Assessing social capital and knowledge sharing in the high-tech industry: a moderating role of hypercompetition
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Abstract
Purpose – Although the literature has somewhat discussed social capital and knowledge sharing, the mediating and moderating mechanisms that influence team workers to move from connecting with one another to building social capital and consequently engaging in knowledge sharing still remain largely understudied. For that reason, this study aims to develop a holistic research framework that links social capital to knowledge sharing with positive affective tone as a mediator and hypercompetition as a moderator.
Design/methodology/approach – Drawing upon the social capital theory and the affective events theory (AET), this study proposes a research framework to assess how social capital factors influence knowledge sharing with the mediation of positive affective tone and the moderation of hypercompetition in high-tech teams. This study obtains survey data based on 330 questionnaires of working professionals from 66 high-tech teams in Taiwan, in which each team comprises four members and their team leader.
Findings – The empirical results of this study show that social interaction, shared vision and trust are positively related to knowledge sharing via the mediation of positive affective tone. Moreover, hypercompetition has positive moderating effects on the relationships between social interaction and positive affective tone as well as between trust and positive affective tone.
Originality/value – This study expands the previous literature to study through what mediating mechanism the effects of different social capital factors on knowledge sharing can be effectively realized and whether there exists any critical moderator that influences these effects.
Keywords Social capital theory, Affective events theory, Positive affective tone, Hypercompetition, Knowledge sharing
Paper type Research paper

Introduction
In today’s knowledge-intensive working environments, it is important and necessary for knowledge workers in teams to handle complicated and challenging issues with collective efforts. Team creativity and success count heavily on knowledge sharing, because it helps knowledge workers to share indispensable information and working experience within a team to solve problems in order to achieve innovative outcomes (Bari et al., 2019; Geiger and Schreyögg, 2009; Konstantinou and Fincham, 2011; Tsai et al., 2014) and performance goals (Mathieu et al., 2008; Rico et al., 2008). In teaming contexts, knowledge sharing enables team workers to exert team synergy by reusing, modifying and applying collective wisdom to solve new problems and achieve team performance (García-Sánchez et al., 2019).

Although the literature has discussed knowledge sharing based on a wide variety of theories such as theory of reasoned action (Chow and Chan, 2008), the shared mental model (Xiang et al., 2013), social capital theory, or social cognitive theory (Chiu et al., 2006), previous research has focused mainly on individuals’ or dyadic aspects and thus how knowledge...
Sharing can be achieved from the aspect of teaming process is relatively understudied (Cai et al., 2020; Neeley and Leonardi, 2018), leading to the first research gap to be filled by this study. The second research gap for this study to fill relates to whether there exists a key moderator that intervenes the teaming process. All in all, this study aims to fill these gaps by answering two research questions, including (1) how and through what teaming process (i.e. the mediating mechanism) is knowledge sharing developed? and (2) by what moderating mechanism is the teaming process influenced? Without answering these questions, our understanding of knowledge sharing development will remain highly limited, and management initiatives directed at building social capital and positive affective tone will remain unjustifiable based on biased perception or blind faith.

To answer the first research question, this study integrates social capital theory and affective events theory (AET) to explain the formation of knowledge sharing. First, knowledge sharing is often developed based on interpersonal relationship, reciprocity and collective beliefs in a team (Bock et al., 2005), which can be effectively explained by social capital theory. This theory is important for understanding why team members share knowledge and support each other voluntarily (Lin, 2010). Specifically, social capital strengthens collective intellectual capital by developing the conditions necessary for interaction, coordination and combination to occur (Blyler and Coff, 2003; Putnam, 1995).

Second, the mediating mechanism of knowledge sharing in a team can be explained by AET suggesting that team workers’ affect is a major cause of how they intend to behave or share in the team (e.g. knowledge sharing). This affect triggered by social events and communication (e.g. trust and social interaction) (Nderitu and Ndeto, 2019; Weiss and Cropanzano, 1996) can substantially facilitate knowledge sharing (Nazam et al., 2020). AET indicates that social capital experiences (e.g. affective social events) at work arouse emotional reactions that ultimately influence workers’ willingness and behavior in teaming contexts (Ashton-James and Ashkanasy, 2008).

To answer the second research question, this study proposes hypercompetition as a key moderator based on theory of competitive orientation. Hypercompetition is examined herein because it can easily disturb social equilibrium in the team (Smith and Corner, 1994). Therefore, hypercompetition that tends to escalate within-team confrontation and hostility (Lin et al., 2019) is likely to trigger and arouse team workers’ awareness of the importance of social capital that could neutralize the impact of hypercompetition. This phenomenon is analogous with the pragmatic concept of competition (Crammond et al., 2020; Liu et al., 2015) in which competition is likely to impel team workers to pay attention to social issues so as to facilitate their team agility and teamwork. In other words, team workers can become more sensitive to social capital given stronger hypercompetition. All in all, this study contributes to the literature by proposing a team-level model of knowledge sharing with key mediating and moderating mechanisms. The findings of this study can provide new insights for team leaders to promote knowledge sharing among team individuals from a collective perspective.

Theory and development of hypotheses

While social capital theory elaborates upon the potential of social structure for sharing knowledge resources (Moolenaar, 2012), AET seeks to reveal and understand affective states in this social structure that bridge the association between social capital and knowledge sharing (Latham, 2012; Lin, 2015; Weiss and Cropanzano, 1996). Drawing upon the social capital theory and AET, this study aims to propose a research framework that explains the development of knowledge sharing.

