

Islamic Financial Institutions' Intention on financing for Public-Private Partnership Projects in Indonesia

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ABSTRACT. *This paper aims to contribute to the body of knowledge about Islamic Financial Institutions' (IFIs) intention on financing PPP projects in an Indonesia context, and to offer substantial support to the government to facilitate the implementation of appropriate policies or enact reforms that will encourage increased IFIs financing in PPP projects. This study developed a theoretical model using the theory of planned behavior (TPB) and subsequently validated it using empirical data gathered from Islamic Financial Institutions in Indonesia. The model was tested using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed that "subjective norms" and "perceived control behavior" were the significant latent variables impacting IFIs' intention to finance PPP projects. Moreover, the most crucial observable variables affecting the private sector's intention were "positive attitudes of experienced IFIs," and "good relationship with PPP implementing company." This study highlights a significant deficiency in the existing body of literature. Although there have been several studies on Public-Private Partnerships (PPP) in existing literature, there is a scarcity of study focused on examining the key elements that influence the Islamic Financial Institutions' willingness to finance PPP projects.*

Keywords: *Public-Private Partnership; Islamic Banking and Finance, Indonesia; Theory of Planned Behavior; Structural Equation Modeling*

INTRODUCTION

Having access to basic infrastructure services is critical to creating economic opportunities and providing social services to people. World Bank research (2019) shows that—with the right policies—low- and middle-income countries need to spend an average of 4.5% of gross domestic product (GDP) to deliver infrastructure services and achieve the Sustainable Development Goals (SDGs).

To support economic growth and equity, the government of Indonesia has made general policies to accelerate infrastructure development. For this reason, funding needs for infrastructure development have continued to increase. In the National Medium Term Development Plan 2020-2024, there was an increase in the value of infrastructure investment to IDR 6,445 trillion, an increase of 34.3% compared to the 2015-2019 period. The state budget is scheduled to contribute

IDR 2,385 trillion (37%) of the total needs. To finance the remaining 63% of the infrastructure development requirements, an innovative approach is necessary to encourage the participation of the non-resource envelope fund/private sectors (Bappenas, 2023).

Public-Private Partnerships (PPPs) are legally binding agreements between the government and private companies that aim to implement public infrastructure projects and provide associated services (Gupta & Verma, 2020; S. Zhang et al., 2014). Within PPP schemes, it is essential for the public sector clients to ensure that they receive good value for the money they spend, while the private sector service providers must take on the responsibility for the risks associated with the project (Akintoye et al., 2003). The widespread use of public-private partnerships (PPP), combined with varying definitions and experiences, led to various perspectives on PPP. (Azarian et al., 2023) assessed researched published related to PPP and conclude that PPP has made significant contributions to multiple sectors, including urban development, public infrastructure, transportation, health, and education, among others. Furthermore, the study of the economic and organizational management of public-private partnerships (PPP) was identified as a significant area of research, which was closely linked to the concept of sustainable development. Economic and environmental sustainability are the primary interconnected factors that influence the drivers and features of PPP.

In the context of Indonesia, the government's focus on building cooperation between the public and private sectors for financing and procurement of infrastructure in Indonesia has begun since the 1990/1991 Financial Note. Starting in the early 1990s, the Indonesian government actively encouraged the involvement of the private sector in investment to address the financing challenges in infrastructure development. Interestingly, the Government and Private Cooperation Scheme can be traced back to the construction of the Jakarta-Bogor-Ciawi (Jagorawi) toll road in 1974 (Toyib and Nugroho, 2018). Over time, the government has introduced various regulations that support to facilitate the implementation of the government and private cooperation scheme in infrastructure provision. In 2005, the first special PPP regulations were published, which specifically dealt with the provision of infrastructure under the PPP framework.

According to the Presidential Decree No. 38 of 2015, the term Public-Private Partnership (PPP) in Indonesia refers to “cooperation between the Government and Business Entities in the provision of infrastructure and/or services for the public interest refers to the specifications previously set by the government, which partly or wholly use the resources of business entities by considering the distribution of risks between the parties”.

Based on the PPP Book 2023 published by Bappenas, there are 34 successful projects, 2 projects ready to be offered, 50 projects in preparation, and 18 projects already auctioned. The criterion for a successful project is to have obtained financial closure or to be in the construction and operation phase. The auctioned project consists of the project solicited and unsolicited. The existing PPP projects currently can be funded by either the Conventional Financial Institution or the Islamic Financial Institutions (IFIs), as was the case with the Cikampek toll road, Balikpapan-Samarinda toll road, Makassar-Parepare

Railway, and several other PPP projects. Of 34 successful projects listed in PPP Book 2023, there are 11 PPP projects funded by the IFIs with a total funding of IDR 14,54 trillion (see Table 2). This value is still relatively small when compared with the total value of 34 PPP projects that are already in the construction and operation phase that reaches more than IDR 291 Trillion (Bappenas, 2023).

