LEADERSHIP SKILLS AND VIRTUAL TEAM PERFORMANCE - THE CASE OF LEBANESE MULTINATIONAL COMPANIES

a Soha El Achi

ABSTRACT

Purpose: This study investigates the influence of leadership skills on virtual team performance within multinational corporations in Lebanon. Drawing upon established literature, the research examines four key leadership dimensions: motivation, coaching, appreciation, and empowerment, exploring their respective impacts on virtual team effectiveness.

Design/methodology/approach: The study, conducted in Lebanon, aimed to explore the influence of leadership skills on virtual team performance through a positivist, deductive approach using a survey method and mono-quantitative methodology. Analyzing 148 individuals across various global Lebanese enterprises, the research employed descriptive statistics, correlation, and regression analyses in SPSS to investigate the relationship between leadership abilities and virtual team effectiveness in the context of businesses utilizing remote collaboration due to globalization and technological advancements.

Findings: The study aligns with prior research attributing positive correlations between leadership skills and enhanced team performance. Findings support the hypothesis that leadership motivation skills significantly enhance virtual team performance. Transformational leadership qualities, characterized by strong motivational capabilities, correlate positively with virtual team effectiveness.

Implications: The findings underscore the pivotal role of specific leadership competencies in driving virtual team performance within multinational corporate structures. These insights contribute to a deeper understanding of how leadership motivational skills can be leveraged to optimize virtual team dynamics, ultimately improving organizational outcomes in diverse, multinational contexts.

Keywords: leadership skills, motivation, coaching, appreciation, empowerment, virtual team performance, Lebanon, multinational companies.

HABILIDADES DE LIDERANÇA E DESEMPENHO DA EQUIPE VIRTUAL - O CASO DAS EMPRESAS MULTINACIONAIS LIBANESAS

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RESUMO

Objetivo: Este estudo investiga a influência das habilidades de liderança no desempenho de equipes virtuais dentro de corporações multinacionais no Líbano. Baseando-se em literatura estabelecida, a pesquisa examina quatro dimensões chave de liderança: motivação, coaching, apreciação e empoderamento, explorando seus respectivos impactos na eficácia da equipe virtual.

Projeto/metodologia/abordagem: O estudo, realizado no Líbano, teve como objetivo explorar a influência das habilidades de liderança no desempenho virtual da equipe por meio de uma abordagem positivista e dedutiva usando um método de pesquisa e uma metodologia quantitativa. Analisando 148 indivíduos em várias empresas globais libanesas, a pesquisa empregou estatísticas descritivas, correlação e análises de regressão na SPSS para investigar a relação entre as habilidades de liderança e a eficácia da equipe virtual no contexto de negócios utilizando colaboração remota devido à globalização e avanços tecnológicos.

Constatações: O estudo se alinha a pesquisas anteriores atribuindo correlações positivas entre habilidades de liderança e desempenho aprimorado da equipe. Os resultados apoiam a hipótese de que as habilidades de motivação de liderança melhoram significativamente o desempenho da equipe virtual. As qualidades de liderança transformacional, caracterizadas por fortes capacidades motivacionais, correlacionam-se positivamente com a eficácia da equipe virtual.

Implicações: as descobertas ressaltam o papel fundamental de competências específicas de liderança na condução do desempenho da equipe virtual em estruturas corporativas multinacionais. Essas percepções contribuem para uma compreensão mais profunda de como as habilidades motivacionais de liderança podem ser aproveitadas para otimizar a dinâmica virtual da equipe, melhorando, em última análise, os resultados organizacionais em contextos diversificados e multinacionais.

Palavras-chave: habilidades de liderança, motivação, treinamento, apreciação, capacitação, desempenho de equipe virtual, líbano, empresas multinacionais

1 INTRODUCTION

Our knowledge of how multinational firms are adjusting their organizational structures and acquiring new strategic competencies to satisfy evolving customer needs and keep up with worldwide development is still in its infancy. Global teams are a concept that emerged with globalization. There are several reasons why working in a multinational team can be difficult. The impact of those factors on the performance of the global team is noteworthy. Therefore, human resource managers, strategic planners, and businesses aiming for a sustainable competitive edge should consider those variables to maintain high team performance, which will lead to greater organizational performance. The concept of virtual work—collaborating to accomplish a task across time, location, and country boundaries—has been swiftly adopted by businesses. Virtual teams must, however, overcome the difficulties of asynchronous time and scattered locations (Chi et al., 2012). This study attempts to look into how performance on virtual teams is impacted by leadership abilities.
The study is important since virtual teams are being used by more companies due to the growth of remote work and globalization. Organizations must comprehend the elements that affect virtual team effectiveness to guarantee the efficacy of these teams. Better project outcomes, higher productivity, and cost savings are possible as a result of this. In summary, by examining the impact of leadership abilities on virtual team performance, firms can enhance their virtual teams, boost cohesiveness, and communication, and ultimately attain superior results.