Social capital is defined as “the features of social organizations such as networks, norms, and social trust that facilitate social interaction for mutual benefit” (Putnam, 1995, p. 67). It is also considered “the sum of actual and potential resources embedded within, available
through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal, 1998, p. 243). Social capital represents critical assets for teams to achieve sustainable competitive advantages (García-Sánchez et al., 2019), team innovation capability (Akhavan and Mahdi Hosseini, 2016; Hu and Randel, 2014), improved performance (Kim et al., 2013), intellectual capital (Allameh, 2018), knowledge sharing (Bhatti et al., 2020; Chang et al., 2012; Lefebvre et al., 2016; Kim and Shim, 2018; Tsai et al., 2014) and tacit knowledge sharing (Cai et al., 2020). Scholars conceptualize social capital as combining not only useful resources embedded in social networks, but also the norms and values associated with the resources (Nahapiet and Ghoshal, 1998; Putnam, 1995). Social capital can be defined in various ways, for instance, as the resources and information that are accessible to team members as a result of the interpersonal connections that shape their social networks (Radziwill, 2013). Hence, social capital factors in the studies are conceptualized for their purpose (Payne et al., 2011). Similar to prior studies related to social capital and knowledge sharing (e.g. Allameh, 2018; Bhatti et al., 2020; García-Sánchez et al., 2019; Lefebvre et al., 2016; Tsai et al., 2014), this study operationalizes social capital by following the framework of Nahapiet and Ghoshal (1998) from three aspects: the structural dimension, the cognitive dimension and the relational dimension. First, social capital theory has suggested that team members engage in various kinds of interactive relationships to gain access to resources (Gabbay and Leenders, 1999). Thus, a social capital approach to knowledge work teams is concerned with the resources inherent within structures of social exchange as an explanation of success of their teaming operation (Bakker et al., 2006; Tsai et al., 2014). Second, shared vision facilitates shared meaning and understanding between team members, smoothing interpersonal communication in the team (Lefebvre et al., 2016; Nahapiet and Ghoshal, 1998). Third, social capital scholars argue that trust is a critical factor affecting knowledge sharing (Lefebvre et al., 2016; Bakker et al., 2006; Inkpen and Tsang, 2005). Being consistent with the literature, this study examines the relationship between social capital and knowledge sharing from the very same aspects (Lefebvre et al., 2016; Tsai et al., 2014; Nahapiet and Ghoshal, 1998): (1) social interaction that represents structural capital to reflect the pattern of structural connections or links among members in a work team; (2) shared vision that represents cognitive capital to reflect a set of common beliefs and approaches about teamwork, processes and outcomes, which are shared among team workers and used to facilitate collective aspirations and goals; and (3) trust that represents relational capital to show one’s confidence in others’ goodwill and propensity to rely on others.

Defined as the experience of energized and pleasant mood states, positive affective tone is hypothetically influenced by social capital. Specifically, social capital and structure in a team (e.g. interpersonal attraction and sociability) influence their affective states (Carmeli and Gittell, 2009; Cropanzano et al., 2017; Ilies et al., 2006), consequently driving team outcomes (Ashkanasy et al., 2017; Cia et al., 2020; Lin et al., 2017; Wegge et al., 2006). Social capital represents social networking episodes with various affective events that span across teamwork processes. The literature has suggested that social capital enhances such vigor as positive affect experienced at work (Carmeli and Gittell, 2009; Shirom, 2011). For example, previous research has found that social capital through participation in teaming events (Upright, 2004) increases emotional wellbeing and health (e.g. positive affect) more than human capital (Rose, 2000), consequently facilitating knowledge sharing (Cia et al., 2020). Based on this line of thought, this study discusses in depth regarding how three social capital dimensions influence knowledge sharing through positive affective tone in the followings.

Positive affective tone enhances team members’ motivation to share and exchange knowledge (Lawler and Yoon, 1996; Nahapiet and Ghoshal, 1998). Team workers with positive emotions appear to have strong willingness to help others by sharing their information and knowledge (Sang et al., 2019). On the contrary, team workers with negative emotions are likely to criticize others without being open-minded to share their thoughts and...
knowledge (Forgas, 2002). Specifically, positive affective tone influences the content of cognition (i.e. what people think positively) and the process of cognition (i.e. how people share efficiently) (Baig et al., 2021; Côté and Miners, 2006), which positively catalyze idea exchange (Rhee, 2007) and knowledge sharing (Tsai et al., 2014). To sum up, positive affective tone provides the necessary psychological premise for effective knowledge sharing within the team (Cai et al., 2020).

As a structural dimension of social capital, social interaction is defined as forms of informal and formal encounters among team members (Lin et al., 2022). It reflects the pattern of structural connections or links among members in a work team (Tsai et al., 2014). Team individuals who have high levels of social interaction or interpersonal relationships can obtain emotional support and enjoyable experience (Ben-Hador, 2016), which then motivate their willingness to collaborate with team others (Welbourne et al., 2005) by knowledge sharing (Cai et al., 2020; Robert et al., 2008). In other words, social interaction helps reduce emotional conflicts and develop positive affect in a collective manner, consequently facilitating knowledge sharing (Reagans and Zuckerman, 2001; Rico et al., 2008). All in all, the relationship between social interaction and knowledge sharing is mediated by positive affective tone because positive affective tone can leverage social interaction to guide team workers to focus on the transfer of expertise and skills among one another (Emich and Lu, 2021).

As a cognitive dimension of social capital, shared vision is a set of beliefs and assumptions about team goals and processes that are widely accepted by team workers (Tsai et al., 2014). A shared understanding of value and purpose (i.e. shared vision) through frequent communication events are likely to trigger positive affective tone to a large extent, ultimately increasing knowledge sharing (Baruch and Lin, 2012). That is to say, shared vision that facilitates mutual understanding enables team workers to deal with their own emotions and others’ feelings (Baruch and Lin, 2012), thus boosting the development likelihood of positive affect in the team (Wang and Chiang, 2009; Watson, 2000). Accordingly, shared vision enhances positive affective tone, which in turn motivates knowledge sharing or creation (Baruch and Lin, 2012; Robert et al., 2008).

As a relational dimension of social capital, trust refers to team workers’ willingness to increase reliance on each other in the team (Baruch and Lin, 2012; Schoorman et al., 2007). Team environment with stronger trust allows for more opportunities to share personal feelings and emotions among team workers. Specifically, trust helps shape a rich positive emotional space with durable social and affective resources (Chou and Pearson, 2012; Jahanshahi et al., 2020; Sy et al., 2005), which strengthens the quality of communication, discussion and knowledge sharing (Côté and Miners, 2006; Lin and Joe, 2012). Team workers with stronger trust are likely to exhibit better work mood and positive feeling of participating in team activities (Edmondson, 2003) and thus become more willing to share knowledge with each other (Hsu et al., 2007; Lin and Joe, 2012; Robert et al., 2008). At any rate, the relationship between trust and knowledge sharing is mediated by positive affective tone because team workers who feel positive affective reactions from teammates are likely to feel compelled to reciprocate (Baranik and Eby, 2016) in the form of knowledge sharing.