Table 1. PPP evolution in Indonesia

2005	Issuance of the first PPP regulation: Presidential Regulation No. 67 concerning Public Private Partnership for Infrastructure Development
2009	<ul style="list-style-type: none"> ▪ Issuance of the first PPP Book ▪ Establishment of PT Sarana Multi Infrastruktur (SMI) and PT. Penjaminan Infrastruktur Indonesia (PII) as Ministry of Finance’s Special Mission Vehicles to Finance and Guarantee Infrastructure Projects.
2010-2014	<ul style="list-style-type: none"> ▪ Establishment of PT. Indonesia Infrastructure Finance (IIF) by PT. SMI, Asian Development Bank (ADB), International Finance Corporation (IFC) and Deutsche Investitions-und Entwicklungsgesellschaft mbH (DEG). ▪ Preparation of Project Development Facility (PDF) for the first two PPP projects (Umbulan SPAM and Airport Train). ▪ Signing of the first PPP project (Central Java Power Plant). ▪ Implementation of Viability Gap Fund (VGF) as government support to improve financial feasibility. ▪ Establishment of the Committee for the Acceleration of Providing Priority Infrastructure (KPPIP).
2015	<ul style="list-style-type: none"> ▪ Issuance of Presidential Decree No. 38 concerning Public Private Partnership in Infrastructure Development. ▪ Implementation of Availability Payment as a return-on-investment scheme.
2016-2019	<ul style="list-style-type: none"> ▪ Achievement of PPP projects continues to grow (4 projects in operation, 10 projects in construction, 19 projects in PDF preparation) ▪ Establishment of Islamic window of PT. SMI ▪ Establishment of PPP Joint Office as a coordination forum ▪ First Islamic PPP project was initiated in Aceh
2020 – 2021	<ul style="list-style-type: none"> ▪ Adoption of Quality Infrastructure Investment principles in the preparation stage to improve the quality aspects of infrastructure projects.
2022 - 2023	<ul style="list-style-type: none"> ▪ Launch of the ESG policy for government support on infrastructure financing ▪ Development of creative financing schemes ▪ Issuance of Fatwa DSN-MUI No. 156 regarding Implementation of Sharia Principles in Infrastructure Provision Activities through Public Private Partnership based on Availability Payment

	<ul style="list-style-type: none"> Issuance of Regulation of the Minister of National Development Planning No. 7 of 2023 on the Implementation of Cooperation between Government and Enterprise Agencies in the Provision of Infrastructure
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Source: Data processed by the author, 2024

Table 2. Islamic financing on Successful PPP projects

No	Successful PPP projects in PPP Book 2023	Estimation Project Cost (Rp Billion)	Islamic Financing (Rp Billion)
1	Makassar – Parepare Railway	991	693
2	Anggrek Port	1,420	-
3	Proving Ground Motor Vehicle Roadworthiness Testing and Certification Agency Bekasi	1,740	-
4	Manado - Bitung Toll Road	5,782	-
5	Batang - Semarang Toll Road	12,410	-
6	Pandaan - Malang Toll Road	6,730	-
7	Jakarta - Cikampek Elevated	18,235	1,830
8	Krian-Legundi-Bunder-Manyar Toll Road	13,724	700
9	Balikpapan - Samarinda Toll Road	11,198	1,105
10	Semarang – Demak Toll Road	5,440	1,351
11	Cileunyi - Sumedang - Dawuan Toll Road	9,021	5,500
12	Serang -Panimbang Toll Road	5,717	1,800
13	Probolingo Banyuwangi Toll Road	10,837	-
14	Multilane Free Flow Toll Transaction System	4,400	-
15	Callender Hamilton Bridges in Trans Java Main Corridor	2,355	-
16	South Sumatera Non-Toll Road Preservation	984	645
17	Serpong - Balaraja Toll Road II	6,774	-
18	Jakarta - Cikampek South Toll Road	25,094	-
19	Yogya - Bawen Toll Road	14,260	-
20	Solo – Yogyakarta – NYIA Kulon Progo Toll Road	26,630	450
21	Riau Non-Toll Road Preservation	526	420
22	Gilimanuk-Mengwi Toll Road	25,028	-
23	West Semarang Water Supply	423	-
24	Bandar Lampung Water Supply	1,206	-
25	Umbulan Water Supply	2,054	-
26	Pekanbaru Water Supply	500	-
27	Jatiluhur I Regional Water Supply	1,674	-
28	Nambo Regional Waste Management	648	-
29	West Palapa Ring	1,279	-
30	Central Palapa Ring	1,044	-
31	East Palapa Ring	5,642	-
32	Central Java Power Plant	61,320	-
33	Multifunction Satellite	6,585	-
34	Madiun Street Lighting	114	45
	TOTAL	291,784	14,539

Source: Bappenas and Government Contracting Agencies, 2023

Islamic financing for PPP projects and infrastructure is not new in the realm of Islamic finance. In 2005, the PPP project Hospital in Konya, Turkey received funding from the Islamic Development Bank (IsDB) through an Istisna contract. Alongside conventional financial institutions, Islamic financing has provided funding for a number of PPP initiatives, including the Doraleh Container Terminal project in Djibouti and the capacity-building project at Queen Alia

International Airport (QAIA) in Jordan (World Bank & IsDB, 2019). The characteristics of the PPP scheme in general do not violate sharia provisions, because infrastructure projects are asset-backed, there are no activities prohibited in sharia law, and use the principles of cooperation and risk-sharing, so that infrastructure projects are the right sector to be financed by Islamic financial schemes (Kasri & Siddiq, 2022; Kasri & Wibowo, 2015; Rarasati et al., 2014; World Bank & IsDB, 2019).

