Investigation of the Relationship Between the Communication Barrier, the Experience, and Project Delay Among Project Teams in a Private Residential Project; A PLS-SEM Technique

Norazlin Abd Aziz, Faculty of Built Environment, University Malaya, Jln Profesor Diraja Ungku Aziz, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia. Email: norazlinabdaziz86@gmail.com
Faculty of Administrative Science and Policy Studies, UiTM, Persiaran Seremban Tiga 1, Seremban 3, 70300, Seremban, Negeri Sembilan, Malaysia. Email: norazlin525@uitm.edu.my

Faizul Azli Mohd Rahim, Faculty of Built Environment, University Malaya, Jln Profesor Diraja Ungku Aziz, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia. Email: azli@um.edu.my, (Corresponding Author)

Nur Mardhiyah Aziz,Faculty of Built Environment, University Malaya, Jln Profesor Diraja Ungku Aziz, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia. Email: nurmardhiyah@um.edu.my

ABSTRACT

Communication issues have become a prevalent topic of conversation today. These issues are to blame for the slow progress in the construction industry and other sectors. Communication issues have become more severe since the onset of the Covid-19 pandemic. Project delay is one of the most severe problems associated with communication issues in the construction industry. Although there have been many studies on the causes of project delays, there have been few on communication. Communication is the foundation of all relationships, as it can positively and negatively influence the bond between individuals. A comprehensive comprehension of communication processes and procedures must be a top priority for the organization to ensure that messages can be conveyed effectively and that intended actions are carried out. Due to other factors, such as the experience of the team members themselves, some communication processes may be disrupted, and messages may not be conveyed effectively. However, research into the role of experience as a mediator between communication barriers and project delay has not yet been conducted. Therefore, this paper aims to investigate the relationship between communication barriers and project delays, which are mediated by the experience of project teams. In Selangor, 215 project teams were surveyed to determine the relationship between project delay, barriers to communication enhancement, and expertise. It was hypothesized that the experience of the project team would mediate the relationship between barriers to communication enhancement and project delay. First, a Partial Least Squares - Structural Equation Modelling (PLS-SEM) analysis revealed that the experience of project teams significantly and favorably reflects the relationship between barriers to communication enhancement and project delay. Experience substantially mediates the relationship between improvement barriers and project delay; bar -> exp -> pd (0.121, t = 2.39, p0.05). Therefore, it can be concluded that the experience of the project team members is crucial for overcoming the communication barriers that cause project delays.

KEYWORDS: Communication barriers, Experience, Project delay, PLS-SEM, Mediation analysis

1. INTRODUCTION

Construction delays are a significant issue that should be investigated further. This issue impacts the construction industry, the economy's growth, and the nation's long-term viability (Khatib, Poh, & El-Shafie, 2018). Due to the Covid 19 pandemic that the world is experiencing, 2020 is considered a challenging year. The pandemic has had substantial negative effects, particularly on economic growth. In 2020, the Covid 19 pandemic has negatively impacted all sectors of the nation. The construction industry in Malaysia has experienced a significant decline in growth. In the second quarter of 2020, all categories of the construction industry declined by more than 25 percent. Residential buildings account for -38.7% of the total, non-residential buildings for -36.2%, civil engineering for 55.2%, and specialty professions for -28.8% (DOSM, 2020).

