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Challenges, Barriers, and Obstacles Facing Virtual Teams: a Conceptual Study

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Abstract

Organizations and companies tend to employ virtual teams significantly. The problem of the study stems from the fact that there is a great contradiction between the increasing use of virtual teams in the field of business and their failure rate. Where the importance of virtual teams and their employment in the field of business is increasing greatly in recent years, especially with the great technological progress in information and communication technology and after the spread of Covid 19, and on the opposite side, previous studies indicate a large failure rate in virtual teams, which calls for more studies on the challenges that You experience the success of virtual teams. The importance of this study stems from filling the gap in previous studies that did not adequately cover this aspect. The current study concluded that there are three main groups of challenges facing virtual teams, which are diversity challenges (culture diversity, languages diversity, time zones diversity, and geographical diversity); technical challenges (first generation technologies, second generation technologies, and third generation technologies); and social challenges (conflict, communication, trust, and cohesion).

Keywords: Virtual Team, Challenges, Barries, Obstacles, Conceptual Study

Introduction

It can be considered that the virtual team is a new and advanced type of remote work, where information and communication technology is used in this environment. Teleworking, as described by the International Labor Organization (ILO), is "a form of work in which work is done in a location away from a central office or manufacturing facility, separating the employee from personal contact with colleagues; new technology permits this separation by facilitating communication."(Abdamia et al., 2022). Moreover, 'Teleworking', might be sometimes called 'work at home or 'homework'. Additionally, as information and communication technologies have been used to bring work to the employees, we can be called it a "virtual team".

Several obstacles must be overcome for organisations to utilise virtual teams. Despite the many benefits of virtual teams and their extensive use in workplaces, these teams continue to fail often because they have a difficult time meeting organisational objectives (Gupta and Pathak, 2018). One study found that there are main challenges that determine the success of

virtual teams: geographical distance, time distance, perceived distance, formation of virtual teams, and diversity of virtual team members (Morrison-Smith and Ruiz, 2020a). Furthermore, there are a number of factors that affect how well traditional team, including the quality factor, budget, and project schedule in addition to project management, but when used global virtual teams (GVTs), several new factors have emerged to the interface that affect the performance of the virtual team, including the multiplicity of work sites as a result of geographical differences as well as other factors, such as different cultures, language differences, the difficulty of communication between individuals (Abd Shaheen and Alzubaidy, 2022; Youssef et al., 2022; Joshi et al., 2022).

The current study contributes to strengthening theoretical studies on the challenges facing the success of virtual teams, whose employment has increased in many organizations and companies of varying activity and size. The current study enhances understanding of the nature of the work of virtual teams and the types of obstacles they face in achieving their goals in organizations and companies, which helps managers to overcome these obstacles and challenges, which contributes to raising the success rate of virtual teams in performing their tasks.

The importance of this study stems from its contribution to bridging the knowledge gap in previous studies that dealt with the challenges facing the success of virtual teams, as previous studies suffer from a noticeable lack in this aspect. The significant challenges to the success of virtual teams can be divided into three main categories; diversity challenges, technological challenges, and social challenges. The current study discusses these challenges by reviewing associated previous studies.

Diversity Challenges

There are several obstacles to virtual teams' success if its members come from different parts of the world. The virtual team encounters numerous challenges when it is cross-border, including issues with different cultures, different languages, different time zones, geographical distribution of team members. These issues and challenges appear especially in the global virtual teams as a result of the distribution of team members among different countries and regions. According to Abd Shaheen and Alzubaidy (2022), global virtual teams (GVTs) are facing a number of difficulties such as; time zones issues, cultural and linguistic issues, due to a variety of variables. These elements have had a significant impact on how effective (GVTs). The following sections explain how each of these issues affects virtual teams ability to succeed.

Culture Diversity

A factor commonly discussed in previous studies when addressing global virtual teams is the cultural diversity of team members. Cultural diversity is defined as “the diversity of individuals’ cultural values that distinguishes one’s background and national culture from another” (Swart et al., 2022).

The diversity of the culture of team members is one of the main challenges of virtual teams. Cultural differences are among the most significant challenges facing running virtual teams (Shameem et al., 2017). Moreover, virtual teams confront several difficulties, such as cultural diversity (Morrison-Smith and Ruiz, 2020a). Different communication stereotypes conflict in virtual teams made up of people from various cultures. Every team member brings cultural views to the table and has their own perspective on how to shape good communication in person as well as successful virtual communication (Osnabruck, 2016).

