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Can lone wolf tendencies be a good team player?: The mediating role of teamwork behavior with task self-efficacy and role clarity as moderators

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Abstract

Individuals with lone wolf tendencies (LWTs) are high-performing employees who prefer to work alone and dislike teamwork. However, the impact of LWTs on team effectiveness remains an ongoing subject of debate. This study investigates the mediating role of teamwork behavior in this relationship, and examines the moderating roles of task self-efficacy and role clarity in their potential interaction with LWTs in predicting teamwork behavior. A survey was conducted among 443 Thai employees at a service industry company in Bangkok from August to October 2023. Results from PROCESS macro model 9 revealed that LWTs negatively influenced team effectiveness, and teamwork behavior significantly mediated this negative relationship. Furthermore, both task self-efficacy and role clarity were found to significantly interact with LWTs, either negatively or positively affecting their negative impact on teamwork behavior. The implications are discussed, and directions for future research are suggested.

Introduction

In today's challenging and dynamic working society, effective problem-solving and decision-making necessitate collaboration (Barr et al., 2005; Irfan & Qadeer, 2021; Yoo et al., 2022; Zhang & Parker, 2019). Teams play a crucial role in achieving work goals by facilitating the exchange of diverse information, ideas, and perspectives, which has been found to positively impact work performance and effectiveness (Abadi & Riyanto, 2021). However, there are obstacles that can hinder effective teamwork, one of which is the presence of team members with lone wolf tendencies.

Individuals with lone wolf tendencies (LWTs) prefer to work alone in decision-making, setting priorities, and achieving goals (Dixon et al., 2003). They often resist team settings due to feeling constrained and frustrated by interdependent tasks, which negatively

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impact teamwork (Barr et al., 2005; Seow & Shankar, 2018; Shankar & Seow, 2010). Despite this, LWTs are characterized by high self-confidence, energy, and a drive to complete tasks (Dixon et al., 2003; Griffeth et al., 1999; Hochheiser, 1987; Ingram, 1996). They have been found to positively influence job involvement, task effort, and performance (Blau & Boal, 1987; Dixon et al., 2003; Griffeth et al., 1999; Hochheiser, 1987; Ingram, 1996; Lussier et al., 2022; Mulki et al., 2007), making them valuable assets to organizations (Husted & Michailova, 2010).

Although prior research has identified that LWTs may resist engaging in behaviors essential for effective teamwork, and negatively impact team process (Barr et al., 2005; Blau & Boal, 1987; Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991; Seow & Shankar, 2018; Shankar & Seow, 2010), the direction of the relationship between LWTs and team effectiveness continues to be a subject of debate (Seow & Shankar, 2018). Drawing upon the theoretical frameworks of the Input-Process-Output (IPO) model (McGrath, 1964), and the Cognitive-Affective Personality System (Mischel & Shoda, 1995), this study aims to (1) investigate the mediating role of teamwork behavior in the relationship between LWTs and team effectiveness, and (2) explore the moderating roles of task self-efficacy and role clarity in their potential interaction with LWTs in predicting teamwork behaviors. Alternatively, our research questions address (1) whether task self-efficacy strengthens the negative effect of LWTs on teamwork behavior, (2) if role clarity helps lessen the negative effect of LWTs on teamwork behavior, and (3) whether teamwork behavior mediates the indirect relationship between LWTs and team effectiveness.