Based on the above rationale, the hypothesized relationships between social capital factors (i.e. social interaction, shared vision and trust) and knowledge sharing are thus derived as follows.

**H1.** Social interaction is positively related to knowledge sharing via the full mediation of positive affective tone.

**H2.** Shared vision is positively related to knowledge sharing via the full mediation of positive affective tone.

**H3.** Trust is positively related to knowledge sharing via the full mediation of positive affective tone.
The literature has indicated fierce within-team competition as a type of social interdependence in the team, representing a situation in which one team worker’s goals are influenced by the actions of others (Singleton and Vacca, 2007). Since hypercompetition arises from serious interpersonal disagreements, team workers under stronger hypercompetition have to count more heavily on social capital to maintain collective pleasurable experiences so as to carry out teamwork smoothly. Hypercompetition is defined as a team’s climate featured by intense and drastic competitive activities in the team (Lin et al., 2020b). When a team is under strong hypercompetition, the team often works in an unstable condition of disequilibrium and conflict, which involves frequent competence-destroying turbulence (D’Aveni and Gunther, 2007). Such a condition is not conducive to within-team communication and interpersonal relationship (D’Aveni and Gunther, 2007; Tsai et al., 2016). For that reason, team members tend to rely more on social interaction to maintain or improve their collective pleasant mood or feeling state (e.g. Kelly and Barsade, 2001; Sy et al., 2005) when hypercompetition appears. In other words, when strong hypercompetition occurs, team workers who care about or are responsible for team’s smooth functioning tend to seek remedy to alleviate the impact of hypercompetition by actively participating in interpersonal networks and interactivity, thus improving collective positive affective tone. On the contrary, despite its importance, social interaction turns less prominent and influential to boost the team’s positive affective tone when weak hypercompetition appears too small to disturb the intensity of social connections and emotional ties in the team. In other words, social interaction under weaker hypercompetition is not as crucial for driving positive affective tone as that in stronger hypercompetition. All in all, the influence of social interaction on positive affective tone is expected to be larger in higher hypercompetition than in lower hypercompetition, leading to the next hypothesis.

**H4.** The positive relationship between social interaction and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher.

Denoted as the extent to which team workers have a clear picture of and agree upon their collective goals (Hofhuis et al., 2018), shared vision facilitates their daily engagement in positive experiences and affective tone. At the same time, the relationship between shared vision and positive affective tone can be moderated by hypercompetition, because hypercompetition between team workers heightens negative perceptions regarding future development of the team (Ostell, 2006). Shared vision reduces conflicts and misunderstandings between team members (Farsi et al., 2013; Meek et al., 2019), thus alleviating the disturbance of hypercompetition that could cause within-team confrontations and disagreement in a zero-sum game (Lin et al., 2020a). Under the circumstances of strong hypercompetition, team members who place emphasis on shared vision to promote the implementation of team goals (e.g. Tsai et al., 2014) are likely to help foster stronger positive affective tone in a collective fashion. Consequently, the effect of shared vision on positive affective tone is expected to be larger in higher hypercompetition than in lower hypercompetition, leading to the following hypothesis.

**H5.** The positive relationship between shared vision and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher.

As an indiscriminate need to compete and win at any cost (D’Aveni and Gunther, 2007; Horney, 1937), hypercompetition is a neurotic means of maintaining or enhancing one’s self-worth (Thornton et al., 2011). Hypercompetitive team workers often show neurotic and unhealthy propensity behaviors (Ross et al., 2003), such as low levels of communication,
anger and hostility towards others (Ross et al., 2003) and greater isolation from others (Ruscher and Fiske, 1990). In such circumstances, trust becomes more critical for team members to foster their collective pleasant mood or feeling state so as to effectively carry out knowledge sharing. Specifically, when a team is under great hypercompetition that exudes hindrance to team workers’ willingness to be vulnerable to the actions of their co-workers (Tsai et al., 2016), trust becomes a more valuable resource that team workers can rely upon to improve positive affective tone to a larger extent (e.g. George and King, 2007; Kruglanski et al., 2006; Kruglanski and Webster, 1996). On the contrary, team workers under lower hypercompetition are less likely to isolate themselves from their co-workers (Tsai et al., 2016) and are more willing to engage in teamwork without having to pay excessive attention to trust issues. Hence, the influence of trust on positive affective tone becomes smaller in a team with lower hypercompetition than with higher hypercompetition, leading to the below hypothesis.

\[ H6. \text{ The positive relationship between trust and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher.} \]

To sum up, this study proposes a research framework that explains the development of knowledge sharing. In this framework (see Figure 1), knowledge sharing positively relates to three social capital factors (i.e. social interaction, shared vision and trust) via the mediation of positive affective tone. At the same time, hypercompetition plays a moderating role in the framework.

**Methods**

*Participants and procedure*

This study empirically tested its research hypotheses using a survey of knowledge team workers with a variety of professional expertise and skills in a leading semiconductor manufacturing company in Taiwan. Teams investigated in this study were related to IC design, semiconductor process research and development, semiconductor manufacturing and fab operation. Knowledge working teams should be appropriate research subjects, because these knowledge work teams have highly complicated tasks that count heavily on documented knowledge and organized database by knowledge sharing. In their daily operation, team members frequently exchange team-related ideas, suggestions and expertise with each other, so they have to invest time and effort to generate, grow and sustain social relationships (Maurer et al., 2011) in order to enhance the bidirectional knowledge sharing among team members (Grant, 1996). This study initially distributed a total of 350 questionnaires to 70 teams (i.e. one leader and four randomly selected members in each team).
and eventually collected 330 usable questionnaires from 66 teams (i.e. 66 questionnaires from leaders and 264 questionnaires from members) with the response rate of 94.3%. Of all the survey respondents, 80.9% were male and 100% had a bachelor degree or above; the ages of leaders ranged from 36 to 56 ($M = 44.4$, $SD = 4.53$) and their job tenures ranged from 10 to 31 ($M = 17.3$, $SD = 4.63$); the ages of members ranged from 22 to 52 ($M = 37.7$, $SD = 5.62$) and their job tenures ranged from <1 to 25 ($M = 11.0$, $SD = 5.41$).

