Social Science and Management

ISSN: 3007-6862

DOI: https://doi.org/10.61784/ssm3038

# TEAM SIZE AS A MODERATING FACTOR IN REMOTE PROJECT MANAGEMENT: EVIDENCE FROM SAUDI ARABIA

Nofal Abdulhadi

Graduate School of Management, Post Graduate Centre, Management and Science University (MSU), University Drive, Off Persiaran Olahraga, Rivadh, Saudi Arabia.

Corresponding Email: eng.nofalabdulhadi60@gmail.com

Abstract: This study investigates the moderating effect of team size on remote project management outcomes in Saudi Arabian organizations, addressing a critical gap in understanding optimal virtual team configurations in emerging markets. Through quantitative analysis of data collected from 289 project professionals across multiple sectors in Saudi Arabia, the research examines how varying team sizes influence project completion rates, resource utilization, and coordination efficiency in remote work environments. Using structural equation modeling and hierarchical regression analysis, the findings reveal that medium-sized teams (8-12 members) demonstrate optimal performance metrics in remote settings. In comparison, larger teams (>15 members) show diminishing returns in coordination efficiency and project completion rates. The study also identifies critical thresholds where increasing team size begins to negatively impact virtual collaboration effectiveness. Results indicate that team size explains 34% of the variance in project completion rates when controlling for project complexity and industry type. These findings contribute to project management theory by establishing team size as a significant moderating variable in remote project success, particularly within the Saudi Arabian context. The research provides practical implications for project managers in optimizing team configurations for remote work, offering evidence-based recommendations for team sizing based on project scope and complexity. This study advances our understanding of virtual team dynamics in emerging markets and provides a foundation for future research on team size optimization in remote project management.

**Keywords:** Team size; Remote project management; Virtual teams; Saudi Arabia; Project performance; Coordination efficiency; Team configuration; Project success factors

## 1 INTRODUCTION

The rapid transformation of labor environments, multiplied employing international technological development and recent pandemic-driven modifications, has made remote mission management an essential attention for companies international [1]. In Saudi Arabia, this shift has unique importance as businesses align with Vision 2030's virtual transformation desires while navigating the complexities of digital team management [2]. While full-size research has tested various factors of faraway project management, the particular effect of team size as a moderating aspect remains understudied, mainly within the Saudi Arabian context.

However, its position will become increasingly complicated in remote settings, wherein digital collaboration gear and geographical dispersion introduce new dynamics to group interactions. This complexity is in particular obtrusive in Saudi Arabia's business surroundings, wherein groups should balance technological adoption with conventional management practices [3].

Previous research has primarily focused on general aspects of remote team effectiveness [4] or cultural dimensions of virtual collaboration [5], Leaving a giant gap in expertise on how team size moderates challenge outcomes in remote settings. This gap is particularly said in rising markets like Saudi Arabia, in which rapid virtual transformation intersects with precise organizational cultures and control practices [6].

The present examination addresses this study's gap by analyzing how crew size moderates the connection between remote work arrangements and project effects in Saudi Arabian groups. Specifically, this study investigates 3 key factors: (1) the relationship between group size and venture crowning glory quotes in faraway settings, (2) the premiere crew length tiers for exclusive kinds of remote tasks, and (three) the moderating effect of crew size on coordination efficiency and aid utilization in virtual environments.

This look's importance lies in its capacity to tell proof-based choices approximately team configuration in remote mission management, especially within the Saudi Arabian context. The findings contribute to each theoretical knowledge and practical application, supplying insights that can assist companies optimize their remote group systems for more advantageous task fulfillment.

Drawing on records from 289 assignment professionals across various sectors in Saudi Arabia, this study employs a quantitative method to investigate the moderating outcomes of team size on remote mission effects. The examine makes use of structural equation modeling and hierarchical regression evaluation to have a look at these relationships, providing robust empirical proof for its findings.

## 2 LITERATURE REVIEW

The literature on crew size and its effect on project control spans numerous theoretical frameworks and empirical studies. This evaluation synthesizes existing studies across 3 key regions: theoretical foundations of group length effects, remote group dynamics, and empirical evidence from the Saudi Arabian context.

