Team Identification as an Outcome of Team Satisfaction;

A Case of Shop-floor Level Workers in the Tableware Manufacturing Organizations in Sri Lanka

Manjula Wanninayaka

Graduate School of Sociology, Kansai University, Japan

Abstract: The study examined whether team satisfaction enhances team identification, constructing a model which is including determinates of team satisfaction: mutual support, a common goal, and multi-skills. The structural relationships between all variables were evaluated using quantitative data which was obtained from 328 shop-floor level workers in the table-ware manufacturing organizations in Sri Lanka. The study confirmed that team identification is directly improved by team satisfaction and as well, supportive activities (mutual support) and employees' awareness on the team's goal (common goal) make effects on team identification, indirectly. Even though the, multi-skills factor does not make a considerable effect on team identification, it acts as an important factor that can enhance the supportive activities in the teams. Accordingly, the present study provided evidence to prove, theoretically, that there is the possibility of enhancement of team identification through team satisfaction, contrasting the previous findings and practically, organizations can improve team identification via creating a team-based work environment which increases the employees' satisfaction.

Keywords: Team identification, Team satisfaction, Characteristics of a team, Manufacturing workers and Sri Lanka

I Introduction

Identification in organization has emerged as a topic of keen interest in organizational research. Identification at the work organizations is recognized in multi-level such as individual level, team level and organizational level (Miscenko & Day, 2016; Ashforth et al., 2008). However, some previous research (Postmes et al., 2019; De Moura et al., 2009) has nested these three levels into one concept as social identification, based on the Social Identity Theory (Ashforth & Mael, 1989). Individual level identification was an important concept in the traditional work organizations and in the organizational level identification considers organization as a whole (Miscenko & Day, 2016). According to Ashforth and Mael (1989) team identification (TID) points out the employees' perception of belongingness to a team in the micro level (Ashforth et al., 2008) and, simply, this can be named as cognitive team identification (Yan et al., 2017; Dimmock et al., 2005; Jackson, 2002). Van Dick et al. (2008) have reported that TID is more favourable for teams since it enhances the performance of team (Dietz et al., 2015; Hu and Liden, 2013; Bezrukova et al., 2009). As well, TID mitigates the depression situation of employees (Postmes et al., 2019), and decreases the turnover of employees (Li et al., 2015; Riketta & Van Dick, 2005).

Therefore, during the past few decades, TID has been increasingly used to explain employees' belongingness to work teams. However, as Ashforth et al. (2008) reported that most of the studies on TID have focused on outcomes of TID, particularly, satisfaction is concerned as an outcome of TID, rather than the process of it. In other words, there is little consideration about how TID occurs in the team. Even though TID is not always a predictor for team satisfaction (Robert, 2013), a number of previous studies have reported that TID is a cause of employees' satisfaction in the team (Michinov & Juhel, 2018; Hu & Liden, 2013; Van Dick et al., 2008; Riketta & Van Dick, 2005). However, the opposite is also possible, that is, team satisfaction may become a cause of TID since satisfied workers in a team would be willing to be introduced as "I am a member of the team" that he or she likes, or say, would express the belongingness to the team more than the unsatisfied members. In the literature, Su et al. (2016), considering individual level, and De Moura et al. (2009), considering organizational level, have reported that satisfaction improves the identification, but not the team level. Nonetheless, discussion regarding this relationship is atypical in the academic world. And furthermore, even though De Moura et al. (2009) have reported that relationship between satisfaction and TID, there is not discussion about how satisfaction occurs.

Accordingly, the present study examines evidence from two manufacturing organizations to confirm whether there is a relationship between team satisfaction and TID, considering team satisfaction as a cause factor (team satisfaction → TID) as well as the outcome of encouraging factors of team satisfaction in the team. That is, the study evaluates whether the team members are satisfied or not with their team members, the work of the team, and the friendliness of team members enhancing TID with the underlying mechanism of team satisfaction.

II Literature Review and Hypothesises Development

As mentioned earlier in the introduction, a number of investigations (Michinov & Juhel, 2018; Hu & Liden, 2013; Van Dick et al., 2008; Riketta & Van Dick, 2005) have reported that the TID enhances team members' satisfaction. Despite these findings, however, an argument exists over its converse effect, that is, workers' satisfaction would enhance the TID (De Moura et al., 2009), too. Team satisfaction means the members' satisfaction in the team (Barczak & Wilemon, 2001) and concerns the satisfaction as a whole (Riketta & Van Dick, 2005) and this includes satisfaction regarding work (Strubler & York, 2007), colleagues and their way of work in the team (Van Der Vegt et al., 2000) and the friendliness of team members (Mwaisaka et al., 2019), and these favourable factors would enhance the employee awareness on belongingness to the team. Team satisfaction, however, could occur with the effect of various factors, particularly, team characteristics have been identified as the determinates of team satisfaction (Mayfield et al., 2016; Gittel, 2011; Barczak & Wilemon, 2001; Van de Vegt et al., 2001; Van Der Vegt et al., 2000; Cohen & Bailey, 1997). For instance, Barczak and Wilemon (2001) have pointed out that the employees' perception on their common goal, supportive activities and multi-skills capability improve the team members' satisfaction, by using the non-numerical way. In the literature of teamwork, multi-skills, common goal (consider about employees' awareness on team's goal) and mutual support have been recognized as the defining characteristics of work teams, particularly which are in the manufacturing work organizations (Kozlowski & Bel, 2013; Morita, 2008; Katzenbach & Smith, 1995).