This study adopts three critical methods to ensure data validity and mitigate the potential threat of common method variance (CMV). First, leaders and members were invited to evaluate different variables with different questionnaire (Huang and Lin, 2019; Lin et al., 2020a). The literature has clearly indicated that the most effective way to avoid CMV and also enhance the statistical inferences of the research is to take a precautionary measure by arranging various research subjects to gauge different variables (Lin et al., 2020a). In this study, the antecedents were evaluated by team members, whereas the moderating variable was evaluated by team leaders. At the same time, the outcome variable and the mediator were measured by team leaders and team members simultaneously. Previous literature has shown that an effective way to ensure data validity and mitigate CMV is to have leaders and members work together to accurately evaluate the variables associated with the outcomes, instead of leaders or members alone (Huang and Lin, 2021; Lin et al., 2017; Van Helden and Reichard, 2013). Second, an anonymous and confidential survey method was conducted to collect data. Such method helped reduce respondents’ suspicion and hesitation, consequently mitigating the threats of CMV (Tsai et al., 2016). Third, in the research framework, the more complex relationships that involve with interactions (i.e. moderation) are less likely to become a part of the cognitive maps of respondents, thus further reducing the likelihood of CMV (Chang et al., 2010; Lin et al., 2020; Tsai et al., 2016).

**Measures**

A self-report questionnaire was used to collect empirical data, and five-point Likert scale was used for all constructs in the questionnaire of this study. Respondents were asked to answer each measurement item between 1 as “strongly disagree” and 5 as “strongly agree”. This study developed measurement items based on pre-validated scales and modified these items to suit the conditions of knowledge working teams. The measurement items were thoroughly examined by professors and graduate students, who were familiar with organization behavior field. In order to improve the survey tools, this study conducted a preliminary pilot survey of 60 full-time employees with team work experience. At the same time, in the follow-up actual survey, these 60 full-time employees were not included. In this study, exploratory factor analysis (EFA) was conducted to evaluate pilot survey data, owing to cross-loading or poor loading; the inappropriate items were modified or deleted from the questionnaire. All the constructs and measurement items used in the actual survey are listed in Appendix. We provide an example item for each construct herein to explain how this study modified the questionnaire items to fit the research contexts. Three social interaction items were modified from Tsai et al. (2014). An original sample item “we spend a lot of time interacting with each other in our online workgroup” was modified to “we spend a lot of time interacting with our team coworkers”. Five shared vision items were modified from Croteau and Raymond (2004). An original item “the company mission is clear and coherent” was modified to “the team mission is clear and coherent”. Three trust items from Baruch and Lin (2012) were directly used by this study. An example item was “we trust each other a lot in our team.” Five positive affective tone items from Tsai et al. (2014) were directly used by this study. An example item was “when we think/talk about our online team, our feelings and emotions are excited”. Five hypercompetition items were modified from Tsai et al. (2016). An original item “Team members’ goals are incompatible with each other” was modified to “our team members’ goals are incompatible with each other”. Four knowledge
sharing items from Tsai et al. (2016) were directly used by this study. An example item was “we share our job experience with each other”. Based on the test results of the pilot test, four items were then removed from the questionnaire due to their cross-loadings or poor loadings, including the item #4 of social interaction, the item #6 of shared vision, the item #4 of trust and the item #6 of hypercompetition.

**Analytical approach**

The hypotheses were analyzed with a two-stage approach. First, this study performed confirmatory factor analysis (CFA) to evaluate the empirical data quality, convergent validity and discriminant validity. Second, Hypotheses 1 to 6 were tested with a bootstrapping approach and hierarchical regression analyses.

The level of analysis should be chosen based on the focal units of the study (Chan, 1998; Huang and Lin, 2021). Since this study aims to evaluate the collective functions of work teams, team-level data analysis is necessary. Given that lower-level data were aggregated to form higher-level data, such within-team interrater agreement (IRA) as $r_{wg}$ was used to justify data aggregation (Chan, 1998; James et al., 1984; LeBreton and Senter, 2008). More specifically, when the sample teams come from the same organization and the sample size of each team is small, $r_{wg}$ is better for justifying data aggregation than ICCs due to small between-subject variances (Hsu et al., 2006; Jensen et al., 2010). In this study, because all sample teams are from the same company, and with a relatively small team size, we thus use $r_{wg}$ as the criterion to justify data aggregation. In this study, the mean $r_{wg}$ values for each construct include 0.88 for social interaction, 0.93 for shared vision, 0.87 for trust, 0.91 for positive affect tone and 0.94 for knowledge sharing. All these values exceed the criterion of 0.70 (James et al., 1984), suggesting that data aggregation is acceptable. The scores of social interaction, shared vision, trust, positive affective tone, hypercompetition and knowledge sharing are all aggregated to team-level ones by averaging the responses of survey participants. Table 1 lists the descriptive statistics and correlations for all variables.

After data aggregation, confirmatory factor analysis (CFA) was performed on these six team-level constructs. Table 2 listed the goodness-of-fit indices of the measurement model. Specifically, the normalized chi-square (i.e., $\chi^2/df$) was smaller than 2.0, RMR was smaller than 0.05, SRMR was smaller than 0.08, RMSEA was smaller than 0.06, and both CFI and NNFI were larger than 0.9. These indices suggested that the empirical data fitted the measurement model well (Bentler and Bonnet, 1980; Hu and Bentler, 1999).