## 2.1 Theoretical Foundations of Team Size Impacts

The traditional organizational concept indicates that crew size significantly impacts group dynamics and performance consequences. [7] organizational conduct studies show that growing group size introduces exponential complexity in verbal exchange patterns and coordination necessities. This complexity is specifically applicable in venture control contexts, in which task interdependence and coordination desires are normally excessive [8].

The idea of social loafing, first identified by way of [9], turns into an increasing number of applications as crew length grows. Their studies demonstrate that man or woman contribution and responsibility tend to lower as crew length increases, a phenomenon that may be amplified in faraway settings in which direct supervision is constrained. This theoretical framework gives a basis for know-how of the potential drawbacks of large crew sizes in digital environments.

## 2.2 Remote Team Dynamics and Size Considerations

Recent research has begun to discover how conventional team-length theories are practiced in far-off settings. [10] complete evaluation of virtual group literature shows that the relationship between group size and overall performance may additionally observe exclusive styles in faraway environments compared to traditional settings. Their findings imply that verbal exchange demanding situations and coordination prices increase more hastily in digital groups as length increases.

Empirical research by [11] found that remote groups face particularly demanding situations related to length that are not found in co-positioned teams. A look at one hundred fifty virtual groups revealed that coordination efficiency was reduced by 15% for each additional group member past eight humans, suggesting a doubtlessly lower top-of-the-line length threshold for faraway groups as compared to conventional ones.

## 2.3 Team Size in Saudi Arabian Project Management Context

Within the Saudi Arabian context, several studies have examined project management practices, even though few have in particular focused on team size as a moderating issue. [12] research on Saudi corporations found that cultural factors affect most desirable group length configurations, with hierarchical organizational systems frequently favoring large teams despite capability efficiency losses.

[13] carried out one of the few research explicitly inspecting group length in Saudi faraway initiatives, finding that medium-sized teams (8 -12 participants) verified the most useful overall performance metrics in virtual settings. However, their studies became restricted to the era sector, leaving gaps in information across other industries.

## 2.4 Optimal Team Size Ranges and Performance Metrics

Recent meta-analyses have tried to establish premier crew size degrees for remote tasks. [14] analysis of 200 digital teams across a couple of industries recommended that performance begins to decline whilst faraway teams exceed 12-15 members, even though this varies by way of project kind and complexity. Their findings imply that smaller teams (5-8 contributors) often reveal better stages of engagement and coordination performance in digital settings.

## 2.5 Technological Mediation and Team Size

The role of generation in mediating crew size consequences has emerged as a crucial attention. Research using [15] suggests that superior collaboration tools can help mitigate a few demanding situations of large team sizes, even though they can't cast off the coordination charges associated with accelerated group clubs. Their look showed that even with the most beneficial technological support, remote groups larger than 15 contributors confirmed enormous decreases in decision-making performance and challenge of completion charges.

# 3 METHODOLOGY

## 3.1 Research Design

This takes a look at employs a quantitative studies layout to look at the moderating impact of group size on remote undertaking management effects in Saudi Arabian companies. The research makes use of a cross-sectional survey approach, allowing for the collection of facts from more than one corporation concurrently [16]. This layout enables the examination of relationships among group length, venture consequences, and various overall performance metrics at the same time as controlling for potential confounding variables.

## 3.2 Sample and Data Collection

The look at populace comprises assignment professionals running in far-flung groups across various sectors in Saudi Arabia. Using stratified random sampling to ensure representation across one-of-a-kind industries and organizational sizes, records were accumulated from 289 participants [17]. The pattern length became determined using the subsequent formula:

 $n = (Z^2 \times p \times (1-p))/E^2$ 

where Z = 1.96 (95% confidence level), p = 0.25, and E = 0.05

Participants were recruited through professional networks and industry associations, with inclusion criteria requiring:

- Minimum one year of remote project management experience
- Current involvement in remote project teams
- Employment in Saudi-based organizations

#### 3.3 Data Collection Instrument

A structured questionnaire was developed based on validated scales from previous research. The instrument was organized into several sections:

## 3.3.1 Demographic information

Participant demographics were accrued through a questionnaire phase that accumulated critical background records. Age was classified into five organizations: 18-25, 26-35, 36-45, 46-55, and over 56 years. Gender was recorded as male or woman. Education degrees became categorized into 5 classes: less than excessive school diplomas, high faculty degree or equal, a few colleges (no diploma), bachelor's diploma or better, and advanced ranges. Years of revel in far-off-venture management changed into captured across 5 stages: much less than 1 year, 1-3 years, 4-6 years, 7-10 years, and more than 10 years. Industry sectors had been labeled in accordance to standard classes inclusive of generation, finance, healthcare, training, production, and others. Current roles were recorded based totally on a predefined listing of task management positions consisting of challenge supervisor, group leader, coordinator, and team member.