Due to the crisis, all sectors of the economy, including the construction sector, have been under intense pressure since the beginning of 2020. COVID -19. In their respective studies, Alenezi (2020), Bou Hatoum et al. (2021), and Oey and Lim (2021) found that construction project delays are the primary reason for the construction industry's decline in growth due to the impact of the pandemic. Significant, concurrent, impartial, non-excusable, and tolerable delays are identified by COVID-19 in construction projects (Mohsen et al., 2021). According to the ILO (2021), when the pandemic broke out, the situation on construction projects deteriorated: more projects experienced cost and time overruns, the material supply chain was disrupted, unemployment increased, and health and safety issues increased. Due to unsafe work practices, inadequate information, risky working conditions, lack of technical and material support, neglect in adopting safety regulations and laws, and a lack of communication, the problem on construction sites has worsened (Nawaz et al., 2020). Difficulties with communication are one of the primary causes of project delays (Gamil & Rahman, 2017; Hosaini & Singla, 2019; Zidane & Andersen, 2018). According to Pamidimukkala and Kermanshachi (2021), the most significant COVID-19 obstacles and strategies are finding new ways to manage communication and avoiding technical barriers to improve communication when project managers and workers are not routinely available. The problems with communication-related project delays are unavoidable and continue to deteriorate over time based on the yearly patterns.

Consequently, it is essential to consider why these difficulties persist in this situation. The construction industry must identify all potential obstacles to concluding its projects within the first phase's deadline. Failure to do so could have a significantly greater impact than early detection.

This study expands the application of communication theories and models to construction project teams. Indeed, employing theories and models for various populations will aid in developing theoretical expertise (Nilsen, 2020). These findings will also strengthen communication theory and validate its applicability within the context of communication and project delay. This is because most extant research focuses on other causes of project delays rather than communication, even though communication is one of the most significant issues in construction (Gamil & Rahman, 2017; Soliman, 2017; Zidane & Andersen, 2018). The communication barriers identified in this study can also assist project teams and practitioners in developing strategies to reduce and mitigate project delays caused by communication barriers.

2. LITERATURE REVIEW

2.1 Project Delay

Numerous studies have been conducted on the causes of project delays (Rahman et al., 2013; Sambasivan et al., 2017; Tawil et al., 2013). According to Al-Fadhali et al. (2019), 37 pertinent elements in the Yemeni construction sector were chosen and categorized into four groups based on their relationship to the parties involved in construction projects. These categories included consultant, contractor, proprietor, and designer-related elements. 54 main internal stakeholder-related factors affect the completion of construction projects. The preponderance of internal project stakeholders is associated with project teams (Al-Fadhali et al., 2018). Interaction and interdependence between project teams can result in communication conflicts and misunderstandings. There is a tendency for team members to have their understandings and opinions, which other team members sometimes reject. These circumstances produce an unfavorable and uncomfortable environment among team members, culminating in workplace conflict and difficulty in collaborating. Malik et al. (2021) state that project conflicts make achieving project objectives difficult and can contribute to failure. Most research on communication in the construction industry focuses on problems with poor communication (Chen et al., 2019; Durdyev & Hosseini, 2020; Gamil & Rahman, 2017; Malik et al., 2021), effective communication (Hussain et al., 2018; PMI, 2013; Zahari et al., 2017), and lack of communication (Abuarqoub, 2019; Klimova & Semradova, 2012). Because communication is the backbone of all project management phases in construction (Zulch, 2014), project delays due to communication breakdowns are not a new problem and cannot be resolved readily by those involved in construction.

2.2 Communication Barrier to Improvement and Project Delay

The most prevalent communication model is linear communication, which depicts how information is transmitted from a sender to a receiver through various communication channels, with obstacles and disturbances along the way. The Shannon-Weaver communication model, which specifies the roles of the sender, decoder, channel, noise, coding, and receiver, is the foundation for project communication management strategy (Al-Fedaghi, 2020). The Lasswell communication model, devised in (1948), also explains communication. This paradigm added the aspect of message impact to the communicator's action. The remaining components are the communicator, messages, medium, and recipient. Although these models are well-known in previous studies of project delays (Frank Cervone, 2014; Valitherm & Rahman, 2014), very few studies address the interactive communication model and include field experience as a crucial component of the communication process. This study intends to address this deficiency by examining the field experience of project teams as a mediator in communication that may reflect their project-related actions.

