comes into a group as a result of an assignment, before the general norms or group goals have crystallized among the group members, the benefits that will be gained by being part of the group are that each member gives benefits to the other members, so there is a relationship of source relations in the social interaction process.

The process of forming the work team's cohesiveness will pass through this stage. However, the culture of the nation where the team members live will influence the length of time the members need to change their connectedness, as the basis of the resource exchange becomes the effective fulfillment. National culture can also affect the degree of cohesiveness of the work team, where the team members may only give priority to the fulfillment of one need, or both the instrument and affective have the same priority. Individuals in individualist cultures will still need good social relations with team members, as this will avoid conflicts and the creation of good communication so that the individuals will have positive experiences while working in the team and be successful in performing their duties.

### Proposing the Conceptual Definition of the Work Team in Asian Context

Reviews of various definitions of cohesiveness show the same idea being expounded by the researchers for the group cohesiveness component, which is the affective component or the socio-emotional and instrumental components (Example, Tziner 1982; Carron and Brawley 2012). The authors agree that work team cohesiveness has these two components, but it is unidimensional because the affective component and instrumental component are a whole. The work team cohesiveness is formed based on these two components. The magnitude of the needs of both components will influence the degree of work team cohesiveness. Especially for countries in Asia, which have collective cultures, for example Malaysia, Hong Kong, Bangladesh, China, Singapore Thailand, Vietnam, S.Korea, Taiwan, and Indonesia (Hofstede, Gert, and Michael, 2005); social needs and task needs support each other.

Redefining the conceptual definition that will be proposed in this article will be by paying more attention to the membership' duration. The proposed definition leads to the nature of the unidimensional cohesion due to the Asian culture, individuals consider both the fulfilment of the instrumental and affective components in all behaviour, which proves the construct of the work team cohesiveness in Asian culture is a collaboration of the affective component (social) and instrumental (task). The authors, in proposing this definition, also refer to cohesiveness dimension empirical test done by Xie and Johns (2000) in China, that gave the result that cohesiveness referred to a single factor and was proved at the group level. So the work team cohesiveness definition in the Asian context that the authors proposed was "Work team cohesiveness is a process of dynamic behaviour that reflects team unity behaviour which is driven by the fulfilment of the instrumental and affective needs of the members".

## METHOD

There were 400 questionnaires distributed to employees working for a service company and a manufacturing company. Questionnaires were distributed by e-mail as well as directly to the employees or to one of the top managers within the company. There were three parts to each questionnaire, comprising of: (1) Information regarding the respondent's characteristics; (2) open-questions that sought for respondents'opinions regarding the characteristics of a cohesive team; (3) statements that sought for the respondents' agreement/disagreement with the given statements. 5-point Likert scale was used to measure the answers for the given questions.

In the third part of the questionnaire, there were 28 questions which would provide a measurement for team's cohesiveness. The 28 items of measurement were used and based on the literature review by Davenport (2013) towards cohesiveness measurement items that had been used by previous studies. Items were used in accordance with the conceptual definition proposed. Table.1 is the list of used items of measurement for this study. There were 168 questionnaires returned out of 400 distributed, thus the response rate for Study 1 was 42%. The 168 questionnaires were completely answered, specifically in the third part. In the second part, which was aimed to seek respondents' opinion regarding cohesive team characteristics, there were 162 questionnaires returned. However, there were six out of 162 respondents who did not answer all items but filled up statements in part three.

**Table 1** Item List of Team Cohesion

| No | Statements | No | Statements |
|---|---|---|---|
| 1 | Team cohesiveness brings happiness | 15 | Team cohesion enables team members to cooperate in reaching the goal/target |
| 2 | Team intimacy enables team members to enjoy social interaction | 16 | Team intimacy enables team members to discuss a mutual goal desired by the team |
| 3 | Team cohesiveness brings joyful feeling especially when meeting team members | 17 | Team cohesion enables them to gain competitive advantage among other team |
| 4 | Team members are pleased to get involved in social activities since team members are bonded with each other | 18 | Team cohesion results in commitment to the team |
| 5 | Cohesion between team members makes them feel pleasant when getting involved in a team activity | 19 | Team cohesion enables them to solve the problems cooperatively |
| 6 | Cohesion between team members makes them like each other | 20 | Coherence between team members forms a oneness in in reaching the goal/target |
| 7 | Team cohesiveness makes team members take care of one another | 21 | Cohesion between team members forms a oneness in in reaching an excellent team |
| 8 | Bonding between team members enables them to share information or personal experience | 22 | Team members have the same comprehension on team mission and goal as the result of team cohesion |
| 9 | Team cohesiveness enables them to share ideas and skills to finish up a task | 23 | Intimacy between team members leads them to be good friends |
| 10 | Bonding between team members makes them be a part of social interaction | 24 | Team unity enables team members to improve their skills |
| 11 | Cohesion between team members enables the team to finish a job in their own way | 25 | Team cohesiveness leads to team performance improvement |
| 12 | Bonding between team members affects the personal life of a team member | 26 | Team cohesiveness between team members makes them to stick together even beyond working hours |
| 13 | Cohesiveness between team members affects their work ethics | 27 | Intimacy between team members enables them to communicate responsibility/tasks |
| 14 | Intimacy between team members enables them to speak up their minds eventhough their opinion contradicts the majority of other members' opinion | 28 | Bonding between team members makes them to keep becoming a part of the team |