Literature Review

Lone Wolf Tendencies & Team Effectiveness

Lone wolf tendencies (LWTs) refer to individuals who prefer working alone and dislike teamwork, particularly in decision-making, priority-setting, or goal-achieving (Dixon et al., 2003). Their working characteristics display a dichotomy, simultaneously presenting both positive and negative attributes. On one hand, LWTs are characterized by motivation, dedication, and drive that contribute to their success at work (Blau & Boal, 1987; Locander et al., 2015). They are capable of producing high-quality work through their self-confidence, proactive behavior, and task involvement (Barr et al., 2005; Dixon et al., 2003; Hochheiser, 1987), and prefer undertaking challenging tasks, perceiving them as opportunities to enhance their knowledge, skills, and expertise (Griffeth et al., 1999; Husted & Michailova, 2010). This inclination offers considerable benefits to organizations and makes their presence in workplaces essential (Husted & Michailova, 2010). On the other hand, LWTs may exhibit self-centeredness, prioritize personal goals over organizational or team goals, and demonstrate ineffectiveness in teamwork (Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991; Shankar & Seow, 2010). Their reluctance to sacrifice for team benefits, coupled with a lack of concern for teammates, a deficiency in generosity when collaborating, an unwillingness to value others' ideas, and a belief in their superiority (Blau & Boal, 1987; Ingram et al., 1991; Mulki et al., 2007), suggests that such individuals may not be good team members (Blanchard et al., 2001; Ingram et al., 1991).

Team effectiveness refers to the productivity derived from teamwork, which can occur at multiple levels including individual, team, task, and organizational levels (Cohen & Bailey, 1997). It can be measured by the output produced by the team, the collaborative work process, or the team-related experiences of the members (Hackman, 1987). Cohen and Bailey (1997) categorize the perspectives on team effectiveness into three components: (1) Performance outcomes, referring to the quality and efficiency of the team's output. (2) Attitudinal outcomes, denoting the level of member satisfaction within the team. (3) Behavioral outcomes, such as participation behavior, absence from activities, and withdrawal from the team. This study narrows its focus to two facets—performance and attitudinal outcomes—and aims to assess team effectiveness through two principal metrics: perceived team performance and satisfaction.

The Supplies-values fit theory (Edwards, 1996) is used to explain the alignment between the work characteristics employees seek (values) and those that organizations require them to do (supplies). It posits that the perception of work demands as stressors is contingent on the alignment or misalignment between employee's work expectations and organizational mandates (Edwards, 1996; Harrison, 1978; Stich et al., 2019; Taris & Feij, 2001). Empirical evidence suggests that alignment between supplies and values positively correlates with job performance, and satisfaction (Shaw et al., 2000; Suthakorn et al., 2020; Taris & Feij, 2001), whereas misalignment can lead to reduced motivation and increased job-related stress, adversely affecting performance and satisfaction (Furnham & Schaeffer, 1984; Furnham & Walsh, 1991; Kristof-Brown et al., 2005;

Marstand et al., 2017; Shaw & Gupta, 2004; Williamson & Perumal, 2021).

From this perspective, LWTs align with a preference for independent work (Dixon et al., 2003; Hackman, 1987; Ingram et al., 1991; Shaw et al., 2000), contrasting with the teamwork-oriented ethos prevalent in today's organizations (Abadi & Riyanto, 2021; Cain, 2012; Chowdhury & Murzi, 2020; Silalahi et al., 2023). This misalignment may negatively impact work performance and satisfaction (Furnham & Schaeffer, 1984; Furnham & Walsh, 1991), thereby leading to the first hypothesis:

H_1: LWTs negatively influences team effectiveness.

The Mediating Role of Teamwork Behavior

In team dynamics, Marks et al. (2001) identified that team productivity stems not only from the abilities of its members but also the collaborative processes among team members. These processes include interactions, communication, exchange of ideas, and reliance on one another, acting as a mediator between individual capabilities and the resulting output (Sheng et al., 2010). Rousseau et al. (2006) elucidated that team members' cognitive processes can evolve into teamwork behavior, which subsequently impact team outcomes. They recommended analyzing teamwork behavior via three key components: coordination, cooperation, and information exchange among members.

The Input-Process-Output (IPO) framework by McGrath (1964) is employed to study team effectiveness (Salas et al., 2009) and has also been adapted to explore the processes within the team (Hackman, 1987; McGrath, 1984; Steiner, 1972). The core principle of the IPO is that inputs (e.g., personality) lead to work processes (e.g., member collaboration) and culminate in outputs (e.g., team performance, satisfaction) (Ilgen et al., 2005; McGrath, 1964). The process is, therefore, a crucial step that mediates the indirect relationship between inputs and outputs.

