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## Article

# Investigation of the factors that influence team performance in project management : the case of Habib Bank Limited

Management dynamics in the knowledge economy

## Provided in Cooperation with:

National University of Political Studies and Public Administration, Bucharest

*Reference:* Sidra, Sidra/Wagan, Shah Mehmood (2024). Investigation of the factors that influence team performance in project management : the case of Habib Bank Limited. In: Management dynamics in the knowledge economy 12 (4/46), S. 371 - 390.  
<https://www.managementdynamics.ro/index.php/journal/article/download/635/510/2953>.  
doi:10.2478/mdke-2024-0022.

This Version is available at:

<http://hdl.handle.net/11159/703112>

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# Investigation of the Factors that Influence Team Performance in Project Management: The Case of Habib Bank Limited

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**Abstract:** The financial industry is facing increasing competition and the need for information construction, with Project management being a key factor in success. Challenges include increasing team conflicts, lack of communication, and weak team cohesion, leading to internal turmoil and decreased project performance. To improve Project team performance, domestic commercial banks, examples such as Habib Bank Limited, are highly valuable. This paper proposes a research model based on previous theories and results on team conflict management, focusing on how conflict management methods affect team communication and cohesion, ultimately affecting team performance. The study collected data through electronic questionnaires and used SmartPLS software to evaluate the model's reliability, validity, common method bias, and multicollinearity. The results showed that Cooperative Conflict Management can improve Project team performance, while competitive conflict management weakens it. Team cohesion mediates between cooperative conflict management and performance, and team communication mediates between cooperative conflict management and performance. The study concludes that improving the bank's Project team performance in project management is necessary.

**Keywords:** bank project; project management; team performance; team conflict management.

Received: August 13, 2024  
Revised: October 27, 2024  
Accepted: November 7, 2024  
Published: December 20, 2024

## Introduction

The importance of bank information construction has grown due to the continuous reform and innovation in the financial market, leading to increased competition among financial institutions. Banks have an increasing demand for bank information construction, and people's expectations for it are also getting higher. Bank project management is crucial for ensuring the operation of the banking business and an important part of bank information construction. Project management refers to a collection of work systems and activities carried out to achieve a specific project goal. An efficient project team is essential for achieving performance goals and maintaining strong cohesion and execution. High-performance project teams are composed of different project groups which establish a common goal and achieve high-performance goals through strong execution and cohesion.

Team performance management is a critical aspect of project management, as it is formed by long-term trust and tacit understanding of each team member. It plays a vital role in stabilizing and improving the performance of the project team, leading to better performance and sustainable projects. In a complex working environment, an excellent project needs to maintain excellent cohesion between the project manager and team members, jointly cope with crises, and seek to improve project performance while achieving stable development. However, as project management becomes increasingly complex, challenges such as increased team conflicts, lack of communication between

## How to cite

Sidra, S., & Wagan, S. M. (2024). Investigation of the Factors that Influence Team Performance in Project Management: The Case of Habib Bank Limited. *Management Dynamics in the Knowledge Economy*, 12(4), 371-390. DOI 10.2478/mdke-2024-0022

ISSN: 2392-8042 (online)

[www.managementdynamics.ro](http://www.managementdynamics.ro)

<https://content.sciendo.com/view/journals/mdke/mdke-overview.xml>

team members, and weak team cohesion persist. These unstable factors contribute to internal turmoil and reduced project performance. As the cycle of project investment and execution shortens, managing the sharing, coordination, investment, and use of various bank project management project resources has become a highly valued topic in academia and industry.

The paper discusses how conflict management factoring in the study of project management will affect a team's performance in the banking sector, particularly Habib Bank Limited. Although previous studies have identified that conflict management can affect a team's dynamics, communication, and cohesion, such studies lack complete quantitative analysis in the context of banking (Haider et al., 2024). Few have also explored in detail how cooperative versus competitive conflict management mediates performance through cohesion and communication.

The current research tries to fill this knowledge gap by following an empirical approach in analyzing such dimensions through SmartPLS regarding reliability, validity, and bias tests. Focusing on banking, where teamwork and communication must be cohesive and efficient, the paper tries to provide fresh insight into how the methods of conflict management drive or hinder team performance (Huerta et al., 2024).

The remaining part of the paper is planned as follows: Section 2 deals with the literature review regarding the research; Section 3 explains the research model along with the hypotheses planned; Section 4 explains the design concerning the research and data collection; Section 5 describes data analysis and the results obtained; Section 6 discusses the findings in the light of prior studies, while Section 7 concludes the paper along with implications and recommendations.

### **Theoretical basis and literature review**

Conflict management theory has evolved through three stages: recognizing conflicts as inevitable and innate, accepting them as reasonable and recognizing the importance of maintaining conflict in teams for team vitality and innovation (Aggrawal & Magana, 2024). Management methods include avoidance, competition, cooperation, and compromise (Bai et al., 2024). These conflict management models are divided into cooperative, competitive, and avoidant models. Conflict management can positively impact team performance by triggering positive changes, improving decision-making, and stimulating employee motivation. Conversely, negative impacts include increased psychological pressure, interpersonal communication barriers, decreased efficiency, job satisfaction, dissatisfaction with corporate changes, and decreased employee loyalty. Effective conflict management is crucial for team performance management, and communication plays a crucial role in resolving conflicts and maintaining stable relationships (Busco et al., 2024).

Bank project management is a temporary effort to deliver a unique product, service, or result to a specific financial institution (Gan et al., 2024). The modern financial industry is knowledge-driven, and its organizational structure, product process, and business development are all based on knowledge and project management (Gonzalez-Mohino et al., 2024). Bank projects are temporary works that use various professional knowledge to investigate, analyze, plan, set up, upgrade, and transform various information systems under limited resource conditions (Haider et al., 2024). From the knowledge system perspective, project management at the information system level possesses core content such as "triple constraints," overall project management, personnel resource management, and project communication management (Han et al., 2024). The development of the financial services industry has attracted attention from all sectors of society, and banks are increasingly investing in project management to promote long-term market development (Huerta et al., 2024).