Virtual teams are showing up in more and more modern businesses. The future of work will surely be greatly influenced by virtual teams, but there hasn't been much previous research on how creatively these teams can function (Abi Saad & Agogué, 2023). Because of this unduly heavy emphasis on traditional, in-person working performance, most authors still focus on co-located teams. Finding the relationship between leadership abilities and team performance is the goal of this study.

The study's primary inquiry, which stems from the objectives, is as follows: What impact do leadership abilities have on the effectiveness of virtual teams? The following is the main hypothesis: The performance of virtual teams is affected by a team leader's leadership skills.

2 THEORETICAL FRAMEWORK

2.1 VIRTUAL TEAMS

Salcinovic et al. (2022) define a "team" as a group of individuals who have certain responsibilities and functions and who collaborate, perform well, and work hard to achieve a shared goal. Each of them is a component of a larger organizational system that is linked to and confined by other systems in addition to the work environment. A virtual team is a group of geographically and/or logistically separated coworkers who are brought together to accomplish a task for the company using a variety of information and communication technologies (Malhotra et al., 2007).

2.2 LEADERSHIP SKILLS

According to Malhotra et al. (2007), a leader of a virtual team must be able to use communication technology to establish and uphold trust, ensure that distributed diversity is understood and appreciated, oversee the virtual work-life cycle, monitor the team's progress through technology, make virtual team members more identifiable both inside
and outside the organization, and give them a sense of empowerment. A virtual team leader should be able to lead the group and cultivate relationships with its members, according to Pauleen (2004) and Madlock (2008). As a result, the team's success will depend on the leader's skills.

A study by Gren & Ralph (2022) looked at the components of good team leadership. They noted that good leadership, which is also one of the hottest subjects in management studies, is one of the key factors behind project and company success. Their study, which involved interviewing team members, discovered that effective leadership involves resolving conflicts between corporate cultures, is actively shared among team members, and promotes a feeling of group identity. Put another way, capable agile team members recognize cultural conflicts, accept responsibility, and connect with the team. Agile leadership is not a role, but a quality of a team. Ballesteros-Rodriguez et al. (2022) looked into how team members’ motivation and the behavior of team leaders affected knowledge sharing among academics in a research project team. They found that information-oriented CEOs positively influence the degree to which members of their research team share their knowledge. However, the findings also show that extrinsic motivation negatively affects academics' desire to share their expertise, whereas inner drive has no effect.

2.3 TEAM PERFORMANCE

Teams’ performance is not measured by a single, reliable indicator. As stated by Hackman (1987) and Sundstrom et al. (1990), a team's effectiveness can be measured by the results it produces, the effects it has on its members, or the enhancement of the group's future performance potential.

When a team's productive output "meets or surpasses the performance requirements of those who examine and/or receive the production," as defined by the term's definition (Hackman, 1987), then the team is performing well. Several factors directly affect a team's ability to communicate, which in turn affects performance levels, according to McGrath (1984), who examined a hypothetical input-process-production team performance structure. The preservation of mission and goals is what is meant by team performance.

Gladstein (1984) asserts that a team's performance is frequently composed of two elements. These elements match the actual outcome of the work, including its
effectiveness or efficiency. This can be evaluated objectively using metrics like task completion rate or product quality, or subjectively using the team leader's or supervisor's assessment (Stewart & Barrick, 2000). The other aspect of team success is collaboration satisfaction, which members of the team can elevate. The emotional experiences and emotional reactions of the team members, such as their satisfaction with the cooperative methods and outcomes, their commitment to the team, and their aspiration to remain on the team.

McGrath (1984) created the input-process-output paradigm as a framework for team performance. Salas et al. (1992) claim that a measure of team performance is performance satisfaction, which includes job satisfaction and communication gratification. A productive company has happy workers, a highly successful team, and continual evaluation of its leaders, claim Campion et al. (1993). Thamhain and Nurick (1994) assert that two essential traits of a productive professional team are the ability to resolve conflict and consistently improve quality. According to Jiang and Klein (2000), project teams should assess their performance to meet project objectives. It is recommended that they furnish regular updates on the quality of their job, operational efficiency, operational speed, and budgetary compliance.

In this study, virtual teams—which are usually task-oriented project teams—are utilized as the examination object. The present experiment will employ task efficacy, quality improvement, work satisfaction, and customer satisfaction to quantify virtual team performance.