The performance of the virtual team is significantly related to the cultural diversity of the team members. The diversity of cultures hinders the performance of the virtual team, which further complicates the tasks of the team (Arif et al., 2022b). When employing global virtual teams, several new factors appeared at the forefront and affected the performance of the virtual team compared to traditional teams, and the most prominent of these factors is the diversity of cultures of the members of the virtual team (Abd Shaheen and Alzubaidy, 2022). Every group of people has a dominating culture that is reflected in the communication tools they use and the way they make decisions. Cultural variety leads to cognitive diversity, and the less diversity there is, the higher the likelihood that the project will succeed due to improved teamwork and relationship-building. Variety hinders interpersonal connections, communication, and cooperation (Abd Shaheen and Alzubaidy, 2022).

Languages Diversity

The differences in the language of the members of the virtual team pose a challenge to this team in front of the team's success. Prior research suggests that one of the challenges facing virtual teams is the members' varied linguistic backgrounds (Shameem et al., 2017). According to Morrison-Smith and Ruiz (2020), it might be challenging for geographically dispersed virtual teams to establish a shared mental model due to factors including different cultural norms and languages.

Different languages affect the success of the virtual team due to the impact on other factors related to the success of the team, such as trust, communication, and conflict between team members. Previous studies have also demonstrated that virtual teams with members who speak various first languages experience greater conflict as well as poorer levels of satisfaction and cohesiveness (Morrison-Smith and Ruiz, 2020; Zaharie, 2021b). It was discovered that non-linguistic individuals are less integrated and cooperative with the rest of the team, while language-impaired individuals found it challenging to present ideas to their colleagues in order to come to a consensus, and language-skilled individuals felt dissatisfied with the level of cooperation and idea transfer in the team (Abd Shaheen and Alzubaidy, 2022). Similar to the previous study conducted on international virtual teams, communication was found to be problematic, and one of the main reasons for poor communication was the language barrier (Joshi et al., 2022). Individual levels of trust were notable found to be lower for multicultural teams during the virtual team lifespan while higher for unicultural teams, mostly due to linguistic, behavioural, and value differences (Swart et al., 2022).

Time Zones Diversity

Previous studies indicate that one of the characteristics of global virtual teams is the time zones of the team members. Virtual teams are groups of skilled professionals that are geographically and organizationally separated and who collaborate across time zones to complete a particular project (Arif et al., 2022b). Geographical distribution is one of the most prominent characteristics of virtual teams, and when this distribution crosses borders, it may result in different time zones between team members, especially in global virtual teams.

Time differences between virtual team members are one of the common factors in previous studies when discussing global virtual teams. When virtual teams are employed in the field of business, a number of additional challenges that have an impact on the effectiveness of the virtual team appear at the interface, including the different time zones of the virtual team members (Abd Shaheen and Alzubaidy, 2022; Zaharie, 2021a).

One of the important challenges is the time zones of the different members of the virtual team. Previous studies indicate that global virtual team challenges often involve different time zones as an important barrier to the success of virtual teams due to the cross-border distribution of virtual team members (Zaharie, 2021b). Temporal distance is distinct from geographic distance in the context of a virtual team and should be handled as a separate variable. In addition to the difficulties it creates for coordination, one may argue that temporal distance has a greater impact than geographic distance (Morrison-Smith and Ruiz, 2020a). The key obstacles that the virtual team must overcome are temporal distance because of the different time zones they are placed in (Shameem et al., 2017).

Geographical Diversity

It is generally known that geographic distance presents difficulties for virtual teams. Geographical distance has been defined as a “measurement of the amount of work needed for a worker to visit a collaborator at that collaborator’s place of work, rather than the physical distance between the two collaborators” (Morrison-Smith and Ruiz, 2020a).