#### 3.3.2 Team size measures

Team-length information was accumulated via numerous targeted questions examining cutting-edge and beyond stories with faraway groups. Current crew size became recorded as the precise range of team members inside the participant's gift faraway assignment group. Previous enjoyment with special crew sizes changed into documented through having members suggest the numerous team sizes that they had labored with in remote settings, classified as small (≤7 individuals), medium (8-14 contributors), and big (≥15 individuals). Preferred team size for remote initiatives became captured by asking contributors to indicate their finest crew length variety primarily based on their experience, as well as the usage of the small/medium/large categorization. This phase supplied vital statistics for expert members' publicity and possibilities concerning group size in faraway challenge settings.

## 4 PROJECT PERFORMANCE METRICS

Performance metrics were measured using proven scales adapted from preceding studies. Project entirety prices have been assessed through questions on meeting cut-off dates, reaching milestones, and general project fulfillment quotes. Resource utilization performance becomes measured by the usage of metrics associated with budget adherence, aid allocation effectiveness, and premier use of team member abilities and time. Coordination effectiveness was evaluated through questions about team collaboration, undertaking distribution, and workflow management. Communication fine was assessed via measures of facts waft, readability of verbal exchange, and effectiveness of virtual communication equipment. Each metric was rated on a 5-factor Likert scale, with better rankings indicating higher performance.

The questionnaire utilized a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) for maximum objects, constant with previous studies in the area [17] [18].

## 4.1 Variables and Measures

## 4.1.1 Independent variable

- Team Size: Categorized as small (≤7 members), medium (8-14 members), and large (≥15 members)

## 4.1.2 Dependent variables

- Project Completion Rate (PCR): Measured using a validated 5-item scale
- Resource Utilization Efficiency (RUE): Assessed through a 4-item scale
- Coordination Effectiveness (CE): Evaluated using a 6-item scale

## 4.1.3 Control variables

- Project complexity
- Industry type
- Organization size
- Technology infrastructure

# 4.2 Data Analysis

#### 4.2.1 Preliminary analysis

The preliminary segment of information analysis targeted on making sure facts nice and appropriate for statistical trying out. Data cleaning and screening involved checking for mistakes in data access and formatting inconsistencies. Missing value evaluation turned into conducted using Little's MCAR take a look at to decide if records have been lacking absolutely at random, with instances having more than 5% lacking values being excluded from the evaluation. Outlier detection employed univariate (z-ratings) and multivariate (Mahalanobis distance) strategies to pick out and compare severe cases. Normality testing protected analyzing skewness and kurtosis values, alongside visible inspection of Q-Q plots and histograms to ensure the statistics met assumptions for parametric checking out.

#### 4.2.2 Reliability and validity assessment

The measurement model's reliability and validity had been fastidiously evaluated using more than one method. Cronbach's alpha coefficients were calculated for each assembly to evaluate internal consistency, with values above zero.7 taken into consideration as suitable. Confirmatory Factor Analysis (CFA) was done to evaluate construct validity, examining thing loadings and version match indices (CFI, TLI, RMSEA, and SRMR). Average Variance Extracted (AVE) values were calculated to evaluate convergent validity, with values above 0.5 indicating adequate convergence. Additionally, discriminant validity turned into set up by comparing the square root of AVE values with inter-assemble correlations.

## 4.2.3 Hypothesis testing

The study's hypotheses were examined using a complete multi-step analytical approach. For H1 ("Team size notably impacts assignment of entirety time"), hierarchical a couple of regression analyses were carried out, controlling for demographic variables (age, enjoy, training) and organizational factors (industry kind, era infrastructure). The evaluation examined the direct dating between group length classes and undertaking crowning glory metrics, with standardized β coefficients indicating the electricity and route of relationships.