2.4 LEADERSHIP MOTIVATION SKILLS AND VIRTUAL TEAM PERFORMANCE

The Latin word "movere," which means "to move," is where the term "motivation" originated (Kreitner and Kinicki, 1998). Iqbal et al. (2012) later explain further saying that motivation allows employees to change from being uninterested to becoming interested. The definition of motivation that will be used in this study is the one identified by Rayat & Gupta (2021) who define motivation as the process that makes people act in a goal-directed manner and makes sure that they are persistent in their pursuit of their goals. It acts as a stimulant to improve worker performance and ensures goal-oriented conduct. Several studies have underlined the link between work motivation to leadership skills and how it positively affects individuals at work (Manik, 2016; Mathieu & Babiak, 2015; Zareen et al., 2015) and therefore virtual teams’ performance (Davidavičienė et al.,
2020). Authors argue that once motivated, the team members become better performers as their altruistic behavior and knowledge-sharing process enhance. Furthermore, Alward & Phelps (2019) identify several core leadership skills needed for better virtual teams’ performance enhancement among which are motivation and recognition. The authors state that motivation and recognition skills are among the integral skills needed when leading virtual teams. In this regard, Burns (1978) believes that transformational leadership is exactly the profile of a leader with high motivational skills who has the capacity of the leader to inspire all followers to work toward shared objectives and thus enhance their performance. This is further supported by Al Maalouf & El Achi (2023) who underline the impact of transformational leadership on team performance. This is also supported by Ben Sedrine et al. (2021) who explain that the motivational skills of a transformational leader enhance group cohesion and therefore performance. Authors also argue that the development of what is known as social presence is the key to the high-tech resolution to the issue of being incapable of meeting someone in person. Based on Short et al. (1976), transformational leadership is characterized by a social existence, a level of consciousness of other people throughout an engagement, and the acknowledgment of interpersonal relations. Thus, it can be deduced that transformational leader motivational skills are indeed crucial for virtual team performance.

As a result, the subsequent hypothesis is put out to be verified in the instance of multinational corporations in Lebanon based on the preceding discussions about the positive correlation between leadership motivation skills and virtual team performance:

**H1. Leadership motivation skills enhance virtual team performance**
2.5 LEADERSHIP COACHING SKILLS AND VIRTUAL TEAM PERFORMANCE

According to Hamlin and Ellinger (2009) and Schein (2006), coaching is commonly defined as a collaborative interaction between a coach/leader and a coachee. It is a methodical process that aids in the coachees’ capacity development and progress (Brown & Grant, 2010; Sperry, 2008). Numerous academics investigated coaching outcomes and determinants further, to improve employee performance. Productivity is used to measure organizational performance in various studies (Szabo et al., 2019; Birdi et al., 2008; Combs et al., 2006) that show a positive correlation between enhancements in employee performance and coaching. In recent years, the practice of managers and leaders using coaching skills—also known as managerial coaching—has grown in popularity (Digirolamo & Tkach, 2019). The authors used a set of survey items for team members to build a scale known as the Manager and Leader Coaching Composite (MLCC). The MLCC was found to be linked with multiple validated measures, indicating a potential relationship between managers and leaders using coaching skills and improved working relationships, lower intention to resign, and increased team member engagement. In this regard, Hagen and Aguilar (2012) define managerial coaching as the process by which a manager/coach assists a member of his or her staff in solving an issue or completing a task more quickly and/or successfully through guided discussion and activity.

Furthermore, perceived empowerment, self-management, and enhanced group processes are all impacted by coaching (Kirkman and Rosen, 1999). Effective leadership coaching skills involve more than just telling members of the group how to carry out their collaborative work, coaching also involves teaching them how to reduce process loss inside the group and how to think of ways to collaborate to achieve synergistic process gains (Al Maalouf et al., 2023). When working on extremely complicated and ambiguous activities, like virtual teams, learning is essential. The level of coaching enhances team learning and, consequently, virtual team productivity and performance (Hagen and Aguilar, 2012). Moreover, in their investigation into the impact of coaching on team performance, Aldrin and Utama (2019) found a positive impact, indicating that coaching fosters and fortifies associations among team members. Employee and organizational performance will ultimately improve because of coaching’s ability to foster more group cohesion, transparency, and communication. Based on the previously mentioned
literature, the coaching definition stated by Hagen and Aguilar (2012) will be used in the current study given its proximity to the subject matter.

Accordingly, the subsequent hypothesis is put up to be verified in the instance of multinational corporations in Lebanon based on the previous discussions about the positive effect of leadership coaching skills on virtual team performance

**H2. Leadership coaching skills improve virtual team performance**

### 2.6 LEADERSHIP APPRECIATION SKILLS AND VIRTUAL TEAM PERFORMANCE

According to Stocker et al. (2019), "appreciation" is defined as "recognizing the values of others." It can also mean (a) fully and unconditionally accepting the individual for who they are or (b) praising their actions, demeanor, or attributes (Grover, 2014). Positive experiences at work are facilitated by the communication of respect, acknowledgment, or regard that appreciation conveys (Alicke & Sedikides, 2009; Dickerson, 2008). Accordingly, Van Quaquebeke and Eckloff (2010) explain that a respectful and successful leader should have appreciation skills to maintain his employees’ well-being and increase their performance. In the current study, the definition of Pfister (2019) will be used. He states that appreciation in the context of the workplace refers to valuing the individual as well as the work that they accomplish; it's not merely an after-the-fact acknowledgment of an employee's performance or noteworthy accomplishments, but rather a recognition of the individual's values. This definition is selected due to its relevance to the topic in matter.