Convergent validity was achieved (see Table 2), because (1) the $t$-values for all standardized factor loadings were significant, (2) the values of Cronbach’s alpha and composite reliability (CR) exceeded the criterion of 0.70 and (3) the AVE values exceeded or

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
<th>$F_1$</th>
<th>$F_2$</th>
<th>$F_3$</th>
<th>$F_4$</th>
<th>$F_6$</th>
<th>$F_8$</th>
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<tbody>
<tr>
<td>$F_1$</td>
<td>3.88</td>
<td>0.30</td>
<td>0.73</td>
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<tr>
<td>$F_2$</td>
<td>4.06</td>
<td>0.34</td>
<td>0.37**</td>
<td>0.82</td>
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<tr>
<td>$F_3$</td>
<td>4.10</td>
<td>0.30</td>
<td>0.51***</td>
<td>0.59***</td>
<td>0.80</td>
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<tr>
<td>$F_4$</td>
<td>3.71</td>
<td>0.33</td>
<td>0.51***</td>
<td>0.64***</td>
<td>0.61***</td>
<td>0.82</td>
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<tr>
<td>$F_6$</td>
<td>2.00</td>
<td>0.65</td>
<td>0.04</td>
<td>-0.05</td>
<td>-0.02</td>
<td>0.00</td>
<td>0.70</td>
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<td>$F_8$</td>
<td>4.27</td>
<td>0.24</td>
<td>0.52***</td>
<td>0.44***</td>
<td>0.41***</td>
<td>0.54***</td>
<td>0.10</td>
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**Note(s):** ($N = 66$): $F_1$ = Social interaction; $F_2$ = Shared vision; $F_3$ = Trust; $F_4$ = Positive affect tone; $F_6$ = Hypercompetition; $F_8$ = Knowledge sharing

Diagonal represents the square root of AVE scores

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$
### Table 2. Standardized factor loadings, AVE, Cronbach’s alpha and CR (N = 66)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicators</th>
<th>Standardized loading</th>
<th>AVE</th>
<th>Cronbach’s α</th>
<th>CR</th>
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<tr>
<td>Social interaction</td>
<td>SI1</td>
<td>0.61 (t = 6.78)</td>
<td>0.54</td>
<td>0.78</td>
<td>0.77</td>
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<td></td>
<td>SI2</td>
<td>0.72 (t = 9.81)</td>
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<tr>
<td></td>
<td>SI3</td>
<td>0.85 (t = 14.20)</td>
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<tr>
<td>Shared vision</td>
<td>SV1</td>
<td>0.86 (t = 22.93)</td>
<td>0.68</td>
<td>0.91</td>
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<td></td>
<td>SV2</td>
<td>0.91 (t = 30.46)</td>
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<tr>
<td></td>
<td>SV3</td>
<td>0.80 (t = 15.50)</td>
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<td></td>
<td>SV4</td>
<td>0.78 (t = 14.25)</td>
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<td></td>
<td>SV5</td>
<td>0.76 (t = 13.41)</td>
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<tr>
<td>Trust</td>
<td>TR1</td>
<td>0.91 (t = 21.57)</td>
<td>0.64</td>
<td>0.85</td>
<td>0.84</td>
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<tr>
<td></td>
<td>TR2</td>
<td>0.74 (t = 11.39)</td>
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<tr>
<td></td>
<td>TR3</td>
<td>0.73 (t = 11.04)</td>
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<tr>
<td>Positive affective tone</td>
<td>PA1</td>
<td>0.88 (t = 25.02)</td>
<td>0.67</td>
<td>0.91</td>
<td>0.91</td>
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<td></td>
<td>PA2</td>
<td>0.90 (t = 22.99)</td>
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<tr>
<td></td>
<td>PA3</td>
<td>0.82 (t = 17.40)</td>
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<tr>
<td></td>
<td>PA4</td>
<td>0.75 (t = 12.49)</td>
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<tr>
<td></td>
<td>PA5</td>
<td>0.73 (t = 11.67)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Hypercompetition</td>
<td>HC1</td>
<td>0.59 (t = 6.26)</td>
<td>0.49</td>
<td>0.82</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>HC2</td>
<td>0.68 (t = 8.41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HC3</td>
<td>0.82 (t = 13.41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HC4</td>
<td>0.69 (t = 8.66)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HC5</td>
<td>0.69 (t = 8.53)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge sharing</td>
<td>KS1</td>
<td>0.80 (t = 16.22)</td>
<td>0.74</td>
<td>0.92</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>KS2</td>
<td>0.80 (t = 15.21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KS3</td>
<td>0.94 (t = 38.96)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KS4</td>
<td>0.89 (t = 26.96)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note(s):** Goodness-of-fit indices (N = 66): $\chi^2 = 311.122$; df = 260; $p = 0.016$; $\chi^2/df = 1.197$; RMR = 0.018; SRMR = 0.073; RMSEA = 0.055; CFI = 0.950; NNFI = 0.942

### Table 3. Chi-square difference tests for examining discriminate validity

<table>
<thead>
<tr>
<th>Construct pair</th>
<th>$\chi^2$ (constrained model)</th>
<th>$\chi^2$ difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(F1, F2)</td>
<td>351.40</td>
<td>40.29***</td>
</tr>
<tr>
<td>(F1, F3)</td>
<td>334.70</td>
<td>23.59***</td>
</tr>
<tr>
<td>(F1, F4)</td>
<td>339.88</td>
<td>28.77***</td>
</tr>
<tr>
<td>(F1, F6)</td>
<td>358.58</td>
<td>47.47***</td>
</tr>
<tr>
<td>(F1, F8)</td>
<td>341.21</td>
<td>30.10***</td>
</tr>
<tr>
<td>(F2, F3)</td>
<td>355.38</td>
<td>44.27***</td>
</tr>
<tr>
<td>(F2, F4)</td>
<td>401.10</td>
<td>89.90***</td>
</tr>
<tr>
<td>(F2, F6)</td>
<td>520.43</td>
<td>209.32***</td>
</tr>
<tr>
<td>(F2, F8)</td>
<td>463.99</td>
<td>152.88***</td>
</tr>
<tr>
<td>(F3, F4)</td>
<td>355.32</td>
<td>44.21***</td>
</tr>
<tr>
<td>(F3, F6)</td>
<td>389.63</td>
<td>78.52***</td>
</tr>
<tr>
<td>(F3, F8)</td>
<td>377.01</td>
<td>65.90***</td>
</tr>
<tr>
<td>(F4, F6)</td>
<td>517.11</td>
<td>206.00***</td>
</tr>
<tr>
<td>(F4, F8)</td>
<td>436.52</td>
<td>125.41***</td>
</tr>
<tr>
<td>(F5, F8)</td>
<td>503.19</td>
<td>192.08***</td>
</tr>
</tbody>
</table>