Financial institutions as financiers play an important role in the successful implementation of PPP projects, because the private sector usually has limited capital to fund the entire project, so it requires funding from financial institutions. Islamic financial institutions are one source of funding that can help private sector achieve financial close. Given their important role as financing providers, knowing their perceptions or attitudes towards PPP can help map their interest in financing PPP projects (Chiang & Cheng, 2009), which in turn is expected to increase their involvement in financing PPP projects. The decision of Islamic financial institutions to provide financing is a reflection of the recommendations of individuals involved in business and risk analysis and individual decision makers on the PPP project. This study aims to determine the interest of Islamic Financial Institutions using the Theory of Planned Behavior (TPB) lens.

LITERATURE REVIEW

Theory of Planned Behaviour

The Theory of Reasoned Action (TRA), proposed by Fishbein and Ajzen (1975), states that individual behavior can be influenced by personal volition. However, this hypothesis failed to take into account several elements that influence a person's goals, therefore in 1985, Ajzen proposed TPB as an improvement over TRA. This new theory introduced the concept of perceived behavioral control (PBC) to overcome the limitations of the TRA. TPB states that individual behavior is primarily determined by behavioral intentions, which are influenced by attitudes, subjective norms, and perceived behavioral control.

In the many branches of study examining the impact of information and motivation on individual behavior, TPB is the most influential theory (Koon et al., 2020), and has been cited in more than 93,300 citations by the end of 2021 (Rana et al., 2022). TPB has developed into a major theory and has practical applications in various fields of human behavior. There are several inspirational variables that shape behavior, according to Ajzen (1985) and (East, 1993). These include attitudes, subjective norms, and perceived behavioral control. These three variables are determinants in shaping intentions for behaviors.

Ajzen (1991) defines attitude as a person's level of support in judgment to perform a behavior. Attitude is individuals' beliefs towards the potential outcomes of engaging in a particular behavior, as well as their assessment of whether those outcomes are positive or negative (Yadav & Pathak, 2017). An individual's positive or negative attitude towards a behavior affects the intention and execution of that behavior (Khan et al., 2020). Financing PPP projects is one of the investment decisions made by Islamic financial institutions. Previous research explains that there is a significant influence between attitudes and investment intentions (Adam & Shauki, 2014; Adil et al., 2022; Akhtar & Das, 2019; Ali, 2011; Alleyne & Broome, 2011; Marwan et al., 2023; Raut, R. K.; Das, 2017;

Sondari & Sudarsono, 2015), although in research conducted by (Gamel et al., 2022), it was found that attitudes had no significant effect on investment intentions in wind energy projects.

Subjective norms are social pressures to perform or not perform a behavior and are the result of perceptions that a person receives from his social environment (Ajzen, 2005). In the field of investment behavior, previous research shows that subjective norms are variables that have a significant effect on behavioral intentions (Adam & Shauki, 2014; Gamel et al., 2022; Marwan et al., 2023). Perceived behavioral control is a person's control over the behavior performed. This is related to the ease /difficulty encountered in performing these behaviors. This variable is used to measure a person's level of control over the resources needed to carry out a behavior (Ajzen, 2002).

Although the TPB was originally developed to study individual behavior, it has also been adapted by various studies to answer research problems at the organizational level (Koropp et al., 2014; Liu et al., 2023; Memon et al., 2021; Yang et al., 2020; Y. Zhang et al., 2018). (Koropp et al., 2014) used TPB to analyze the financial choices of family firms. (Yang et al., 2020; Y. Zhang et al., 2018) used TPB in analyzing the interest of private companies to participate in PPP projects. The applicability of the TPB framework at the organizational level demonstrates the theory's utility.

Islamic Finance and Public Private Partnership

The origins of Islamic finance can be traced back to the advent of Islam in the 7th century. Early Islamic economic thought emphasized the prohibition of usury (*riba*) and promoted fair trade practices. The concept of risk-sharing and equity-based partnerships (*mudharabah* and *musharakah*) were the foundation of financial transactions during this period. The literature explores the evolution of Islamic financial institutions and their revival in the late 20th century, with the establishment of the first Islamic banks and financial instruments (Ayub, 2007).

In general, the Public Private Partnership (PPP) concept aligns with both Islamic doctrine and economic concepts and practices (Gundogdu, 2019; Kasri & Siddiq, 2022). In Islamic ideology, the economy holds significant significance in attaining the ultimate objective of humanity, which is the realization of *falah* (the triumph in both worldly life and the afterlife). The asset-backed nature of Islamic finance structures and their emphasis on shared risks make them a natural fit for infrastructure PPPs (World Bank Group, 2017).