Based on the literature of team and relationship between the defining factors of team, it can be assumed that there is a mechanism which enhances the team satisfaction since common goal and multi-skills factors create an effect on the team satisfaction through the peer supports (mutual support). This is because, when team members have a good understanding about the team's goal, it intensifies the team members' collectiveness and friendliness (Weingart & Weldon, 1991) and improves the willingness to help others (Gonzalez-Mulé et al., 2014), more than individual goal setting and in turn, team members work together with cooperative work practices to accomplish their work goal (Hu & Liden, 2015; 2011; Chen et al., 2009). As well, understanding about each other's job is a very important task in the team since it helps to achieve their final target collectively. Particularly, in the team, each member's skills, knowledge level and work experience can be different. At this kind of situation, members who have less work experience or skills would seek help from their colleagues who have comparatively high work skills, knowledge and experience. Bamberger (2009) has identified this kind of situation as the help-seeking behaviour. Then, multi-skilled workers can deal with this help need. In summary, it can be said that multi-skills cultivate the mutual support in the team (George and Jones, 1997) although there is lack of research which has confirmed the relationship between multi-skills and mutual support, statistically.

Accordingly, a common goal and multi-skills factors help to create the supportive work practices in the team. And then, having cooperative work practices creates a smooth and favourable environment at the workplace (Salas et al., 2015). Clancy and Tornberg (2007) say, when any organization has established a mutually supportive work environment in a work team, it encourages the team member to identify another's assistance need promptly. Further, in the team, some members (e.g. newly recruited employee) can feel a high workload and stress. Those burdens can be eased thorough supportive behaviour (Hu & Liden, 2015; Kalleberg et al., 2009). To sum up, support from other members creates the positive effect on the team satisfaction (Schreurs et al., 2015; Champion et al., 1996) with other characteristics of the team. Hence, multi-skills and awareness of common goal can be considered as the antecedents of mutual support. And regarding team satisfaction, mutual support works as the intervening variable.

Furthermore, Lunenburg (2011), Stark and Bierly III (2009), Van de Vliert et al. (2001) and Champion, et al. (1996) reported that the existence of team members' awareness of a common goal improves team satisfaction, directly, because having awareness of a common goal shares responsibilities equally among team members (Stark and Bierly III (2009; Champion et al. 1996). Not only does a common goal enhances team satisfaction, but Van der Vegt et al. (2003) and Ashforth & Mael, (1989) suggest that a common goal also enhances TID. Moreover, even though they are not native characteristics of team, team members' participation in learning and team members' intention to learn new things are important predictors of obtaining multi-skills since Kyndt et al. (2014) and Kyndt and Baert (2013) have argued that intention to learn new things extends the skills through fostering employees actual participation in the learning.

Accordingly, based on the above theoretical discussions, it can be assumed that team satisfaction fosters TID. Further, a common goal also makes the direct effect to TID. And, regarding team satisfaction, it can be assumed that the mutual support factor enhances team satisfaction with common goal and multi-skills factors. As well, learning intention and participation in learning can be considered as influential factors for workers multi-skills development. Therefore, the following hypotheses and conceptualized model can be developed, considering the literature.

Hypotheses on TID
    H1: Team satisfaction has a positive effect on team identification
    H2: Common goal has a positive effect on team identification
Hypotheses on mechanism of team satisfaction
    H3: Common goal has a positive effect on team satisfaction
    H4: Common goal has a positive effect on mutual support
    H5: Multi-skills has a positive effect on mutual support
   (H6: Participation in Learning has a positive effect on multi-skills)
    (H7: Learning Intention has a positive effect on participation in Learning)
    H8: Mutual support has a positive effect on team satisfaction

Note: even though H6 and H7 do not directly connect with the mechanism of team satisfaction, considering the causal effect of both factors, these hypotheses were included to the mechanism of team satisfaction because they are important factors to enhance multi-skill

Figure 1 Conceptual Framework of the Study (Hypothesised Model)
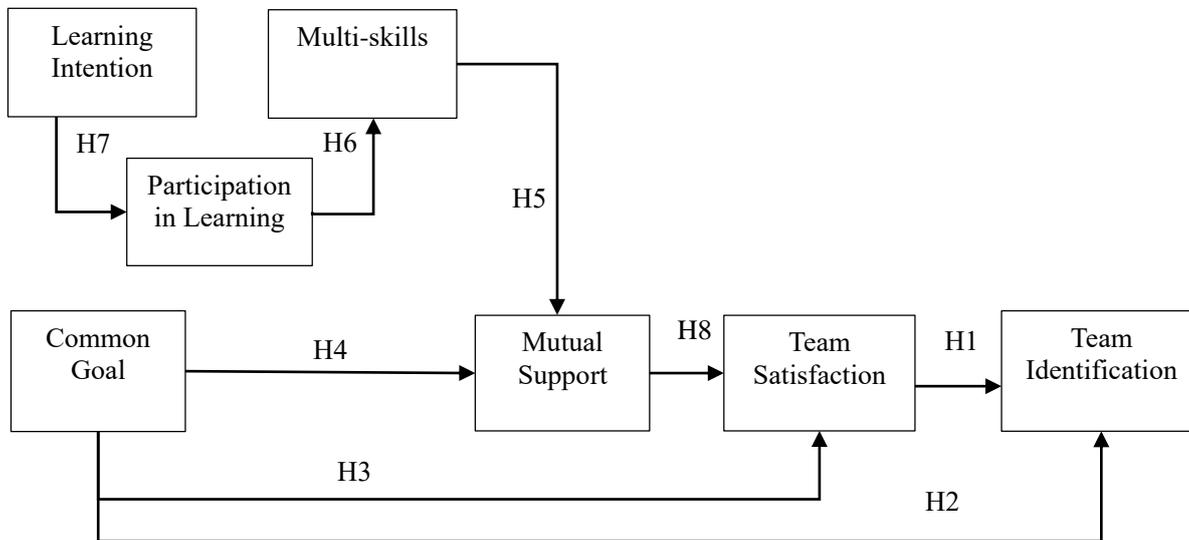
Source: Author's Design