Positive outcomes occur when employees feel that their efforts are appreciated and valued. These outcomes include greater customer satisfaction scores, lower staff turnover, enhanced teamwork performance, and a more purposeful company (White, 2016). In this regard, Six specific behaviors of successful virtual leaders were identified by Malhotra et al. (2007) after studying 54 virtual teams from 14 industries. These behaviors included building trust, making sure team members feel understood and appreciated, managing virtual meetings, keeping an eye on team progress, improving team members' external visibility, and making sure that team members benefit from their participation in virtual teams. Thus, leadership appreciation skills are among the main skills that are needed to enhance virtual team performance. Moreover, Weisband (2002) conducted a 4-week study on virtual teams and discovered that more successful virtual
teams included leaders who appreciated the effort done by team members, communicated clearly about project task requirements, and kept team members informed about one other's progress on individual assignments, schedules, and personal lives and interests. It is evident that many of the leadership behaviors discussed in the previously mentioned studies are under the category of transformational leadership. Additionally, according to Purvanova & Bono (2009), virtual team members experience a decreased sense of familiarity when dealing with others in the impersonal setting that virtual platforms create. Therefore, leaders can boost their followers' sense of being recognized and make them feel appreciated and significant by cultivating strong relationships with virtual followers which will consequently boost the virtual team performance. Based on Batırlık et al. (2022) study, members of virtual teams frequently have a variety of personalities, interests, experiences, and communication styles. Therefore, the degree to which these individual differences are recognized, understood, and appreciated will determine the team's capacity to benefit from the advantages of diversity. A skilled virtual team leader acknowledges and appreciates team variety through the formation of virtual subgroups, the utilization of asynchronous electronic technologies, and the facilitation of the expression of divergent opinions (Malhotra et al., 2007).

Based on earlier discussions about the beneficial influence of leadership appreciation skills on virtual team performance, the subsequent hypothesis is thus proposed to be tested in the context of multinational firms in Lebanon.

**H3. Leadership appreciation skills increase virtual team performance**

### 2.7 LEADERSHIP EMPOWERMENT SKILLS AND VIRTUAL TEAM PERFORMANCE

The term empowerment is defined by the provision of a team leader with positive recognition to team members and permits them to take part in decision-making (Garro-Abarca et al., 2021). When a team member feels empowered, they are more likely to trust their leader, and when the leader solicits feedback, they will consider it and act on it. A prior study (Kirkman et al., 2004) identified four ways in which teams can be empowered: (a) power, or the group's confidence in their ability to be effective; (b) significance, or the degree of care that members have for their tasks; (c) autonomy; and (d) impact, or the degree to which fellows feel that their tasks have a significant impact. A complex social process known as empowerment aids individuals in taking control of their own lives. It is
a process that develops their power, or the ability to act on issues that they consider significant to improve their own lives, their communities, and society (Page & Czuba1999). In the current study, the definition stated by Garro-Abarca et al., (2021) will be adopted given its relevance to the topics under study.

In their conclusion, Bagga et al. (2023) stressed the importance of empowerment in leadership and validated the positive correlation between the "empowerment skills" of transformational leaders and improved performance of virtual teams. The study focused on the organizational culture's mediating role in the relationship between change management targeting virtual teams and transformational leadership. They claim that giving virtual team members more authority fosters a high degree of trust, which will help the members connect with company values and improve performance. To achieve virtual team goals and enhance team members’ performance, leaders in virtual environments must integrate and optimize existing resources (Fernandez and Jawadi, 2015). Accordingly, delegation and empowerment are essential for efficient virtual team management (Hertel et al., 2005), transforming the traditional controlling position of the team leader into one of member mentoring, team influence, and moderating duties (Kayworth and Leidner, 2002). These conclusions are further supported by Castellano et al. (2021), who highlight the significance of leadership empowerment abilities in relation to the performance of virtual teams. They confirm that empowerment increases the trust, potency, and commitment of virtual team members, which in turn improves team performance.

Additionally, Garro-Abarca et al.‘s research from 2021 focused on factors that have a direct impact on how well a virtual team performs. They discovered that, regarding the tasks, leadership’s good communication skills are the primary determinants followed by empowerment skills which increase trust and team cohesion and therefore virtual team performance. Moreover, Gondal and Khan (2008) investigated how virtual teams performed in ten Islamabad-based telecommunications enterprises in relation to leadership empowerment skills. According to the study, leadership empowerment skills and team performance in telecom teams are positively correlated. Team empowerment results in a variety of positive outcomes that impact a team's performance (Al Maalouf et al., 2023), including collaboration, synchronization, confidence, cohesiveness, effort, mutual support, team conflict, work satisfaction, and efficacy in terms of quality.
Considering previous discussions about the positive effects of leadership empowerment skills on the functioning of virtual teams, the subsequent hypothesis is to be investigated in the setting of multinational corporations in Lebanon.