**Note(s):** ***Significant at the 0.001 overall significance level by using the Bonferroni method (N = 66): F1 = Social interaction; F2 = Shared vision; F3 = Trust; F4 = Positive affective tone; F5 = Hypercompetition; F8 = Knowledge sharing
were close to the criterion of 0.5. To assess discriminant validity, this study conducted three approaches, (1) as shown in Table 1, the square root of AVE for each construct was larger than the correlations between respective constructs, which supported discriminant validity (Fornell and Larcker, 1981), (2) as shown in Table 3, the differences of chi-square statistics between unconstrained and constrained models were all significant based on the Bonferroni method (Chen and Lin, 2013; Huang and Lin, 2019), and thus these test results supported discriminant validity, and (3) as shown in Table 4, all heterotrait-monotrait (HTMT) ratio of correlations values were smaller than the threshold of 0.85, which reliably distinguished between those pairs of latent variables that were discriminant valid and those that were not (Oliveira et al., 2020; Henseler et al., 2015), and thus these test results supported discriminant validity. All in all, all constructs were statistically distinct.

This study conducted the common latent factor method to evaluate the threats of common method bias (CMB). The common variance, the square of the common factor before standardization, is 1.83%, suggesting the insignificant CMB in this study (Podsakoff et al., 2003).

Results
To first check the mediation of positive affective tone, this study conducts a bootstrapping approach as recommended in the literature (Edwards and Lambert, 2007). The bootstrapping approach is appropriate, because it does not require the assumption of normal distribution that is necessary for the Sobel test (Edwards and Lambert, 2007). In Table 5, as the associated bias-corrected confidence intervals do not include zero, these test results demonstrated that (1) social interaction has a positive indirect effect on knowledge sharing through positive affective tone (point estimate = 0.067, 95% CI [0.003, 0.205]), (2) shared vision has a positive indirect effect on knowledge sharing through positive affective tone (point estimate = 0.104, 95% CI [0.022, 0.244]), and (3) trust has a positive indirect effect on knowledge sharing through positive affective tone (point estimate = 0.071, 95% CI [0.009, 0.197]). In summary of the above results, the mediation effects of positive affective tone indeed exist.

To test the hypothesized relationships, this study follows the procedure recommended in the literature (e.g. Frazier et al., 2004; Huang and Lin, 2019; Lin et al., 2020) to conduct

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F6</th>
<th>F8</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td></td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>0.43</td>
<td></td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td></td>
<td>0.59</td>
<td></td>
<td>0.70</td>
<td></td>
<td>0.69</td>
</tr>
<tr>
<td>F4</td>
<td>0.06</td>
<td>−0.07</td>
<td>−0.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6</td>
<td>0.62</td>
<td>0.48</td>
<td>0.47</td>
<td>0.58</td>
<td>0.12</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. HTMT values
Note(s): (N = 66): F1 = Social interaction; F2 = Shared vision; F3 = Trust; F4 = Positive affect tone; F6 = Hypercompetition; F8 = Knowledge sharing

<table>
<thead>
<tr>
<th>Indirect effect</th>
<th>Point estimate</th>
<th>S.E</th>
<th>95%CI_L</th>
<th>95%CI_U</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 → F4 → F8</td>
<td>0.067</td>
<td>0.048</td>
<td>0.003</td>
<td>0.205</td>
</tr>
<tr>
<td>F2 → F4 → F8</td>
<td>0.104</td>
<td>0.055</td>
<td>0.022</td>
<td>0.244</td>
</tr>
<tr>
<td>F3 → F4 → F8</td>
<td>0.071</td>
<td>0.046</td>
<td>0.009</td>
<td>0.197</td>
</tr>
</tbody>
</table>

Table 5. The test results of mediation by bootstrapping with 5,000 subsamples
Note(s): (N = 66): F1 = Social interaction; F2 = Shared vision; F3 = Trust; F4 = Positive affective tone; F8 = Knowledge sharing (bias-corrected and accelerated)
hierarchical regression analyses. As our sample size is not larger than the minimum sample size of 200 required for structural equation modeling (SEM) (Fabrigar et al., 2010; Hatcher, 2005), regression analyses are more appropriate for this study. To avoid unexpected influences by variables beyond their focus constructs, this study controls for team coordination, the leader’s tenure in management position, the ratio of male members, the ratio of senior members and the average age of team members. The test results in four regression models are in Table 6 and explained in detail in the following.

In Model 1, antecedents are included in the regression model to evaluate the effects of three social capital factors on positive affective tone. The test result in Model 1 showed the positive relationships between social interaction and positive affective tone ($\beta = 0.25$, $p < 0.05$), between shared vision and positive affective tone ($\beta = 0.40$, $p < 0.001$) and between trust and positive affective tone ($\beta = 0.27$, $p < 0.05$). The test result in Model 2 showed the positive relationship between positive affective tone and knowledge sharing ($\beta = 0.41$, $p < 0.01$). The test result of Model 3, in which antecedents and the mediator are simultaneously included, showed significant relationships between positive affective tone and knowledge sharing ($\beta = 0.26$, $p < 0.01$) and between social interaction and knowledge sharing ($\beta = 0.25$, $p < 0.01$). This phenomenon suggests that social interaction is positively related to knowledge sharing directly and indirectly via the mediation of positive affective tone (thus, Hypothesis 1 is not supported), while shared vision and trust are positively related to knowledge sharing only via the mediation of positive affective tone (Hypothesis 2 and Hypothesis 3 are supported).

To evaluate the moderating effect of hypercompetition on the relationships between three social capital factors and positive affective tone, Model 4 includes hypercompetition as a

![Table 6. Team-level hierarchical regression analysis](image-url)

**Note(s):** ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$
moderator and its interaction terms. The test result showed that the relationship between social interaction and positive affective tone is positively moderated by hypercompetition ($\beta = 0.41$, $p < 0.05$), thus supporting Hypothesis 4. However, the relationship between shared vision and positive affective tone is negatively moderated by hypercompetition ($\beta = -0.45$, $p < 0.05$), indicating that Hypothesis 5 is not supported. Finally, the relationship between trust and positive affective tone is positively moderated by hypercompetition ($\beta = 0.46$, $p < 0.05$), thus supporting Hypothesis 6.