An impediment to progress is a communication issue identifying potential problems that could arise and impact the endeavor. This category focuses primarily on factors that may hinder team members' ability to communicate more effectively. When team members encounter communication barriers, it can lead to several problems, such as difficulty in sharing information, errors due to language and cultural barriers, postponement of tasks due to improperly chosen communication channels, inconsistent communication flow as a result of inadequate communication procedures and training within the organization, and it can be challenging to achieve the effectiveness of the communication process. According to Kapur

(2018), time, space, location, and channel are some of the elements that may impede communication between team members. In their studies, Frank Cervone (2014) stated that different groups interact and function differently. As a result, this creates challenges because cultural differences worsen as a team disperses over greater distances, encountering different time zones, languages, ethnic groups, and, consequently, corresponding values. When used improperly, language functions as a divider, destroying interpersonal relationships (Abuarqoub, 2019). In the era of globalization and technology, language remains a barrier to communication. As a communication barrier, a language barrier has been problematic for Malaysia's construction industry stakeholders, particularly administrators and foreign construction site laborers (Kurtenbach & Strong, 2022; Valitherm & Rahman, 2014).

According to the research of Uddin, Ahmad, and Danish (2017), it is essential to have access to new technological equipment to prevent unnecessary delays and expense overruns. Because unskilled workers are inefficient, workers and supervisors should be adequately trained with an effective training program to improve their skills. A lack of advanced technology can hinder the rapid dissemination of information. Jadhav et al. (2018) also advocated for managers and employees to receive the appropriate training to advance their knowledge and abilities.

2.3 Theory and Models Underlying this Study

This study discusses the premise for developing hypotheses in terms of three related models. The Lasswell communication model, Shannon and Weaver's communication model, and the interactive communication model, which served as the foundation for developing the research model, are all based on communication theory in general.

(Littlejohn, 1983) The term "communication theory" typically refers to both the theories comprising our comprehension of the communication process and the intellectual methods used to study that process. Theories represent conceptualizations of how observers perceive their surroundings. According to Littlejohn (1983), because theories are abstractions, every theory has limitations. If the theory is valid, it represents a mode of thought and is true in and of itself. Because of this, there is substantial debate regarding what constitutes a sound communication theory or hypothesis regarding how communication works (Van Ruler, 2018). The concept of communication theory emphasizes how communication takes place between individuals. Communication is regarded as linear and one-way communication, and other communication flows are known as two-way communication. Typically, these communication processes depend on the information and message the sender wishes to convey to the recipient. According to this theory, to be beneficial, communication must be represented by certain elements, such as sender, receiver, channel, and messages.

According to the Lasswell Communication Model (Lasswell, 1948), five components of communication must be addressed: the communicator, the message, the medium, the receiver, and the effect. Among the issues that arise during the communication process is the communication barrier.

Shannon's model (Shannon & Weaver, 1949) is a popular one-way model of communication that describes the transmission of signals from a sender to a receiver over a (telephone) channel, contemplating meaning only from the denotative side, according to Van Ruler (2018). This paradigm was created to facilitate more efficient communication between the sender and receiver. In addition, this model identifies sounds as causal factors that influence the

communication process. Originally, the concept was created to enhance technical communication. Later, it was utilized extensively in the communication sector.

The model encompasses numerous concepts, such as information source, sender, noise, channel, message, receiver, information destination, encoding, and decoding. This model includes seven essential components to depict the communication process: Sender, Encoder, Channel, Decoder, Receiver, Feedback, and Noise. The feedback and disturbance elements complement the Lasswell model and are believed to have a greater impact on the overall communication process. As a result of obstructing member-to-member communication, communication barriers distort the communication process. An ineffective communication flow can result in project delays; therefore, one hypothesis was developed in this study based on the communication models analyzed.

Hypothesis 1: Barriers to improvement in communication are positively related to project delay.

2.4 Mediating factor in this study- experience

According to the Interactive Model of Communication, it is essential to consider the sender's and receiver's areas of expertise when communicating. According to Bajracharya (2018), "experience" refers to the source's knowledge and experiences that influence the formulation and interpretation of the message. The source's culture, social customs, etc., are typical examples. Experience modifies communication patterns such as culture, society, psychology, context, and utilized channels. When two people's areas of experience overlap, conversations commence, and the discussion broadens the communicator's experience base. All of these factors impact how individuals interpret messages.