III Research Design and Methodology

Sample and Sample Features

The target survey fields for the study are two export-oriented tableware production factories (hereafter factory A and B) in Sri Lanka which represent almost all the tableware production industry of the country. The total workforce consists of 964 (factory A) and 1034 (factory B) and in which 850 and 892 workers are shop-floor level, respectively. Shop-floor workers are selected as a target population for this study. Self-structured questionnaires were distributed among 203 shop floor workers in factory A. Usable responses are 150 (74 per cent of response rate). As well, 210 shop-floor level workers were selected from factory B and 178 usable responses (84 per cent of response rate) could be collected. In sum, the sample size of the study was 413 and the usable response rate was 79 per cent. The survey was carried out in March, 2017.

According to the demographic data, the ratio of man and women is almost the same in factory A and more than three-fourths of production workers are women employees in factory B. Age and the tenure relating results are the same in both factories because the mean age level of the workers is 31-35 and the workers have more than 10 but less than 15 years work experience in the factory, on average. However, over 50 per cent of workers have more than 15 years work experience. Further, most of the workers have 13 years school education in both factory A and B (57.3 and 77 per cent, respectively).

Measures

Employee's perception of a common goal (CG), employee's multi-skills capability (MSK), participation in learning (PL), intention to learn more (LI), employee's supportive behaviour (MS), team satisfaction (TS) and TID were measured creating a questionnaire by using the preceding research.

The responses were recorded on five- point Likert-type scales with "strongly disagree" to "strongly agree". Questions were in Japanese and English. Before distributing the questionnaire, all items were translated to the Sinhala language.

Team identification (TID) was assessed by using two items, "I am a member of this work team" and "I strongly identify with the other members of my work team", which were taken from Jackson (2002). (Cronbach's alpha = 0.60)

Four items were adapted from Van Der Vegt et al. (2000) and Cammann et al. (1983) to evaluate *Team satisfaction (TS)* as "I am satisfied with my present colleagues (TS1)", "I am pleased with my colleagues' way of work (TS2)", "I am very satisfied with work in this team (TS3)" and "I am satisfied with the friendliness of my team members (TS4)". (Cronbach's alpha = 0.80).

Mutual support (MS) was assessed by using the following five items which were taken from Morita (2008) and Champion et al. (1993); "If I got into difficulty at work, my section members would help me (MS1)", "I help my workmates when they have work problems on the line (MS2)", "If any problem occurred on my work, it could be resolved by discussing with my colleagues (MS3)", "On my day off, when I finish my daily work, I may help someone who is not finished (MS4)" and "Members of my team share information with other team members about our work" (MS5). (Cronbach's alpha = 0.71).

Common goal (CG) was measured by using three items such as, "I know our team's final goal (CG1)", "In my team, we are jointly responsible for workplace results (CG2)" and "In my team, we have a clear goal to be achieved as a team (CG3)" (Suzuki, 2011; Morita, 2008). These were translated from Japanese to Sinhala. (Cronbach's alpha = 0.73).

Multi-skills (MSK), participation in learning (PL) and Learning intention (LI) were assessed with the items which were taken from Morita (2008), which have been used to evaluate teamwork in Japan, the United Kingdom and China. To evaluate

multi-skills, "I can perform more than one task in the team" is used. And, to measure participation in learning, "I expand my skills participating on the job trainings in the factory" and learning intention, "I want to learn new work tasks as much as possible" are used.

Analysis Method

  Possibility of data aggregation into one sample is confirmed through the one- way ANOVA analysis, and the IBM SPSS statistic 23 is used.

  As the main statistical analysis, to verify the hypotheses, path analysis is performed through the structural equation modelling (SEM) by using Amos v. 23.0. All model estimations are conducted using the maximum likelihood method.

  Descriptive statistics; mean, standard deviation, correlation and reliability coefficient for each variable in the study are calculated by using the IBM SPSS statistic 23.

IV Results

  Prior to the main analysis (testing hypotheses model), data of factory A and B are aggregated since there are no differences regarding all factors and items which are used in the study between both organizations. For instance, ANOVA values of TS ($F=1.094$, $p=.296$) and TID ($F=0.920$, $p=.338$) are not significant. Further, both organizations belong to the tableware production. Previously, Sakamo (2018) has also aggregated data of the manufacturing organizations in the same industry.

