Jordan Journal of Business Administration, Volume **20**, No. **2**, **2024**
DOI: https://doi.org/10.35516/jjba.v20i2.2011

Mediating Influence of Goal Orientation in Teams of Petroleum Industry

Debasish Mukherjee [1] ***and Nitin Arora*** [2]

ABSTRACT

Past research on teams lists various factors that impact team effectiveness. This research paper studies the factor 'goal orientation', which measures the capacity of a multi-disciplinary team to remain focused on the team goal. The findings of this paper are based on qualitative research with analysis of in-depth interviews of senior team leaders and team members in two major Indian petroleum-exploration companies. The findings propose a conceptual framework for goal orientation in teams of the industry. The framework brings out three factors of 'goal orientation': (1) self-efficacy, (2) self-set goals and (3) performance. The most important research finding is the role of these factors of 'goal orientation' in the team model, where goal orientation mediates teams through the first two factors and moderates teams through the third. Based on the findings, this study recommends that 'goal orientation' in individuals should be the main criterion to choose members for teams in the industry. 'Goal orientation' is more important than other criteria, like task orientation or competency.

Keywords: Goal orientation, Petroleum-exploration industry, Self-efficacy, Self-set goals, Performance.

1 Research Scholar, Amity International Business School, Amity University, Noida.
2. Professor, Amity International Business School, Amity University, Noida.

Received on 14/7/2021 and Accepted for Publication on 23/8/2022.

دور توجيه الهدف في وساطة واعتدال فرق صناعة النفط

ديباسيش موخيرجي[1]، ونيتين أرورا[2]

ملخص

تسرد البحوث السابقة حول الفِرَق العوامل المختلفة التي تؤثر في فعالية الفِرَق من خلال عامل "توجيه الهدف"، الذي يقيس قدرة فريق متعدد التخصصات على الاستمرار في التركيز على هدف الفريق. وتستند نتائج هذه الورقة إلى البحث النوعي مع تحليل المقابلات المتعمقة لكبار قادة الفريق وأعضاء الفريق في شركتين رئيسيتين للتنقيب عن البترول في الهند. وتقترح النتائج تبنّي إطار عمل مفاهيمي لتوجيه الهدف في فرق الصناعة. ويبرز إطار العمل العوامل الثلاثة "لتوجيه الهدف": (1) الكفاءة الذاتية، (2) الأهداف المحددة ذاتيًا و(3) الأداء. وتتمثل أهم نتائج البحث في دور هذه العوامل لـ "توجيه الهدف" في نموذج الفريق؛ إذ يتوسط توجيه الهدف الفِرَق من خلال أول عاملين (1 و2) ويعدلها من خلال العامل الثالث (3). وبناءً على النتائج، توصي الورقة بأن يكون "توجيه الهدف" في الأفراد المعيار الرئيسي لاختيار أعضاء للفِرَق في الصناعة. ويعد "توجيه الهدف" أكثر أهمية من المعايير الأخرى مثل توجيه المهام أو الكفاءة.

الكلمات الدالة: توجيه الهدف، فِرق صناعة النفط، الكفاءة الذاتية، الأهداف المحدّدة ذاتيًا، الأداء.

1 باحث، مدرسة أميتي الدولية للأعمال، جامعة أميتي، نويدا، الهند.
2 أستاذ، مدرسة أميتي الدولية للأعمال، جامعة أميتي، نويدا، الهند.

تاريخ استلام البحث 2021/7/14 وتاريخ قبوله 2022/8/23.

INTRODUCTION

Team and group effectiveness and its drivers in corporate ecosystems have been receiving research attention for quite some time (Arrow, McGrath & Berdahl, 2000). A number of theories (Dolen, Ruyter & Carman, 2006) have been devised to explore the variation in team performance with various team-related variables. Various constructs have been used by Lester, Meglino and Korsgaard (2002) to understand and measure (Hand, 2016) team behaviour. One of the main determinants of team behaviour has been the level of 'goal orientation' in a team. Goal orientation measures the extent to which a person or an organization is focused on the team's overarching goals in contrast to focusing only on the tasks (related to task orientation). Teams or team members with a strong goal orientation focus more on the end result rather than on the intermediary individual tasks. The moderating effect of various team constructs on team performance was studied by Hoisl, Gruber and Conti (2017). Suprayogi, Ratriana and Wulandari (2019) examined the interplay of performance efficacy and goal orientation. In the information-intensive upstream petroleum industry (exploration and production of crude oil and natural gas) with multi-disciplinary teams, this 'goal orientation' is yet to secure any major scholarly attention.

For multi-disciplinary teams employed in this upstream petroleum industry, the need for orienting the members towards the team goal is found to be a key factor in improving team effectiveness, especially in oilfield settings. Teams in upstream petroleum industry are quite disparate and multi-disciplinary. Team members come from various disciplines, like geophysics, geology, reservoir, seismic, engineering, chemistry and production, which are very different from each other and have their own tasks. Hence, such teams need to have the overarching team goal in focus. This paper explores a conceptual framework for goal orientation for such teams. After thematically analyzing qualitative data from team leaders and team members from two public-sector enterprises in India, this paper adopts an operational measure of 'goal orientation'. It thematically analyzes rich qualitative data to identify three approaches adopted by the team (team members individually and the team collectively) to catalyze goal orientation, *viz.* self-efficacy, self-set goals and performance. This paper studies the elements of this goal orientation approach of teams and develops a theory around it for the upstream petroleum industry in India.

2. LITERATURE REVIEW

Theories on teams have been around since a long time, throwing light on various emerging issues with passage of time. The classic theories postulated by Arrow, McGrath and Berdhl (2000) on teams as complex adaptive systems have been slowly and steadily incorporated into team science over the decades. Kozlowski and Bell (2003) have provided an integrative perspective on work groups and teams in organizations, correlating theory and research, identifying key issues in need of research attention and resolution. A study on team structure by Hollenbeck and Spitzmuller (2012) listed the virtues and liabilities of various approaches in teams and found that loose coupling may be a normative and not just a descriptive, practice of organizational teams. More recent research has approached teams from a non-linear dynamic system model. Pedro, Ramos-Villagrasa, Marques-Quinteiro, Navarro and Rico have selected 92 articles published over the last 17 years to integrate what is known about teams as complex adaptive systems. The present review reveals the evidence supporting teams as complex adaptive systems and the set of analytical techniques to analyze team data from this perspective.

Over the decades, work groups and teams in organizations have received enhanced focus of scholarly research. Such research has resulted in a complex network of themes that impact work groups and organizational teams to achieve their full potential.

O'Neilland Salas (2017) have assembled a focused set of four themes that capture avenues for achieving the full potential of teams: (1) working across boundaries, (2) building effective team processes and states, (3) managing team development issues and (4) leveraging human capital. Collectively, the study offered important new opportunities for advancing future research and for making a practical difference in the effectiveness of teams in organizations.

The mediating role of one variable in intervening or explaining the relationship between the dependent and independent variables has received regular attention of research scholars. The mediating effect of knowledge sharing in the investigation of trust on innovation in Jordanian hospitals has been studied by Al Zoubi (2022). Al Hashem and Al Shaar (2022) investigated the impact of green human resource management (GHRM) practices on job performance in light of resistance to change as a mediating variable. Al Shaar (2021) studied the mediating role of green life style while, identifying the impact of green human resource management on green supply chain.