This study includes this variable as a mediator between the relationship between communication barriers and project delay. This study focuses on communication between project team members, and the researcher believes that each individual's experience is significant and can have varying influences on the overall communication flow. According to Oyegoke and Al Kiyumi (2017), competent and experienced contractors can result in effective construction management and oversight. Stans et al. (2018) reported that experience would likely influence communication flow for encoding, decoding, and signal interpretation effects. It suggests that individuals with varying levels of expertise provide varied feedback, which may result in inappropriate behavior. Consequently, each individual's experience will play an essential role in team communication.

According to Hsu et al. (2020), most issues that caused project delays resulted from inexperience and poor communication among stakeholders. The proprietor and other project stakeholders may be exposed to significant risk if inexperienced contractors execute the project. Additionally, the probability that the undertaking will be completed on time decreases. In their research, Oyegoke and Al Kiyumi (2017) discovered that competent contractors and consultants guarantee successful construction planning by the general contractor and that efficient site management and construction supervision are crucial strategies for avoiding delays. A project manager or project leader with many years of professional experience communicates more easily with and guides team members than someone with less experience because understanding team members' work styles is a prerequisite for fostering effective collaboration (Hsu et al., 2020).

Hypothesis 2: The field of experience mediates the relationship between barriers to improvement in communication and project delay.

Based on prior empirical research, we devised and tested a model that predicts project delays due to project team experience and communication barriers that prevent improvement. Figure 1 depicts the conceptual model of the tested hypothesis. This research aims to determine the relationship between communication barriers and project dela ands the interaction between experience and communication barriers and project delay.

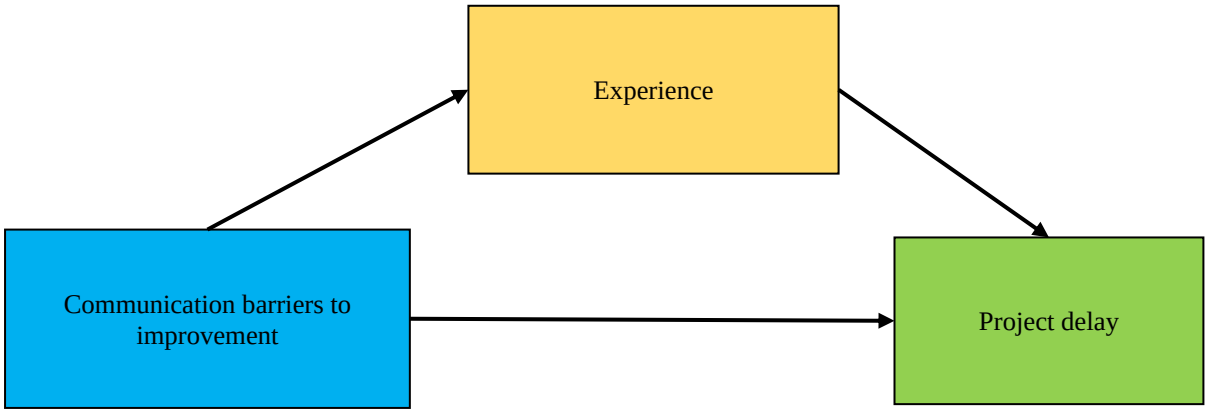

Figure 1: Conceptual model

3. RESEARCH DESIGN

3.1 Sample and data collection

The study employs a stratified random sampling method in which samples are both easily accessible and willing to participate, taking into account a representative sample of project teams from the list of delays in private housing projects in Selangor. Individuals who are actively involved in the project delay, also known as the project team, are the respondents of this study. The project team has diverse roles, including project owner, coordinator, consultant, project manager, engineer, architect, and administrator. In this study, the target population was a project team for a private high-rise residential development in Selangor because Selangor has the highest percentage of project delays in the country. Selangor leads the list with 14 projects in this category of delays for 2020. Before data collection, respondents were informed of the purpose of this study to prevent confusion and inconvenience. Twenty pairs of questionnaires were distributed to each of the fourteen project teams in Selangor. Only 215 of the 280 questionnaires were returned and completely answered by the project teams. Based on the estimated number of respondents, this indicates a response rate of approximately 77%.