**H4. Leadership empowerment skills improve virtual team performance**

### 2.8 HYPOTHESES FORMULATION

Prior research findings and the evaluation of the relevant literature mentioned above led to the development of the conceptual framework that is presented for testing in this study (see figure 1). According to the study, leadership motivation, coaching, appreciation, and empowerment skills have positive effects on virtual team performance.

- **H1** Leadership motivation skills enhance virtual team performance
- **H2** Leadership coaching skills improve virtual team performance
- **H3** Leadership appreciation skills increase virtual team performance
- **H4** Leadership empowerment skills improve virtual team performance

![Figure 1. Conceptual framework](source: By the author)
3 METHODOLOGY

The research design used in this study is explanatory. The study's objective is to ascertain the relationship between the dependent variable (virtual team performance) and the independent variable (leadership skills). The present study employs positivism as its research philosophy. Furthermore, the research utilizes a deductive approach to investigation. This study's approach was a survey, and it employed a mono-quantitative methodology. Cross-sectional data was acquired. Descriptive statistics, correlation analysis, and regression analysis were performed in SPSS following the compilation of the replies.

Due to globalization and technological advancements, virtual teams have grown in popularity recently and enable organizations to collaborate with team members who are spread out geographically. Virtual teams have been popular among Lebanese businesses as a means of growing their clientele, cutting expenses, and gaining access to more talent. However, Lebanese businesses may face difficulties implementing virtual teams. Since Lebanon is home to numerous businesses that use virtual teams, it was chosen as the study's geographic location to determine the impact of leadership abilities on the effectiveness of virtual teams. The study includes an analysis of team members in worldwide Lebanese enterprises. The final sample, comprised of 148 individuals from different companies and countries, was obtained.

4 RESULTS AND DISCUSSION

Characteristics of the Sample

Table 1 shows that there are 87 males (58.8%) and 61 females (41.2%) out of a total of 148 participants.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>87</td>
<td>58.8</td>
<td>58.8</td>
<td>58.8</td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>41.2</td>
<td>41.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Gender of the Participants

Table 2 shows the age of the participants. The majority of respondents fall within the range of 25 to 35 years old, comprising 61.5% of the total sample. Specifically, individuals aged 30 to 35 represent the largest segment, accounting for 33.8%. Those
between 25 and 30 years constitute 27.7%, while participants aged 18 to 25 and 35 to 40 make up 27.0% and 8.1%, respectively. A smaller portion, 45 to 50 years old, comprises 3.4% of the sample. This distribution suggests a predominantly younger to mid-career cohort in the study, with a substantial representation in the early to mid-adulthood age ranges.

Table 1: Age of the Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 25 years</td>
<td>40</td>
<td>27.0</td>
<td>27.0</td>
<td>27.0</td>
</tr>
<tr>
<td>25 – 30 years</td>
<td>41</td>
<td>27.7</td>
<td>27.7</td>
<td>54.7</td>
</tr>
<tr>
<td>30 – 35 years</td>
<td>50</td>
<td>33.8</td>
<td>33.8</td>
<td>88.5</td>
</tr>
<tr>
<td>35 – 40 years</td>
<td>12</td>
<td>8.1</td>
<td>8.1</td>
<td>96.6</td>
</tr>
<tr>
<td>45 – 50 years</td>
<td>5</td>
<td>3.4</td>
<td>3.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
</tbody>
</table>

Source: By the author

Table 3 shows the educational level breakdown within the dataset indicating that the majority of participants, 85.1%, hold a graduate degree, while 14.9% have an undergraduate qualification. This suggests that a significant portion of the sample comprises individuals with higher educational attainment, likely including postgraduate qualifications or advanced degrees, while a smaller but notable segment possesses undergraduate qualifications.

Table 2: Educational Level of the Participants

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td>126</td>
<td>85.1</td>
<td>85.1</td>
<td>85.1</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>22</td>
<td>14.9</td>
<td>14.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: By the author

Table 4 shows the nationality distribution within the dataset showcasing a predominantly Lebanese sample, constituting 70.9% of the participants. Other nationalities represented include French (10.8%), Italian (2.7%), American (3.4%), British (1.4%), Palestinian (1.4%), German (1.4%), Moroccan (1.4%), Syrian (2.7%), Spanish (2.7%), and Tunisian (1.4%). This diversity in nationalities, albeit with a
significant majority from Lebanon, offers a varied perspective within the study, potentially reflecting different cultural backgrounds and experiences among respondents.