The mediating effect of different variables on team outcomes has been researched for a long time. The mediating role of social loafing in a virtual team's effectiveness has been studied by Peñarroja, Orengo and Zornoza (2017), who explored the role of team feedback and guided reflexivity on virtual teams' affective outcomes. An experimental laboratory study with 54 teams randomly assigned to an experimental condition or a control condition showed that this intervention had an effect on satisfaction with the result, but not on group cohesion and satisfaction with the team. Moreover, perceived social loafing fully mediated the effect of this intervention on group cohesion and partially mediated its effect on satisfaction with the team and the result.

Literature on achievement orientation and goal orientation showed that both affect learning in teams. A study by Fowler, Camacho and Farh (2019) considered achievement orientation in the context of team projects. Specifically, it investigated achievement as a general trait, as context-specific state orientation towards the project and as team-level state orientation to the project. The study reported significant correlations between trait orientation and state orientation, suggesting that students bring pieces of their default learning approach to this context. However, we find that team-level state orientation is not well predicted by the orientation of the individuals who make up the team. In fact, team gender breakdown is a better predictor than individual trait orientation, which suggests that some other components of team culture are having larger effects. We also propose a separate form of performance-avoid in this team-based context: avoiding tasks that risk others' grades. Recent research on teams also explored how gender affects teams' apportioning of roles. The study of Fowler and Su (2018) proposed a conceptual model for task allocation among student teams in project-based learning (PBL), along with a discussion on ways in which gender can affect teams' apportioning of roles in inequitable ways in STEM PBL. The study explored the following research questions: How do students self-select, negotiate and allocate tasks on PBL teams? How does past PBL experience influence task allocation? How does gender affect task allocation? The following methodology is used: first-year students (N=60) completed reflections about task assignment during a semester-long PBL experience. The study found that individual student characteristics that are related to gender, including interests, skills, experiences and self-efficacy, interact with students' goal orientations to lead to individual preferences regarding tasks. Ultimate task allocations are distributed in a non-gender-neutral way following individual preferences.

The orientations among individual team members and their effects on group development over time have been widely studied in team literature. In many cases, these orientations are influenced by the team structure. The study by Suprayogi, Ratriana and Wulandari (2019) has examined the interplay of performance

efficacy and goal orientation and found that goal orientation is a significant factor for achievement. The temporal nature of team dynamics and how they evolve with time have also been a focus of research. Research on groups analyzes the micro-interaction process in groups, throwing light on group development; i.e., how the relationships among group members change over a period of time. The impact of goal orientation in team members on the team performance has been studied in team literature. The study by Mehta, Field, Armenakis and Mehta (2009) examined the relationships between team goal orientation, team self-regulation tactic of team planning and team performance of 91 student teams engaged in complex decision-making tasks requiring analytical skills. In contrast to previous findings involving individuals, the results of this study indicated that team performance-based goal orientation, but not team learning goal orientation, influenced team performance through its impact on team planning. The study by Pieterse (2009) reported that diversity, both state and trait diversity, in goal orientation plays an important role in team performance. The results indicated that group information elaboration is an important mediator of the effects of diversity in both trait (albeit only learning orientation) and state goal orientation. These results support the categorization elaboration model in the argument that group information elaboration is a central mediator of the effects of diversity in teams (van Knippenberg, De Dreu & Homan, 2004).

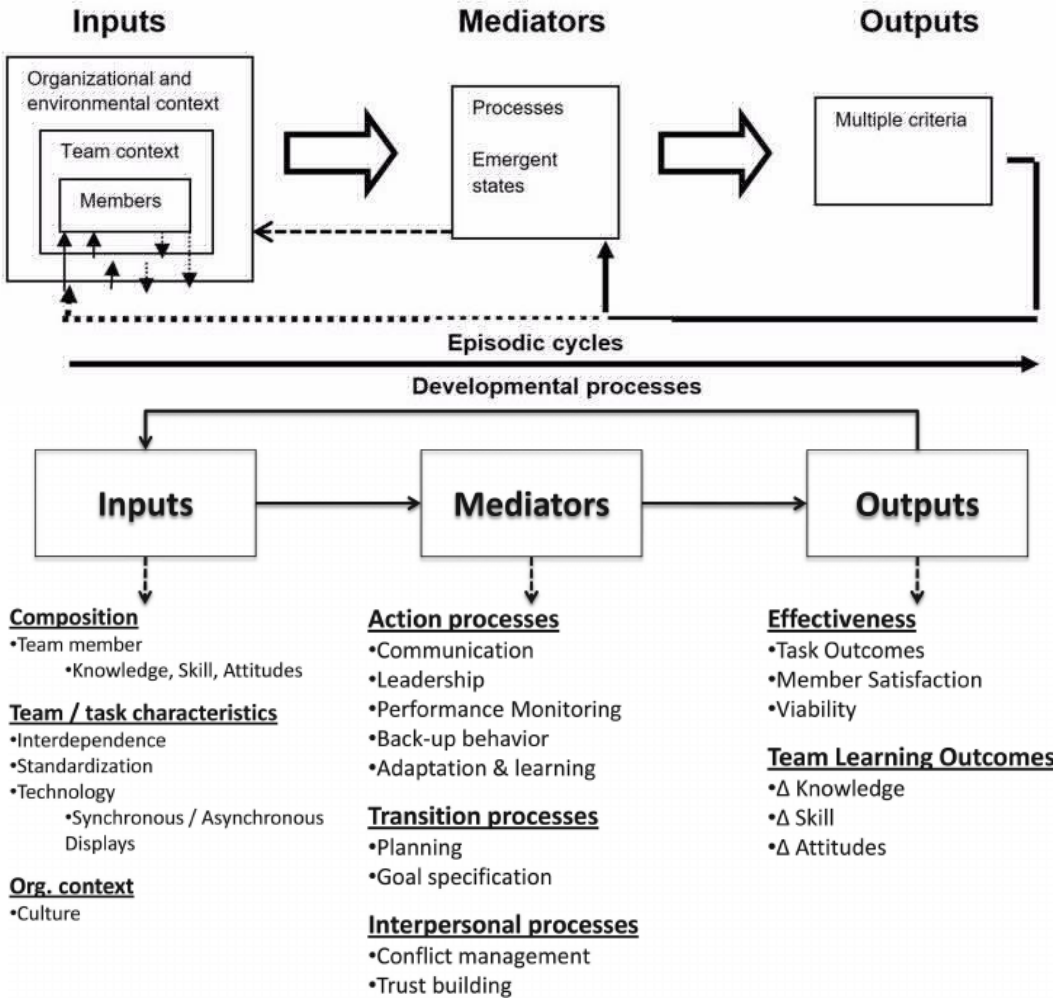
The predictive ability of goal orientation on outcome variables of teams is quite interesting. The study by Porter (2005) has examined the predictive validity of goal orientation in teams on both team process and outcome variables. The study results indicated that when mean goal orientation scores were used as a way of describing team members' inputs, learning orientation was related to backing up behaviour, efficacy and commitment. The relationships between performance orientation and efficacy and commitment, however, were more complex and were clarified when task performance was also taken into account. Performance orientation had a negative effect on efficacy when task performance was low and a positive effect on commitment when task performance was high. Team dynamics and their metrics have always fascinated team researchers. The relevant emergent team constructs within various stages of team development have been discussed by Delice, Rousseau and Feitosa (2019). The study also discussed the ways and means to measure team dynamics with objective methods. The challenges of leveraging the full potential of organizational work teams in the complex web of modern work systems have also received recent research attention. The study by O'Neill and Salas (2017) explored the science of high-performance teamwork by considering four themes that capture the variables involved in achieving the full potential of teams: (1) working across boundaries, (2) building effective team processes and states, (3) managing team development issues and (4) leveraging human capital.