3.2 Instrument

This study's questionnaire was structured according to the Auditing Organizational Communication principles (Clampitt, 2009). When creating a questionnaire, the structure of the instrument is crucial because it determines the questionnaire's specifics, including the number of questions to be asked, the scale to be used for each question, the respondents who complete the questionnaire, and how the data collected can be used to improve the response rate and the research objective. When developing the questionnaire, we used a 5-Likert scale

(1: strongly disagree, 2: strongly disagree, 3: neither concur nor disagree, 4: agree, 5: strongly agree) for all constructs: Barriers to Improvement, the field of experience, and Project Delay. The questionnaire's queries were derived from past research. The questions were devised specifically for the concept "barrier to improvement" based on the research conducted by Hussain et al. (2018).

3.3 Analytic approach

The multivariate statistical technique of structural equation modeling (SEM) permits researchers to estimate and investigate causal relationships. This method was devised in genetics to examine the combined influence of one or more independent factors represented by a path diagram, hence its common name, path analysis. According to Hair et al. (2019), mediation takes place when a third mediator variable mediates between two other related constructs. In the PLS path model, a change in the exogenous construct influences the mediator variable, affecting the endogenous construct. In the construction industry, PLS-SEM was used to determine the relationship between communication barrier experience and project delay. PLS is appropriate for determining how much the independent variables can contribute to the dependent variables and the role of a third factor that can mediate the relationship between the independent and dependent variables. This study hypothesizes that the mediating variable (experience) can moderate the association between communication barriers and project delay. This study's limited population, which restricts the sample size, is another reason for utilizing PLS. This study's population comprises project teams directly involved in project delays in Malaysia, whereas the sample size is restricted to project teams with delays in Selangor. PLS is, therefore, appropriate for analysis in this investigation.

4. RESULTS

There are ten distinct duties for team members on project teams, including project owner, administrator, site supervisor, contracting agent, project manager, engineer, quantity surveyor, project coordinator, consultant, and architect.

4.1 Measurement model

Generally, it is necessary to examine the construct's reliability and validity using a reliability test (Sekaran & Bougie, 2016). Convergent validity must be assessed to ascertain the AVE value for the investigation's latent variables. Table 1 provides a summary of the Cronbach alpha value (loading), Composite Reliability (CR), and Average Variance Extracted (AVE) results for each construct in this study. The alpha value of Cronbach's indicates that all constructs have an average or satisfactory value (between 0.6 and 0.9). Hair et al. (2019) state that CR must be greater than Cronbach Alpha (0.7), and AVE must be at least 0.5 to meet convergence validity requirements. Cronbach Alpha is 0.831, Convergent Validity is 0.876, and Average Deviation is 0.543 for the construct enhancement barrier, indicating that the internal consistency and convergent validity criteria are met. The values of CR and AVE satisfy the requirements for the project delay and experience domain: CR: 0.787, 0.785; AVE: 0.556, 0.560. Figure 2 depicts the study's measurement model. The R2 for the experience domain is 0.370, which indicates that the improvement indicators for communication barriers in this study account for approximately 37% of the experience domain indicator. In the meantime, the R2 for project delay is 0.381, which indicates that all variables examined in this study account for approximately 38% of project delay.