After hypotheses 1 to 6 are tested with a bootstrapping approach and hierarchical regression analyses, Table 7 summarizes the empirical results of hypotheses, including supported hypotheses 2, 3, 4 and 6 and unsupported hypotheses 1 and 5.

With regard to the unsupported Hypothesis 5, our findings do not show a positive interaction between hypercompetition and shared vision. This unexpected result may occur because a true shared vision may only emerge to influence positive affective tone to a large extent through a cohesive and cooperative process of conversation and reflection (Porth et al., 1999), which is contrary to the condition of hypercompetition. In other words, team individuals surrounded by hypercompetition strive for personal advantages and disregard collective goals (He et al., 2014; Ostell, 2006), thus undermining the conditions necessary for team workers to exert the positive effect of shared vision on positive affective tone (e.g. Kruglanski et al., 2006; Kruglanski and Webster, 1996). Hypercompetition characterized by ever-increasing rivalry and dynamic compromises (Gummesson, 1997; Vasiltsova et al., 2015), which likely disturb the inherent influence of shared vision on positive affective tone. Previous research has found that powerful shared visions are often stable and does not shift in the short run (Kantabutra and Avery, 2010). Given dynamic nature of hypercompetition, it is not easy for team works to weather the fluctuations of hypercompetition regardless of their shared vision.

To post-hoc test the moderated-mediation model, this study conducts a bootstrapping approach recommended by Hayes (2015). This study evaluates the indirect relationship between three social capital factors and knowledge sharing via positive affective tone at high hypercompetition (mean + 1 SD) and low hypercompetition (mean − 1 SD). In Table 8, these test results demonstrate (1) the relationship between social interaction and knowledge sharing via positive affective tone as a function of hypercompetition, the relationship is significant only at high hypercompetition, (2) the relationship between shared vision and knowledge sharing via positive affective tone as a function of hypercompetition, the relationship is significant only at high hypercompetition, (3) the relationship between trust and knowledge sharing via positive affective tone as a function of hypercompetition, this

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1</strong>: Social interaction is positively related to knowledge sharing via the full mediation of positive affective tone</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 2</strong>: Shared vision is positively related to knowledge sharing via the full mediation of positive affective tone</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 3</strong>: Trust is positively related to knowledge sharing via the full mediation of positive affective tone</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 4</strong>: The positive relationship between social interaction and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 5</strong>: The positive relationship between shared vision and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 6</strong>: The positive relationship between trust and positive affective tone is positively moderated by hypercompetition, such that the relationship is stronger when hypercompetition is higher</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 7. Empirical results of hypotheses
<table>
<thead>
<tr>
<th>Indirect effect</th>
<th>$F_6$</th>
<th>Bootstrapping with 10,000 subsamples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Point estimate</td>
<td>S.E</td>
</tr>
<tr>
<td>$F_1 \rightarrow F_4 \rightarrow F_8$</td>
<td>Mean $-1\sigma$</td>
<td>0.134</td>
</tr>
<tr>
<td></td>
<td>Mean $+1\sigma$</td>
<td>0.191*</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.057</td>
</tr>
<tr>
<td>$F_2 \rightarrow F_4 \rightarrow F_8$</td>
<td>Mean $-1\sigma$</td>
<td>0.241*</td>
</tr>
<tr>
<td></td>
<td>Mean $+1\sigma$</td>
<td>0.186*</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>-0.055*</td>
</tr>
<tr>
<td>$F_3 \rightarrow F_4 \rightarrow F_8$</td>
<td>Mean $-1\sigma$</td>
<td>0.161*</td>
</tr>
<tr>
<td></td>
<td>Mean $+1\sigma$</td>
<td>0.339*</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.178*</td>
</tr>
</tbody>
</table>

**Note(s):** $(N = 66)$; $F_1$ = Social interaction; $F_2$ = Shared vision; $F_3$ = Trust; $F_4$ = Positive affective tone; $F_6$ = Hypercompetition; $F_8$ = Knowledge sharing.

Control variables: team coordination, the leader’s tenure in management position, average age of team members, ratio of male members and ratio of senior members.

**Table 8.** Post-hoc tests of the moderated-mediation model

**Figure 2.** The relationship between social interaction and positive affective tone as a function of hypercompetition

**Figure 3.** The relationship between shared vision and positive affective tone as a function of hypercompetition
relationship is stronger at low hypercompetition and (3) the relationship between trust and knowledge sharing via positive affective tone as a function of hypercompetition, this relationship is stronger at high hypercompetition. Figures 2–4 present the relationships between three social factors and positive affective tone given high and low levels of hypercompetition. Note that high hypercompetition was associated with stronger positive relationships between social interaction and positive affective tone and between trust and positive affective tone.

Discussion and contribution
This study complements social capital research by relating social capital factors to knowledge sharing with the mediation of positive affective tone and the moderation of hypercompetition. Our empirical analyses provide original contributions to the literature. Implications for research and practice are provided respectively in the following.

Implications for research
This study is a step toward filling research gaps by extending prior discussion to an in-depth underlying teaming process that is interfered under within-team hypercompetitive environment. The findings of this study offer three major implications for research. First, the finding about the mediating role of positive affective tone echoes the perspective of AET (Latham, 2012; Weiss and Cropanzano, 1996). The literature has suggested social capital derived from social encounters and events would activate positive affective response and emotion (Carmeli and Gittell, 2009; Cia et al., 2020; Cropanzano et al., 2017) to consequently boost knowledge sharing (Cia et al., 2020). Besides, our findings also make a theoretical contribution by clarifying the mediating conditions of positive affective tone. Specifically, this study finds that positive affective tone may play a full mediating role under some circumstance (e.g. with shared vision and trust) but not for others (e.g. with social interaction).