The influence of goal orientation in specific regional geographies has also come under scholarly attention. The study by Chakrabarti, Barnes, Berthon, Pitt and Monkhouse (2014) has explored whether goal orientation and achievement motivation theory apply in an international Middle Eastern context. The study has found that both positive feedback and negative feedback lead to greater learning and performance orientation that in turn influences teams in the Middle East to work harder and smarter, which ultimately leverages performance outcomes. The effect of multiple goal orientation on performance motivation in individual domains has also been widely researched. The impact of multiple goal orientation in teams with learning outcomes was studied by Li and Shieh (2016). The study found that there is a remarkable positive effect of multiple goal orientation on performance behaviours in the field of education. There are studies that examined the role of political skills in teams in enhancing team performance. The study by Lvina, Johns and Vandenberghe (2018) demonstrated that

team political skill benefits extend to work groups. The data analyzed in the study showed that team political skill is directly related to subjective and objective team performances. Among several team political skill composition models, the interaction between group skills' mean and standard deviation ('skill strength') was found to be the best predictor of team emergent states and outcomes. Team political skill was related to objective team performance *via* social and task cohesion in student teams and *via* task cohesion in work teams.

There are some classic models on team work, *viz*. IPO model and I-M-O-I model, which bring out the working of teams. The classic empirical research on 'the input–output process model of teamwork' articulated the nature of team performance in classic systems in which team inputs (I) lead to team processes (P) which in turn lead to team outcomes (O). This input–processes–output (I-P-O) framework proposes that stages in a team cycle are episodic. First come the inputs. After the inputs, team processes take place on the inputs. These processes give rise to team output. The cycle then repeats again. This model had a powerful impact on empirical research in the two decades that followed, much of which either directly or indirectly referred to the I-P-O model.

'The input–mediator–output–input (I-M-O-I) model', proposed by Ilgen, Hollenbeck, Johnson and Jundt (2005), is considered a conceptual refinement over the IPO model. It comprises three phases of teamwork in cyclic order: (i) the input–mediator phase (the forming stage) is the early development phase of a team and consists of trusting, planning and structuring components; (ii) the mediator–output phase (the functioning stage) occurs when team members become familiar with collaborating with other team members and consists of bonding, adapting and learning components; (iii) finally, the finishing stage is concerned with the dissolution of teams.



The moderating effects of diversity has also been a matter of rich discussions in the team literature. 'What Moderates the Effects of Workplace Diversity?' by Guillaume (2015) reviewed variables moderating the effects of workplace diversity on social integration, performance and well-being outcomes, focusing on factors that organizations and managers have control over (i.e., strategy, unit design, HR, leadership, climate/culture and individual differences). The moderating and meditating roles of professional commitment on team effectiveness have been studied and reported in team literature. The study by Mitchell, Boyle and Stieglitz (2019) has investigated a moderated mediation model of professional commitment and team effectiveness through cognitive diversity moderated by task conflict. Analysis of data collected from 70 UK healthcare teams and their leaders found that teams comprised of members who have, on average, high professional commitment are more effective than teams of members who are less committed and that this path is mediated by cognitive diversity and contingent on task conflict.

The moderating effect of team composition on team performance has also been under focus in research. The study by Hoisl, Gruber and Conti (2017) examined the effects of an R&D team's composition on its performance outcomes in hyper-competition.

Analyzing a unique dataset from the Formula 1 Motorsport racing industry, the study found an inverse U-shaped relationship between team diversity in task-related experience and performance, which is an important result that diverges from well-established theories developed in more stable environments. While it found a moderating effect for firm age, this effect is not as robust as that of firm size. The moderating role of national, social and cultural contexts in work teams is also a matter of managerial as well as research interest. Ayub and Jehn (2018) found that task conflict and performance are higher in nationally diverse workgroups that included multiple dissimilar nationalities compared with work groups with just two nationalities. The study also showed that relationship and process conflicts are lower in groups that are diverse in size and nature of national diversity. It observed that social distances among nationalities varied in such a way that a distant nationality became more distanced and a close nationality became even closer in a nationally diverse group. Social distance, in that way, moderated the effect of national diversity. Feitosa, Solis and Grossman (2017) explored how culture influences teams through conflict, communication, trust, cohesion and creativity; the study also addressed the situations and different cultural elements that influence team dynamics.

The role of 'human factors', like trust and collaboration, in project teams has assumed focal research interest for quite some time. The role of trust as a mediator is reported as an interesting aspect in some research studies. Han and Harms (2010) carried out the first field study that examined the mediating role of trust between team identity and team conflict; it examined whether trust in peers mediates the relationship between team identification and team conflict. It found that managers and organizations can work towards creating optimal levels of conflict in their work teams. Paul (2017) found that trust in organizations and teams can be managed with approaches like 'recognizing excellence', 'inducing challenges', 'giving members discretion how they work' and 'sharing information'. Bond-Barnard, Fletcher and Steyn (2018) found that performance of project teams improves as the degree of collaboration among team members is improved, which, in turn, is influenced by an increase in the level of trust between the members. The factors of project-team success are project performance, knowledge integration and innovation. Six factors of the degree of collaboration are studied: physical proximity, commitment, conflict, coordination, relationships and incentives. Three factors of the level of trust investigated are expectations, knowledge exchange and imported trust.

The development of trust in a team over stages of team development has also been explored recently. The study by Grossmana andFeitosa (2018) proposed a theoretical model of team trust in action teams that incorporates its dynamic nature, models the reciprocal relationship between team trust and team performance, delineates unique mediating pathways based on the team's progression in the multi-phasic performance cycle and considers the role of moderating influences that may strengthen or attenuate the impact of performance feedback on subsequent team trust. Many studies have conceptualized social categorization and decision-making in teams. The study by Knippenberg, DeDreu and Homan (2004) proposed the categorization elaboration model (CEM), which reconceptualizes and integrates information/decision-making and social categorization perspectives on workgroup diversity and performance. The CEM incorporates mediator and moderator variables that typically have been ignored in diversity research and incorporates the view that information/decision-making and social categorization processes interact such that intergroup biases flowing from social categorization disrupt the elaboration (in-depth processing) of task-relevant information and perspectives.

The study by Bennett and Gadlin (2012) observed that multi-disciplinary teams need highly integrated and interactive approach to succeed in their team

efforts. Through analysis of in-depth interviews with members of successful research teams as well as those who did not succeed, key elements were identified, which are critical for team effectiveness, such as trust, shared vision and setting clear expectations for sharing credit. Some studies concerning dynamics of group development threw light on how the relationships among group members change over a period of time, based on factors like 'trust' and 'sharing'. Paul (2016) found that trust in organizations and teams can be managed with approaches, like 'recognizing excellence', 'inducing challenges', 'giving members discretion how they work' and 'sharing information'. A recent study on team classification (Mukherjee, Arora & Kapoor, 2017) identified two variables for classifying teams in upstream petroleum industry: degree of interdependence (collaboration) and information diversity. Any team in the upstream petroleum industry can be classified in this conceptual grid by analyzing these two constructs. To find out the grid position (coordinates) of any specific team, we need to find out the composition of the team members which drives their information residency pattern. The grid position of any team has important clues to its performance measures. The study by Kane, Toussaint and O'Bryne (2013) found that meetings of teams are more focused on tasks in formal set-ups, whereas informal set-ups result in more general discussions at the beginning and at the end.