Table 1: Results of the Measurement Model

Constructs/indicators	Loading (CA)	Composite Reliability	(AVE)
The barrier to Improvement			
BAR1 (noise)	0.779		
BAR2 (language)	0.780		
BAR3 (culture)	0.748		
BAR4 (procedure & training)	0.673		
BAR5 (communication channel)	0.826		
BAR6 (communication plan)	0.590	0.876	0.543
Project Delay			
PD1	0.626		
PD2	0.762		
PD3	0.833	0.787	0.556
Field of Experience			
EXP1	0.842		
EXP2	0.514		
EXP3	0.841	0.785	0.560

Before conducting a structural model analysis, the measurement model of the study must also satisfy the requirements of the discriminant validity assessment. Hair et al. (2010) define discriminant validity as examining how each latent variable differs from the others and whether the variables are exclusive in evaluating the represented concept. In addition, discriminant validity was assessed using the Fornell-Larcker criterion. This technique was utilized to determine the latent variable with AVE2. To attain adequate discriminant validity, AVE2 must be greater than the correlation between other latent variables (Hair Jr et al., 2014). The results indicate that the AVE2 value of each construct is greater than its correlation value with other latent variables. This study's Fornell-Larcker criterion is presented in Table 2. It is evident from the results that the discriminant validity requirements for these data have been met.

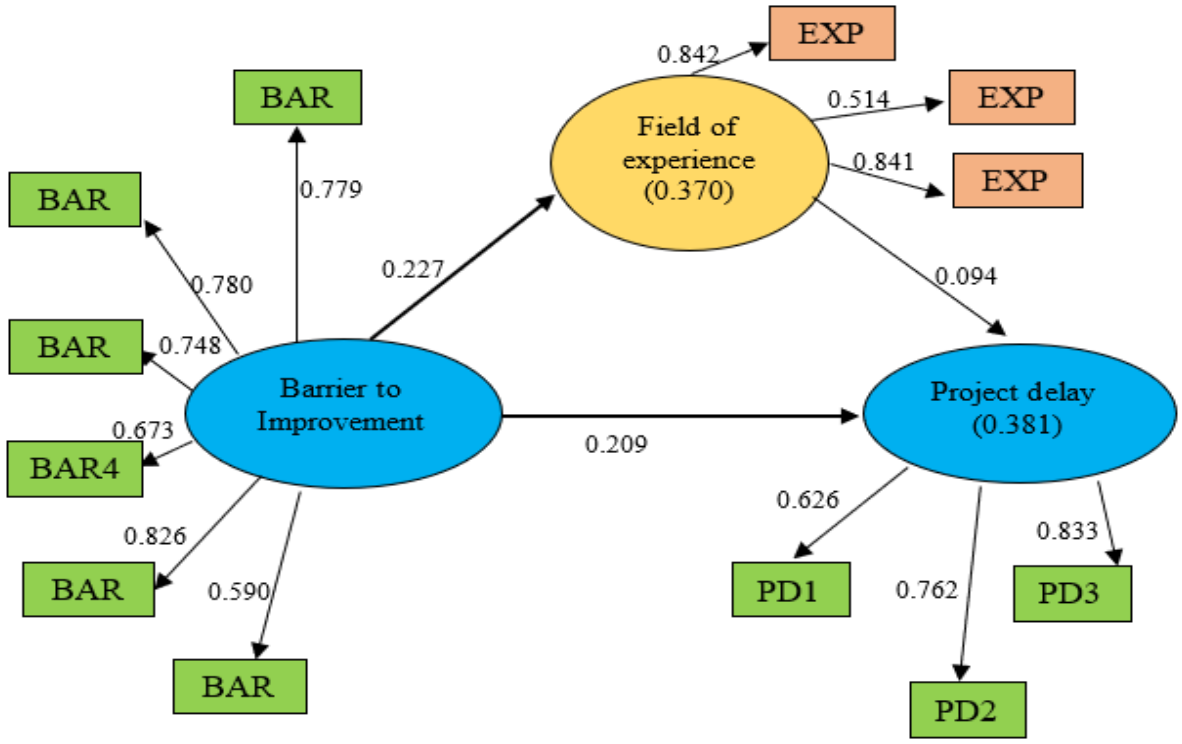

Figure 2: Measurement Model

Table 2: Discriminant Validity Fornell- Larcker Criterion

Construct	1	2	3
1- Barrier to Improvement	**0.737**		
2- Field of Experience	0.550	**0.748**	
3- Project Delay	0.513	0.423	**0.745**