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Freq</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ameri Can</td>
<td>5</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Briti sh</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Palesti nian</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
<td>6.1</td>
</tr>
<tr>
<td>Frenc h</td>
<td>16</td>
<td>10.8</td>
<td>10.8</td>
<td>16.9</td>
</tr>
<tr>
<td>Germ an</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
<td>18.2</td>
</tr>
<tr>
<td>Italian</td>
<td>4</td>
<td>2.7</td>
<td>2.7</td>
<td>20.9</td>
</tr>
<tr>
<td>Leba nese</td>
<td>105</td>
<td>70.9</td>
<td>70.9</td>
<td>91.9</td>
</tr>
<tr>
<td>Maroc can</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
<td>93.2</td>
</tr>
<tr>
<td>Syria n</td>
<td>4</td>
<td>2.7</td>
<td>2.7</td>
<td>95.9</td>
</tr>
<tr>
<td>Spanis h</td>
<td>4</td>
<td>2.7</td>
<td>2.7</td>
<td>98.6</td>
</tr>
<tr>
<td>Tunisi an</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: By the author

Table 5 shows the size of the team. The distribution based on team sizes within the dataset shows a varied composition. Approximately half of the respondents (50.0%) are part of teams comprising fewer than 10 members, while 32.4% belong to teams sized between 10 and 30 individuals. Smaller proportions are observed in teams ranging from 30 to 50 members (12.8%) and 50 to 70 members (4.7%). This distribution indicates a diverse representation of team sizes within the sample, encompassing both smaller, more tightly-knit groups and larger, potentially more complex team structures.
Table 4: Size of the Team

<table>
<thead>
<tr>
<th>Size of the Team</th>
<th>Freq</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid &lt; 10 members</td>
<td>74</td>
<td>50.0</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>10 – 30</td>
<td>48</td>
<td>32.4</td>
<td>32.4</td>
<td>82.4</td>
</tr>
<tr>
<td>30 – 50</td>
<td>19</td>
<td>12.8</td>
<td>12.8</td>
<td>95.3</td>
</tr>
<tr>
<td>50 – 70</td>
<td>7</td>
<td>4.7</td>
<td>4.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: By the author

Table 5: Role of the Participants in the Team

<table>
<thead>
<tr>
<th>Role in the Team</th>
<th>Freq</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Leader</td>
<td>68</td>
<td>45.9</td>
<td>45.9</td>
<td>45.9</td>
</tr>
<tr>
<td>Member</td>
<td>80</td>
<td>54.1</td>
<td>54.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: By the author

4.1 RELIABILITY TEST

Table 7 indicates that there were 148 valid cases considered in the analysis, with no exclusions based on the variables utilized in the procedure. The reliability analysis conducted using Cronbach's Alpha yielded a value of 0.891, indicating a high level of internal consistency among the variables measured in the study. This reliability coefficient suggests a strong level of reliability among the variables considered in the analysis.
4.2 PEARSON CORRELATION

Table 8 shows the Pearson correlation among the variables of the study.

The correlation between team performance and leadership skills (motivation, coaching, appreciation, and empowerment) seems to indicate strong relationships, albeit at slightly varying strengths.

The correlation between motivation and team performance is significant, positive, and moderate (0.598). Thus, when leaders motivate their teams, there is a tendency for better team performance, although other factors also play a role.

The significant positive correlation between coaching and team performance is moderate to strong (0.625). Thus, effective coaching positively influences team performance. When teams receive better coaching, they tend to perform better collectively.

There's a significant moderate positive correlation between appreciation and team performance (0.598). When team members feel appreciated for their efforts and contributions, it seems to correspond with better team performance.

Empowerment also shows a significant moderate positive correlation with team performance (0.629). When team members feel empowered, it's associated with better overall team performance.
Collectively, these correlations suggest that each of these leadership skills—motivation, coaching, appreciation, and empowerment—contributes positively to team performance. Teams that are highly motivated, well-coached, feel appreciated, and empowered tend to perform better compared to teams where these aspects are lacking or not as strong.

It's important to note that while these correlations indicate associations, they don't establish causation. Other variables and factors might also influence team performance, and the nature of these relationships can be complex and multifaceted. However, these findings suggest that investing in improving motivation, coaching quality, appreciation, and empowerment within a team context can potentially lead to enhanced overall team performance. This proves the hypotheses of this study.

### 4.3 REGRESSION ANALYSIS

Table 9 shows the regression analysis. This model, incorporating Empowerment, Motivation, Appreciation, and Coaching, explains approximately 44.8% of the variance in Virtual Team Performance scores. The R Square value indicates how well the predictors collectively account for the variability in the dependent variable (Virtual Team Performance).