One of the most prominent and important characteristics of virtual teams is the geographical distribution of team members. Most studies indicate that the geographical distribution of virtual team members is one of the most important characteristics of the team, and at the same time, it is considered a major challenge facing the success of virtual teams (Shameem et al., 2017). The geographical diversity of the workplaces of the global virtual teams has led to a geographical distance between the members of the virtual teams (Abd Shaheen and Alzubaidy, 2022). Based on a study of the literature on virtual team (VT) services, it is evident that because VTs are geographically distributed and heavily rely on digital collaboration technologies, they face more difficulties than typical face-to-face teams (Swart et al., 2022). The geographical distribution of virtual team members is related to its level of performance. Multiple work locations due to geographic differences is one of several factors that have an impact on how effectively global virtual teams perform (Abd Shaheen and Alzubaidy, 2022).

Table (1) shows the distribution of previous studies according to the type of diversity challenge for virtual teams.

Table 1

Diversity Challenges Facing Virtual Teams

Diversity Challenges	Frequency	Relative Weight	Authors
Culture Diversity	4	20%	✓ (Osnabruck, 2016) ✓ (Shameem et al., 2017) ✓ (Morrison-Smith & Ruiz, 2020a) ✓ (Abd Shaheen & Alzubaidy, 2022)
Languages Diversity	6	30%	✓ (Shameem et al., 2017) ✓ (Morrison-Smith and Ruiz (2020) ✓ (Zaharie, 2021b) ✓ (Abd Shaheen & Alzubaidy, 2022) ✓ (Joshi et al., 2022) ✓ (Swart et al., 2022)
Time Zones Diversity	5	25%	✓ (Shameem et al., 2017) ✓ (Morrison-Smith & Ruiz, 2020a) ✓ (Zaharie, 2021b) ✓ (Zaharie, 2021a) ✓ (Abd Shaheen & Alzubaidy, 2022)
Geographical Diversity	5	25%	✓ (Shameem et al., 2017) ✓ (Morrison-Smith & Ruiz, 2020a) ✓ (Zaharie, 2021a) ✓ (Swart et al., 2022) ✓ (Abd Shaheen & Alzubaidy, 2022)
Four Diversity of Challenges	20	100%	20 Studies

Source: Developed by the researcher

Technological Challenges

Due to the fact that technology is the only means of team collaboration in virtual teams, there are significant technical obstacles that virtual teams must overcome when it comes to communication between team members. Since communication between members of the virtual team is limited by technology, the effectiveness of communication between members of the virtual team depends on the richness of the means of communication used between team members (Osnabruck, 2016). Due to its virtual nature and reliance on computer communication techniques rather than personal meetings, virtual teams face challenges related to the effectiveness of the means of communication used between team members (Arif, et al., 2022b). In certain nations with inadequate communications infrastructure, the methods of communication constitute a barrier to information sharing and communication amongst team members (Abd Shaheen and Alzubaidy, 2022). Similar to co-located teams, virtual teams engage in a range of cooperative activities like formal and casual meetings utilizing technologies like text and video conferencing (Zoom, Skype, text, Slack, and Microsoft Teams), file sharing, and application sharing. As a result, it is challenging for virtual teams to be as effective as co-located teams since they have trouble cooperating (Morrison-Smith and Ruiz, 2020a).

The performance of virtual teams varies according to the richness of the media used to communicate between team members. Team bonding may be weak due to ineffective communication and feelings of isolation. The inability to transmit non-verbal messages and tones is another crucial problem with technology-assisted communication, which negatively affects the effectiveness of virtual teams (Eaidgah et al., 2018; Soon and Salamzadeh, 2020; Elyousfi et al., 2021; Agbi, 2018; Joshi et al., 2022). According to Shameem et al (2017), inadequate IT infrastructure is another significant barrier to productivity for virtual teams. Because technology is changing how and when individuals communicate as well as what they know about one another, virtual team members need to employ effective communication skills for successful interactions. Table (2) shows the distribution of previous studies according to the challenge of the technique used in virtual team communication.

Table 2

Technological Challenges Facing Virtual Teams

Stages of Generations	Types of Media	Media Effectiveness	Remark
First Generation Technologies	Emails, Conference Call	Lean Media	Human-based emotions are limited, and the primary means of communication are vocal or written.
Second Generation Technologies	Vides Tools, Online Meeting Tools, Online Discussion Boards, Power Point Presentions	Rich Media	These Technologies are proven to improve human engagement.
Third Generation Technologies	Online File-Sharing Systems, Global Systems for Mobile Communications, Electronic Data Interchange, Web 2.0 Applications and Cloud Computing Services.	Rich Media	Third-generation technology is web-enabled shared workspaces via the internet and cloud-based platforms. It is recommended to utilise them for extensive and intricate information exchanges, especially when knowledge-sharing activities are involved.