Some team studies explored the macro-organizational control theory to hypothesize that team charter qualities mediate team-level behaviour and build task cohesion through a structured pathway. Courtright, McCormick, Mistry and Wang (2017) established the hypothesis (through a sample of 239 project teams) that the effects of team charter quality and team conscientiousness on team performance (through task cohesion) are substitutive, such that team charter quality primarily impacts team performance for teams that are low (*vs.* high) on conscientiousness. This study achieved three things: first, it enables us to take a more theory-driven approach towards understanding team charters and, in doing so, uncover when and why team charter quality impacts team performance; second, it integrates two normally disparate perspectives on team effectiveness (team development and team selection) to offer a broader perspective on how teams are 'built' and third, it introduces'team charter quality' as a performance-enhancing mechanism for teams lower on conscientiousness.

3. METHODOLOGY

A qualitative research methodology, as detailed in the paragraphs below, has been followed for this paper to answer the research objectives of (i) developing a conceptual framework of goal orientation in multi-disciplinary teams of petroleum industry and (ii) examining its mediating role in the input–mediator–output–input model of teams.

Rationale for a Qualitative Methodology

The rationale behind choosing a qualitative research methodology is that the research objectives relate to understanding of concepts, opinions and experiences of teams, which are essentially non-numerical. In-depth and rich primary data was collected from experienced team leaders and team members in the petroleum industry through pilot-tested semi-structured questionnaires. The responses were coded and thematically analyzed for emerging patterns and a conceptual framework of goal orientation was drawn up in the context of multi-disciplinary teams of upstream petroleum industry.

Sampling Design

Team leaders and team members in two public-sector upstream petroleum companies in India were considered as the study population, as these two companies contribute to around 80 per cent of the industry output and are over 50 years of maturity each. The recruitment of respondents for interviews (and

subsequent focus group) was made from team leaders as well as team members involved in the upstream petroleum operations for over (10) years; another choice criterion was to have an academic interest and involvement in HR and team management. Depth of knowledge and experience of the respondents were the criteria, which are more important to answer the research objectives than representativeness.

The participants (data providers) in the first stage were selected based on purposive sampling. This is so, because only those team leaders who have led millennial teams in the Indian upstream petroleum industry were to be selected (based on the researchers' judgment). In the second and third stages, data providers were nominated based on the variables emerging from their understanding of the research objectives.

Data Collection

Triangulated data was collected through:

• Semi-structured in-depth interviews and

• Focus-group discussions.

The pointers for the in-depth interviews were developed based on the I-M-O-I theoretical lens and goal orientation variables obtained from literature; the pointers were pilot-tested with five team leaders and refined.

Primary (qualitative) data was then collected from a total of 24 interviews: 13 team leaders and 11 team members of drilling and exploration teams in upstream petroleum companies of India, based on an in-depth think aloud interview protocol (with the pilot-tested interview pointers). Qualitative data was collected in stages, as simultaneous analysis was also conducted as is the normative approach in qualitative research.

Team leaders and team members are labelled with numbers, for research ethics. Their details are available to the authors and can be shared for academic purposes.

Qualitative data was analyzed as explained in the next section.

4. Analysis and Discussion

The qualitative data collected from the 24 interviews and focus-group discussions was transcripted, coded and thematically analyzed for patterns. There were three rounds of data collection till theoretical saturation was reached; i.e., no more categories other than the three identified emerged. The coded transcripts of the interviews and focus-group discussions with various team leaders and team members in the two main public enterprises were analyzed for patterns and variables identified. A thematic analysis of the qualitative data was carried out, with repeated themes being captured. The coding of the in-depth interview data helped trace and categorize the thematic patterns behind the evolving qualitative data.

As an illustrative example, we present an excerpt of the transcripts of interviews which led to the emergence of the sub-category 'competence' [a factor under the category 'self-efficacy']. As per inclusion and exclusion criteria (paragraph 1.2 of Excerpts of Appendix1), themes (sub-category is a theme) have been adopted/included if one team leader and one team member indicate that in their response to interviews, unless negated in any other response (exclusion criteria). The excerpt transcript that follows is an illustrative example showing the adoption (inclusion) of the sub-category 'competence' from the three coded transcripts (from interviews of three team leaders and two team members) of 'mentorship', 'knowledge skill' and 'exclusive talent'. The yellow-coded data represents the interview transcripts, blue are the codes identified and grey are the sub-categories. The colour coding of themes is explained in Table 1 of Appendix 1. The subcategories converge on the category (green) self-efficacy.

'Setting high expectations encourages teams. Otherwise, relaxed and low expectations reduce effectiveness. Mentorship is vital to ensure those things, as thorough guidance and support are available under mentorship. Mentorship needs to establish the culture of high expectations. […]'. (TeamLead11)

'Thorough guidance and support are needed by the novice teams, so that the foundation is strong in oil corporations'. (TeamMember7)

'The knowledge acquired should accompany the corresponding knowledge and skills required'. (TeamLead19)

'***The individual knowledge of team members in line with the required skills is positive towards improved confidence and better self-efficacy through competence'***. ***(TeamMember5)***

'Any peculiar talent or skill should be encouraged by the company as such exclusive talent can add to the outcome of the task'. (TeamLead 2)

Excerpts of the thematic qualitative analysis of other interviews are presented in Appendix1, highlighting the patterns (themes) emerged. The emerging patterns, as per the example detailed previously, were identified to progressively arrive at the sub-categories, categories and finally the variable 'goal orientation'. The following conceptual framework of the construct 'goal orientation' of multi-disciplinary oil-field teams in the upstream petroleum industry has been developed, as shown in Figure 1, which shows the journey from grounded data to theory through codes, sub-categories and categories. Based on analysis of the qualitative data through coding and categorization, the sub-categories and three categories have been identified comprising the construct 'goal orientation', reflecting the views and concepts figured out in the interviews recurrently. For instance, 57 per cent of the team leaders interviewed mentioned that self-efficacy and self-set goals are the factors of goal orientation in teams, whereas 64 per cent of the team members found 'performance' as the main factor. Hence, the first two factors and the third factor were deliberated threadbare in the focus group discussion that followed the interviews and the mediating and moderating roles were established. The pre-dominant findings are reported in the following section and shown in Figures 1 and 2.

5. FINDINGS

5.1 The Conceptual Framework

Based on the analysis of the qualitative data through coding and categorization, the sub-categories and three categories have been identified comprising the variable 'goal orientation'. The three categories are (i) self-efficacy, (ii) self-set goals and (iii) performance.