Project management, originally from Europe and the United States, has been developed for decades and has been applied in various sectors, including banking. In the late 1990s, US financial institutions improved their project management capabilities and formulated rules to apply project management ideas in their financial project management departments (Jia, Gan, et al., 2024). Citibank and the US Reserve Bank have applied computer and network technology to financial product management while using project management software as a management tool. Domestic systematic research and industry practice on project management lag behind as financial institutions compete in the international market (Jia et al., 2024).

Project management theory has been adopted in large-scale domestic banking projects, particularly in the banking sector (Ju et al., 2024). The application of project management ideas in the financial industry has become a consensus, as it is essential for developing new financial products and promoting the transformation of functions. However, project management has not yet reached the level of developed countries, and traditional systems have led to administrative difficulties in implementing projects (Kunkcu et al., 2024). Understanding project management implementation measures and methods can improve project quality, performance, and resource allocation. Financial institutions can strengthen project management and use project management theory to manage projects in financial institutions (Musick et al., 2024).

A team is a group of individuals working together to achieve a common goal, characterized by trust, emotional intelligence, ability, and motivation (O'Neill et al., 2024). It consists of two or more members who cooperate to complete a common task. A team is larger than a group, with members assuming specific roles and functions (Owolabi et al., 2024). A team is a formal group, while a group is a group of individuals working together to achieve a common goal. A team is formed when a small number of people with complementary skills are willing to take responsibility for a common goal (Scarlat & Barar, 2024).

Team performance encompasses various aspects, including work efficiency, internal optimization, collective learning, and innovation (Sivalingam & Ramaswamy, 2024). It is influenced by communication, communication skills, and team cohesion. Communication methods can be divided into work and non-work communication, with content being the most critical factor (Tabassi et al., 2024). Leadership styles like transactional and transformational influence team cohesion and is crucial for efficiency. Consistency between team cohesion and organisational goals also impacts performance (Wang, Lu, & Zhang, 2024). Research on project team performance focuses on the connotation of performance, measurement dimensions, indicators, and assessment methods. Understanding these factors can help optimise team performance and achieve team goals (Wang, Chong, & Zhang, 2024).

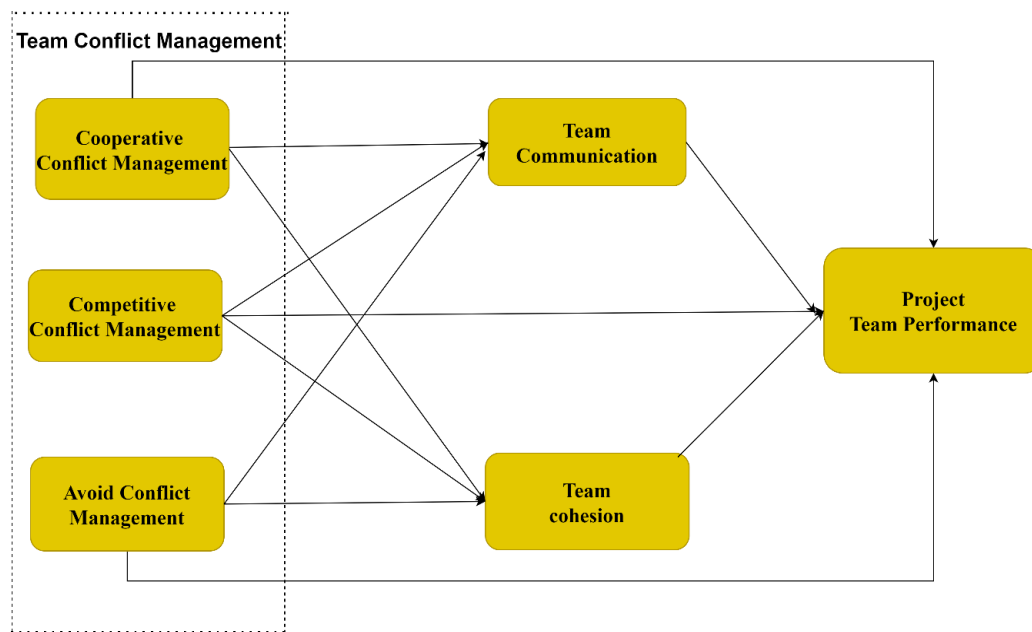
This article explores conflict management theory, its selection, and factors affecting team performance. It focuses on project concepts, current situations, and factors affecting team performance (Yoo & Kang, 2024). The article highlights the importance of team performance in continuous development, including work improvement, learning, and group development. The research on bank projects, particularly Habib Bank Limited, highlights the influence of leadership behaviour, leadership style, team conflict, cohesion, communication, and team values on performance (Zelenko et al., 2024). The article also discusses the impact of these factors on bank performance in the Internet era.

### ***Research model and hypothesis***

This paper explores the impact of team conflict management on team performance, focusing on the mediating effect of team cohesion and communication (Zhang, Lou, Fu, & Ding, 2024). It is the first paper to integrate these aspects, highlighting their potential to influence performance. Through the review of relevant literature in the previous chapter, we have a new understanding of team conflict management, team communication, team cohesion and project performance, and also laid the theoretical foundation for this article

(Zhang, Liu, & Gao, 2024). On this basis, we proposed the research model of this article, as shown in Figure 1.

Conflict within research teams can have positive impacts on individuals and organizations. Cooperative conflict management can improve innovation performance by fostering trust and enhancing team members' self-worth (Zheng et al., 2024). Avoidance-based conflict management can make team members stubborn and hinder public discussion, reducing efficiency. Competitive conflict management can prevent team members from fully absorbing and assimilating others' opinions, leading to work stress, burnout, and resignation. The correct conflict-handling strategy can promote positive outcomes and foster a collaborative environment (Zhang, Liu, & Gao, 2024).