Source: Developed by the researcher depending on Swart et al. (2022) study

Social Challenges

One of the factors that are challenging for virtual teams is social factors. there are social challenges, which include issues with poor team cohesion and interdependence, high independence, poor responses, a lack of feelings, a sense of isolation, a lack of audio-visual communication, lower trust, and reduced social interaction when using virtual teams in the workplace (Elyousfi et al., 2021; Kwaye, 2018; Eaidgah et al., 2018; Agbi, 2018; Soon and Salamzadeh, 2020; Gibson and Grushina, 2021; Ioannidis and Makridis, 2020). Other studies have identified five difficulties that virtual teams must overcome: a lack of face-to-face engagement, a lack of trust, a lack of social interaction, a higher concern for reliability, and a

lack of physical touch (Soon and Salamzadeh, 2020). In the current study, we highlight the highest social factors such as conflict, trust, cohesion, and communication which are considered the main challenges facing virtual teams.

Conflict

The concept of conflict between members of the virtual team is one of the common concepts in previous studies. Ayoko and Konrad (2012), have defined conflict as “the situation where parties within a virtual team perceive that their goals or interests are incompatible or in opposition”(Caputo et al., 2022). Where this concept refers to the conflict of interests between members of the virtual team.

Virtual team members face the challenge of overcoming conflicts between team members. Conflicts between team members were identified as one of the most significant difficulties virtual teams experience when evaluating earlier studies on the elements impacting their success (Abd Shaheen and Alzubaidy, 2022). For information sharing and virtual alliances in organisational teams, conflict and trust are key concerns (Swart et al., 2022). According to Morrison-Smith and Ruiz (2020b), geographically dispersed teams are shown to have greater levels of conflict. The management of conflict amongst all team members is one of several team management difficulties that may be caused and influenced by the ineffective coordination of virtual team members (Shameem et al., 2017). Unresolved disagreements between virtual team members from diverse cultural backgrounds are one of the issues that virtual project teams encounter (Arif et al., 2022c; Zaharie, 2021a). Global virtual teams provide a practical way to bring together diverse talent within an organization regardless of geographic constraints. However, there are negative effects of team diversity such as communication challenges, increased level of misunderstanding, increased conflict, differences in value system, and decreased team cohesion (Wei et al., 2019).

There are negative consequences for the success of the virtual team in the event of conflict between its team members. Physical considerations that affect virtual teams include geographic distance as well as temporal and perceptual distance, which are dependent on time and cognition, respectively. Trust, motivation, and conflict are a few examples of the social and emotional aspects that are closely related to these characteristics (Morrison-Smith and Ruiz, 2020b). Global virtual teams are a viable business strategy, but when organizing these types of strategies issues around cultural diversity, language barriers, team conflicts, and project management must be addressed (Joshi et al., 2022).

Communication

The concept of communication among members of a virtual team is factor that is widely used. Virtual communication is now regarded as the standard in daily life (Chan et al., 2021). Communication is defined as “the major envelope of information that is acquired, processed, and exchanged among team members when doing business activities” (Youssef et al., 2022). One of the basic difficulties of virtuality is team communication. Moreover, it has been highlighted that the results of the Joshi et al (2022) study closely match those of other researches that found that the key difficulty with virtual teams is communication.

There are a variety of reasons for the virtual team members' poor communication. Global virtual teams (GVTs) are currently having to deal with a number of issues, primarily communication-related. Communication-related issues have been noted such as; lack of communication ; its absence in some areas, and technical problems (Abd Shaheen and Alzubaidy, 2022). Moreover, due to time delays in giving feedback, a lack of a shared frame

of reference for everybody, disparities in the salience and interpretation of written texts, and assurances of involvement from remote team members, communication becomes difficult in a virtual context (Arif et al., 2022a). The two main issue in communication are lack of communication and failure in disseminating appropriate information (Syynimaa et al., 2022). In contrast to face-to-face interactions, communication in GVT is frequently less frequent and deficient. Choosing the ideal members for the team is only one aspect of enhancing team creativity; another problem is integrating all of the individuals into a functional unit (Wei et al., 2019). Furthermore, unresolved challenges with electronic communication include the difficulty of interpreting knowledge, decreasing team cohesiveness, and the absence of social cues. Hence, handling the whole range of communication in GVT presents issues (Wei et al., 2019).