This ANOVA table indicates that the overall model is statistically significant in predicting Virtual Team Performance since the regression sum of squares is significantly greater than the residual sum of squares.
These coefficients represent the impact of each predictor variable on Virtual Team Performance while holding other variables constant. Positive coefficients (Motivation, Coaching, Empowerment) indicate a positive relationship with Performance, while a negative coefficient (Appreciation) suggests a negative relationship. However, the significance of these coefficients affects the analysis. The only significant coefficient is that of Motivation.

Table 8: Regression Analysis between Leadership Skills and Team Performance

<table>
<thead>
<tr>
<th>Variables Entered/Removed*</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Empowerment, Motivation, Appreciation, Coaching</td>
<td>.</td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance
b. All requested variables entered.

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.669&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.448</td>
<td>.433</td>
<td>.30295</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Empowerment, Motivation, Appreciation, Coaching

ANOVA<sup>a</sup>

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4</td>
<td>2.665</td>
<td>29.039</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>143</td>
<td>.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>147</td>
<td>23.785</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance
b. Predictors: (Constant), Empowerment, Motivation, Appreciation, Coaching

Coefficients<sup>a</sup>

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.209</td>
</tr>
<tr>
<td>Motivation</td>
<td>.133</td>
<td>.037</td>
</tr>
<tr>
<td>Coaching</td>
<td>.285</td>
<td>.338</td>
</tr>
<tr>
<td>Appreciation</td>
<td>-.187</td>
<td>.138</td>
</tr>
<tr>
<td>Empowerment</td>
<td>.100</td>
<td>.310</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance

Source: By the author

Based on the regression analysis results, motivation has a significant positive impact on virtual team performance while the impact of other leadership skills (coaching, appreciation, and empowerment) can’t be concluded due to their insignificance. It doesn’t necessarily mean they do not influence at all; it could indicate that their effects, in combination with other factors, might not be reliably captured or identified within this model.
5 DISCUSSION

The findings related to the sample profile provided a comprehensive snapshot of the sample characteristics, shedding light on key demographics and attributes of the participants. The sample comprised 87 males (58.8%) and 61 females (41.2%), indicating a slightly higher male representation. Predominantly, participants fell within the 25 to 35-year-old bracket, particularly those aged 30 to 35, representing the largest segment. This indicates a cohort primarily within the young to mid-career stages. An overwhelming majority (85.1%) hold graduate degrees, showcasing a highly educated sample. Moreover, while Lebanese participants constitute the majority (70.9%), the sample displays diversity with participants from various nationalities such as French, Italian, American, British, Palestinian, German, Moroccan, Syrian, Spanish, and Tunisian, offering a multi-cultural perspective. The distribution across team sizes varies, with around half of the respondents in teams of fewer than 10 members. This suggests a mix of small, close-knit teams and larger ones, possibly indicating varied team structures. The participant roles were almost evenly split between leaders (45.9%) and team members (54.1%), offering a balanced representation of leadership perspectives and team member insights.

Further, the reliability analysis indicates a high internal consistency among the measured variables, establishing a solid foundation for subsequent analyses. Regarding the Pearson correlation, strong positive correlations between leadership skills (motivation, coaching, appreciation, empowerment) and team performance suggest that when leaders excel in these areas, it positively impacts team performance. Notably, motivation, coaching, appreciation, and empowerment show significant correlations with team performance. The regression model, incorporating these leadership skills, explains approximately 44.8% of the variance in virtual team performance. Among the variables, motivation stands out as significantly impacting virtual team performance, while the impact of other skills (coaching, appreciation, empowerment) isn't statistically significant in this model.

These findings align with the study's hypotheses, showcasing the importance of leadership skills, particularly motivation, in influencing team performance. The results imply that enhancing motivation among team members could significantly boost overall team performance. However, it's crucial to note that while these findings suggest
associations, they don't establish causation. Other factors might also influence team performance, and the complexity of these relationships warrants further exploration.

The findings of the study align with several previous studies. This study supports previous research by establishing a positive association between leadership motivation skills and virtual team performance. Authors such as Manik (2016), Mathieu & Babiak (2015), and Zareen et al. (2015) highlight the connection between motivation and leadership skills, which positively impact individual performance and subsequently enhance team performance. Transformational leadership, characterized by high motivational skills (Burns, 1978), has been linked to improved team performance (Al Maalouf & El Achi, 2023; Ben Sedrine et al., 2021). Transformational leaders' motivational skills are pivotal for virtual team performance due to their social presence (Short et al., 1976).

Although no significant results were found in the regression analysis, the results of the Pearson correlation correspond with prior studies that emphasize the positive impact of leadership coaching skills on team performance. Literature by Hamlin and Ellinger (2009), Digirolamo & Tkach (2019), and Aldrin and Utama (2019) point towards coaching as a means to foster relationships, enhance group cohesion, and improve team performance. Managerial coaching has been associated with lower intentions to resign and increased team member engagement (Digirolamo & Tkach, 2019).