**Figure 1. Research model diagram**

Source: own processing

Based on the above, this paper proposes the following hypotheses:

*Assumption H1: Cooperative conflict management style has a positive impact on project team performance.*

*Assumption H2: Competitive conflict management style has a negative impact on project team performance.*

*Assumption H3: Avoidance-based conflict management style has a negative impact on project team performance.*

Cooperative Conflict Management is an effective interpersonal resolution strategy focusing on common goals and promoting information exchange among team members. This approach allows for direct expression of thoughts and feelings, problem-solving from different perspectives, and creative solutions. It has a positive effect on performance, while competitive conflict management can lead to employee dissatisfaction, decreased enthusiasm, and decreased team cohesion. Avoidance conflict management, on the other hand, can reduce communication and intensify conflicts, negatively impacting team cohesion. Therefore, a cooperative conflict management approach is recommended for effective team resolution.

Based on the above, this paper proposes the following hypotheses:

*Assumption H4: Cooperative conflict management style has a positive impact on project team cohesion.*

*Assumption H5: Competitive conflict management style has a negative impact on project team cohesion.*

*Assumption H6: Avoidance-based conflict management style has a negative impact on project team cohesion.*

Conflict management can be improved by openly discussing differing views and fostering closer interpersonal relationships. This cooperative method benefits both parties by enhancing communication between team members and managers. Cooperative conflict management models can mobilize employees' enthusiasm and suppress negative work. Competitive conflict management can lead to slackness and distrust, reducing communication. Lack of psychological support can result in an "endpoint" state, affecting work attitudes and potentially causing resignation. Therefore, fostering open communication is crucial for successful conflict resolution.

Based on the above, this paper proposes the following hypotheses:

*Assumption H7: Cooperative conflict management style has a positive impact on project team communication.*

*Assumption H8: Competitive conflict management style has a negative impact on project team communication.*

*Assumption H9: Avoidance-based conflict management style has a negative impact on project team communication.*

Team cohesion refers to the mutual attraction between individuals and groups, the sense of responsibility of team members to complete team tasks, and the combination of all other factors. It is a dynamic force. Unity enables team members to work hard to achieve collective goals. Therefore, working in a cohesive team will give team members more confidence and a sense of accomplishment. We often use team performance to measure whether team goals have been achieved, and team cohesion is an important indicator that affects team performance. Foreign scholars have done a lot of research on the relationship between the two. Steiner (1972) claimed that no data directly shows that team cohesion has a significant positive effect on team performance. Summers (1988) believes that, in general, the level of team cohesion is closely related to team performance, and stronger cohesion can improve team performance. In the study of R&D teams, team cohesion plays a very important role, and this result has remained correct for a long time.

Based on the above, this paper proposes the following hypotheses:

*Assumption H10: Team cohesion has a positive impact on project team performance.*

*Assumption H11: Team cohesion mediates the relationship between cooperative conflict management style and team performance.*

*Assumption H12: Team cohesion mediates the relationship between competitive conflict management style and team performance.*

*Assumption H13: Team cohesion mediates the relationship between avoidance of conflict management style and team performance.*

Communication is a crucial element in project management and the advancement of a project team. It connects all members and is essential for achieving project performance. Effective communication involves formulating a project plan, clear division of labor, and job responsibilities. Project process obstacles are managed through consultation and communication. Conflicts can arise due to differing opinions on goals, resource allocation, and task resolution methods. Task communication helps understand resources and progress, assign tasks by priority, and achieve optimal resource allocation. In-depth communication enhances mutual understanding, eliminates misunderstandings, and eliminates negative emotions. It also maintains consistency, accelerates project progress, and increases transparency. Effective communication is essential in a specific cultural environment, promoting coordination and work efficiency.

Based on the above, this paper proposes the following hypotheses:

*Assumption H14: Team communication has a positive impact on project team performance.*

*Assumption H15: Hypothesis that team communication plays a mediating role between cooperative conflict management style and team.*

*Assumption H16: Hypothesis that team communication plays a mediating role between competitive conflict management style and team.*

*Assumption H17: Team communication mediates the relationship between avoidance conflict management style and team performance.*

## Research design

This paper uses a questionnaire survey method, a widely used social survey method with strong controllability, completeness, and detailed content. The closed questionnaire design is convenient, efficient, and improves response rate. The survey follows principles of voluntariness, possibility, objectivity, and necessity to reflect respondents' actual situations accurately.

## Variable measurement

The study's questionnaire was designed through a literature review, classic scale collection, and measurement scale translation. The "translation-back translation" process was used to avoid inaccurate translations due to cultural and language influences. The preliminary survey questionnaire was prepared using relevant principles, and the final questionnaire was revised after conducting preliminary research and analysis. The study aims to reflect the original text accurately and ensure the survey's intended purpose (Table 1).

**Table 1. Conflict Management Style Scale**

Variable name	Measurement items	Reference
Cooperative Conflict Management	I am able to view conflicts as mutually negotiated projects.	Wang, Lu, & Zhang, 2024
	I am able to explore solutions that benefit everyone when faced with conflict.	
	I can try to be considerate of each other's opinions.	
	I am able to communicate different ideas with colleagues.	
	I can allow the other party to present their full perspective.	
Competitive Conflict Management	I force the other party to compromise, but I don't compromise myself.	
	I see conflict as a war where you lose, and I win.	
	When there is a conflict, I always force the other party to use my own method.	
	I always promote my own ideas.	
Avoidant Conflict Management	I often ignore conflicts.	
	I will avoid talking about conflicts out of consideration for both sides.	
	I refuse to show my different ideas.	
	I often avoid conflicts.	
	I avoid saying bad things about other colleagues.	