Previous research has demonstrated a direct impact of personality on teamwork behavior. For instance, Peeters et al. (2008) found a positive correlation between high agreeableness—a trait associated with congeniality, a tendency to assist and trust others, openness to diverse opinions, and a preference for non-competitive work environments, traits which starkly contrast with those of LWTs—and collaborative behaviors in teams. Conversely, low agreeableness can detrimentally affect overall team dynamics (Barrick et al., 1998; Mohammed & Angell, 2003) and have a negative impact on team performance (Peeters et al., 2006). Furthermore, research has also highlighted a direct positive effect of team processes on both team performance and satisfaction (Grossman et al., 2017; LePine et al., 2008). Given that LWTs display characteristics such as self-oriented behaviors, a tendency to devalue others' ideas, and foster competitive work environments—traits fundamentally opposite to high agreeableness—we propose the following hypotheses:

H_2: LWTs negatively influences teamwork behavior.

H_3: Teamwork behavior positively influences team effectiveness.

Meanwhile, from the IPO framework, the process emerges as a pivotal variable that mediates the indirect relationship between inputs and outputs, we propose that:

H_4: Teamwork behavior mediates the negative relationship between LWTs and team effectiveness.

The Moderating Role of Task Self-Efficacy

Bandura's Self-Efficacy Theory (1977) posits an individual's belief in their capacity to complete tasks on their own. Lucas et al. (2006) described the Efficacy-Difficulty Effect, emphasizing that perceived task difficulty is contingent upon individual perception of their own capabilities. A task that is difficult for one person may not be seen as difficult for another, making individuals with high self-efficacy more likely to tackle even highly challenging tasks independently (Lucas et al., 2006).

Cognitive switching theory (Louis & Sutton, 1991) delineates two cognitive processes: Automatic and Conscious. Individuals switch between these processes depending on the social situation. In complex or unfamiliar tasks, a shift from Automatic to Conscious processing is observed for enhanced control and deliberation. Conversely, tasks within an individual's expertise typically involve Automatic processing for efficient and independent task execution. As LWTs striving for high-standard work and concerned over mistakes (Locander, 2015), their work motivation is driven by a lack of confidence and trust in others' competence, thus preferring solitary work (Barr et al., 2005; Dixon et al., 2003). High self-efficacy in LWTs may lead to greater reliance on Automatic processing, consistent with their preference for solitary work, and potentially further exacerbate the negative impact on their teamwork behavior.

Previous research has shown that LWTs negatively impacted teamwork (Barr et al., 2005; Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991; Mulki et al., 2007). Nonetheless, the moderating effect of work content on this negative relationship remains unexplored.

This study proposes that self-efficacy perceptions of LWTs toward their tasks may act as a moderator in potentially exacerbating their negative impact on teamwork behavior, leading to:

H_5: Task self-efficacy moderates the relationship between LWTs and teamwork behavior.

The Moderating Role of Role Clarity

Given that today's work environments are incredibly dynamic (Irfan & Qadeer, 2021; Yoo et al., 2022; Zhang & Parker, 2019), employees often find themselves working across multiple teams, which can potentially blur the clarity of their roles in each team. Role Theory (Rizzo et al., 1970) defines role clarity as team members' comprehensive understanding of their expected responsibilities, objectives, and duties, as well as an understanding and respect for the authority, duties, and work boundaries of other members (Hinkin & Schriesheim, 2008; Salton, 2000). Teams with high role clarity have been found to enhance open communication among members (Gladstein, 1984; Kiesler, 1978) and positively correlate with effective teamwork (Curnin et al., 2015; Klein et al., 2009). Conversely, teams with low role clarity have been found to increase stress, conflict, and frustration that lead to comparative behavior among team members (Willcocks, 1994). Consequently, it negatively affects individual work behaviors within the team (Gilboa et al., 2008; Tubre & Collins, 2000).