  Table 1 reveals the correlations between TID and other factors and items, in which, comparatively, the relationships between TID and TS ($r=0.597$, $p<0.01$) is higher than others. Also, MS ($r=0.397$, $p<0.01$), CG ($r=0.428$, $p<0.01$), MSK ($r=0.182$, $p<0.01$), PL ($r=0.127$, $p<0.05$) and LI ($r=0.186$, $p<0.01$) presented the significant relationship with TID. Further, TS was significantly related with the other factors. Typically, the correlation value between TS and MS is ($r=0.539$, $p<0.01$), CG ($r=0.590$, $p<0.01$), MSK ($r=0.249$, $p<0.01$) and LI ($r=0.220$, $p<0.01$). As well, relationships between MS and CG ($r=0.662$, $p<0.01$), MS and MSK ($r=0.358$, $p<0.01$), and MSK and PL ($r=0.316$, $p<0.01$) and PL and LI ($r=0.220$, $p<0.01$) were significant. More, even though it was not hypothesised, there are significant positive relationships between MS and PL ($r=0.243$, $p<0.01$), MS and LI ($r=0.343$, $p<0.01$), CG and MSK ($r=0.351$, $p<0.01$), CG and PL ($r=0.231$, $p<0.01$) CG and LI ($r=0.328$, $p<0.01$) and MSK and LI ($r=0.296$, $p<0.01$).

Table 1 Study Variable Means, Standard Deviations and Correlations

	Mean (S.D)	TID	TS	MS	CG	MSK	PL	LI
TID	3.91 (.85)	1						
TS	3.69 (.87)	.597**	1					
MS	4.06 (.70)	.397**	.539**	1				
CG	3.86 (.85)	.428**	.590**	.662**	1			
MSK	4.13 (.67)	.182**	.249**	.358**	.351**	1		
PL	4.09 (.83)	.127*	.110	.243**	.231**	.316**	1	
LI	4.32 (.70)	.186**	.220**	.343**	.328**	.296**	220**	1

Note: Valid N (list wise) =283
Mean values of TID, TS, CG and MS are grand mean.
*$p<0.05$ ** $p<0.01$
TID- Team Identification, TS- Team satisfaction, MS-Mutual support, CG-Common goal, MSK- Multi-skills, PL- Participation in learning and LI-Learning intention.

Table 2. Goodness of Fit Analysis (N=283)

Model	Fit-Indexes							
	χ^2 (df)	$\Delta\chi^2$	GFI	CFI	TLI	IFI	RMR	RMSEA
1	275.10*** (114)	2.413	.901	.881	.857	.882	.062	.07
2	229.67*** (112)	2.051	.917	.913	.894	.914	.040	.06

Note: χ^2= the model chi-square; $\Delta\chi^2$ = CMIN/DF; GIF= Goodness of Fit Index; CFI= Comparative Fit Index; TLI= Tucker Lewis index; RMR=Root Mean Square Residual; RMSEA= Root Mean Square Error of Approximation.

  Causal Relationship of Variables

The path analysis is performed through the structural equation modelling (SEM) to evaluate the relationships which were conceptualized into the hypothesised model (see Figure 1). The following goodness-of-fit indices provide information about the overall fitness of the empirical data to the models.

Paths which are demonstrated in the hypothesised model in Figure 1 are included in Model 1. However, the correlation result (Table 1) revealed that there are more relationships than which are in the hypothesised model and paths which are valid theoretically are added to Model 2 (Figure 2). According to Table 2, fit indices for Model 1 (as in Figure 1) were the overall chi-square being statistically significant (χ^2 (114) = 275.10, p<0.001), CMIN/DF= 2.413, GFI = 0.901, CFI = 0.881, TLI = 0.857, IFI= .882, RMR = 0.062 and RMSEA = 0.07. However, the correlational data provided the significant relationships which were not hypothesised. Therefore, Model 1 was rearranged by considering all those relationships. As mentioned earlier, this study aims to evaluate whether TS enhances the TID, considering the mechanism of TS in the team, and SEM analysis suggested that Model 2 (see Figure 2) has the highest overall goodness-of-fit indices regarding the relationship of TS and TID. Typically, fit indices for Model 2 (Table 2) were the overall chi-square being statistically significant (χ^2 (112) = 229.67, p<0.001); CMIN/DF= 2.051, GFI = 0.917, CFI = 0.913, TLI = 0.894, IFI= .914, RMR = 0.040 and RMSEA = 0.06. In general, a conceptualized model is accepted as a well-fitting one, when the CMIN/DF<3 (Iacobucci, 2010), the chi-square is statistically not significant, RMSEA<0.06 and other fit indices; GFI, CFI, TLI and IFI are 0.90 or greater and RMR<0.05 (Hair et al., 2019; Oshio, 2017). Fit indexes of Model 1 are incompatible with general acceptance, as they are lower than the cut-off level of 0.9 and therefore, based on these explanations, Model 2 can be considered as the good model to explain the causal relationship of TS and TID.

According to structural coefficients which have been shown in Figure 2, TS has a positive effect on TID (β = 0.81, p<.001) thus supporting H1. However, CG has not made a significant direct effect upon TID because causal linkage between CG and TID is not significant at the 5 per cent level (β = -0.09, p = .420) thus H2 is not supported.