According to earlier studies, effective communication and the performance of the virtual team are closely related. In virtual teams, communication is a critical predictor of many different outcomes, including enhanced performance and increased commitment (Morrison-Smith and Ruiz, 2020a). Effective virtual team member communication is positively correlated with improved team performance (Zaharie, 2021a). The study of Shameem et al (2017) showed that effective team coordination and communication are crucial elements in a virtual team's capacity to perform successfully. Furthermore, it may be claimed that "lack of good communication" might lead to greater issues with interpersonal relationships and trust that can affect the project as a whole. In addition, poor communication reduce communication performance, and inability to transfer knowledge and communication, consequently these had a significant impact on how effective global virtual teams (GVTs) (Abd Shaheen and Alzubaidy, 2022). Team members will feel more connected to their job, their connections with one another will be strengthened, and they will experience less loneliness as a result of better and more regular contact.

Trust

One of the most often investigated elements in the literature review on virtual teams is trust. Nyhan and Marlowe (1997); Nyhan (2000) have defined trust as "level of confidence that one individual has in another's competence and his or her willingness to act in a fair, ethical and predictable manner" (Elyousfi et al., 2021). Moreover, trust can be defined as "one's psychological state reflecting a strong expectation that the other will not seek self-interest at the expense of their welfare, thus increasing the willingness to accept vulnerability" (Swart et al., 2022).

In the assessment of the literature on virtual teams, one of the most often explored aspects is challenging of building trust among virtual team members. Despite the numerous advantages of virtual teams, Sagar et al (2022) claim that one of the biggest challenges that increases the likelihood of the virtual team failing is the lack of trust among team members. Virtual project teams have a number of challenges, including retaining team member trust (Arif et al., 2022a). Trust encourages the exchange of pertinent information, improves teamwork, and lessens the fear of opportunistic behaviour, which has positive effects on both people and groups (Zaharie, 2021b). It turns out that the main difficulties in a virtual team are communication, trust, and cultural difference (Youssef et al., 2022). Global virtual teams face a unique set of difficult obstacles, these difficulties centred on social problems including trust (Joshi et al., 2022; Gallego et al., 2021).

The decrease in trust among virtual team members is caused by several factors. Building trust amongst team members is difficult when there is a distance between them due to the need

for alternative communication techniques to the traditional ones. Further, in a virtual team setting versus a traditional team context, team coordination and trust-building require more work (Ben Sedrine et al., 2020). Trust is particularly difficult to establish in virtual teams because interactions using communications technologies frequently lack contextual cues like tone of voice and facial expressions and are instead brief, impersonal, and less defined (Morrison-Smith and Ruiz, 2020a). It was shown that trust suffers more in virtual teams than in traditional teams, and it may be more crucial for virtual teams due to the lack of direct contacts, misunderstandings, and challenges in developing deeper trust (Zaharie, 2021b). Previous research have demonstrated the association between trust and virtual team performance. Trust is one social and emotional aspect that affects virtual teams (Morrison-Smith and Ruiz, 2020a). Among other factors, developing trust among team members affects how well the virtual performs (Shameem et al., 2017). Trust is a critical socio-emotional process that determines the VT outcomes (Zaharie, 2021b) . it has been expect that individuals with higher social capital in relation to their trust in others will generally rate higher the performance of virtual teams (Zaharie, 2021b). Due to the lack of face-to-face connection on virtual teams, trust is essential to bridging communication gaps and enhancing team performance (Abd Shaheen and Alzubaidy, 2022). Trust can facilitate conflict resolution, encourage positive conduct, and increase VT effectiveness (Swart et al., 2022).

Cohesion

The concept of cohesion is one of the common concepts in previous studies when discussing virtual teams. Cohesion can be defined as “ group cohesion as behavior that group members had toward each other” (Joshi et al., 2022). Moreover, according to Tan et al. (2019) cohesion has defined as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuits of its instrumental objectives and/or for the satisfaction of member affective needs”.