Second, the finding of this study complements previous research based on the affect infusion model (AIM) (Forgas, 1995) which argues that team workers tend to respond to diverse social situations based on their own unconscious affect infusion. In addition, how positive affective tone is influenced by diverse social capital factors to ultimately motivate knowledge sharing in this study complements previous research on the affective consequence through reduced antagonism and stress-related arousal of team workers (Phillips and Lount, 2007).
Third, the interaction effects between hypercompetition and social interaction and between hypercompetition and trust provide supplementary insights into the literature based on the theory of neurosis (Ryckman et al., 1994) in which hypercompetition leads to a social tradeoff choice between the gain of dynamic efficiency (e.g. immediate improvement rivalry against trust) and the loss of static efficiency (e.g. social atmosphere and harmony based on quality interaction) (Sengupta, 2002). This study finds that social interaction and trust help mitigate the dilemma caused by hypercompetition by enhancing positive affective tone. In other words, this study confirms the positive moderating role of hypercompetition by providing a nomological explanation that hypercompetition triggers team workers’ awareness of the truly importance of social interaction and trust that directly facilitate a team’s positive affective tone.

Implications for practice
The empirical results of this study provide useful implications for practice. First, this study elaborates social interaction, shared vision and trust as team-level boosters for knowledge sharing via the mediation of positive affective tone, complementing prior individual-level research that focuses on the personal drivers of knowledge sharing such as incentives, rewards and autonomy (Bock et al., 2005; Gibbert and Krause, 2002). To obtain quality social capital for increasing knowledge sharing, team workers should invest time and energy by participating in team activities and developing reciprocal relationships in team process. Social capital built upon mutual understanding is likely enhanced to help sustain knowledge sharing in the long run. Specifically, team workers should learn to fine-tune their collective objectives periodically based on within-team reflective and feedback processes, consequently adjusting their shared vision in an effective manner (e.g. Ficapal-Cusi et al., 2021). Team workers may be assigned with highly interdependent tasks so as to develop their willingness to rely upon the actions of others in the long run (e.g. De Jong et al., 2021). Team leaders should develop team building programs that elaborate unity of purpose and encourage open dialog conducive for the pursuit of progressive goals, consequently boosting shared vision. At the same time, since trust can be enhanced through social engagement with coworkers (Berber, 2019), team leaders can inspire team workers regarding synergy of their complementary roles and mutual accountability by providing social events, ceremonies, off-site workshops and gamification, consequently strengthening team trust.

Second, when hypercompetition increases, team leaders should regularly assess the degree of social capital, so as to maintain a sufficient level of positive affective tone to facilitate knowledge sharing. To enhance a team’s knowledge sharing without being substantially disturbed by hypercompetition, team workers should learn and create together their own socialization process (e.g. their own preference to interact in certain ways, non-verbal emotional expression, etc.) so as to streamline their team functioning through, for example, ethical behavior and sportsmanship (Collier et al., 2010). Team leaders should learn to lead by morality. If team leaders demonstrate a high level of moral standards and lead ethically as a role model in their daily behavior, team members who follow such ethical and moral principles tend to trust each other (e.g. Cheng and Wang, 2015). As a result, trusting atmosphere can be easily maintained in the long term and consequently facilitates positive affective tone and knowledge sharing.

Finally, team leaders who are responsible for leveraging the positive influence of social capital should be provided with leadership trainings related to social capital management and team events management. At the same time, team members should be provided with mentoring and counseling resources to help improve their teamwork ability and self-regulation of emotion. To sum up, team workers should be encouraged to actively strengthen social capital involved and periodically observe the level of positive affective tone so that the effectiveness of knowledge sharing is likely achieved.
Limitations and future research directions

This study has a few limitations due to data collection and research interpretation. First, the survey of this study was executed in a single industry setting of semiconductor manufacturing, and so the generalizability of inferences drawn from this study might be limited. To further increase generalizability, future research across different industries and different national cultures may be helpful to complement the findings of this study. Second, while knowledge sharing measured in this study was delimited to team workers’ willingness to share knowledge, future research may conduct experiments to capture the behavioral responses of team workers in terms of knowledge sharing. Third, this study focused on knowledge sharing based on intra-team relationship and may overlook how knowledge sharing might be also influenced by some inter-team factors, such as inter-team cooptetion, a shared sense of identification with the organization across teams and different teams’ upward lobbying efforts (e.g. Bresman, 2012). Future research can extend this study by conducting further exploration from an inter-team perspective. For example, future research may reconcile contradictory arguments in the literature regarding the association between absorptive capacity and knowledge sharing (Balle et al., 2020) by examining various boundary conditions related to organizational culture, corporate strategies, organizational learning, etc., and future research may also evaluate more diverse factors related to social capital theory, including frequency of participation, density of membership, heterogeneity of members and decision making patterns (Akran and Routray, 2013).

References


Appendix

Measurement items: factors measured by team leaders

Hypercompetition *(source: Tsai et al., 2016)*

1. Our team members have a “win–lose” relationship.
2. Our Team members’ goals are incompatible with each other.
3. When there is a rivalry between our team members, nothing matters to them as long as the means serves the end.
4. When there is a rivalry between our team members, our team members often do whatever it takes to compete against others.
5. When there is a rivalry between our team members, they often show that “the end justifies the means”.
6. The competition among our team members often brings on frustration to the entire team.*

Measurement items: factors measured by team members

Social interaction *(source: Tsai et al., 2014)*

1. We have close social relationships among our team coworkers.
2. We spend a lot of time interacting with our team coworkers.
3. We have frequent contact with our team coworkers.
4. We feel strong cohesiveness of our team.*

Shared vision *(source: Croteau and Raymond, 2004)*

1. Our team mission is clear and coherent.
2. Our team objectives are clear and coherent.
3. Our team strategy is clear and coherent.
4. There is a strong feeling in our team that a common purpose exists.
I find that my values and the team values are very similar.

The strategic decision process is participative.*

Trust (source: Baruch and Lin, 2012)

(1) We trust each other a lot in our team.

(2) I know I can count on the other members in our team.

(3) The other members in our team know they can count on me.

(4) I trust all of the other members in the team.*

Measurement items: factors measured by both team leaders and team members

Positive affective tone (source: Watson et al., 1988)

When we think/talk about our team, our feelings and emotions are . . .

(1) Excited

(2) Enthusiastic

(3) Active

(4) Inspired

(5) Attentive

Knowledge sharing (source: Tsai et al., 2016)

(1) We share our job experience with each other.

(2) We share our expertise at the request of other members.

(3) We share our ideas about jobs with one another.

(4) We share work reports and official documents with one another.

* denotes the items that were removed from the actual survey questionnaire.

About the authors


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