Source: Adopted from Davenport (2013)

## RESULTS AND DISCUSSION

There were 162 respondents answered the open-questionnaire regarding the visible characteristics of cohesive team. Respondents' opinion is presented in Table.2. The Characteristics of a cohesive team which become the basis for the classification of cohesion components are the answers with percentage value above the average (9.09), namely: 1) Pleasant feeling to be in the team; 2) Mutuality to reach the goal; 3) Team members support one another. Thus, based on the results of the exploratory study on respondents' opinions regarding characteristics of cohesive team, there were three main components noted. The three components were in accordance with the conceptual definition as proposed by the authors. Three components would be used as a conceptual basis to factors the analysis of statements in order to determine the number of team cohesiveness factors that come from the results of exploratory studies regarding the respondents' opinions on team cohesiveness.

Exploratory factor analysis was employed to measure the validity of the 28 statements regarding cohesiveness as well as to determine the number of factors of team cohesiveness (the dimensions of team cohesiveness). From the analysis on 28

statements, there were six factors found. The six factor were found due to their Eigenvalues being greater than one (>1). Furr (2011) suggests to avoid using Eigenvalues greater than one as a basis for many factors formation. Thus, it was better to use screen plot to determine the number of factors from a bunch of the statements, especially if screen plot gave a clear leveling-off point. Figure.1 is the result from the screening plot on 28 items.

**Table 2** Distribution of Respondents' Opinion regarding the Characteristics of Cohesive Team

| No | Visible Characteristics of a Cohesive Team | Frequency | Percentage (%) |
|---|---|---|---|
| 1 | There is cooperation between members | 14 | 8.6 |
| 2 | There is mutual effort to gain an excellent team performance | 7 | 4.3 |
| 3 | Shared ideas or opinions between team members | 11 | 6.7 |
| 4 | Pleasant feeling to be in the team | 35 | 21.6 |
| 5 | Mutuality to reach the goal | 21 | 13 |
| 6 | Good communication between team members | 6 | 3.7 |
| 7 | No conflict/ problem within the team | 10 | 6.2 |
| 8 | Team members always maintain togetherness or mutuality | 5 | 3.1 |
| 9 | Team members are committed to the team | 5 | 3.1 |
| 10 | Team members support one another | 37 | 23 |
| 11 | Team members share information to one another | 11 | 6.7 |
| **Total** | | 162 | 100 |
| **Average Percentage Value** | | **9.09** | |

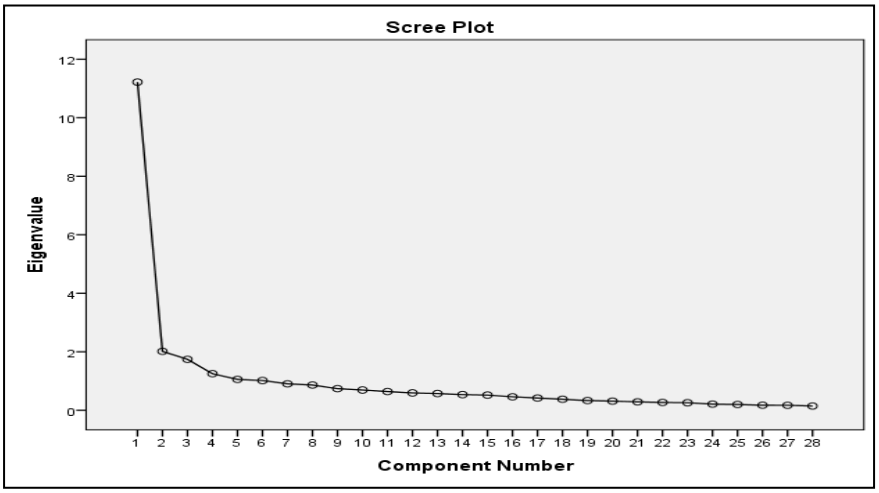


**Figure 1.** Screen Plot from Eigenvalues

The levelling-off point of the 28 items is clearly presented by the screen plot. This can infer that the factor formed by the 28 items was one (unidimensional) since there was a significant decline in the Eigenvalues. Moreover, further research into the six-factor model will be conducted based on the criterion of the Eigenvalues which were greater than one. Also, the unidimensional model (one factor) will be examined further using screen plot.