The ideals of cooperation and fairness are fundamental in Islamic economics, and they are integrated into the notion of Public-Private Partnership (PPP). To be more precise, the notion of cooperation is explicitly elucidated in verse 2 of QS Al-Maidah: ‘... *And you should collaborate in practicing moral and religious principles, and refrain from assisting in wrongdoing and hostility.*’ The PPP idea embodies the notion of collaboration, which entails a collaborative and mutually beneficial relationship between the public and private sectors. The collaboration between governmental institutions and private partners in this initiative exemplifies the significant importance of cooperation in its implementation. Justice, a crucial value in Islamic economics, is primarily manifested in transaction structures that are founded on profit and loss sharing. This principle aligns with the setting of PPP implementation. The separation of responsibilities

and hazards between the two collaborating entities is clearly outlined, as shown in Klijn & Teisman (2003) study.

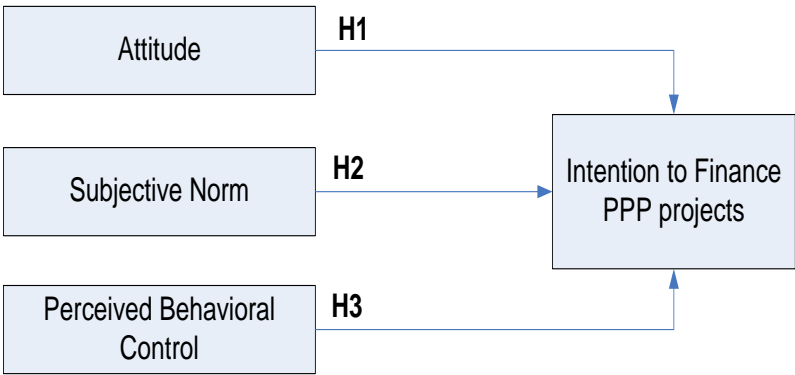
Historically, Islamic partnership contracts similar to the notion of Public-Private Partnership (PPP) in funding public projects have been observed since the Middle Ages (Ebrahim, 1999). Çizakça (1996) supports this discovery by indicating that marine projects during the peak of the Ottoman monarchy were funded through profit sharing or *mudharabah* agreements.

Nevertheless, the advancements in Islamic banking and finance, as well as the creation of related literature, have not been adequately established in the realm of Islamic financing for public private partnership. Muslim countries are trying to continue build their infrastructure with the PPP scheme that they acquired from the West. The lack of alignment between conventional financial specialists and Islamic principles and procedures, as well as the limited expertise and experience of Islamic *fiqh* scholars in public infrastructure financing, has significantly hindered the progress of this sector. This disparity was also evident in the literature, with Islamic financing for public private partnership not receiving adequate emphasis.

RESEARCHMETHOD

According to TPB theoretical model, there are three latent variables that may influence the behavioral interest of Islamic financial institutions (IFIs) to finance PPP projects. Figure 1 shows the TPB model developed for this study.

Figure 1. Hypothetical model



Source: Data processed by the author, 2024

The following hypotheses were proposed in the hypothetical model (Figure 1):

- Hypothesis 1 (H1):** The IFIs’ attitude toward PPP financing has a direct and significant effect on the behavioral intention of the IFIs to finance PPP projects.
- Hypothesis 2 (H2):** The subjective norm of the IFIs regarding financing for PPP projects has a direct and significant effect on the behavioral intention of the IFIs to finance PPP projects.

Hypothesis 3 (H3): The IFIs’ perceived behavioral control over financing for PPP financing has a direct and significant effect on the behavioral intention of the IFIs to finance PPP projects.

This research tests these hypotheses and provides informative results regarding the key elements that influence the IFIs' intention to finance PPP projects. Identifying and comprehending these characteristics might help the government formulate policies that encourage the active involvement of the IFIs in PPP projects.

Latent Variables and Observable Variables

Observable variables are those that can be directly measured, while latent variables are those that cannot be directly measured and can only be inferred from the observable variables. The questionnaire for this study was developed based on the recommendations put out by Ajzen and Fishbein (1980), and the items were derived from prior pertinent studies and adjusted to suit the requirements of this study, as shown in Table 3. The questionnaire utilized tools that were categorized into two sections. The initial section of the study focuses on gathering demographic information from the respondents, including job position, company category, company total assets, years of working in IFIs and years of working in commercial/corporate financing. The second part of the study consists of a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). This section assesses the constructs used in the study, namely attitude towards PPP financing, subjective norms, Perceived Behavioral Control, and intention to finance PPP projects.

Table 3. Latent variables and observable variables

Latent Variables	Code	Questions	Reference
IFIs’ attitude toward financing PPP projects.	X11	Finance PPP projects is profitable for my company/institution	(Y. Zhang et al., 2018) and (Gundogdu, 2019)
	X12	Finance PPP projects contributes to increase access to the infrastructure and public service	
	X13	Finance PPP projects contributes to increasing market share	
	X14	Finance PPP projects can promote enterprise development and strategic transformation	
	X15	Finance PPP projects can establish company’s reputation and social image	
	X16	Finance PPP projects align with Maqasid Shariah value	
Subjective Norm	X21	Most of the competitors finance PPP projects actively	(Raut, R. K.; Das, 2017; Y.
	X22	The government encourages my	