Figure 2 Estimated Structural Model
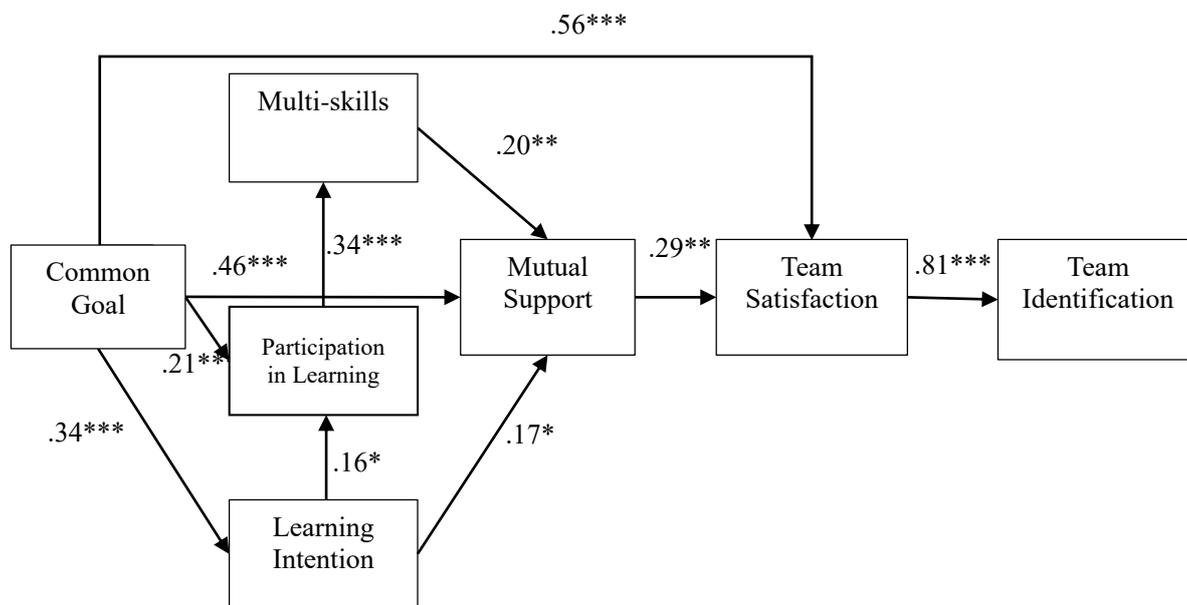
*p<.05, **p<0.01, ***p<.001
Source: The Analysis Results.

Next, hypotheses of the team satisfaction mechanism in the team are tested. According to Figure 2, CG has significantly positive direct effects on TS (β = 0.56, p<.001) and MS (β = 0.46, p<.001) supporting H3 and H4. MSK has a significantly positive effect on MS (β = 0.20, p<.01), supporting H5. Hypothesis 6 and 7 are concerned about the relationships of factors which are behind the MSK, and the empirical results supported both hypotheses since PL has a significantly positive direct effect upon MSK (β = 0.34, p<.001) and then LI has a significantly (low) positive direct effect upon PL (β = 0.16, p<.05). As well, even though it was not predicted, CG makes the significantly positive effect on PL (β = 0.21, p<.01) and LI (β = 0.34, p<.001) and LI makes the positive significant (low) effect on MS (β = 0.17, p<.05). Finally, MS has a significantly positive effect on TS (β = 0.29, p<.01), and H8 is supported

Further, Table 3 reports the direct, indirect and total effect of all variables on TID. As noticed above and depicted in Figure 2, TS had a direct effect on TID. As well, MS, CG, MSK, PL and LI had indirect effect on TID. The total effect of TS, MS, CG, MSK, PL and LI on TID were found to be 0.810, 0.237, 0.579, 0.048, 0.016 and 0.043, respectively.

Table 3.   Direct, Indirect and Total Effect on Team Identification

	Direct	Indirect	Total
Team Satisfaction (TS)	.810	-	.810
Mutual Support (MS)	-	.237	.237
Common Goal (CG)	-	.579	.579
Multi-Skills (MSK)	-	.048	.048
Participation in Learning (PL)	-	.016	.016
Learning Intension (LI)	-	.043	0.43

Source: The Analysis Results.

V Discussions and Conclusion

The study was arranged to explore whether TS fosters TID, considering antecedents of TS. The SEM analytical results provided evidences to support hypotheses of the study. The first hypothesis is stated that TS enhances the TID. Findings (Figure 2 and Table 3) confirmed this hypothesis and it was compatible with the argument of the study. Even though most of previous studies have reported TID as a cause of employees' satisfaction in the team (Michinov & Juhel, 2018; Hu & Liden, 2013; Van Dick et al., 2008; Riketta & Van Dick, 2005), findings of the study provide evidence that the opposite is also possible in the team, which has been proved by Su, et al. (2016) in the individual level identification and De Moura, et al. (2009) in the organizational level identification. It means that the workers are willing to express their inclusiveness in the team which they satisfied with. However, the study does not reject previous studies (Michinov & Juhel, 2018; Hu & Liden, 2013; Van Dick et al., 2008; Riketta & Van Dick, 2005) which revealed that TID enhances TS, but the study wants to insist that, conversely, TS is an important factor to improve employee's belongingness in the team in which he or she works.

Further, it contradicts the previous research (Lin et al., 2017; Farmer et al., 2015; Hu & Liden, 2013) which has reported TID as a causal factor of MS, and the results suggested that MS in the team enhances the TID, however not directly but indirectly (Table 3). In turn, this relationship is mediated by TS. This points out that MS clearly can affect team members' satisfaction about the team as a whole, and the evidence here suggests that this in turn affects TID. The present study also confirmed that the mutual support feature makes a positive significant effect on the team satisfaction. Regarding the relationship between TS and MS, the path coefficient value of mutual support presents enough evidence to testify to H8, in turn the study results corroborate findings of prior studies of Schreurs et al. (2015) and Champion et al. (1996).