Source: own processing from Wang, Lu and Zhang (2024)

This paper examines the roles of three types of team conflict management mechanisms in affecting teamwork efficiency and team communication and cohesion effectiveness. Based on literature and field investigation, a team conflict management scale was designed, and the performance scale of the project team was determined. The scale divides conflict management modes into cooperative, competitive, and avoidant styles, using the Likert five-point scale method. The study aims to understand the team's specific situation, as seen in Table 1.

The study used a scale to identify project team communication content issues and determine the team communication scale. The scale was adaptively adjusted to match project performance, focusing on clear communication of project requirements, timely information provision, and resource allocation. The scale uses the Likert five-point method for scoring, as seen in Table 2.

**Table 2. Team communication measurement items**

Variable name	Measurement items	Reference
Team communication	The requirements and plans of my project can be clearly communicated to every member.	Tabassi et al., 2024
	Team members provide each other with relevant information needed for the task.	
	Team members provide each other with suggestions on tasks.	
	When performing tasks, team members will communicate the allocation and usage of resources and coordinate resources.	
	Project members can resolve complex problems and conflicts through communication.	
	Once there are any changes to the project, team members will inform each other.	
	Team members discuss career plans.	
	Project members will exchange interests and hobbies.	
	Project members will help solve life problems.	

Source: own processing from Tabassi et al. (2024)

This article uses a team cohesion scale from Henry and Cann's research to analyze different groups in a specific cultural environment. The scale has good reliability and validity and is widely used by Pakistani scholars. The study uses reverse items to improve questionnaire quality, with a Likert five-point scale method for scoring. Specific measurement items are provided in Table 3.

**Table 3. Team cohesion table**

Variable name	Measurement items	Reference
Team Cohesion	The atmosphere within the team is harmonious, and members trust each other.	Scarlat & Barar, 2024
	I enjoy interacting with other members of the team.	
	I would rather participate in team activities than participate in other activities.	
	In order to complete my work better, I often need to communicate and collaborate with other members.	
	I think the work accomplished by the team cannot be accomplished by a single member.	
	I believe that all members must work together to achieve group goals.	
	I believe that team members can achieve the goals of the entire team without cooperation between them.	
	In a team, teamwork and dedication are the common characteristics of every member.	
	I will treat the team's work goals as my own work goals.	
	In the team, every member is working hard to achieve the team's goals.	

Source: own processing from Scarlat and Barar (2024)

Different team types have different missions and tasks, making establishing group performance evaluation standards difficult. This article focuses on the degree to which team members complete assigned tasks. The five-point Likert scale is used for this, with higher task completion indicating better team performance, as seen in Table 4.



**Table 4. Team performance scale**

Variable name	Measurement items	Reference
Project Team Performance	The team always achieves the goals stated at the beginning of the mission.	Owolabi et al., 2024
	The team has outstanding performance compared with similar teams in the company.	
	In the future, I plan to often share my work experience or knowledge with other colleagues in the company.	
	The team achieves a high degree of goal completion.	
	The team stays on track with the plan.	
	Team members enjoy working with each other.	
	I am willing to continue working with other members.	
	I maintain a high degree of enthusiasm and confidence for future cooperation with other members of the team.	

Source: own processing from Owolabi et al. (2024)

### **Data collection**

The study's questionnaire was designed with expert guidance to avoid ambiguity and structural errors. After revisions, the revised questionnaire was used for a preliminary survey. The team ensured accuracy by understanding the purpose, filling method, and distributing the questionnaire responsibly. The recovery rate reached 100%, with 42 valid questionnaires collected, resulting in an efficiency of up to 84%. The team also screened out questionnaires with incomplete, inconsistent, or extreme answers.

This paper uses a questionnaire survey method widely used in social surveys due to its controllability, completeness, and detailed content. The study uses a fully closed questionnaire design, adhering to voluntariness, possibility, objectivity, and necessity principles. The questionnaire was distributed both online and offline, with 365 questionnaires collected from 2021 to 2023. The study found that the target was the project team, and the questionnaires were collected anonymously to ensure privacy. The effective recovery rate was 82.8% after eliminating invalid questionnaires.

### **Questionnaire implementation**

This study focuses on the project team, including Pakistani and foreign teams, using online and offline questionnaire distribution methods. The online survey uses electronic questionnaires and professional platforms, while paper questionnaires are distributed to project management teams offline. The questionnaires are anonymous and complete, ensuring authenticity and privacy. The survey was conducted from 2021 to 2023, with 365 valid questionnaires collected, resulting in an effective recovery rate of 82.8%.

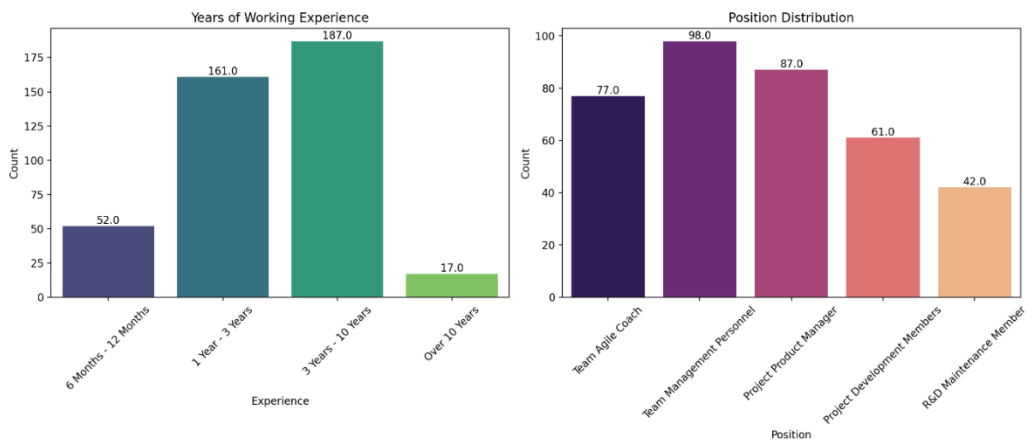
### **Sample descriptive analysis**

The study involved 365 samples from Habib Bank Limited branches in Pakistan. The questionnaire was designed using a 1-5 scale, which corresponds to "strongly disagree," "disagree," "uncertain," "agree," and "strongly agree," as seen in Table 5.