Drawing upon the Cognitive-Affective Personality System framework (Mischel & Shoda, 1995), which suggests that human behavior results from the interaction between personality and social contexts, not just personality alone (Mischel & Shoda, 1995; Tett & Burnett, 2003), this study posits a novel inquiry: Can the positive effects of role clarity interact with LWTs to mitigate their negative impact on teamwork behavior?, a particular moderator that has never been previously investigated, thus leading to the proposed hypothesis:

H_6: Role clarity moderates the relationship between LWTs and teamwork behavior.

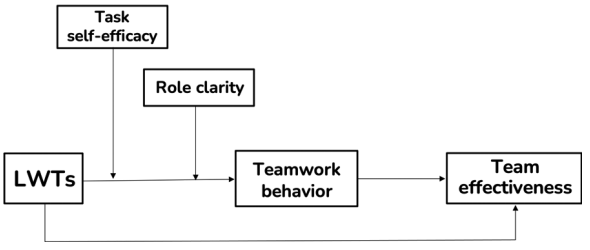

Figure 1 Research framework

Methodology

Participants

The sample for this study consists of 443 Thai employees (205 males and 238 females) working for one of Thailand's largest conglomerates in the service industry, based in Bangkok, which provides services and hospitality across various sectors nationwide, including department stores, supermarkets, hotels, restaurants, and convenience stores. The age range is 20–59 years (M = 33.57 years; SD = 6.03), with organizational tenure spanning 0.6 to 39.4 years (M = 7.24 years; SD = 5.21). Of these, 90.5 percent hold a bachelor's degree, while 9.5 percent hold higher degrees. All participants have recent experience working in teams, with an average team size of 6.96 members (SD = 3.98). In terms of team intimacy, 38.4 percent reported close relationships with all team members, 60 percent with some team members, and 1.6 percent with none.

Data Collection

This study employed a convenience sampling method, targeting employees working in a service company based in Bangkok, throughout the period from August to October 2023. As the service-oriented industry necessitates extensive collaboration and team effort to ensure optimal service delivery to customers (Lee & Lim, 2023), personnel in this industry therefore have the potential to represent a group of individuals who engage in a high level of teamwork. The instruments included Thai version questionnaires in both paper-and-pencil and online formats, which were distributed with the assistance of managers at the selected company who facilitated the recruitment of voluntary participants, ensuring anonymity by not requiring identity disclosure. The questionnaire was completed by participants who provided informed consent. Moreover, prior to data collection, this research received ethical approval from the Research Ethics Review Committee for Research Involving Human Research Participants, Group I, Chulalongkorn University.

Measurements

The questionnaires were provided in the Thai language, adhering to the back-translation procedures outlined by Sperber (2004). A 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), was employed for all multi-item scales. All participants were asked to reflect on their latest teamwork experience

with other employees in the same organization before responding to the survey.

Lone wolf tendencies were measured using a 7-item Lone Wolf Scale by Dixon et al. (2003) (α = .90). An example item is 'Given the choice, I would rather work alone than with others'. A higher score on this scale indicates higher LWTs in the participants.

Teamwork behavior was measured using a 13-item scale (α = .90), which was adapted from the 9-item Teamwork Behavior Scale by Sheng et al. (2010). An example item is 'In the latest teamwork experience, when a team member is busy with work, I voluntarily help to share his workload' – and the adapted 4-item Knowledge-Sharing Behavior Scale by Castaneda et al. (2016), with an example item being, 'In the latest teamwork experience, I share ideas with my team member so that they can do better work'. A higher score on this scale indicates higher teamwork behavior in the participants.

Team effectiveness was measured using a 9-item scale (α = .93), which was adapted from the 5-item Team Development Survey (TDS) by Campbell and Hallam (1994). An example item is 'In the latest teamwork experience, the outputs of my team are top quality' – and the adapted 4-item Team Satisfaction Scale by Valacich et al. (1992), with an example item being, 'In the latest teamwork experience, I am satisfied with the other members in my team'. A higher score on this scale indicates higher perceived team effectiveness in the participants.

Role clarity was measured using a 6-item scale (α = .89), which included 5 items from the Role clarity scale by Mukherjee and Malhotra (2006). An example item is 'I know what my responsibilities are'. Moreover, to fully align with the conceptual definition of role clarity, an additional item was incorporated concerning the understanding of roles and duties of other team members. A higher score on this scale indicates higher role clarity in the participants.