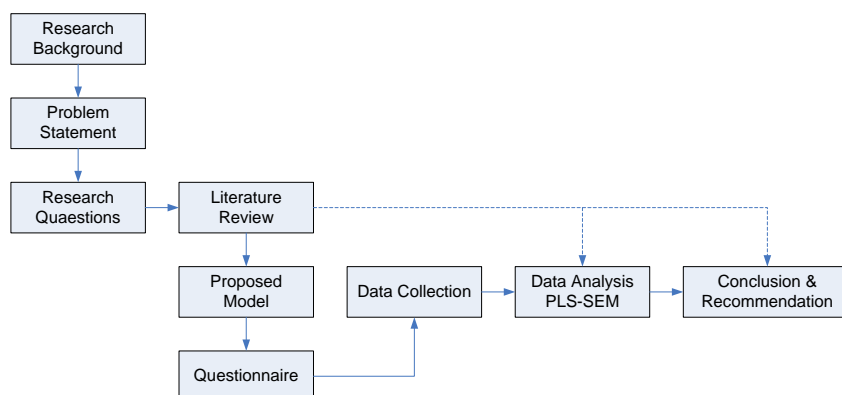
		institution to finance PPP projects	Zhang et al., 2018)
	X23	Implementing Company support my institution to finance PPP projects	
	X24	IFIs with PPP financing experiences have a positive attitude towards PPP	
Perceived Behavioral Control	X31	My company has adequate funds to finance PPP projects	(Y. Zhang et al., 2018)
	X32	My company has the technical strength to analyze PPP projects	
	X33	My company has adequate PPP project financing experiences	
	X34	My company has good cooperative relationship with the PPP implementing company	
	X35	My company has good cooperative relationship with the government—the initiator of PPP projects	
	X36	My company can easily acquire relevant information on the PPP projects to be initiated	
IFISs' intention to finance PPP projects	Y11	My company intends to finance PPP projects	(Y. Zhang et al., 2018)
	Y12	My company will increase the share of portfolio in PPP project financing	
	Y13	My company is willing to recommend IFIs to finance PPP projects	
	Y14	Compared to other financing, my company is more willing to finance PPP projects	

Source: Data processed by the author, 2024

Research Design

A three-step study technique was utilized to examine the key characteristics that impact the IFIs' intention to finance for PPP projects. A thorough examination of existing literature was undertaken to gather information. Based on this review, a theoretical model, specifically based on the Theory of Planned Behavior (TPB), was presented for this study. Next, a survey questionnaire was created using the theoretical model and given to the intended participants to collect data. Finally, the data acquired from the questionnaire survey was analyzed using partial least squares structural equation modeling (PLS-SEM) using SmartPLS 4 to empirically examine the proposed theoretical research model. The comprehensive research design is illustrated in Figure 2 below.

Figure 2. Research Design



Source: Data processed by the author, 2024

A questionnaire survey was undertaken to gather professionals' perspectives of IFIs' intention of financing for PPP projects, to test the theoretical model and research hypotheses. The development of the survey was created using the observable factors obtained from the literature review. The completed questionnaire included two sections. The initial section was formulated to gather the background information of the respondents and their respective firms. The subsequent section required the respondents to evaluate the survey topics using a five-point rating system, ranging from 1 (strongly disagree) to 5 (strongly agree). The five-point rating scale has been more extensively employed compared to other scales, such as the seven-point scale, nine-point scale, and so on. The five-point rating scale is easily understandable to participants and has the potential to generate evaluation outcomes with greater dependability (Babakus & Mangold, 1992).

The intended participants for the questionnaire survey were Board of Directors and employees specifically from the IFIs in Indonesia. Addition to existing Islamic Banks in Indonesia, there are three institutions that included in the survey: Badan Pengelola Keuangan Haji (BPKH), Islamic Development Bank (IsDB) and Islamic window of PT. Sarana Multi Infrastruktur (SMI). BPKH is institution that manage Indonesia Hajj Fund, even though currently BPKH is not yet giving financing to PPP projects, BPKH is allowed to finance PPP projects either directly or syndicated with Islamic banking, preferably for projects related to education and health, therefore BPKH is one of potential investor for financing PPP projects. IsDB is a multilateral development finance institution that focuses on Islamic finance for infrastructure development. It has been finance PPP projects in Djibouti, Jordan, Pakistan, and Turkey (World Bank & IsDB, 2019). IsDB has regional hub in Indonesia, and PPP development is one of partnership strategy for Indonesia (Islamic Development Bank, 2022), therefore it is relevant to be included in participating as questionnaire respondent. PT Sarana Multi Infrastruktur (PT SMI) is a state-owned company that supports the fulfillment of the government's infrastructure development objectives by implementing projects

through public-private partnerships. PT SMI mobilizes resources from multilateral and bilateral financial institutions to finance infrastructure projects, focusing on sustainable development and climate resilience in Indonesia. In 2017 it launched islamic business unit to provide Islamic financing for infrastructure projects. Until 2023, Islamic window PT. SMI has financed 5 PPP projects in Indonesia.

The online questionnaires were distributed via email and personal WhatsApp to Islamic banking and finance practitioners who attended the PPP business matching event in Indonesia Sharia Economic Festival (ISEF) 2023, which held on October 2023, secretariat of Indonesian Islamic Banking Association and from researcher's database.