**Table 5. Descriptive statistical analysis of samples**

Index	Sample	Sample Size	Proportion
Gender	Male	251	69
	Female	114	31
Age	30 and below	167	47
	30 - 40	98	28
	40 - 50	61	17
	50 over	39	11
Education	College degree and below	65	18
	Undergraduate	149	41
	Master	111	30
	PhD and above	40	11
Years of working experience	6 months -12 months	52	14
	1 year - 3 years	161	44
	3 years - 10 years	187	51
	Over 10 years	17	4.7
Position	Team agile coach	77	21
	Team management personnel	98	27
	Project product manager	87	24
	Project development members	61	17
	R&D maintenance member	42	12

Source: own processing



**Figure 2. Descriptive statistics**

Source: own processing

This section shows the sample distribution and proportion in multiple dimensions such as gender, age, education, length of service, and position. Males account for 69%, significantly higher than females; the age group is concentrated in the young and middle-aged; the education level is mainly bachelor's and master's degrees; the working years are mostly 3-10 years; the positions of project product managers, team managers, and agile coaches account for a high proportion. The sample distribution characteristics provide a basis for subsequent data analysis, as seen in Figure 2.

Regarding job distribution, project product managers, team managers, and agile coaches account for a large proportion, 24%, 27%, and 21%, respectively, showing the representativeness of these positions in the sample. Project development members and R&D maintenance members account for a relatively low proportion, 17% and 12%, respectively, which may be related to the sample's specific industry or company structure.

Overall, the sample shows specific distribution characteristics and proportional relationships in multiple dimensions, providing a rich background and basis for subsequent data analysis.

### Data analysis

This study uses the partial least squares method and SmartPLS 4 data analysis tool to test the measurement model, evaluate reliability, validity, and common method bias, and test the mediating role of team communication and cohesion.

### Model verification

Reliability testing measures the reliability and stability of measurement items, ensuring consistency in results obtained by repeatedly measuring the same object using the same method. It measures the sample reliability and the presence of real answers. The Cronbach of  $\alpha$  coefficient is used to measure the reliability of the selected scale. A coefficient greater than 0.7 indicates good reliability and can proceed to statistical analysis. The questionnaire's credibility and validity were analyzed, indicating high internal consistency and strong reliability, as seen in Table 6.

**Table 6. Reliability and convergent validity analysis**

Variable	Test items	Factor Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Cooperative Conflict Management (CCM)	CCM1	0.724	0.835	0.885	0.605
	CCM2	0.818			
	CCM3	0.841			
	CCM4	0.815			
	CCM5	0.676			
Competitive Conflict Management (CFM)	CFM1	0.839	0.887	0.921	0.748
	CFM2	0.858			
	CFM3	0.871			
	CFM4	0.893			
Avoidance Conflict Management (ACM)	ACM1	0.805	0.879	0.913	0.676
	ACM2	0.893			
	ACM3	0.851			
	ACM4	0.852			
	ACM5	0.697			
Team Cohesion (TC)	TC1	0.722	0.851	0.878	0.533
	TC2	0.757			
	TC3	0.731			
	TC4	0.677			
	TC5	0.681			
Team Communication (TCM)	TCM1	0.836	0.898	0.917	0.589
	TCM2	0.822			
	TCM3	0.785			
	TCM4	0.853			
	TCM5	0.819			
	TCM6	0.792			
Project Team Performance	PTP1	0.716	0.926	0.937	0.657
	PTP2	0.804			

Variable	Test items	Factor Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
(PTP)	PTP3	0.775			
	PTP4	0.836			
	PTP5	0.818			
	PTP6	0.854			

Source: own processing

Validity testing is crucial for accurately measuring variables in research projects. It includes content validity, convergent validity, and discriminant validity. Content validity evaluates if test questions are appropriate and consistent with the research design. Validity focuses on the method's ability to detect required variables and its effectiveness. The scales used in this article are mature test scales translated from foreign countries, reflecting the research purpose and having good content validity. Convergent validity evaluates the correlation between test items for evaluating latent variables, with factors such as loading coefficient, reliability value, and mean square error extraction value. Discriminant validity evaluates the degree of uncorrelation between latent variables and other variables.

The study's measurement model meets three evaluation criteria for convergent validity, focusing on the factor loading coefficient, combined reliability value, and average variance extraction value. For team cohesion and communication, the factor loading values are greater than 0.6, and the combined reliability value is greater than 0.5. The study's reliability coefficient test demonstrated that the square root of the value exceeded the average value of the correlation coefficient analysis between the variables, indicating good discriminant validity in the data scale, as seen in Table 7.

**Table 7. Correlation coefficient matrix and AVE value square root**

Variable	Cooperative Conflict Management	Team Cohesion	Team Communication	Project Team Performance	Competitive Conflict Management	Avoid Conflict Management
Cooperative Conflict Management	0.778					
Team Cohesion	0.523	0.714				
Team Communication	0.496	0.626	0.768			
Project Team Performance	0.414	0.645	0.658	0.811		
Competitive Conflict Management	- 0.342	- 0.341	- 0.263	- 0.208	0.865	
Avoid Conflict Management	- 0.281	- 0.304	- 0.212	- 0.141	0.653	0.823

Source: own processing

Common method bias is the artificial covariation of expected and criterion factors due to the same data source, measurement environment, project background, and project characteristics. This can lead to confusion in research results and errors in conclusions. To control this, the general method bias of the sampled data must be checked and controlled. This study uses Harman's single-factor test and a correlation coefficient of 0.9 to evaluate the common method bias problem. Results show that the most important factor can explain 34.99% of the variance, less than 50%, and the average correlation coefficient is 0.864, indicating no common method bias in this method. The paper examines multicollinearity, a high correlation between variables, using the Variance

Inflation Factor (VIF). Multiple tests were performed on each variable, and a VIF value less than 3.3 indicates no multicollinearity problem and no common method bias problem, as shown in Table 8.