Task self-efficacy was measured using an 8-item scale (α = .76), which was adapted and specifically selected to include only questions relevant to this study, derived from the original Mathematical Self-Efficacy Scale by Lucas et al. (2006). An example item is 'In the latest teamwork experience, compared to others, I perceive myself as more skilled in the tasks I have undertaken'. A higher score on this scale indicates higher perceived task self-efficacy in the participants.

Data Analysis

To examine the moderated-mediation model, all raw collected data were converted into factor scores following the methodologies outlined by Arbuckle (2011) and Wang et al. (2022). Analysis began with Confirmatory Factor Analysis using AMOS version 29, where the goodness-of-fit indices (χ^2 = 2007.601, df = 824, p < .01, GFI = .820, NFI = .816, CFI = .882, and RMSEA = .06) confirmed a good model fit.

Regression imputation was then conducted on the factor scores of each variable, and the data were standardized and analyzed using PROCESS macro model 9 (Hayes, 2017) in SPSS for the first stage of the dual moderated-mediation model. These methodologies will help to address the limitations of using the PROCESS macro, which arise from merely analyzing the aggregated variables of raw data.

Control Variables

This study controlled for team size and the intimacy between teammates, as previous literature has indicated their influence on team dynamics and outcomes (Martens & Peterson, 1971; Onağ & Tepeci, 2014; Pieterse & Thompson, 2006). In this study, the results from linear regression analysis also indicated that team size and intimacy between teammates positively influence teamwork behavior and team effectiveness.

Results

Descriptive Statistics

In Table 1, Pearson's correlation coefficients are presented to evaluate the preliminary directional relationships among research variables and to examine multicollinearity, applying Kline's (2005) criterion of 0.9 as the upper limit for acceptability. The result indicates that none of the relationships exhibit issues of multicollinearity.

Table 1 Pearson's correlation coefficients

	1	2	3	4	5
1. Lone wolf tendencies	(.90)				
2. Teamwork behavior	-.10*	(.90)			
3. Team effectiveness	-.27**	.57**	(.93)		
4. Role clarity	-.15**	.57**	.59**	(.89)	
5. Task self-efficacy	.34**	.28**	.26**	.23**	(.76)
Mean	2.57	4.01	4.23	4.19	3.64
Standard deviation	1.14	0.48	0.52	0.56	0.53

Note: The numbers in parentheses indicate the reliability of the instruments

*p < .05, **p < .01 (one-tailed).

Hypothesis Testing

Results from PROCESS macro model 9, indicate that LWTs negatively impacted team effectiveness (β = -.26, p < .01), supporting H_1. Additionally, LWTs were found to negatively impact teamwork behavior (β = -.18, p < .01), supporting H_2. A positive effect of teamwork behavior on team effectiveness was also found (β = .69, p < .01), supporting H_3.

The indirect effect analysis further revealed that teamwork behavior partially mediated the negative relationship between LWTs and team effectiveness (β = -.12, 95% CI [-.19, -.05]), thus H_4 was supported.

Moreover, the moderating effect analyses revealed that task self-efficacy significantly interacted with LWTs (controlling for role clarity) in predicting teamwork behavior (β = -.13, p < .01), supporting H_5. This interaction enhances the predictive coefficient for variance in teamwork behavior, with an R^2 change of .0059, significant at $F(1, 431) = 7.70$, p < .01.

Besides, it was found that role clarity also significantly moderated the relationship between LWTs (controlling for task self-efficacy) and teamwork behavior (β = .08, p < .01), supporting H_6. This interaction enhances the predictive coefficient for variance in teamwork behavior, with an R^2 change of .0117, significant at $F(1, 431) = 15.19$, p < .01.