4.2 Structural model

Once the measurement model analysis is completed and all the requirements have been met, the structural model analysis must be performed. Bootstrapping techniques were used to measure the relationship of the constructs. 2 steps were conducted to examine the effect of the mediating factor tested in this study. Firstly, the direct impact of the relationship between barriers to improvement and project delay was tested. The result shows that there is a positive relationship between barriers to improvement and project delay (β= 0.256, t=3.666, p<.05), and this finding is supported by the analysis of a 95% confidence interval which zero value is not included for bootstrapping (95% confidence interval t: 0.134, 0.366; 95% confidence interval BCa: (0.134, 0.361). The result is indicated in Table 3.

Table 3: Direct Effect between Barrier to Improvement and Project Delay

Relationship	Beta	t- statistic[a]	p -values	95% confidence interval bootstrapping	
				Bootstrapping -t	Bootstrapping BCa
BAR -> PD	0.256	3.666*	<0.05	(0.134, 0.366)	(0.134, 0.361)

The next step is to test the relationship between the barrier to improvement, and the field of experience mediates project delay. This is important to know whether the mediating factor affects the relationship between independent and dependent variables. The finding shows the field of experience is significant as a mediator in the relationship between barriers to improvement and project delay; BAR -> EXP -> PD (0.121, t = 2.393*, p<0.05). The 95% of confidence interval supports this result. The result is shown in Table 4.

Table 4: Mediation Effect Between Barrier to Improvement and Project Delay

Relationship	Beta	t- statistic	p- values	95% confidence interval bootstrapping	
				Bootstrapping -t	Bootstrapping BCa
BAR -> EXP -> PD	0.121	2.393*	<0.05	(0.051, 0.198)	(0.037, 0.179)

5. DISCUSSION

Several studies examine communication issues and their effects on project delivery, including project delays (Anyanwu, 2013; Galli, 2019; Kumbakonam, 2016; Malik et al., 2021; Olanrewaju, Tan, & Kwan, 2017). All of these studies demonstrate a correlation between communication difficulties and project delays. Prior studies identified improvement barriers as one of the most significant communication issues (Abuarqoub, 2019; Kapur, 2018; Valitherm & Rahman, 2014; Zulch, 2016). According to Kumbakonam (2016), it is essential to recognize how values, opinions, and attitudes vary among individuals. Empathy, the capacity to perceive another person's emotions and attitudes as if we had experienced them ourselves, is essential for circumventing cultural communication barriers. Inadequate communication procedures and training are also perceived as obstacles preventing organizations from enhancing communication performance. Comprehensive training and learning processes within an

organization can improve organizational performance (Čulo & Skendrović, 2010). Pozin and Nawi (2018) argue that employee training is essential to ensure everyone understands the job description and daily responsibilities. Even the slightest errors can be avoided if the job description and responsibilities are understood. This study extends the findings to include the moderating factor influencing the association between enhancement obstacles and project delay. In this investigation, the mediating variable is the domain of experience. According to Schramm's interactive communication paradigm (Schramm, 1997), the domain of expertise comprises a person's actions-influencing, experiences, beliefs, values, and knowledge. The perception of a subject is influenced by a person's mental state, which reflects their beliefs and values in life. According to Stans et al. (2018), the experiential field will likely influence communication flow during encoding, decoding, and signal interpretation. It has been discovered that individuals with different experience backgrounds tend to provide varying feedback, which may contribute to future inappropriate behavior. In addition, miscommunication can occur when information is misinterpreted. According to the most recent studies, the project team frequently encounters the issue of participants misinterpreting instructions and information, which has a negative impact on the entire project (Kania, Radziszewska-Zielina, & Śladowski, 2020; Kwofie, Ohis Aigbavboa, & Thwala, 2019; Nasirzadeh et al., 2022; Pandit et al., 2019). Obonadhuze et al. (2021) also stated that a project manager with great experience and strong leadership abilities should be responsible for maintaining effective workplace communication.