**Table 8. VIF values of variables**

Variable	ACM	CCM	CFM	TCM	PTP	TC
Full Collinearity VIF	2.306	1.857	2.601	2.272	2.488	1.932

Source: own processing

### **Hypothesis testing**

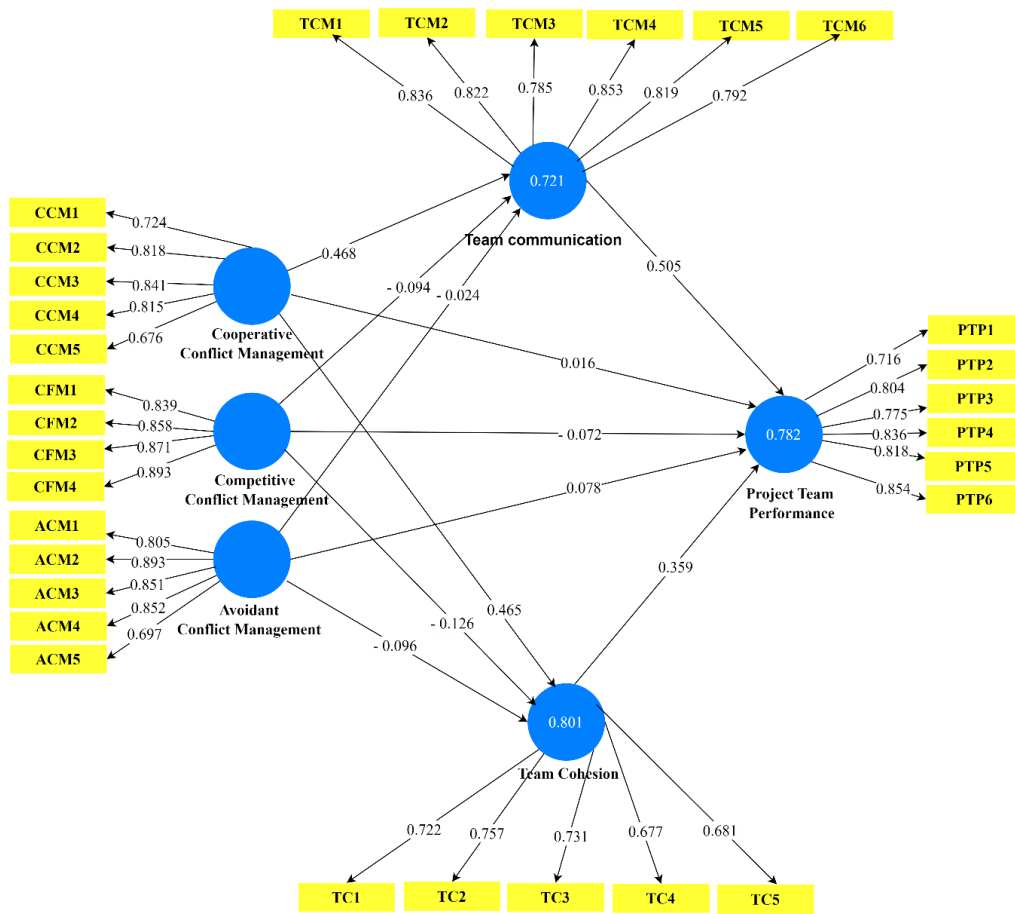
The study utilized SmartPLS 4 software to test and verify the hypothesis, using repeated random samples to predict model path coefficients and calculate standardized path coefficients of structural associations between latent variables, as per Hair et al.'s (2012) opinions.

**Table 9. Hypothesis test results of direct effect**

Variable	Path Coefficient (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P value	Hypothesis Result
Cooperative Conflict Management -> Team Cohesion	0.465	0.063	7.373	0.000***	Supported
Cooperative Conflict Management -> Team Communication	0.468	0.065	7.207	0.000***	Supported
Cooperative conflict management -> Project team Performance	0.016	0.061	2.201	0.002**	Supported
Team cohesion -> Project Team Performance	0.359	0.083	4.257	0.000***	Supported
Team Communication -> Project Team Performance	0.505	0.095	5.248	0.000***	Supported
Competitive conflict management -> Team Cohesion	- 0.126	0.081	2.156	0.016*	Supported
Competitive Conflict Management -> Team Communication	- 0.094	0.079	2.517	0.001**	Supported
Competitive Conflict Management -> Project Team Performance	- 0.072	0.064	0.1134	0.009**	Supported
Avoid Conflict Management -> Team Cohesion	- 0.096	0.071	1.349	0.177	Not Supported
Avoid Conflict Management -> Team Communication	- 0.024	0.072	0.324	0.745	Not Supported
Avoid Conflict Management -> Project Team Performance	0.078	0.054	1.388	0.164	Not Supported

Note: \*: p<0.05; \*\*: p<0.01; \*\*\*: p<0.001

Source: own processing



From the above table, we can find that cooperative conflict management also has a significant positive impact on team performance ( $\beta = 0.016, p < 0.01$ ); therefore, H1 is established; cooperative conflict management significantly and positively affects team cohesion ( $\beta = 0.465, p < 0.001$ ); therefore, H4 is established; cooperative conflict management also significantly and positively affects team communication ( $\beta = 0.468, p < 0.001$ ); therefore, H7 is established; judging from the path coefficient between team cohesion and team performance, team cohesion also significantly and positively affects team performance ( $\beta = 0.359, p < 0.001$ ); therefore, H10 is established; at the same time, team communication has a significant positive impact on team performance ( $\beta = 0.505, p < 0.001$ ); therefore, H14 is confirmed.