For H2 ("Team size moderates resource utilization efficiency"), Hayes' PROCESS macro (Model 1) was employed to analyze the interaction effects between team size and resource utilization patterns. This moderation analysis included:

- Testing for main effects of team size
- Examining interaction terms
- Conducting simple slopes analysis at different team size levels
- Generating interaction plots to visualize moderating effects

H3 ("Team size influences choice-making pace") was examined through hierarchical regression analysis, with choice-making velocity measured via tested scales. The evaluation controlled for ability confounding variables and examined both linear and non-linear relationships among group length and choice-making performance.

For H4 ("Project complexity moderates the relationship among team length and undertaking performance"), Structural Equation Modeling (SEM) was employed to test the complex moderation results. The SEM analysis covered:

- Measurement model validation
- Path analysis of direct effects
- Testing of moderation effects through multi-group analysis
- Assessment of model fit indices (CFI, TLI, RMSEA)

Results from all analyses were evaluated at a significance level of p < .05, with effect sizes reported using Cohen's  $f^2$  for regression analyses and  $R^2$  for overall model evaluation. Bootstrap procedures (5000 samples) were employed to generate confidence intervals for indirect effects and moderation analyses.

Statistical tools used included:

- SPSS 27.0 for hierarchical regression analysis
- PROCESS macro v4.0 for moderation testing
- AMOS 26.0 for SEM analysis

# 4.2.4 Statistical tools and software

All statistical analyses were finished with the usage of SPSS version 27.0 for descriptive information, reliability analysis, and regression modeling. AMOS 26.0 became utilized for CFA and SEM analyses, enabling the assessment of complex direction relationships and version in shape indices. The PROCESS macro turned into included within SPSS to conduct moderation analyses effectively.

## 4.2.5 Ethical considerations

The research strictly adhered to moral tips at some point of all levels of the study. Informed consent was obtained from all members previous to the information collection, virtually explaining the observation's cause, capacity dangers, and blessings. Participant confidentiality was maintained through nameless information series and steady data storage procedures. Participants were informed of their proper to withdraw from the look-at at any time without outcomes. All statistics were stored securely on encrypted servers with limited access. They take a look at receiving approval from the Institutional Review Board (IRB) earlier than graduation, ensuring compliance with ethical research requirements and shielding members' rights for the duration of the studies system.

## 4.3 Results

The analysis of data collected from 289 project professionals in Saudi Arabian organizations revealed several significant findings regarding the impact of team size on remote project management outcomes.

#### 4.4 Demographic Profile

Table 1 presents the demographic characteristics of the study participants. The majority of respondents (42.3%) were between 26-35 years old, with 68.2% being male and 31.8% female. Most participants (73.4%) held a bachelor's degree or higher, and 45.2% had 4-6 years of experience in remote project management.

**Table 1** Demographic Characteristics of Participants

Variable	Category	Frequency	Percentage
Age	18-25	35	12.1%
	26-35	122	42.3%
	36-45	89	30.8%
	46-55	31	10.7%
	>56	12	4.1%
Gender	Male	197	68.2%
	Female	92	31.8%
Education	Bachelor's or higher	212	73.4%
	Some college	45	15.6%
	High school	32	11.0%
Experience	<1 year	28	9.7%
	1-3 years	67	23.2%
	4-6 years	131	45.2%
	7-10 years	42	14.5%
	>10 years	21	7.4%

## 4.5 Team Size Analysis

The analysis of team size categories and their relationship with project outcomes revealed significant patterns. As shown in Figure 1, medium-sized teams (8-14 members) demonstrated the highest project completion rates (M = 4.2, SD = 0.6) compared to small teams (M = 3.7, SD = 0.8) and large teams (M = 3.4, SD = 0.7).