Data

Questionnaire has been distributed on 16-30 April 2024 and received 51 respondents, which 49 respondents meet the criteria and 2 respondents didnt meet the criteria. Respondent that meet the criteria are director and employee of Islamic Financial Institutions that has experienced in commercial or corporate financing. Table 4 displays the demographic characteristicsz of the respondents. More than 50% of respondents are top and middle management, with majority has more than 7 years experiences in commercial or corporate financing in Islamic Financial Institutions. Additionally, the surveyed organizations represent a diverse variety of companies/institutions. 55% respondents work in full fledge Islamic Bank, 24% work in Islamic window, 10% work in PT. SMI, 6% work in BPKH and 4% work in IsDB.

Hair et al., (2022) states that the minimum sample size guidelines in PLS-SEM analysis are equal to or greater than (1) ten times the largest number of formative indicators used to measure a construct or (2) ten times the largest number of structural paths that lead to a particular construct. However, these guidelines are rough guideline and suggests to use Cohen's (1992) approach which considers statistical power and effect size when determining the minimum sample size. In this study, maximum number of arrows pointing at a construct are 4 (four), with significant level of 5% and minimum R2 at 0.5, minimum sample size is 18, therefore 49 samples in this study are sufficient to be analyzed.

Figure 2. Research Design

Attributes	Categories	N	%
Job Position	Top Management	3	6%
	Middle Management	24	49%
	Officer	21	43%
	Other	1	2%
Company Category	National full fledge Islamic Bank	19	39%
	Regional full fledge Islamic Bank	8	16%
	National Islamic window	3	6%

	Regional islamic window	9	18%
	Islamic Unit PT. SMI	5	10%
	Badan Pengelola Keuangan Haji (BPKH)	3	6%
	Islamic Development Bank	2	4%
Company Total Assets	Less than Rp 20 trillion	17	35%
	Rp 20 trillion - less than Rp 40 trillion	3	6%
	Rp 40 trillion - less than Rp 60 trillion	2	4%
	Rp 60 trillion - less than Rp 100 trillion	5	10%
	More than Rp 100 trillion	22	45%
Years of working in Islamic Financial Institutions	Less than 2 years	1	2%
	2 to 5 years	12	24%
	5 to 7 years	7	14%
	more than 7 years	29	59%
Years of involvement in commercial or corporate financing	Less than 2 years	3	6%
	2 to 5 years	9	18%
	5 to 7 years	8	16%
	more than 7 years	29	59%

Source: Data processed by the author, 2024

Partial Least Square Structural Equation Modeling

The hypothetical model (Figure 1) was analyzed utilizing the SEM technique with Smart-PLS 4. In order to authenticate the model, we employed Smart-PLS to analyze the data in a dual-step procedure encompassing estimations for the structural and measurement models. Measurement Model was utilized to evaluate metrics such as the dependability of components and their interrelationships, whereas SEM was employed to analyze the relationships between the four constructs. A component-focused approach investigates the relational dimensions of the research. The rationale for selecting PLS-SEM over alternative covariance-based methods was that it enables researchers to dependably evaluate calculations and factor structure. Furthermore, this inquiry can be executed using a limited sample size due to the ability of PLS-capable SEMs to integrate numerous measurement scales. This paradigm serves a dual purpose of being instructive and reflective for scholars. The PLS approach is widely accepted during the initial phases of model construction, as is the case in this study.

Table 5. Construct Reliability and Validity

Latent Variables	Items	Factor loading	Cronbach's alpha	Composite reliability	AVE
IFIs' attitude toward financing PPP projects.	X11	0.923	0.93	0.95	0.825
	X12	0.895			
	X15	0.918			
	X16	0.897			
Subjective norms	X21	0.731	0.698	0.933	0.824
	X22	0.799			
	X24	0.834			
Perceived Behavioral Control	X32	0.85	0.838	0.902	0.755
	X34	0.899			
	X36	0.857			
IFISs' intention to finance PPP projects	Y11	0.926	0.893	0.832	0.623
	Y13	0.906			
	Y14	0.891			

Source: Data processed by the author, 2024

As stipulated in the literature, the factor loadings of the articles examined all complied with the stipulation that they ought to exceed 0.708 (Hair et al., 2012). Consequently, the decision was made to exclude from the model any components that possessed load coefficients below 0.70. As the significance level, composite reliability was calculated in the second step. Thirdly, the convergent validity was taken into account using the calculation of Average Varian Extracted (AVE). The minimum value of AVE is 0.5 to conclude the model is valid (Fornell, C., & Larcker, 2016).

Table 6. Cross loadings of individual observable variables

Observable Variables	ATT	SN	PBC	INT
X11	0.923	0.626	0.624	0.519
X12	0.895	0.502	0.581	0.434
X15	0.918	0.587	0.617	0.539
X16	0.897	0.512	0.522	0.381
X21	0.482	0.731	0.47	0.49
X22	0.413	0.799	0.517	0.488
X24	0.557	0.834	0.634	0.621
X32	0.684	0.675	0.85	0.582
X34	0.483	0.524	0.899	0.646

X36	0.535	0.619	0.857	0.493
Y11	0.528	0.622	0.638	0.926
Y13	0.439	0.602	0.606	0.906
Y14	0.458	0.635	0.571	0.891

Source: Data processed by the author, 2024

Internal consistency reliability is commonly assessed by composite reliability and Cronbach's alpha.