As well, even though H2 was not supported, in common with previous research (Van der Vegt et al., 2003; Ashforth & Mael, 1989), the results suggested that there is a relationship between CG and TID. The study finds that CG creates an influence on TID via four indirect routes (Table 3), in which, the route via TS makes sound indirect effect on TID [CG→TS→TID, β=0.454 (0.56*0.81)] since the path coefficient result revealed that the employees' awareness of CG has created the greatest significant positive effect (β = 0.56, p<.001) on TS. This result confirms the previous discussion regarding relationship between CG and TS (Stark & Bierly III 2009; Van de Vliert et al., 2001; Champion et al., 1996). Stark and Bierly III (2009) and Champion et al. (1996) have pointed out that equally shared responsibilities is the reason behind the relationship, and results of SEM (In my team, we are jointly responsible for workplace results- CG2→CG is β = 0.73, p<.001) provided the further supportive evidence to assent with them. Further, CG makes an effect on TID via MS and TS. As a process, CG enhances MS (Gonzalez-Mulé et al., 2014; Suzuki, 2013; Chen et al., 2009) and MS improves the TS and subsequently TS positively relates with TID, as discussed earlier.

The rest of the routes of CG to TID are mediated by MSK instead of MS and TS. As mentioned in the literature, MSK is also an inevitable factor to improve TS, since MSK helps to cultivate and grow the supportive activities in the team and this relationship was proved by the study (H5). As Kyndt et al. (2014) and Kyndt and Baert (2013) reported that workers' actual participation in learning and intention to learn new things act as stimulations of skills attainment and the LI→PL→MSK relationship (Figure 2) confirmed these arguments. Meanwhile, even Kyndt and Baert (2013) have discussed about the individual and organizational level antecedents of participation of learning and learning intention of workers, however, they have not considered the relationship with characteristics of team such as common goal. The study results revealed the effect on LI and PL by CG. That is, having awareness regarding common goal of the team enhances the workers' actual participation in learning and intention to learn new things because in the team, members work together to achieve their common goal supporting each other and having a wide variety of skills, i.e. MSK becomes an inevitable necessity, here, as has been discussed in the previous studies of teamwork (Morita, 2008).

As well, the evidence here suggests that LI makes effect on MS. This relationship means that employees who have intention to learn more participate in the supportive activities in the team. The literature says that workers can learn from their colleagues at the workplace, informally (Sakamoto, 2018; Sato, 2016). The present study has evaluated MS by using items such as "If any problem occurred on my work, it could be resolved by discussing with my colleagues (MS3)" and "Members of my team share information with other team members about our work" (MS5) and they have to some extent an informal training nature since an exchange of information and discussions about problems would share the knowledge among the members. However, the evidence

of the study suggests that the relationship is not so much powerful because the path coefficient result takes a lower value.

Theoretically, the present study confirmed that CG, MSK play substantial roles in the enhancement of MS among team members and altogether improve the TS that is to say, the mechanism of TS. Also, PL and LI became the influential factors for MSK. However, as a whole, only TS has a direct effect and MS and CG have an indirect effect on TID confirming that TID could be an outcome of TS and the fostering factors of TS. That is, the mechanism of TS, more or less, creates influence on TID.

Practically, Nanayakkara and Chandrika (2018) have insisted that manufacturing organizations have been struggling with high labour turnover, in the Sri Lankan context and improvement of TID would be a possible solution for this problematic situation since previous studies have found that identification decreases the employees' turnover intention (Li et al., 2015; Riketta & Van Dick, 2005). And workers' satisfaction is an important factor in this process (De Moura et al. 2009). Therefore, as the evidence of the present study suggested that organizations can improve TS by creating a team-based work environment in the work place.

However, there are several challenges for future research. First, even though the study concerns the team level identification, analysis was carried out only by considering the individual level because, a number of teams of the study (number of team=24) is insufficient to handle multilevel analysis to investigate the difference between teams since, Hair, et al. (2019) reported that at least 30 teams are wanted to carry out multilevel analysis. Therefore, future research explores the relationship between TID and TS increasing a number of teams and considering team level differences (Michinov & Juhel, 2018). Second, TID was measured narrowly, considering only cognitive identification, by using two variables. Hence, TID has to be evaluated putting considerations on other dimensions such as affective and evaluative identifications (Dimmock et al., 2005), in future studies. A final limitation concerns the variables which were used to measure skills related matters since, MSK, PL and LI were evaluated by using single items. Therefore, increasing validity, items should be increased in future studies.

References

Ashforth, B. E., Harrison, S. H., & Corley, K. G., "Identification in organizations: An examination of four fundamental questions", *Journal of management*, 34(3), 2008, pp.325-374.

Ashforth, B. E., & Mael, F., "Social identity theory and the organization", *Academy of management review*, 14(1), (1989), pp.20-39.

Bamberger, P., "Employee help-seeking: Antecedents, consequences and new insights for future research", *In Research in personnel and human resources management*, 28, 2009, pp.49-98.

Barczak, G., & Wilemon, D., "Factors influencing product development team satisfaction", *European Journal of Innovation Management*, 4 (1), 2001, pp.32-36.

Bezrukova, K., Jehn, K. A., Zanutto, E. L., & Thatcher, S. M., "Do workgroup faultiness help or hurt? A moderated model of faultlines, team identification, and group performance", *Organization Science*, 20(1), 2009, pp.35-50.

Cammann, C., Fichman, M., Jenkins, G. D., & Klesh, J., "Michigan organizational assessment questionnaire", In S. E. Seashore, E. E. Lawler, P. H. Mirvis, & C. Camman (Eds.), *Assessing Organizational Change: A Guide to Methods, Measures, and Practices*. New York: Wiley-Inter science, 1983, pp.71 –138.