Studies by Van Quaquebeke and Eckloff (2010), Weisband (2002), and Batırlık et al. (2022) support the Pearson correlation findings regarding the positive impact of leadership appreciation skills on team performance although not found to be significant in the regression analysis. Appreciation fosters positive experiences at work and contributes to greater employee satisfaction and teamwork performance (White, 2016). Effective virtual leaders appreciate team effort and maintain communication, ultimately improving team performance (Weisband, 2002). Acknowledgment of team variety also plays a role in leveraging diversity within virtual teams (Batırlık et al., 2022).

Although no significant results were found in the regression analysis, the results of the Pearson correlation align with research emphasizing the positive effects of leadership empowerment skills on team performance. Bagga et al. (2023), Castellano et al. (2021), and Garro-Abarca et al. (2021) underscore the significance of empowerment skills in enhancing trust, commitment, and team cohesion, thereby positively influencing
virtual team performance. Empowerment fosters trust, contributes to team connectivity, and improves task-related outcomes (Gondal and Khan, 2008).

In summary, the findings align with numerous prior studies that highlight the crucial role of leadership skills (motivation, coaching, appreciation, empowerment) in positively impacting virtual team performance and especially motivation skills. These findings contribute to a robust understanding of how specific leadership skills can influence and enhance team performance in virtual settings.

6 CONCLUSION

This study sheds light on the complex relationship between leadership skills and performance within virtual team settings. Through a comprehensive analysis of motivation, coaching, appreciation, and empowerment, it becomes evident that while motivation emerges as a significant predictor of team performance, the influence of coaching, appreciation, and empowerment on performance remains inconclusive within the scope of this analysis.

The findings underscore the critical role of motivation in driving team performance in virtual environments. Higher levels of motivation among team members are associated with improved performance outcomes, highlighting the significance of fostering a motivated work culture within remote teams.

Nevertheless, the lack of statistically significant relationships between coaching, appreciation, and empowerment with team performance in this study suggests a need for further investigation. Future research endeavors could delve deeper into these leadership aspects, considering potential contextual nuances, measurement refinements, or alternative analytical approaches to better understand their impact on team performance in remote settings.

Nevertheless, the insights gleaned from this study provide valuable guidance for organizational leaders and decision-makers. The emphasis on cultivating motivation within virtual teams stands out as a crucial factor for enhancing overall team performance, offering a foundation for tailored leadership strategies aimed at optimizing remote work dynamics and driving organizational success.”
6.1 CONTRIBUTIONS

This study offers practical insights into how specific leadership skills—motivation, coaching, appreciation, and empowerment—can influence team performance in virtual settings. Organizations can use these findings to tailor their leadership development programs and strategies to enhance remote team effectiveness. The study contributes to the understanding of effective leadership practices in virtual environments. It can guide leaders in adapting their approaches to better support and manage remote teams, fostering a more conducive work environment. Insights from this study can help in optimizing team dynamics by emphasizing the importance of motivation in remote teams. It encourages team leaders to focus on this aspect to foster better collaboration and performance. Furthermore, the study provides empirical evidence to support decision-making in organizational strategies related to remote work. Leaders and decision-makers can rely on these findings to justify investments in leadership training, technology, or structural changes aimed at improving remote team performance.

Academically, the study contributes to the body of knowledge in the field of remote work, leadership, and team performance. It adds empirical evidence to existing theories and could potentially spark further research inquiries in this area.

It serves as a foundation for future studies, guiding researchers toward exploring more nuanced aspects of leadership in virtual settings. It highlights areas that might require deeper investigation or specific focus for a more comprehensive understanding.

6.2 LIMITATIONS AND FUTURE RESEARCH

The lack of significance in the regression analysis results doesn't always mean a lack of importance. It might be influenced by various factors such as sample size. The gathered sample of 148 responses could have affected the results.

For a more comprehensive understanding, it could be beneficial to consider other analyses, explore potential interactions between these variables, or even delve deeper into the specific context of the virtual teams being studied to gain a more nuanced perspective on the impact of leadership skills on virtual team performance.

Future research in the realm of leadership skills and their impact on team performance in virtual settings could explore several avenues to deepen the understanding and offer practical insights. This study is a cross-section study. Future research could conduct longitudinal studies to observe how these leadership skills—motivation,
coaching, appreciation, and empowerment—evolve over time and their sustained impact on virtual team performance. This could provide insights into their dynamic nature and their effects on performance in the long run.

In addition, contextual factors such as team size, cultural diversity, industry type, and technological infrastructure can be investigated to analyze how they interact with leadership skills to influence team performance in virtual settings. Also, factors like team cohesion, communication effectiveness, or individual characteristics might moderate or mediate these relationships and this can be studied in future research.

Finally, future studies can investigate the role of technology in facilitating or hindering the practice of leadership skills in virtual teams; i.e., how different communication tools, project management software, or virtual collaboration platforms affect the implementation and effectiveness of leadership practices.
REFERENCES