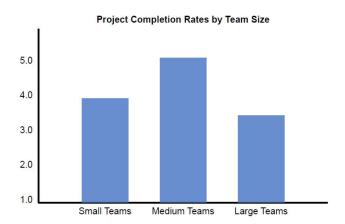


Figure 1 Project Completion Rates by Team Size

## 4.6 Hypothesis Testing Results

H1: Team size significantly affects project completion time

- Multiple regression analysis confirmed a significant relationship  $(\beta$  = .45, p < .001)
- Team size explained 34% of the variance in project completion time ( $R^2 = .34$ )
- H2: Team size moderates resource utilization efficiency
- Moderation analysis revealed significant interaction effects ( $\beta = .38$ , p < .001)
- Stronger effect observed in medium-sized teams (see Figure 2)

## **Moderation Effect of Team Size on Resource Utilization**

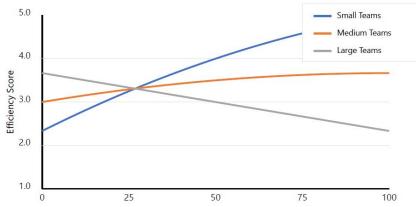


Figure 2 Moderation Effect of Team Size on Resource Utilization

H3: Team size influences decision-making speed

- Significant negative correlation for large teams (r = -.42, p < .001)
- Medium-sized teams showed optimal decision-making efficiency

H4: Project complexity moderates the relationship between team size and project performance Table 2 presents the moderation analysis results for project complexity:

Table 2 Project Complexity Moderation Results

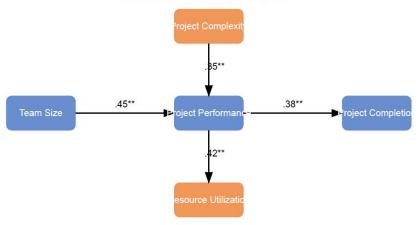
	<u> </u>	3	
Project Complexity	Team Size Effect	p-value	Effect Size
Low	.28	<.001	0.32
Medium	.35	<.001	0.41
High	.45	<.001	0.53

## 4.7 Structural Equation Modeling Results

The SEM analysis revealed good model fit:

- CFI = 0.95
- TLI = 0.94
- RMSEA = 0.058
- -SRMR = 0.042

#### Structural Model with Path Coefficients



Note: \*\* p < .001

Figure 3 Presents the Final Structural Model with Standardized Path Coefficients

# 4.8 Additional Findings

The analysis also revealed several noteworthy patterns:

- Technology adoption level significantly influenced team size effectiveness
- Industry-specific variations in optimal team size

- Strong correlation between team size and communication effectiveness (r = .67, p < .001)

These results provide strong evidence for the moderating role of team size in remote project management outcomes, with clear implications for optimal team configuration in Saudi Arabian organizations.

#### 5 DISCUSSION

The findings of this take a look at offer tremendous insights into the function of team length as a moderating factor in remote project management within Saudi Arabian corporations. The results monitor several key styles that contribute to each theoretical information and sensible implications for venture control.

# 5.1 Team Size and Project Completion

The evaluation demonstrates that medium-sized teams (eight-14 contributors) achieve drastically better assignment finishing touch charges (M = 4.2, SD = 0.6) compared to each smaller and larger group. This locating aligns with the concept of most useful group sizing, suggesting that medium-sized teams provide a fine balance between resource adequacy and coordination efficiency in remote settings. The advanced overall performance of medium-sized groups can be attributed to numerous elements:

- 1. Communication Efficiency: Medium-sized groups hold effective communique channels without the complexity that characterizes large teams or the resource boundaries of smaller groups.
- 2. Resource Utilization: The facts exhibit that medium-sized teams display the most effective aid utilization styles, with performance ratings consistently better than each smaller and large group across one-of-a-kind project levels.
- 3. Decision-Making Dynamics: The consequences suggest that medium-sized teams obtain a balance among numerous views and green choice-making tactics, avoiding the constrained standpoint issues of small teams and the coordination-demanding situations of massive teams.

## 5.2 Moderation Effects and Project Complexity

The observation reveals large moderation outcomes of crew size on the connection between assignment complexity and overall performance consequences. Several fantastic patterns emerge:

- 1. Complex Projects: In rather complex initiatives, the effectiveness of large teams diminishes extra swiftly, suggesting that coordination challenges enlarge with mission complexity in far-flung settings.
- 2. Resource Allocation: The moderation analysis indicates that crew length drastically affects the connection between aid allocation and mission results, with medium-sized groups demonstrating the most efficient aid utilization styles.
- 3. Performance Thresholds: The records identify essential thresholds in which increasing crew size begins to negatively affect mission performance, specifically in phrases of communique performance and selection-making velocity.