The path coefficient of competitive conflict management shows that competitive conflict management has a significant impact on team cohesion and team communication, with a significant negative impact (Team Cohesion,  $\beta = -0.126, p < 0.05$ ), (Team Communication,  $\beta = -0.094, p < 0.01$ ), so assume H5, H8 are established; at the same time, the above table shows that competitive conflict management also has a significant negative impact on team performance ( $\beta = -0.072, p < 0.01$ ), so assume H2 is confirmed. As for the impact of avoidance-type conflict management on team cohesion, team communication and team performance, it can be seen from the above table that the impact of avoidance-type conflict management on these three latent variables is not significant ( $\beta = -0.096, p > 0.05$ ;  $\beta = -0.024, p > 0.05$ ;  $\beta = 0.78, p > 0.05$ ), so assume H3, H6, H9 are not confirmed. The final actual model and path coefficients are shown in Figure 3 as shown above.

**Table 9.  $R^2$  for factors influencing Team Performance in Project Management**

<b><math>R^2</math> Value</b>	
Team Cohesion	0.721
Team Communication	0.721
Project Team Performance	0.782

Source: own processing

When analyzing the relationship between team performance and key team capabilities, we found that both team cohesion ( $R^2 = 0.721$ ) and team communication ( $R^2 = 0.721$ ) had a significant impact on project team performance, and their coefficient of determination ( $R^2$ ) showed that these two variables each explained approximately 72% of the variation in team performance. It is particularly noteworthy that the overall coefficient of determination of team performance reached 0.782, which further emphasizes the core role of team cohesion and team communication in improving project team performance. These high  $R^2$  values not only verify the importance of these two factors but also show that our model has high accuracy and reliability in predicting team performance, as shown in Table 9.

Mediation models are widely used in social science research, focusing on the mechanism by which an independent variable influences a dependent variable. They require strong theoretical support to explore meaningful mediation effects, as seen in Table 10. Mediation, also known as a special case of "indirect effect," can be useful for statistical analysis when supported properly. The indirect effect is crucial in mediation analysis, and the intermediary method is Bootstrapping the indirect effect. This nonparametric resampling procedure is known for its rigorousness and power in testing mediation effects. Bias-corrected bootstrap confidence intervals are the best way to detect mediation effects.

**Table 10. Test of the mediating effect of team cohesion and team communication**

<b>Path coefficient</b>	<b>Standard Deviation</b>	<b>T statistics</b>	<b>Confidence</b>	<b>Interval</b>	<b>Significance</b>
			BootLLCI	BootULCI	
Avoidance Conflict Management -> Team Cohesion -> 0.034	0.026	1.326	-0.086	0.016	Not significant
Cooperative Conflict Management -> Team Communication -> 0.232	0.048	4.745	0.147	0.338	Significant
Avoidance Conflict Management -> Team Communication -> -0.013	0.039	0.312	-0.094	0.054	Not significant
Competitive conflict management -> team cohesion -> 0.044	0.035	1.308	-0.117	0.016	Not significant
Cooperative Conflict Management -> team cohesion -> 0.158	0.045	3.648	0.078	0.247	Significant
Competitive Conflict Management -> Team Communication -> -0.047	0.041	2.162	-0.336	-0.125	Significant

Source: developed by the authors

As shown in Table 11 above, the data analysis results show that, at 95% confidence level, team cohesion plays a significant mediating role in the impact of teamwork-based conflict management on team performance ( $\beta=0.158$ ,  $t=3.648$ ,  $\text{BootLLCI}=0.078$ ,  $\text{BootULCI}=0.247$ ), H11 is accepted. The confidence interval of the mediating effect of team cohesion on the impact of team competitive conflict management on team performance ( $\text{BootLLCI}=-0.117$ ,

BootULCI=0.016) contains 0,  $\beta=-0.044$ ,  $t=1.308$ , which shows that the mediating effect of team cohesion is not significant in this case - H12 is not true. The confidence interval of the mediating effect of team cohesion on the impact of team avoidance conflict management on team performance (BootLLCI=-0.086, BootULCI=0.016) contains 0,  $\beta=-0.034$ ,  $t=1.326$ , which shows that the mediating effect of team cohesion is not significant in this case. H13 is not true. At the confidence level 95%, the confidence interval of the mediating effect of team communication on the impact of teamwork-based conflict management on team performance (BootLLCI=0.147, BootULCI=0.338) does not include 0,  $\beta=0.232$ ,  $t=4.745$ , as seen in Table 11. This shows that the mediating role of team communication is significant. H15 is established. The confidence interval of the mediating effect of team communication on the impact of team competitive conflict management on team performance (BootLLCI=-0.336, BootULCI=-0.125) does not include 0,  $\beta=-0.047$ ,  $t=2.162$ , which shows that the mediating role of team communication is significant in this case. H16 is accepted. The confidence interval of the mediating effect of team communication on the impact of team avoidance conflict management on team performance (BootLLCI=-0.094, BootULCI=0.054) contains 0,  $\beta=-0.013$ ,  $t=0.312$ , which shows that the mediating effect of team communication is not significant, in this case H17 is invalid.

**Table 11. Hypothesis test results of mediation effect**

Path coefficient	Standard Deviation	T statistics	Confidence	Interval	Significance
			BootLLCI	BootULCI	
Avoidance Conflict Management -> Team Cohesion - 0.034	0.026	1.326	-0.086	0.016	Not significant
Cooperative Conflict Management -> Team Communication -> 0.232	0.048	4.745	0.147	0.338	Significant
Avoidance Conflict Management -> Team Communication -> - 0.013	0.039	0.312	-0.094	0.054	Not significant
Competitive conflict management -> Team Cohesion -> 0.044	0.035	1.308	-0.117	0.016	Not significant
Cooperative Conflict Management -> Team Cohesion -> 0.158	0.045	3.648	0.078	0.247	Significant
Competitive Conflict Management -> Team Communication -> - 0.047	0.041	2.162	-0.336	-0.125	Significant

Source: own processing

This chapter examines the impact of team conflict management on project team performance using empirical analysis and theoretical models. The study uses SmartPLS 4 software to analyze 365 valid answer sheets, evaluating reliability, comprehensive



validity, discriminant validity, common method error, and multicollinearity. The results show high reliability and validity of the construction measurement model, with no common method errors or multicollinearity problems, as seen in Table 12.