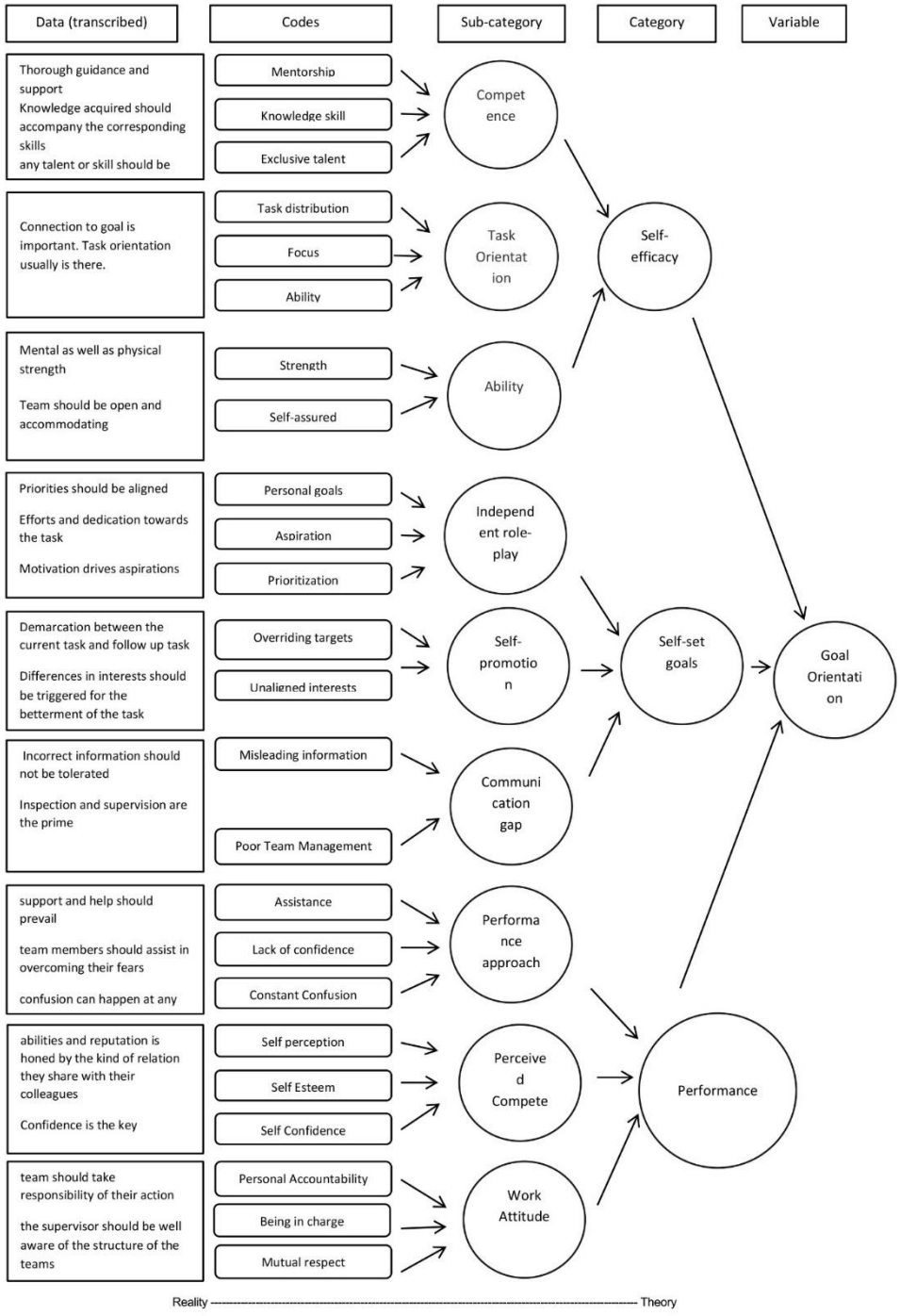


Figure (1)
A conceptual framework of goal orientation

Mediating and Moderating Influences of Goal-orientation Factors

It is also found from the emerging patterns during thematic analysis of the in-depth interviews and the focus group discussions that instead of considering 'goal orientation' as a singular variable while dealing with input-output models, it has a multi-focal role. We need to break up goal orientation into its three plural factor components (as showcased in its conceptual framework in Figure 1): self-efficacy, self-set goals and performance. Whereas 'self-efficacy and 'self-set goals' are mediators (causes of the relation) in the relationship between team inputs and team outputs, 'performance' moderates (strengthens or weakens) that relationship. In other words, 'self-efficacy' and 'self-set goals' explain (mediate) the correlation between the team input(s) and team outputs (s); 'performance' affects (moderates) the strength of the correlation. This is diagrammatically explained in Figure 2. This finding has been discovered in the specific context of multi-disciplinary teams of the Indian upstream petroleum industry. This serves as a conceptual refinement of the I-M-O-I model in the specific context of upstream petroleum industry.

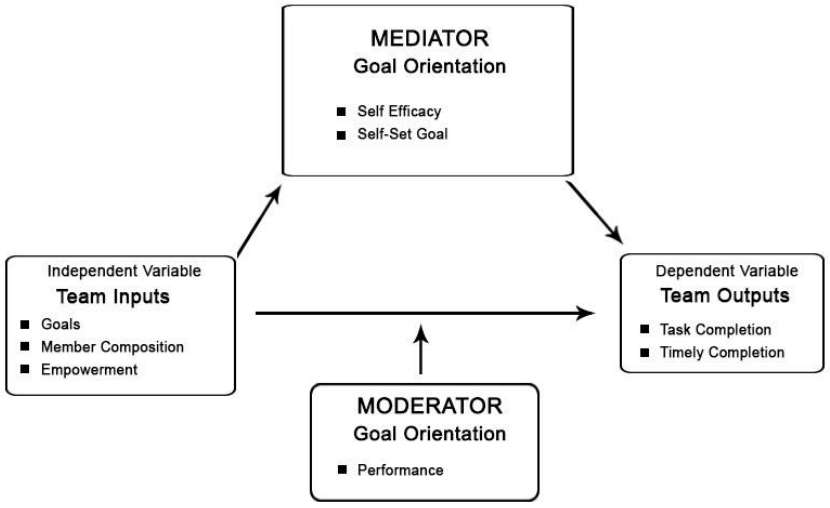


Figure (2)
The multi-focal mediating and moderating framework of 'goal orientation' in multi-disciplinary teams of the upstream petroleum industry

5.3 Propositions

The following propositions emerge from the above conceptual framework (Figures 1 and 2):

- 'Goal orientation', through its three factors, mediates and moderates the input–mediator–output–input (I-M-O-I) relationship in multi-disciplinary teams of the upstream petroleum industry. It mediates this relationship through the first two factors and moderates it through the third. This is the most important finding of this research.
- 'Self-efficacy' is a factor of goal orientation which mediates the input–output relationship in multi-disciplinary teams of the upstream petroleum industry.
- 'Self-set goals' represent a factor of goal orientation which mediates the input–output relationship in multi-disciplinary teams of the upstream petroleum industry.
- 'Performance' is a factor of goal orientation which moderates the input–output relationship in multi-disciplinary teams of the upstream petroleum industry.

- The sub-factors (for operationalization) of 'self-efficacy' are: (a) competence, (b) task orientation and (c) ability.
- The sub-factors (for operationalization) of 'self-set goals' are: (a) independent role play, (b) goal promotion and (c) communication.
- The sub-factors (for operationalization) of 'performance' are: (a) performance orientation, (b) mentoring and (c) work attitude.

5.4 Comparison: Current Results with Results of Earlier Studies

The main finding of this research is that goal orientation is a plural concept. Earlier studies on goal orientation (Porter (2005), Chakrabarti, Barnes, Berthon, Pitt and Monkhouse (2014), Fowler and Su (2018), Suprayogi, Ratriana and Wulandari (2019)) have considered goal orientation as a singular mediating variable in the team input–mediator–output–input (I-M-O-I) model. Our research, in the context of multi-disciplinary teams of the upstream petroleum industry, positions goal orientation as a bipolar entity with both mediating and moderating influences on such teams.

This bipolar characteristic of goal orientation brought out in this research is also a significant enrichment of the team literature over earlier studies on team-related variables. Some earlier studies (Ayub and Jehn (2018), Mitchell, Boyle and Stieglitz (2019)] brought out that the mediating and moderating roles of variables in teams are quite disparate in their pathways. Such earlier studies on mediated and moderated models of teams held that teams with high professional commitment (acting as moderators) are more effective than teams of members who are less committed and that this path is mediated by cognitive diversity and contingent on task conflict. In contrast, our research shows that mediation and moderation pathways of a team can be through the same variable, *viz*. 'goal orientation', albeit its different factors ('self-efficacy' and 'self-set goals') have mediating influences, whereas 'performance' has a moderating influence).