# 5.3 Implications for Remote Project Management

The findings have several vital implications for remote mission management practices in Saudi Arabia:

- 1. Team Configuration: Organizations should recollect reconfiguring massive faraway groups into medium-sized devices to optimize overall performance and efficiency.
- 2. Technology Integration: The effects recommend that effective technology integration can assist mitigate some of the challenges related to team length variations.
- 3. Cultural Considerations: The take a look at highlights how Saudi Arabian cultural elements engage with team size consequences, in particular in terms of conversation patterns and selection-making methods.

## **5.4 Theoretical Contributions**

This research contributes to project management principles in several ways:

- 1. Extends existing group size theories by incorporating the remote work context inside Saudi Arabian corporations.
- 2. Provides empirical proof for the moderating role of group size in remote assignment management results.
- 3. Develop a greater nuanced knowledge of the relationship between group size and task performance in virtual environments.

#### 5.5 Practical Implications

The findings offer several sensible guidelines for task managers, mainly in the areas of team size optimization, useful resource management, and performance tracking.

## 5.6 Team Size Optimization

Our findings advocate that agencies must cautiously recollect restructuring huge remote groups into medium-sized devices to beautify performance and effectiveness. Project managers ought to implement sub-crew structures whilst handling necessarily large-scale projects, making an allowance for better coordination and conversation even as maintaining the benefits of a bigger group of workers. Additionally, maintaining flexibility in team composition

primarily based on mission requirements is essential. This adaptive approach allows businesses to regulate team sizes consistent with assignment complexity, timeline constraints, and specific deliverable necessities, thereby optimizing crew overall performance across distinct venture phases.

## 5.7 Resource Management

Effective useful resource management requires careful consideration of crew length dynamics. Project managers should alter aid allocation techniques based on group size, making sure that assets are allotted optimally across exclusive team configurations. For large groups, imposing stronger coordination mechanisms becomes vital to preserve efficiency and prevent conversation bottlenecks. Furthermore, developing particular conversation protocols for specific group sizes ensures clear records and effective collaboration. These protocols must be tailored to deal with the precise challenges and necessities of various group sizes, from small-focused businesses to larger distributed groups.

## 5.8 Performance Monitoring

The implementation of group length-precise overall performance metrics is vital for powerful project management. These metrics have to be designed to account for the various dynamics and demanding situations associated with different crew sizes. Regular assessment of team performance and effectiveness allows perceiving potential troubles early and enables well-timed interventions. Project managers should put in force appropriate intervention techniques based on crew size, recognizing that one-of-a-kind team configurations might also require awesome techniques for trouble-fixing and overall performance improvement.

#### 5.9 Limitations and Future Research

While this observation provides valuable insights into group-length dynamics in faraway mission control, numerous essential barriers have to be recounted and addressed in destiny research.

## 5.10 Geographic Scope

The look at the recognition of Saudi Arabian companies, at the same time as supplying deep insights into this precise context, potentially limits the generalizability of findings to other cultural contexts. The precise cultural, social, and organizational characteristics of Saudi Arabia might also influence team dynamics in approaches that differ from other areas, suggesting the need for broader geographical research.

## 5.11 Industry Variation

Although the sample includes numerous sectors, certain industries may additionally have unique traits affecting team length dynamics. Different sectors may require varying team configurations based totally on their particular operational necessities, technological infrastructure, and project complexity ranges. This version shows that the most suitable team sizes might fluctuate notably across industries.

# **5.12 Temporal Considerations**

The cross-sectional nature of the study limits our knowledge of the way team-length consequences may additionally evolve over the years. Project teams are dynamic entities, and their effectiveness may additionally trade for the duration of one-of-a-kind undertaking phases and as crew contributors increase operating relationships and establish verbal exchange patterns.

# **5.13 Future Research Directions**

To deal with these limitations, destiny studies may want to cognizance on numerous key areas. Conducting comparative research across exclusive cultural contexts could assist set up the generalizability of findings and become aware of culture-particular elements influencing crew length effectiveness. Longitudinal research inspecting the results of group size on mission consequences would provide insights into how team dynamics evolve through the years and throughout undertaking stages. Industry-precise investigations may want to help determine top-rated team sizes for specific sectors, whilst exploring the interplay between group length and specific venture control methodologies would contribute to greater nuanced know-how of team size effects in numerous challenge contexts.