**Table 12. Research hypothesis verification results**

Hypothesis	Assumption	Significance Results
H1	Cooperative conflict management style has a positive impact on project team performance.	Significant
H2	Competitive conflict management style has a negative impact on project team performance.	Significant
H3	Avoidance-based conflict management style has a negative impact on project team performance.	Not Significant
H4	Cooperative conflict management style has a positive impact on project team cohesion.	Significant
H5	Competitive conflict management style has a negative impact on project team cohesion.	Significant
H6	Avoidance-based conflict management style has a negative impact on project team cohesion.	Not Significant
H7	Cooperative conflict management style has a positive impact on project team communication.	Significant
H8	Competitive conflict management style has a negative impact on project team communication.	Significant
H9	Avoidance-based conflict management style has a negative impact on project team communication.	Not Significant
H10	Team cohesion has a positive impact on project team performance.	Significant
H11	Team cohesion mediates the relationship between cooperative conflict management style and team performance.	Significant
H12	Team cohesion mediates the relationship between competitive conflict management style and team performance.	Not Significant
H13	Team cohesion mediates the relationship between avoidance of conflict management style and team performance.	Not Significant
H14	Team communication has a positive impact on project team performance.	Significant
H15	Team communication plays a mediating role between cooperative conflict management style and team.	Significant
H16	Team communication plays a mediating role between competitive conflict management style and team.	Significant
H17	Team communication mediates the relationship between avoidance conflict management style and team performance.	Not Significant

Source: own processing

## Discussion

This study confirmed earlier studies on conflict management in project teams; however, some new insights have been added in the banking industry. For example, the positive effect of cooperative conflict management on team performance, consistent with prior studies, considered the aspect of cooperation as an important approach to enhancing communication, trust, and respect among team players. The present study reinforces these conclusions. Cooperative conflict management, team cohesion and improved communication sharply increase the teams' performance. These findings also agree with

earlier literature that identified collaboration in conflict resolution as key to developing a cohesive team environment that fosters better project performance.

However, the study confirms that competitive conflict management negatively influences team performance; this result also confirms other research regarding the negative consequences of using a competitive approach to conflict because such approaches have resulted in lower levels of communication and higher levels of tension within a group. In contrast to cooperative strategies, competitive methods may decrease the possibility of knowledge and information sharing and free flow of communication, leading to decreased cohesion and morale. Such studies have gone further to indicate that competitive conflict management causes stress and burnout, a fact to which this present study bears testimony, especially about the banking setup where teamwork needs to be cohesive. The study further illustrates that competitive conflict management reduces team performance by debilitating the mediating effects of team cohesion and communication.

Surprisingly, this study slightly differs from previous findings by recommending that avoidance conflict management does not significantly impact team performance results. This differs from earlier findings highlighting the negative impacts of avoidance strategies on team cohesion. This could be due to specific industry factors, such as banking teams with hierarchical and structured characteristics, or possibly negating the negative influence of avoidance. Results still showed, however, that avoidance does not contribute positively to either team communication or cohesion, thus meaning this approach is less effective than cooperative approaches in ensuring performance.

## Conclusions

This article analyses the impact of project team conflict management on team performance in bank projects. It identifies that cooperative conflict management has a significant positive impact on team performance, while competitive conflict management has a negative effect. Avoidance conflict management has no significant effect on team performance. The impact of conflicts and contradictions on a team includes advantages and disadvantages. The key to determining the effect lies in the management mechanism and solution chosen by team members. Positive conflicts can suppress the negative effects of contradictions, promoting a positive working state and flexible psychological acceptance. Negative conflict management can lead to negative influences within the team and increase the possibility of members taking advantage of team performance. Team communication and team cohesion play a significant mediating role in the relationship between conflict management and team performance. Positive conflict management and effective team communication can balance conflicts, improving project performance.

This study combines research on team conflict management at home and abroad to enrich and expand research on project team conflict management and team performance. It advocates for new-era banking, such as artificial intelligence, smart banking, and technology banking. The study focuses on the direct impact of team conflict management on project performance and the mediating effects of team communication and cohesion. Most previous studies were qualitative, lacking empirical research, and the integration relationship between conflict management modes of cooperation and competition and team performance has not been confirmed. The study introduces team communication and cohesion as mediating variables and reveals the internal impact mechanism of different conflict management methods on teamwork performance.

This study suggests several strategies for improving project management effectiveness in financial institutions. First, it emphasizes the importance of teamwork-based conflict management to enhance team performance and efficiency. This approach requires comprehensive learning and professional talent promotion to address gaps in the research field. Second, it emphasizes the importance of team cohesion through positive psychological guidance and scientific job responsibilities. Third, it emphasizes the

importance of communication mechanisms between team members and teams to improve team communication. Fourth, it emphasizes the importance of conflict management mechanisms in implementing the service attributes of financial institutions. Fifth, it suggests establishing and improving project management training and mentoring mechanisms to ensure knowledge updates for team members. The study also suggests that scholars should remain passionate about learning and contribute to academic careers by continuously absorbing, referencing, summarizing, and thinking. By implementing these strategies, financial institutions can enhance their project management performance and achieve better results.

**Acknowledgements:** *This study was conducted following the ethical guidelines and principles set forth by the institutional review board (IRB) to ensure the protection of participants' rights and confidentiality. Ethical approval was obtained prior to data collection, with all participants providing informed consent. The research adhered to the highest ethical standards, ensuring that all procedures were transparent, voluntary, and respectful of participants' privacy. All authors declare no personal or financial conflicts of interest that could affect the fairness, objectivity, or interpretation of the results of this study. This research was not supported by any research project funding.*

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