In addition, we also conducted moderated-mediation analysis. Results from PROCESS macro model 9 revealed that only task self-efficacy had a negative moderated-mediation effect with LWTs through teamwork behaviors, significantly impacting team effectiveness. The index of partial moderated-mediation was -.09, significant at 95% CI [-.13, -.05]. This confirms the pivotal role of task self-efficacy in interacting with LWTs to predict their negative impact on teamwork behavior, which in turn indirectly affects team effectiveness negatively. However, we did not find a moderated-mediation effect of role clarity in this relationship. The index of partial moderated-mediation was .05, not significant at 95% CI [-.01, 10].

Table 2 Hypothesis testing results

	Teamwork behavior				Team effectiveness			
	β	*SE*	*t*	*p*	β	*SE*	*t*	*p*
(constant)	-.61	0.32	-1.91	ns.	.37	0.35	1.06	ns.
LWTs	-.18	0.04	-3.98	<.01	-.26	0.03	-7.61	<.01
Role clarity	.73	0.03	24.03	<.01	-	-	-	-
Task self-efficacy	-.24	0.04	-5.88	<.01	-	-	-	-
Teamwork behavior	-	-	-	-	.69	0.03	21.79	<.01
LWTs x TSE	-.13	0.03	-3.90	<.01	-	-	-	-
LWTs x RC	.08	0.03	2.78	<.01	-	-	-	-
Team size	.01	0.01	0.68	ns.	.00	0.01	0.21	ns.
Intimacy	-.10	0.06	-1.69	ns.	.05	0.07	0.69	ns.
LWTs > TWB > TE	-	-	-	-	-.12	0.04	95% CI [-.19, -.05]	
R^2	.67			<.01	.59			<.01

Note: ns. = not significant.

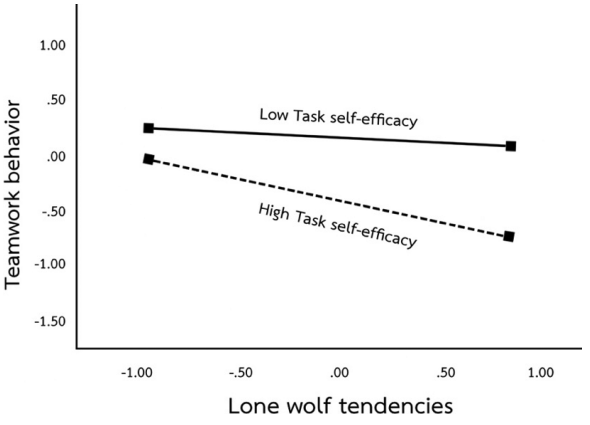

Figure 2 Interaction of LWTs x TSE on TWB (Controlling for RC)

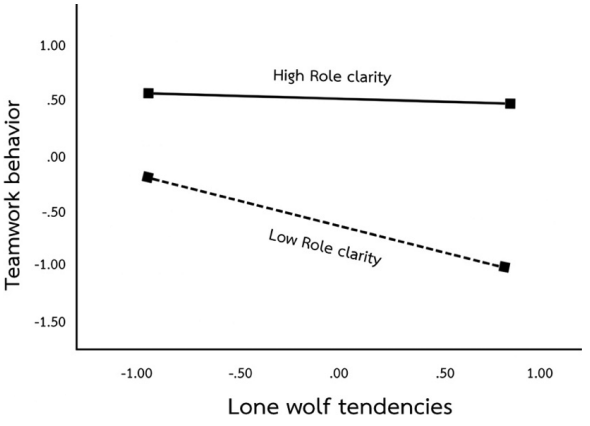

Figure 3 Interaction of LWTs x RC on TWB (Controlling for TSE)

Table 3 Moderated-mediation analysis

Indices of partial moderated-mediation				
			95% Confidence interval	
	Index	*SE*	LLCI	ULCI
Task self-efficacy	-.09	0.02	-.13	-.05
Role clarity	.05	0.03	-.01	.10