6. Originality and Implications for Industry Management and Academic Literature

To the best of our knowledge, this research has a very high originality value, being the first such research to study the bipolar nature of goal orientation in the specific context of the upstream petroleum industry.

Managerial Implications

The findings are very significant for managerial applications in the economically important upstream petroleum industry, where a majority of the oil-field work is done though multi-disciplinary teams from diverse domain areas, like engineering, drilling, geophysics, geology, reservoir, chemistry and production. Proper and optimum leveraging of goal orientation in such multi-disciplinary teams is vital for team success. The conceptual framework brings out the specific factors of bipolar goal orientation, which can enable the measurement (operationalization) of goal orientation in teams and hence develop more effective teams.

Academic Enrichment

This is a significant addition to team literature, being a conceptual refinement of the widely used and generic I-M-O-I theoretical model in the context of the upstream petroleum industry. The specificities of the framework proposed in this paper will help academicians and researchers go further in their respective quest of knowledge in the domain of team science.

7. Recommendations

The above-mentioned research finding that goal orientation plays both mediating and moderating roles in multi-disciplinary teams in the upstream petroleum industry leads the authors to make the following two recommendations:

- While selecting members for forming multi-disciplinary teams in the upstream petroleum industry, 'goal orientation' in the individual members of such teams should be considered as a key criterion and assigned higher weightage than other factors, like task orientation or competency.
- Even in those cases where teams have already been formed and have started working together, interventions (like counselling) may be organized for improving the 'goal orientation' metrics of each individual member to improve team performance.

8. Directions for Further Research

- Based on the above three categories and sub-categories that emerged from the findings, we can carry out a factor analysis. For example, the factors behind the category self-efficacy are: (a) competence, (b) task orientation and (c) ability. Based on the above factor groupings, we can tabulate nine variables and three broad categories that become the key determinants behind operationalizing goal orientation in teams of the Indian upstream petroleum industry. We can also indicate the findings corresponding to each category, juxtaposing (moderated) with the impact of the other categories *vis-a-vis* goal orientation in teams.
- The study is based on a purposive sample of team leaders in the two upstream petroleum companies in the Indian public sector. A bigger sample including team leaders of a few private-sector enterprises in petroleum industry would give more insights into the fine-grained nuances of the subject and some other classes of operational dimensions may emerge.

Authors' Contributions

Debasish Mukherjee is doing his research for PhD atAIBS, Amity University, Noida, under the guidance of Dr. Nitin Arora, Professor, AIBS, Amity University. Debasish Mukherjee has collected and analyzed the qualitative data and prepared the manuscript. Dr. Nitin Arora has provided the conceptual ideation behind the research.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter of this research paper or materials discussed in the manuscript of the paper.

Funding Statement

The authors have not received any financial support for the research, authorship and/or the publication of this research paper.

Appendix 1

Excerpts of Thematic Analysis of the Qualitative Data

1.1 Thematic Analysis

A thematic analysis of the qualitative data has been carried out as elaborated below. The colour coding of the thematic analysis has been shown to trace the thematic patterns behind the analysis. The colour coding of the themes is shown in Table 1.

Table 1

Colour coding of thematic analysis of data

No.	Colour Code	Represents	Remarks
1	Yellow	Data (Transcribed)	Qualitative textual data captured from interviews of team leaders and team members
2	Blue	Codes	First emerging patterns
3	Grey	Sub-categories	Grouped codes

4	Green	Categories	Grouped sub-categories
5	Pink	Variables	Team-related variables
6	Red	Moderators	Moderators of team-related factors

1.2 Inclusion Criteria of Themes

– Themes brought out by at least one team leader as well as one team member, in one or more rounds, unless excluded (as per the exclusion criteria defined below).

Exclusion Criteria of Themes

– Themes that have been negated by at least one team leader (second round of data generation onwards).

1.3 Analysis

The analyzed transcripts are shown below with coding indicated against the key phrases, highlighting the emerging patterns from data.

Goal orientation measures to which extent a person or an organization is focused on the team's overarching goals and not necessarily only on the tasks. Teams or team members with strong goal orientation focus more on the end result rather than on the individual tasks.

'Ask each member what is that they are doing and why are they doing it. What is the goal? In many cases, we have seen that team members are engrossed in the tasks more and that they have no clue about the team goals. But, each member in a high-energy team should show how he/she helps the overall team objective. Each member should know how he/she can contribute towards the goal better. Involvement and engagement will be high if the answer is known of the last question to him/her. Connection to goal is important. Task orientation usually is there, but not goal orientation; the latter is more vital. The dimensions of goal orientation relate to self-belief, individual goals and performance'. (TeamLead19)

From the above response, it can be seen that in oil-field settings as well as in office settings, goal orientation is a vital factor of team energy. It can also be derived that to maintain team energy in a team, targets and goals should be always kept high.

Goal orientation is affected primarily by three factors: self-efficacy (self-belief), self-set goals (individual goals) and performance.

Self-efficacy

'Self-efficacy is the belief and confidence of a team member in himself/herself. It is a key element in goal orientation, as self-confident members are generally aware of the superordinate team goals'. (TeamLead4)

This observation of respondents show that self-belief and-confidence can be key factors to boost self-efficacy among team members.

'Team efficacy is assignment-specific in contrast to team potency and depends on what types of repeated tasks are given. If variety is low, team efficacy is high; hence, team energy may be high. Sometimes, variation gives them a kick due to intellectual stimulation. If members are exposed to a high number of tasks, variation would be positive; otherwise, it would be negative'. (TeamMember12)

The above response shows how self-efficacy is task-oriented and key for the upstream petroleum industry, especially in field services.

'Team efficacy is positively correlated to team energy. Everyone has some strength points. The leader has to identify that and leverage it'. (TeamLead11)

Apart from self-efficacy, team efficacy can also be vital for maintaining a high team energy.

'Collective belief is an important and intrinsic factor for high team energy in millennial teams. The performance of the members is boosted by that confidence'. (TeamLead2)

Team efficacy can be based on three sub-factors: competence, task orientation and ability.

Competence

One of the major factors to raise competence among team members in the upstream petroleum industry is good mentorship from team leaders.

'Setting high expectations increases team energy. Otherwise, relaxed and low expectations reduce team energy. Mentorship is vital to ensure those things, as thorough guidance and support are available under mentorship. Mentorship needs to establish the culture of high expectations […]'. (TeamLead11)

'Thorough guidance and support are needed by the novice teams, so that the foundation is strong in oil corporations'. (TeamMember7)

'The knowledge acquired should accompany the corresponding skills required'. (TeamLead19)

The individual knowledge of team members in line with the required skills is positive towards improved confidence and better self-efficacy through competence.

'Any peculiar talent or skill should be encouraged by the company, as such exclusive talent or skill can add to the outcome of the task'. (TeamLead2)

Appreciation of exclusive talents can also boost competence of team members.

Task Orientation

Task orientation is an individual member's focus on the tasks assigned, in contrast to the goals of the team as a whole. Task orientation is a positive approach towards improving the involvement and engagement of team members, thereby boosting team efficacy.

'Ask each member what is that they are doing and why are you doing it. What is the goal, not only the job. Task orientation is especially helpful in teams in office settings; whereas goal orientation is vital in teams in oil-field settings […]. Involvement and engagement will be high if the answer is known of the last question to him/her. Connection to goal is important.Alignment of task distribution with the team goal is crucial'. (TeamLead1)

'Tasks are the precursor of teams. Task focus leads to task orientation in teams and this is useful for teams in office settings'. (TeamMember5)

The above analysis of qualitative data shows that task distribution, task focus and alignment with goals are key dimensions of task orientation, which are vital for teams in office settings, which thus forms a part of self-efficacy.