Champion, M. A., Medsker, G. J. & Higgs, A. C., "Relations between work group characteristics and effectiveness: Implications for designing effective work groups", *Personnel psychology,* 46 (4), 1993, pp.823-847.

Champion, M. A., Papper, E. M. and Medsher, G., "Relations between work-team characteristics and effectiveness: A replication and extension", *Personnel Psychology*, 49 (2), 1996, pp.429-453.

Chen, C. H. V., Tang, Y. Y. & Wang, S. J., "Interdependence and organizational citizenship behaviour: Exploring the mediating effect of group cohesion in multilevel analysis. *The Journal of Psychology*, 143(6), 2009, pp.625-640.

Clancy, C. M., & Tornberg, D. N., "Team STEPPS: assuring optimal teamwork in clinical settings", *American Journal of Medical Quality*, 22(3), 2007, pp.214-217.

Cohen, S. G., & Bailey, D. E., "What makes teams work: Group effectiveness research from the shop floor to the executive suite", *Journal of management*, 23 (3), 1997, pp.239-290.

De Moura, G. R., Abrams, D., Retter, C., Gunnarsdottir, S., & Ando, K., "Identification as an organizational anchor: How identification and job satisfaction combine to predict turnover intention", *European Journal of Social Psychology*, 39(4), 2009, pp.540-557.

Dietz, B., van Knippenberg, D., Hirst, G., & Restubog, S. L. D. "Outperforming whom? A multilevel study of performance-prove goal orientation, performance, and the moderating role of shared team identification", *Journal of Applied Psychology*, 100(6), 2015, pp.1811-1824.

Dimmock, J. A., Grove, J. R., & Eklund, R. C., "Reconceptualising Team Identification: New Dimensions and Their Relationship to Intergroup Bias", *Group dynamics: theory, research, and practice,* 9(2), 2005, pp.75-86.

Farmer, S. M., Linn, V. D., and Dishan, K, "The contextualized self: How team–member exchange leads to co-worker identification and helping OCB", *Journal of Applied Psychology,* 100(2), 2015, pp.583-595.

Gittell, J. H., *"Relational coordination: Guidelines for theory, measurement and analysis"*, Waltham, MA: Brandeis University, 2011.

George, J. M., & Jones, G. R., "Organizational spontaneity in context", *Human performance*, 10(2), 1997, pp.153-170.

Gonzalez-Mulé, E., DeGeest, D. S., McCormick, B. W., Seong, J. Y., & Brown, K. G., "Can we get some cooperation around here? The mediating role of group norms on the relationship between team personality and individual helping behaviours", *Journal of Applied Psychology*, 99(5), 2014, pp.988-999.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E., *Multivariate data analysis* (8th ed.), Boston: Cengage, 2019.

Hu, J., & Liden, R. C., "Antecedents of team potency and team effectiveness: An examination of goal and process clarity and

servant leadership", *Journal of Applied psychology*, 96(4), 2011, pp.851-862.

Hu, J. & Liden, R. C., "Making a difference in the teamwork: Linking team prosocial motivation to team processes and effectiveness", *Academy of Management Journal*, 58(4), 2015, pp.1102-1127.

Hu, J., & Liden, R. C., "Relative leader–member exchange within team contexts: How and when social comparison impacts individual effectiveness", *Personnel Psychology,* 66(1), 2013, pp.127-172.

Iacobucci, D., "Structural equations modelling: Fit indices, sample size, and advanced topics", *Journal of consumer psychology*, 20(1), 2010, pp.90-98.

Jackson, J. W., "Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict", *Self and identity*, 1(1), 2002, pp.11-33.

Kalleberg, A. L., Nesheim, T. & Olsen, K. M., "Is participation good or bad for workers? Effects of autonomy, consultation and teamwork on stress among workers in Norway", *Acta Sociologica*, 5 (22), 2009, pp. 99-116.

Katzenbach, J. R. and Smith, D. K., *The wisdoms of teams*, Boston: Harvard Business School press, 1993.

Kozlowski, S. W. J., & Bell, B. S., "Work groups and teams in organizations: Review update", In N. Schmitt & S. Highhouse (Eds.), *Handbook of psychology*: *Vol. 12.Industrial and organizational psychology* (2 ed.), Hoboken, NJ: Wiley, 2013, pp. 412-469.

Kyndt, E., & Baert, H., "Antecedents of employees' involvement in work-related learning: A systematic review", *Review of Educational Research*, 83(2), 2013, pp.273-313.

Kyndt, E., Onghena, P., Smet, K., & Dochy, F., "Employees' willingness to participate in work-related learning: a multilevel analysis of employees' learning intentions", *International Journal for Educational and Vocational Guidance*, 14(3), 2014, pp.309-327.

Lin, C. P., He, H., Baruch, Y., & Ashforth, B. E., "The effect of team affective tone on team performance: The roles of team identification and team cooperation", *Human Resource Management*, 56(6), 2017, pp.931-952.

Li, Y., Zhang, G., Yang, X., & Li, J., "The influence of collectivist human resource management practices on team-level identification", *The International Journal of Human Resource Management*, 26(14), 2015, pp.1791-1806.

Lunenburg, F. C., "Goal-setting theory of motivation", *International journal of management, business, and administration*, 15(1), 2011, pp.1-6.

Mayfield, C. O., Tombaugh, J. R., & Lee, M., "PSYCHOLOGICAL COLLECTIVISM AND TEAM EFFECTIVENESS: MODERATING EFFECTS OF TRUST AND PSYCHOLOGICAL SAFETY", *Journal of Organizational Culture, Communications & Conflict*, 20(1), 2016, pp.78-94.