Discussion

Prior research has found that LWTs appeared to be less likely to engage in teamwork behaviors, due to a lack of confidence in and distrust of others' work (Barr et al., 2005; Dixon et al., 2003). They might feel superior, seeing others as less capable and disregarding others' ideas (Blau & Boal, 1987; Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991), which negatively impacts the team process (Barr et al., 2005; Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991; Seow & Shankar, 2018; Shankar & Seow, 2010). However, the relationship direction between LWTs and team effectiveness remains a subject of debate (Seow & Shankar, 2018). While some studies indicate a negative relationship between these two variables (Barr et al., 2005; Briggs et al., 2012; Mulki et al., 2007; Shankar & Seow, 2010), others suggest that the positive work behaviors of LWTs can contribute positively to team effectiveness (Griffeth et al., 1999; Hochheiser, 1987; Locander et al., 2015). The present study posits the possibility of a mediating effect of teamwork behaviors in the relationship between LWTs and team effectiveness. Additionally, we seek to explore potential moderators, namely, task self-efficacy, and role clarity, in their interaction with LWTs to predict teamwork behavior.

Our results revealed that LWTs negatively influence team effectiveness. This suggests that individuals with higher LWTs tend to perceive lower team effectiveness in teamwork, aligning with previous findings (Barr et al., 2005; Briggs et al., 2012; Mulki et al., 2007; Shankar & Seow, 2010). These results are in line with the Supplies-Values Fit theory (Edwards, 1996), which posits that a misalignment between the work characteristics employees seek and those required by organizations can adversely affect their work performance and satisfaction. Furthermore, our empirical analysis revealed that LWTs negatively impacted teamwork behavior, suggesting a decline in teamwork behaviors among individuals with high LWTs.

Additionally, we found not only a strong positive relationship between teamwork behavior and team effectiveness, but also that teamwork behavior partially mediates the indirect negative effect of LWTs on team effectiveness. These results are in line with the IPO framework (McGrath, 1964), which posits that individual inputs (e.g., personality) influence work processes (e.g., collaboration) and subsequently affect work outputs (e.g., performance, satisfaction) (Ilgen et al., 2005; McGrath, 1964). According to Dixon et al. (2003), individuals with LWTs are characterized by a lack of patience, confidence, and trust in others' work. They exhibit a sense of superiority, seeing others as less effective, and tend to undervalue others' ideas (Blau & Boal, 1987; Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991), making them unlikely to either offer or seek help within the team (Mulki et al., 2007; Shaw et al., 2000). Thus, the inputs from these individuals negatively affect the team process, as evidenced by a reduction in teamwork behavior, which subsequently impacts team effectiveness. The present study is the first to apply the IPO framework (McGrath, 1964) in addressing the ongoing debate regarding the directional relationship between LWTs and team effectiveness, a topic in which previous studies have shown mixed results (Seow & Shankar, 2018). Our study identified the mediating role of teamwork behavior in this negative relationship. These findings underscore the necessity for organizations to proactively implement strategies that foster teamwork behaviors among LWTs, as these behaviors are pivotal in mediating the indirect impact of LWTs on team effectiveness.

Based on the Cognitive-Affective Personality System framework (Mischel & Shoda, 1995), which suggests that human behavior is a dynamic interplay between personality and social contexts (Tett & Burnett, 2003), this study is the first to examine how role clarity and task self-efficacy interact with LWTs in predicting their teamwork behaviors. Our results revealed that task self-efficacy significantly interacted with LWTs in predicting their teamwork behaviors. This suggests that LWTs, who typically prefer working alone and dislike teamwork, exacerbate their reduction in teamwork behaviors when engaged in tasks where they have high self-efficacy. This finding is in line with prior research, which indicates that high task self-efficacious individuals tend to prefer working independently (Lucas et al., 2006). Furthermore, LWTs are generally goal-oriented towards personal advancement, growth, and becoming experts in their field (Dixon et al., 2003; Griffeth et al., 1999; Ingram et al., 1991; Wu et al., 2020). This orientation leads them to place importance on their work,

be concerned over mistakes, and maintain high work standards (Locander et al., 2015). Therefore, interacting with high task self-efficacy further decreases their tendency towards teamwork behavior.