Ability

Ability of team members depends on two major factors: strength and self-assurance.

'Mental strength as well as physical strength are important for capability under ability of self efficacy in upstream petroleum teams, especially in oil-field settings'. (TeamLead18)

Especially for field operations in the upstream petroleum industry, mental and physical strengths of team members improve the team energy, leading to better performance.

'The members should have confidence in their individual capabilities to achieve goals and the team leader should also have confidence in the team members and display it […]. This develops confidence in the ability of a team'. (TeamLead6)

Analysis of the above qualitative data shows that confidence of both members and team leaders adds up to the team confidence, resulting in self-efficacy of teams and consequently building team goal orientation.

Self-set Goals

Self-setting of a goal in most cases has resulted in decreased performance and team energy, as team members often tend to select less difficult goals than the assigned goals. This is more applicable in office settings.

'Leadership is the most vital factor in team energy. Definitive goal setting is a leadership role and is very critical for team energy'. (TeamLead9)

The above response states the role played by a team leader to set a common goal for team members. Shared goals among all members of the team result in better performance and increased team energy. Hence, self-goals are an important factor for team energy in office settings with millennial teams.

'Team diversity can be moderated by team members' ideas about the team goals. If team goals are not uniformly understood, then team diversity may be bad and prejudices may come into play. Stereotypes are harmful. If goals are understood by all, team diversity can bring in a lot of value'. (TeamMember9)

Independent Roleplay

'The personal priorities of members should be aligned with the company's vision and mission […]. This is because personal goals are a key element of independent roleplay'. (TeamLead4)

Though team members should have their own personal goals, the priorities should be more focused on the goals of the organization or the team.

'The efforts and dedication towards the task should be optimum, as motivation drives aspirations to be achieved while working in teams'. (TeamMember7)

'It is extremely important for team members/individuals to organise and prioritize their schedule in accordance with that of the organization, to enable its execution better'. (TeamMember10)

If the priorities of the goals to achieve are clear among all team members, the team will be more goal-oriented, thus leading to better team energy.

Goal Promotion

'There should be a demarcation between the current task and the follow-up task, so as to complete it with maximum focus […]. Such demarcation is correlated with target orientation'. (TeamLead21)

Even if team members have differences in interests, team energy can be maintained if they are aligned towards a common team goal.

'Differences in interests should be managed to align interests of members and teams […]. Such an approach brings in alignment of interests which is a vital ingredient for goal promotion'. (TeamMember6)

The above analysis of qualitative data shows that goal promotion to a large extent is a mediator of self-set goals.

Communication

Self-set goals are major drivers of communication between team members, which is negative towards achieving team goals.

'The credibility of information needs to be managed by setting tolerance levels of incorrect information, which sets a culture of credibility in the team […]. Negative information is not to be tolerated, as it affects the credibility of the teams'. (TeamLead9)

Misleading information among team members can create instability in the team, thus negatively affecting the team energy.

'Setting up strong communication pathways serves a long-term good purpose in oil corporations, as in oil-field teams setting up strong communication pathways is a guarantee for credible communication […]. Such communications sets the way for strong self-set goals which may or may not serve Goal orientation, depending upon other factors, like self-efficacy and performance'. (Team Member2)

A better team management can lead towards lesser communication gap and better goal orientation.

Performance

Performance can be a major factor affecting goal orientation. Performance orientation can be defined as a team members' desire to achieve high performance through goal orientation.

'In the upstream petroleum industry, millennial team members need skill management and hand-holding in the initial stages to develop professional confidence [...]. This needs support and help from the senior professionals in the team and even from outside the team'. (TeamLead24)

This shows that individual performance can be a strong factor for office teams, but not in oil-field teams. Performance depends mostly on performance approach, perceived competence and work attitude.

Performance Orientation

Assistance from team members is necessary for team success, especially in the field operations of the upstream petroleum industry. Performance orientation can be derived as team members intentionally avoid their jobs in which they predict to get evaluated.

'Skill management is a vital factor in performance orientation of oil-field teams […]. As oil-field skills have a high obsolescence, continuous updation of skill training is needed for performance orientation of teams, which is required for performance for goal orientation'. (TeamLead21)

'Support and help should prevail throughout the team as and when needed'. (TeamMember9)

Confidence is key towards better performance orientation.

'The fellow team members should assist in overcoming their fears and establish confidence'. (TeamMember18)

Any form of confusion related to the team goals should be addressed immediately to maintain team energy.

'Confusion can happen at any level; thus, it should be immediately retaliated with appropriate solutions'. (TeamLead11)

Mentoring

'The team/individual should keep building their abilities and reputation, which is often honed by the kind of relation they share with their colleagues and the work they do. Tis is so, because in oil-field teams, mentoring plays a significant role in developing competence'. (TeamLead3)

Team members should always maintain self-perception and self-esteem for better coordination and mentoring plays an anchor role in this.

'Confidence is the key to better outcomes in any scenario, which develops self esteem […]. self-confidence develops after all these and is a more sustainable factor'. (TeamMember13)

Self-confidence among team members leads to better performance.

Work Attitude

'The team should take responsibility of their action without evoking any negative response […]. Such personal accountability is vital for an appropriate work attitude conducive to good performance for optimum goal orientation'. (TeamLead20)

Owning responsibility at every stage is a positive approach towards a good work attitude among team members.

'The supervisor should be well aware of the attitude anatomy of team members and their manner of work, so that they can be guided in a better way […]. Mutual respect is vital to manage a positive work attitude in oil-field teams'. (TeamMember16)

The above analysis of qualitative data shows that team members and team leaders should take individual and collective responsibility for developing a proper attitude anatomy in the oil-field teams while maintaining mutual respect to keep the team energy high.

REFERENCES

Al Hashem, R.O., & Al Shaar, E.M. 2022. The Impact of Green Human Recourses Management Practices on Job Performance: The Mediating Role of Resistance to Change: An Applied Study on Jordanian Manufacturing Companies. ***Jordan Journal of Business Administration***, 18 (1). https://jjournals. ju.edu.jo/index.php/JJBA/article/view/27

Al Zoubi, J.Z.A. Z. 2022. Impact of Trust on Innovation: The Mediating Effect of Knowledge Sharing at Jordanian Hospitals. ***Jordan Journal of Business Administration***, 18 (1). https://jjournals.ju.edu.jo/ index.php/JJBA/article/view/ 20

Arrow, H., McGrath, J.E., & Berdahl, J.L. 2000. The Study of Groups: Past, Present and Future. ***Personality and Social Psychology Review***, 4 (1): 95-

105. https://doi.org/10.1207/ S15327957PSPR0401_8

Ayub, N., & Jehn, K. 2018. Exploring Diversity Effects: Nationality Composition and Nationality Context in Workgroups. ***European Journal of Work and Organizational Psychology***, 27 (3): 1-13. DOI:10.1080/ 1359432X.2018.1502173

Bennett, L.M., & Gadlin, H. 2012. Collaboration and Team Science: From Theory to Practice. ***J. Investig Med.***, 60 (5): 768-775. doi:10.2310/JIM. 0b013e318250871d.