Michinov, E., & Juhel, J., "Multilevel influences of team identification and trans active memory on team effectiveness", *Team Performance Management: An International Journal*, 24(1/2), 2018, pp.106-120.

Morita, M., *Chīmu sagyō hōshiki no tenkai* [Development of Teamworking], Japan: Chikurashōbo, 2008.

Mwaisaka, D. M., Ouma, C., & K'Aol, G., "Influence of supportive leadership style on employee job satisfaction in commercial banks in Kenya", *Journal of Human Resource and Leadership*, 4(1), 2019, pp.44-66.

Nanayakkara, A. K., & Chandrika, K. A. C., "Impact of Occupational Stress on Turnover Intention of Machine Operators in Selected Apparel Manufacturing Companies in Sri Lanka", *Human Resource Management Journal*, 6(1), 2018, pp.35-46.

Oshio, A., *Hajimeteno Kyōbunsankōzōbunseki (Dai2han) – Amosniyorupasukaiseki*, [Structural Equation Modelling (2nd ed.) – Path Analysis based on AMOS], Tokyōtoshō, Japan, 2017.

Postmes, T., Wichmann, L. J., van Valkengoed, A. M., & van der Hoef, H., "Social identification and depression: A meta-analysis", *European Journal of Social Psychology,* 49(1), 2019, pp.110-126.

Riketta, M., & Van Dick, R., "Foci of attachment in organizations: A meta-analytic comparison of the strength and correlates of workgroup versus organizational identification and commitment", *Journal of vocational behaviour*, 67(3), 2005, pp. 490-510.

Robert, L. P., "A multi-level analysis of the impact of shared leadership in diverse virtual teams", In Proceedings of the 2013 conference on Computer supported cooperative work. ACM, 2013, pp. 363-374. Retrieved from https://deepblue.lib.umich.edu/bitstream/handle/2027.42/116270/Robert%202013.pdf?sequence=1&isAllowed=y.

Salas, E., Shuffler, M. L., Thayer, A. L., Bedwell, W. L., & Lazzara, E. H., "Understanding and improving teamwork in organizations: a scientifically based practical guide", *Human Resource Management*, 54(4), 2015, pp.599-622.

Sakamoto, M., "Kyariashoki no deberopumentaru nettowāku no tokuseini taisuru shokumutokusei no eikyō [Effect of Job Characteristics on Attributes of Developmental Network in the Early career Stage]", *Nihonrōmugakkaishi*, 18 (1), 2018, pp.6-25.

Sato, A., *Sosikino Nakade Hito o Sodateru, Kigyōnaijinsaiikusei to Kyariakeisei no Hōho* [Human Resource Development in Organization], Japan, Yūhikaku, 2016.

Schreurs, B., Guenter, H., van Emmerik, I. H., Notelaers, G., and Schumacher, D., "Pay level satisfaction and employee outcomes: the moderating effect of autonomy and support climates", *The International Journal of Human Resource Management*, 26 (12), 2015, pp.1523-1546.

Stark, E. M. and Bierly III, P. E., "An analysis of predictors of team satisfaction in product development teams with differing levels of virtuality", *R&d Management*, 39 (5), 2009, pp.461-472.

Strubler, D. C. and York, K. M., "An exploratory study of the team characteristics model using organizational teams", *Small Group Research*, 38 (6), 2007, pp.670-695.

Su, L., Swanson, S. R., Chinchanachokchai, S., Hsu, M. K., & Chen, X., "Reputation and intentions: The role of satisfaction, identification, and commitment", *Journal of Business Research*, 69(9), 2016, pp.3261-3269.

Suzuki, R., "Shokuba ni okeru Sōikufū no Manejimento: Kakawariau Shūdan no Kenkyūkaihatsusha no Sinshutekikōdoe no Eikyō ni kansuru Kurosureberu Bunseki [Management of Proactive Behaviour at Workplace: The Effects of Task and Goal Interdependence and Group Cohesiveness at the Group Level]", *Sosikikagaku*, 44 (4), 2011, pp.26-38.

Suzuki, R., *Kakawariau Shokuba no Manejimento* [Management of Workplace Relationship], Japan: Yūhikaku, 2013.

Van de Vegt, G. S., Emans, B. J. & Van de Vliert, E., "Patterns of interdependence in work teams: A two-level investigation of the relations with job and team satisfaction", *Personnel Psychology,* 54(1), 2001, pp.51-69.

Van Der Vegt, G., Emans, B., & Van De Vliert, E., "Team members' affective responses to patterns of intragroup interdependence and job complexity", *Journal of management*, 26(4), 2000, pp.633-655.

Van Dick, R., Van Knippenberg, D., Kerschreiter, R., Hertel, G., & Wieseke, J., "Interactive effects of work group and organizational identification on job satisfaction and extra-role behaviour", *Journal of Vocational Behaviour*, 72(3), 2008, pp.388-399.

Weingart, L. R. and Weldon, E., "Processes that mediate the relationship between a group goal and group member performance", *Human Performance*, 4 (1), 1991, pp.33-54.

Yan, X., Wang, Z., Su, J., & Luo, Z., "Relationship between core self-evaluations and team identification: The perception of abusive supervision and work engagement", *Current Psychology*, 2017, pp. 1-7, Retrieved from https://doi.org/10.1007/s12144-017-9749-7.

Authors

Manjula Wanninayaka (Ph.D.), Graduate School of Sociology, Kansai University, Japan.
Mail. Manju.saman@gmail.com