A factor loading value was used to classify the items in the statements. Factor loading value which were greater than 0.30 (> 0.30) will be employed in this study as a criterion, and all of factor loading value fulfils this criterion. Hair et al (2010)

suggested that items that cross-loaded should be dropped. Therefore, items 9, 10, 18, 20, 21, 25, 28 will be dropped. A total of seven items will be dropped, and 21 items will be retained. After the items of statements were classified, based on loading value, the conceptual basis of each item was then identified. The conceptual basis was based on exploratory studies regarding respondents' opinions and in accordance with the literature review.

O'Rourke and Hatcher (2013) suggested some requirements for item validity to be categorized into one of the factors, namely: 1) Are there at least three variables (items) with significant loadings on each retained component? 2) do the variables that load on a given component share similar conceptual meanings? 3) do the variables that load on different components seem to be measuring different constructs? 4) does the rotated factor pattern demonstrate simple structure? Based on the criteria suggested by them, factor 3 and factor 6 cannot be categorized as factor due to the inability to fulfill the minimum items required. Factor 3 only consisted of 1 item whereas factor 6 only consisted of 2 items; thus factor 3 and factor 6 cannot be considered as independent factor. The other items that belong to other factors (factor 1,2,4 and 5) were not based on the conceptual basis. Therefore, those items which belonged to one factor could measure more than one concept. Each factor could have at least two conceptual bases (i.e. pleasant feelings, and mutuality to reach the goal), thus factor 1, 2, 4, and 5 were not able to fulfil the requirements of factor validity as stated in points b and c. Each factor was not able to measure a different construct (point c), because each factor has similar components, or could be considered to be overlapping. Based on the criteria of the goodness of fit, the 4-factors model (model.1) was not able to fulfil the requirements regarding the goodness of fit. The analysis indicates the value of: Chi-square 406.204; a significantly probability 0.000 (< 0.05); a RMSEA 0.113 (> 0.08); a CMIN/DF 3.149 (>2); a TLI 0.7 (< 0.95); a CFI 0.773 (< 0.95). None of the index value could fulfil for the criteria of model's validity, thus it could be concluded that Model.1 was not valid.

There were two models proposed for the unidimensional model. The first unidimensional model (Model.2) was tested with 21 items and the second unidimension model was tested with 4 items. Factor 1 was tested for the unidimensional model of work team cohesiveness because it could define the 40.065% variance; whereas factor 2,3,4,5, and 6 were not significant (between 3% - 7%). Based on the result, it can be inferred that Model.2 (consisting of 21 items) cannot fulfil the requirements for the goodness of fit; whereas Model.3 (consist of 4 items) fulfills the requirements for the goodness of fit.

**Table 3** Summary of Goodness of Fit Measurement for Model 2 and Model 3

| Criteria | Model.2 | | Model.3 | |
|---|---|---|---|---|
| Chi-square | 613.250 | Not Fit | 2.969 | Not Fit |
| Prob | 0.000 | Not Fit | 0.227 | Fit |
| GFI | 0.704 | Not Fit | 0.991 | Fit |
| AGFI | 0.638 | Not Fit | 0.957 | Fit |
| RMSEA | 0.116 | Not Fit | 0.54 | Fit |
| CMIN/DF | 3.245 | Not Fit | 1.484 | Fit |
| TLI | 0.650 | Not Fit | 0.979 | Fit |
| CFI | 0.714 | Not Fit | 0.993 | Fit |

However, chi-square was the only basic goodness of fit and; chi-square is not the only one criteria of goodness of fit. Table 3 is the summary of goodness of fit for model 2 and model 3. The questionnaires distributed to 168 respondents were firstly tested using reliability analysis. The result indicates that the distributed questionnaires were reliable since the Cronbach's Alpha was quite high: 0.9. Hair et al (2010) suggested the minimum Cronbach's Alpha was 0.7. Cronbach's Alpha which is greater than 0.8, indicates a strong reliability.

## CONCLUSION

The contextual factors concerned in this research were the conceptual definition of cohesiveness as well as the dimensions of cohesiveness. The result of this study revealed that this definition was supported empirically, and also indicates that work team cohesiveness was unidimensional. The measurement of work team cohesiveness developed in this study can be used for all types of teams since the measurement fulfills the criteria of generalization.

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