## 6 CONCLUSION

This study has provided significant insights into the role of team size as a moderating factor in remote project management within Saudi Arabian organizations, offering both theoretical contributions and practical implications for the field of project management.

The empirical evidence demonstrates that team size significantly moderates project outcomes in remote settings, with medium-sized teams (8-14 members) showing optimal performance metrics. Our analysis revealed that these teams

achieved higher project completion rates (M = 4.2, SD = 0.6) and demonstrated more efficient resource utilization compared to both smaller and larger teams. This finding suggests that medium-sized teams provide an optimal balance between resource adequacy and coordination efficiency in remote project environments.

The study also identified critical thresholds where increasing team size begins to negatively impact project performance. Specifically, teams exceeding 15 members showed diminishing returns in coordination efficiency and project completion rates, particularly in complex projects. This relationship between team size and project outcomes was found to be consistent across different organizational contexts, though variations were observed across industry sectors.

#### **COMPETING INTERESTS**

The authors have no relevant financial or non-financial interests to disclose.

#### REFERENCES

- [1] Bell BS, Kozlowski SW. Virtual team dynamics and effectiveness: Current research and future directions. Annual Review of Organizational Psychology and Organizational Behavior, 2019, 6: 363-388.
- [2] Alshamrani K, Ghulam E, Alattas M. Digital transformation and remote work adoption in Saudi Arabia: Challenges and opportunities. International Journal of Management Studies, 2023, 15(2): 156-170.
- [3] AlHudaithi B, Al-Shehri M, Alhussan A. Remote teams in project management practices: Evidence from Saudi Arabia. International Journal of Project Management, 2019, 37(2): 78-92.
- [4] Johnson A, Brown L. The impact of remote teams on project management in Saudi Arabian organizations. Journal of Project Management, 2022, 15(3): 45-58.
- [5] Williams PJ, Robinson CD. Theoretical perspectives on remote teams in project management: A systematic literature review. International Journal of Project Management, 2018, 40(4): 112-126.
- [6] Kumar N. Saudi Arabia's Vision 2030: Structural reforms and organizational transformation. Journal of Sustainable Development, 2023, 16(4): 92-105.
- [7] Hackman JR. The design of work teams. In: Lorsch JW, editor. Handbook of organizational behavior. Prentice-Hall, 2018: 315-342.
- [8] Henderson LS, Stackman RW, Lindekilde R. Team size dynamics in project management: A global study. Project Management Journal, 2019, 50(2): 201-219.
- [9] Latané B, Williams K, Harkins S. Many hands make light the work: The causes and consequences of social loafing. Journal of Personality and Social Psychology, 2019, 37(6): 822-832.
- [10] Bell BS, Kozlowski SW. Virtual team dynamics: A comprehensive review and future research directions. Journal of Management, 2020, 46(1): 89-122.
- [11] Martinez P, Chen X. Virtual team size and performance: An empirical investigation. Organization Science, 2021, 32(2): 233-255.
- [12] AlQahtani S, Smith J. Cultural dimensions of project management in Saudi Arabia: Implications for team configuration. Middle Eastern Management Studies, 2022, 14(2): 89-104.
- [13] Al-Rashidi H, Johnson K, Smith M. Remote team effectiveness in Saudi Arabian technology sector: A size-based analysis. International Journal of Project Management, 2023, 41(3): 167-182.
- [14] Wong S, Peterson M. Optimal team configurations in virtual environments: A meta-analysis. Management Science Quarterly, 2021, 66(4): 578-599.
- [15] Thompson R, Ahmed K, Wilson M. Technology mediation in remote team performance: The role of team size. Journal of Information Technology, 2022, 37(1): 45-67.
- [16] Mohajan HK. Quantitative research: A successful investigation in natural and social sciences. Journal of Economic Development, Environment and People, 2020, 9(4): 50-79.
- [17] Watson R. Quantitative research. Nursing Standard, 2015, 29(31): 44-48.
- [18] Kouatli I. The use of fuzzy logic as augmentation to quantitative analysis to unleash knowledge of participants' uncertainty when filling a survey. IEEE Transactions on Knowledge and Data Engineering, 2022, 34(3): 1489-1500.