Bond-Barnard, T., Fletcher, L., & Steyn, H. 2018. Linking Trust and Collaboration in Project Teams to Project Management Success. ***International Journal of Managing Projects in Business***, 11 (2). DOI:10.1108/IJMPB-06-2017-0068

Chakrabarti, R., Barnes, B.R., Berthon, P., Pitt, L., & Monkhouse, L.L. 2014. Goal Orientation Effects on Behavior and Performance: Evidence from International Sales Agents in the Middle East. ***The International Journal of Human Resource Management***, 25 (2): 317-340. https://doi.org/10.1080/09585192.2013.826915

Courtright, S.H., McCormick, B.W., Mistry, S., & Wang, J. 2017. Quality Charters or Quality Members? A Control Theory Perspective on Team Charters and Team Performance. ***Journal of Applied Psychology***, 102 (10): 1462-1470. https://doi.org/10.1037/apl0000229

Delice, F., Rousseau, M., & Feitosa, J. 2019. Advancing Teams Research: What, When and How to Measure Team Dynamics over Time. ***Frontiers in Psychology***, 10, Article 1324. https://doi.org/10.3389/fpsyg.2019.01324

Dolen, W.V., Ruyter, D., & Carman, J. 2006. The Role of Self- and Group-efficacy in Moderate Group Chat. ***Journal of Economic Psychology***, 27 (3): 324-343. https://doi. org/10.1016/j.joep.2005.05.007

Eshaq M. Al Shaar. 2021. The Impact of Green Human Resource Management on Green Supply-chain Management: The Mediating Role of Green Lifestyle. ***Jordan Journal of Business Administration***, 17 (1).

Feitosa, J., Solis, L., & Grossman, R. 2017. The Influence of Culture on Team Dynamics. ***Research on Managing Groups and Teams***, 18: 209-230. DOI:10.1108/S1534-085620160000018009

Fowler, R., Camacho, G., & Farh, C. 2019. Achievement Orientation, Engineering Students and Teamwork. Paper presented at ***2019 ASEE Annual Conference & Exposition***, Tampa, Florida. DOI 10.18260/1-2—32026

Fowler, R.R., & Su, M.P. 2018. Gendered Risks of Team-based Learning: A Model of Inequitable Task Allocation in Project-based Learning. ***IEEE Transactions on Education***, 61 (4): 312-318. DOI:10.1109/TE.2018.2816010

Grossman, R., & Feitosa, J. 2018. Team Trust over Time: Modeling Reciprocal and Contextual Influences in Action Teams. ***Human Resource Management Review***, 28 (4): 395-410. https://doi.org/10.1016/j. hrmr.2017.03.006

Guillaume, Y.R.F. 2015. Harnessing Demographic Differences in Organizations: What Moderates the Effects of Workplace Diversity? ***The IRIOP Annual Review Issue***. https://doi.org/10.1002/job.2040

Guzzo, R.A., Yost, P.R., Campbell, R.J., & Shea, G.P. 1993. Potency in Groups: Articulating a Construct. ***British Journal of Social Psychology***, 32 (1): 87-106. https://doi.org/10.1111/j.2044-8309.1993.tb00987.x

Han, G., & Harms, P.D. 2010. Team Identification, Trust and Conflict: A Mediation Model. ***International Journal of Conflict Management***, 21 (1): 20-43. https://doi.org/ 10.1108/10444061011016614

Hand, D.J. 2016. ***Measurement: A Very Short Introduction***. Oxford: Oxford University Press.

Hoisl, K., Gruber, M., & Conti, A. 2017. R&D Team Diversity and Performance in Hypercompetitive Environments. ***Strategic Management Journal***, 38 (7). DOI:10.1002/smj. 2577

Hollenbeck, J.R., & Spitzmuller, M. 2012. Team Structure: Tight Versus Loose Coupling in Task-oriented Groups. ***The Oxford Handbook of Organizational Psychology***, 2. DOI:10.1093/ oxfordhb/9780199928286.013.0023

Kane, B., Toussaint, P.J., & O'Bryne, K. 2013. Informality and Teamwork. ***Workshop on Informality in Medical Work***.

Kozlowski, S.W.J., & Bell, B.S. 2003. Work Groups and Teams in Organizations. In: W.C. Borman, D.R. Ilgen, & R.J. Klimoski (Eds.), ***Handbook of Psychology: Industrial and Organizational Psychology***, 12: 333-375.

Kristof-Brown, A.L., & Stevens, C.K. 2001. Goal Congruence in Project Teams: Does the Fit between Members' Personal Mastery and Performance Goals Matter? ***Journal of Applied Psychology***, 86 (6): 1083-1095. https://doi.org/ 10.1037/0021-9010.86.6.1083

Lester, S.W., Meglino, B.M., & Korsgaard, M.A. 2002. The Antecedents and Consequences of Group Potency: A Longitudinal Investigation of Newly Formed Work Groups. ***Academy of Management Journal***, 45 (2): 352-368. https://doi.org/10.2307/ 3069351

Li, J.Y., & Shieh, C.-J. 2016. A Study on the Effects of Multiple Goal Orientation on Learning Motivation and Learning Behaviors. ***Eurasia Journal of Mathematics, Science & Technology Education***, 12 (1): 161-172.

Lvina, E., Johns, G., & Vandenberghe, C. 2018. Team Political Skill Composition as a Determinant of Team Cohesiveness and Performance. ***Journal of Management***, 44 (3): 1001-1028. https://doi.org/ 10.1177/0149206315598371

Mehta, A., Field, H., Armenakis, A.A., & Mehta, N. 2009. Team Goal Orientation and Team Performance: The Mediating Role of Team Planning. ***Journal of Management***, 35 (4): 1026-1046. DOI:10.1177/ 0149206308326773

Mitchell, R., Boyle, B., & Stieglitz, S.V. 2019. Professional Commitment and Team Effectiveness: A Moderated Mediation Investigation of Cognitive Diversity and Task Conflict. ***Journal of Business and Psychology***. DOI:10.1007/s10869-018-9550-0

Mukherjee, D., Arora, N., & Kapoor, S. 2017. Team Classification in Upstream Petroleum Industry. ***International Journal of Research in Management, Economics and Commerce***.

O'Neill, T., & Salas, E. 2017. Creating High-performance Teamwork in Organizations. ***Human Resource Management Review***, 321-335. DOI:10.1016/J. HRMR.2017.09.001

Paul, J.Z. 2017. The Neuroscience of Trust. ***Harvard Business Review***.

Pedro, J., Ramos-Villagrasa, Marques-Quinteiro, P., Navarro, J., & Rico, R. 2017. Teams As Complex Adaptive Systems: Reviewing 17 Years of Research. ***UWA Business School, Management and Organisations. Small Group Research***, 49 (2): 135-176.

Peñarroja, V., Orengo, V., & Zornoza, A. 2017. Reducing Perceived Social Loafing in Virtual Teams: The Effect of Team Feedback with Guided Reflexivity. ***Journal of Applied Social Psychology***. https://doi.org/10.1111/ jasp.12449

Pieterse, A.N. 2009. ***Goal Orientation in Teams: The Role of Diversity***.

Porter, C.O.L.H. 2005. Goal Orientation: Effects on Backing up Behavior, Performance, Efficacy and Commitment in Teams. ***J. Appl. Psychol.***, 90 (4): 811-818. doi:10.1037/0021-9010.90.4.811.

Suprayogi, M.N., Ratriana, L., & Wulandari, A.P. J. 2019. The Interplay of Academic Efficacy and Goal Orientation toward Academic Achievement, ***1st International Conference on Advance and Scientific Innovation (ICASI)***. DOI:10.1088/1742-6596/1175/ 1/012132

van Knippenberg, D., De Dreu, C.K.W., & Homan, A.C. 2004. Work Group Diversity and Group Performance: An Integrative Model and Research Agenda. ***Journal of Applied Psychology***, 89 (6): 1008-1022. https://doi.org/10.1037/0021-9010.89.6.1008