According to Hair et al., (2011), it is recommended that all composite reliability values should exceed 0.6. Cronbach's alpha is a statistical measure that helps assess the extent to which observable variables accurately represent and measure a latent variable. It is recommended that all Cronbach's alpha values should exceed 0.60 to ensure that the observable variables adequately capture and measure the latent variables (Fornell, C., & Larcker, 2016; Tonglet et al., 2004). Table 5 demonstrates that the composite reliability and Cronbach's alpha values for each latent variable exceed 0.6, indicating strong correlations among the observable variables within the latent variable's domain.

According to Campbell & Fiske (1959), one must conduct a discriminant validity test in order to determine the degree to which a particular observable variable differs from others. Cross-loadings analysis, which has been utilized extensively to assess the discriminant validity of measurement models, was also implemented in the current study. The findings presented in Table 6 demonstrate that the loading of each observable variable on its corresponding latent variable was the highest, suggesting that the discriminant validity was satisfactory.

Table 6. Cross loadings of individual observable variables

	ATT	INT	PBC	SN
Attitude (ATT)	0.908			
Intention (INT)	0.524	0.908		
Perceived Behavioral Control (PBC)	0.65	0.667	0.869	
Subjective Norms (SN)	0.619	0.682	0.692	0.789

Source: Data processed by the author, 2024

A further test for assessing discriminant validity is using the Fornell-Larcker criterion. This method compares the square root of the AVE score with the latent variable correlations, each construct's square root of AVE was greater than the value of its correlation, thereby establishing discriminant validity (Chin, 1998). Following Cenfetelli & Bassellier's (2009) guideline, the square root of the AVE for each latent variable should exceed the correlation between any two latent variables. Table 7 presents these comparisons, with the bold diagonal numbers representing the square roots of AVEs, which are higher than the off-diagonal elements in the same rows and columns. These findings confirm that no

correlation between latent variables exceeds the square roots of AVEs, thus validating the measurement model’s discriminant validity.

RESULTS AND DISCUSSION

Using the bootstrapping technique, the relationships between the various latent variables and, consequently, the pertinent study hypotheses, were evaluated. The path coefficients and the relevant p-values are displayed in Table 8, together with the t-value for each structural path. A p-value lower than or equal to 0.05 while the t-value remains greater than or equal to 1.96 indicates that the hypothesis was proved at the significance level of 0.05; a p-value lower than or equal to 0.01 while the t-value is greater than or equal to 2.58 indicates that the hypothesis was proved at the significance level of 0.01; a p-value lower than or equal to 0.001 while the t-value is greater than or equal to 3.26 indicates that the hypothesis was proved at the significance level of 0.001 (Hair et al., 2021).

Table 8. Hypothesis testing

Hypothesis	Path	Coefficient	P values	T statistics	Interpretation
					Not
H1	ATT → INT	0.036	0.847	0.193	Supported
H2	SN → INT	0.412	0.009	2.599	Supported
H3	PBC → INT	0.358	0.015	2.425	Supported

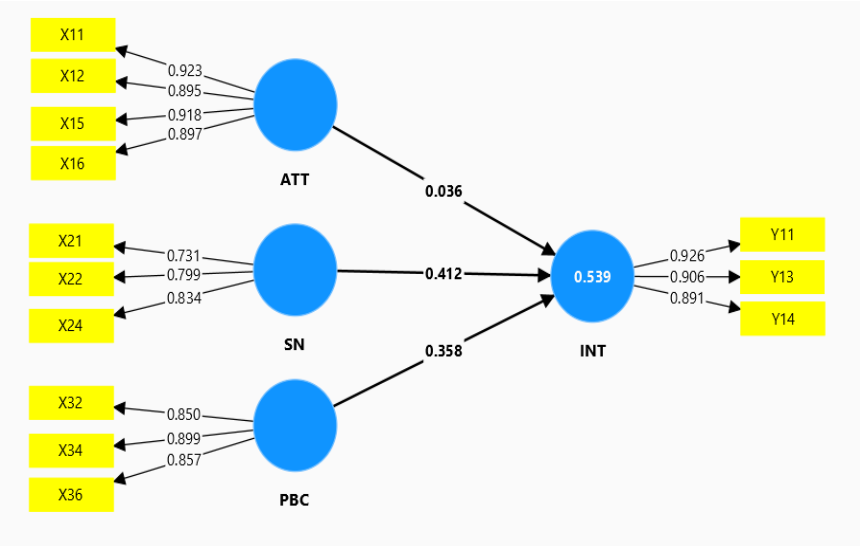
Source: Data processed by the author, 2024

The final PLS-SEM results supported two hypotheses -H2 and H3- each of which had acceptable p-value below 0.05, indicating that these hypotheses were supported at the 0.05 significance level. Hypothesis 1 was not supported by the PLS-SEM results, as its p-value (0.847) was greater than 0.05 and its t-value (0.193) was also less than 1.96. Figure 3 presents the final structural equation model of factors influencing the intention of the Islamic Financial Institutions to finance PPP projects.