6. CONTRIBUTION OF THE STUDY

This study explains the impediments to development, such as communication issues contributing to project delays. In addition, this study provides empirical evidence of a significant relationship between improvement barriers to communication problems and construction project delay, as mediated by project team experience. It validates the interactive communication paradigm, incorporating both senders' and receivers' experience domains into the communication process. The results provide insight into the issues that the organization perceives as impediments to enhancing communication between project teams and their impact on the project's overall performance. Therefore, these findings can assist practitioners in the construction industry in identifying potential communication issues related to communication barriers that may impede early project progress and developing a plan to avoid these issues. By devising a plan, the risk of project delays resulting from communication breakdowns within the project team can be reduced, and the likelihood of the project meeting its deadline on time could be increased.

7. LIMITATION

Several limitations were identified in this investigation. This study concentrates on the project delays listed by the Department of Local Government, and the respondents are drawn solely from the project teams involved in the documented delays. Because time is limited and respondents are difficult to reach due to Covid 19 issues, only the Selangor project team members were chosen as respondents. Therefore, the results of this study may differ from those of studies conducted in other states to identify the communication barriers that contribute to project delays in Malaysia. As a consequence, the results of this study cannot be generalized without taking cross-cultural factors and organizational contexts into account, as the independent variables may have different effects on the dependent variables.

A further limitation pertains to the sampling method and sample size. This study's sampling method is purposive sampling, one of the non-probability samples in which the respondents determine the characteristics of the individuals who will be selected as respondents. However, the researcher can only determine the criteria, not the precise size of the study's population. Since the researcher does not have access to the databases of the organizations specified by the Ministry of Local Government as being involved in the project delay in Selangor, the total population is unknown, and the sample size is determined solely by Hair et al. (2010) and the G Power software.

Additionally, this study is restricted to the studied variables, namely communication barrier, experience, and project delay. The relationship between communication barriers and project delay was mediated by previous experience. Thus, this study's findings are restricted to the tested variables alone.

8. RECOMMENDATION

Expanding the criteria for sample selection and data collection locations in future studies is intended to enhance the generalizability of study results. To date, research has been restricted to verifying theories and structural models. As Calder, Phillips, and Tybout (1981) suggested, in terms of appropriate evaluation criteria, testing theories and structural models limit the applicability of research results to the sample frame tested. To further investigate communication phenomena and project delays, it is recommended that future research utilize a more pragmatic study design, such as the mixed method.

Future researchers may consider conducting studies on the relevant strategies to ensure that the project team is always positive and has a strong sense of teamwork, to make the leader more effective at managing the team, and to create trust between the project team and the leader. In addition, the researcher suggests conducting additional research to diversify data acquisition techniques that are not limited to questionnaires alone. According to Doherty and Nelson (2010), direct questioning methods (e.g., structured questionnaires) make it challenging to accurately measure a person's views and opinions on an issue. This is because each individual has an ego that protects their self-concept from being recognized by others (e.g., researchers) and their actual views and opinions on an issue (Doherty & Nelson, 2010; Donoghue, 2010).

9. CONCLUSION

In conclusion, this study aims to examine the role of project team experience as a moderator between project delay and development obstacles in private housing projects in Selangor. The results indicate that improvement obstacles are substantially correlated with experience area, positively predicting project delay. Consequently, the current study demonstrates that the primary mechanism by which enhancement obstacles in communication impact project delay is influenced by the project team's level of expertise.

10. DECLARATION

We certify that the submission is original work and is not under review at any other publication. The is no conflict of interest to declare.

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