The cohesion of the members of the virtual team is one of the most important challenges facing the success of the virtual teams. One of the most significant obstacles to the functioning and effectiveness of virtual teams is the lack of team cohesiveness (Shameem et al., 2017; Fekry Youssef et al., 2022). Some of the difficulties stem from issues with building trust and team cohesiveness given the unique form of communication in virtual teams (Zaharie, 2021a). It has been challenging for one member's passion to motivate the others because of the worldwide virtual team's lack of face-to-face connection (Wei et al., 2019).

The cohesion of the members of the virtual team is related to the level of performance and success of this team. The performance of teams is significantly impacted by socio-cultural distance, which is linked to higher conflict levels, as well as poorer levels of satisfaction and cohesion (Morrison-Smith and Ruiz, 2020b). Task cohesion is tied to cognitive and technical skills, whereas social cohesion is related to mutual regard and emotive components. Moreover, one of the factors that might directly impact the effectiveness of the virtual team is group cohesiveness (Arif, et al., 2022c). By bringing individual contributions together to form collective efforts, team cohesiveness is essential. Team cohesion therefore plays a major role in team performance and development (Wei et al., 2019). High team cohesiveness enhances the possibility of creating efficient teams that rely on one another to grow their collective talents and quickly solve difficulties. When team members' communication and trust grow, cohesion does too (Abd Shaheen and Alzubaidy, 2022). Table (3) shows the most common social factors as challenges to the success of virtual teams, and their distribution according to previous studies.

Table 3
Social Challenges Facing Virtual Teams

Social Challenges	Frequency	Relative weight	Authors
Communication	8	24.2 %	<ul style="list-style-type: none"> ✓ (Shameem et al., 2017) ✓ (Wei et al., 2019) ✓ (Morrison-Smith & Ruiz, 2020a) ✓ (Zaharie, 2021a) ✓ (Syynimaa et al., 2022) ✓ (Sagar, Arif, et al., 2022a) ✓ (Abd Shaheen & Alzubaidy, 2022) ✓ (Joshi et al., 2022)
Trust	10	30.3 %	<ul style="list-style-type: none"> ✓ (Ben Sedrine et al., 2020) ✓ (Morrison-Smith & Ruiz, 2020a) ✓ (Gallego et al., 2021) ✓ (Zaharie, 2021b) ✓ (Sagar et al., 2022) ✓ (Sagar, Arif, et al., 2022a) ✓ (Fekry Youssef et al., 2022) ✓ (Joshi et al., 2022) ✓ (Abd Shaheen & Alzubaidy, 2022) ✓ (Swart et al., 2022)
Cohesion	7	21.3 %	<ul style="list-style-type: none"> ✓ (Shameem et al., 2017) ✓ (Wei et al., 2019) ✓ (Morrison-Smith & Ruiz, 2020b) ✓ (Zaharie, 2021a) ✓ (Abd Shaheen & Alzubaidy, 2022) ✓ (Arif, et al., 2022c) ✓ (Fekry Youssef et al., 2022)
Conflict	8	24.2 %	<ul style="list-style-type: none"> ✓ (Shameem et al., 2017) ✓ (Wei et al., 2019) ✓ (Morrison-Smith & Ruiz, 2020b) ✓ (Zaharie, 2021a) ✓ (Joshi et al., 2022) ✓ (Arif, et al., 2022c) ✓ (Swart et al., 2022) ✓ (Abd Shaheen & Alzubaidy, 2022)
Four Social Challenges	33	100%	33 Studies

Source: Developed by the researcher

Conclusion

Previous studies indicate that a growing employment of virtual teams in business in different contexts is due to the technological advancement of the means of communication between members of the virtual team. Employment of virtual teams has increased significantly after

Covid-19, due to the transition of most companies and organizations to remote work and the employment of virtual teams to perform work and perform duties.

Despite the significant increase in the use of virtual teams in companies and organizations, and despite the great benefits that virtual teams have such as reducing costs, flexibility and attracting talent from all over the world, there are major challenges facing the success of virtual teams due to the characteristics of forming virtual teams such as diversity challenges, technical challenges, and social challenges. Highlighting the most important challenges facing virtual teams helps managers and officials raise the success rate of teams by facing challenges and solving problems facing these teams.

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