Figure 3 shows that subjective norm (SN) is the most influential latent variable affecting the IFIs’ intention to finance PPP projects, as evidenced by the highest path coefficient of 0.412 between SN and INT. This suggests that the IFIs’ intention to finance PPP projects is primarily influenced by their perceived social pressure in financing PPP projects. The more social pressure of peers or government to finance PPP projects, the more likely it is to finance PPP projects. Among the observable variables under SN, attitudes of experienced IFIs (X24) emerged as the most significant factor influencing the IFIs’ intention to finance in PPP projects, as it received the highest factor loading of 0.834. It means that the more IFIs agree of IFIs that has experienced in financing PPP have positive attitude towards it, the more likely their intention to finance PPP projects. Another significant factor under SN is encouragement from goverment (X22) with factor loading of 0.799. Government of Indonesia through national committee of islamic economy and finance along with ministry of public works and housing encourage IFIs to finance PPP projects through business matching event that bring together

IFIs and PPP implementing business entity and present PPP projects that ready to finance (Shadrina, 2023).

Figure 3. PLS Graphical Output after Items reduction



Source: Data processed by the author, 2024

Another latent variable that significantly influence IFIs’ intention to finance PPP projects is perceived behavioral control (PBC), with path coefficient of 0.358. It could therefore be concluded that the IFIs’ intention of financing PPP projects is also affected by their own capabilities and resources. The greater the capabilities and resources of the IFIs, the more likely they were to finance PPP projects. Among the observable variables under PBC, good relationship with PPP implementing agency (X34) was found to be the most significant factor in influencing IFIs’ intention to finance PPP projects, as it received the highest factor loading under PBC (factor loading = 0.889). Other significant observable variable under PBC is “information superiority”. The greater IFIs’ information superiority, the more likely they were to finance PPP projects.

As shown in Table 8, the IFIs’ attitude toward PPP financing did not significantly influence its intention to finance PPP projects (Path coefficient = 0.036). This results indicate that IFIs attitude toward PPP financing, such as profitability, gain acces to the markets of infrastructure and public service, establish reputation and social image and allign with Maqasid Shariah value, have minimal impact on the IFIs’ intention to finance PPP projects.

According to Ajzen (1991), attitude toward behavior and perceived behavioral control are internal factors that pertain to the organizations or individuals themselves. On the other hand, subjective norm is an external factor that primarily concerns the influence of "significant others" on the organization or individual. In this study, external factor has more significant influence on IFIs’ intention to finance PPP projects. However, this study did not measure actual

behavior of IFIs on financing PPP projects, whether the intention of financing PPP projects has direct and significant effects on the actual IFIs financing for PPP projects.

CONCLUSION

Financial close is crucial for forming a PPP. Financial close can be attained by credit or financing from conventional financial institutions or IFIs. However, the willingness of IFIs to engage in PPP projects has received limited attention. This study aimed to address this gap by examining the key factors influencing IFIs' intention to finance PPP projects. To achieve this, a theoretical model based on the Theory of Planned Behavior (TPB) was proposed and tested using data collected from Indonesia practitioners working in IFIs through an empirical questionnaire survey. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze the data and test the research model. The findings revealed that "subjective norms" was the most significant latent variable influencing IFIs' intention to participate in PPP projects, followed by perceived behavioral control. This result indicates that external parties (competitors, government, PPP implementing company, and experienced IFIs) significantly affect IFIs' intention to finance PPP projects. The most significant observable variable was the subjective norm of IFIs on "attitudes of experienced IFIs" and perceived behavioral control of "good relationship with PPP implementing company". The more respondent agrees that experienced IFIs has positive attitude toward PPP financing, the more likely they intend to finance PPP projects, and the more respondent have good relationship with PPP implementing company, the more likely they intend to finance PPP projects. Conversely, the results indicate that IFIs' attitude toward PPP financing had no significant effect on their intention to finance PPP projects, suggesting that the decision-making of the IFIs is not substantially influenced by internal attitudes towards PPP financing.

This research establishes a substantial contribution to the existing corpus of knowledge on PPP by conducting the first empirical examination of the factors that influence Islamic Financial Institution intentions in financing PPP projects in Indonesia. In practice, this study identified two noteworthy observable variables that significantly influence the IFIs' intention to finance for public-private partnership (PPP) projects. The findings suggest that external positive attitude toward PPP financing is the most crucial determinant for IFIs regarding their subjective norm to consider PPP financing. Furthermore, good relationship with PPP implementing company also a significant factor for IFIs when considering for financing PPP projects.

Despite accomplishing the intended research goals, this study is not without its limitations. Predominantly opinion-based, this study employed data that may have been subject to bias on account of the respondents' varied experiences, attitudes, and perceptions. Further, it is important to exercise caution when extrapolating the results of this study to other nations, as they were derived within the specific context of Indonesia. Exploring the apprehensions of IFIs that opt out of participating in financing PPP projects would constitute a highly intriguing area for future scholarly inquiry. Exploring PPP implementing company intention for Islamic financing would give more comprehensive insight on Islamic financing for PPP projects from different point of view. Developing an all-encompassing

array of strategies to encourage IFIs involvement in public-private partnership (PPP) initiatives would be equally crucial.

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