Besides, our study revealed that role clarity significantly moderated the relationship between LWTs and teamwork behavior. This indicates that in teams where roles and duties are clearly defined, the negative effect of LWTs on teamwork behaviors can be mitigated. These findings resonate with prior research showing that role clarity aids team members in understanding their own roles, duties, and expectations, as well as those of other team members (Whitaker et al., 2007). It promotes open communication (Gladstein, 1984; Kiesler, 1978), leads to more effective collaboration (Klein et al., 2009), and has a positive impact on team dynamic (Curnin et al., 2015). The result of this study enriches existing literature, which predominantly highlights LWTs' negative impact on teamwork; however, the exploration of how high-performing LWTs can be facilitated to become good team players has been less emphasized. Our empirical findings demonstrate that high role clarity within teams can aid LWTs in mitigating their negative impact on teamwork behaviors. This underscores the importance of establishing clear roles within teams as a crucial focus for organizations. Role clarity acts as a moderator that interacts with LWTs, who are inherently high performers, to encourage their participation in teamwork. As a result, organizations should endorse and enact policies that ensure every team member, especially in teams with high LWTs, has a clearly defined role and duty. Such clarity empowers LWTs to harness their high potential and capabilities more effectively in a team setting.

Conclusion and Recommendation

The present study aims to investigate the mediating role of teamwork behavior in the relationship between LWTs and team effectiveness, while also exploring the moderating roles of task self-efficacy and role clarity in their potential interaction with LWTs in predicting teamwork behaviors. Our findings empirically prove that teamwork behavior acts as a partial mediator in the indirect negative relationship between LWTs and team effectiveness. We have also found that both task self-efficacy and role clarity significantly interact with LWTs to strengthen and lessen its negative impact on teamwork behavior respectively. Furthermore, we have found that task self-efficacy still has a negative moderated-mediation effect with LWTs through teamwork behaviors, which in turn significantly impacts team effectiveness.

Although all findings have successfully achieved the goals of our study, there are still some limitations that need to be acknowledged. First, the samples in this study were Thai employees working in a Thai collectivist organizational culture (Khewsomboon, 2017; Limpanitgul et al., 2017), particularly within the service industry context. It was observed that the average LWTs score among this sample was comparatively lower than those found in Western samples (Kundi et al., 2021; Lussier et al., 2022). Therefore, future research should consider replicating this study with samples from Western individualistic organizational cultures (Hughes, 2011; Yablo & Field, 2007), especially in different industry contexts, to allow cross-cultural comparison and enhance the generalizability. Second, given that a team consists of diverse roles, the position held within a team may act as a confounding variable that was not controlled in this study. LWTs exhibit a sense of superiority and see others as less effective (Dixon et al., 2003; Krupar & Krupar, 1988). When positioned as experts, recognized for their individual expertise, LWTs have been found to express their positive teamwork behaviors (Husted & Michailova, 2010). Consequently, future research should explore specific roles within teams (e.g., leaders or followers) as these may also serve as confounding variables influencing the teamwork behaviors among LWTs. Third, as this study was conducted entirely using a survey research design, it inherently faces certain disadvantages, such as challenges in establishing causality, the presence of response bias, and difficulties in controlling extraneous variables (Kite & Whitley, 2018). To overcome these issues, future research should consider adopting experimental designs for a clearer understanding and conclusions.

Lastly, as Shankar and Seow (2010) found, an increased proportion of LWTs within a team negatively affects both self-rated team performance and team commitment. Therefore, it would be interesting for future research to conduct an experimental study where participants are randomly assigned to teams, and the proportion of high LWTs within each team can be manipulated. This would enable further investigation into whether the results would be the same on team effectiveness, particularly when considering teamwork behavior, role clarity and task self-efficacy as mediating moderators. Furthermore, given that social influences in the workplace can contribute to the development of individuals' LWTs (Briggs et al., 2012; Locander et al., 2015; Mulki et al., 2007),

it would also be interesting to examine the factors that may foster these traits, with the aim to reduce the prevalence of LWTs in employees when working in teams. Exploring variables such as team size or intimacy with other team members is suggested to provide insightful findings on the optimal team composition that mitigates LWTs, thereby enhancing overall team effectiveness.

Conflict of Interest

The authors declare that there is no conflict of interest.

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