

## Waqf and The Theory of Planned Behavior: A Meta-Analysis Review

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### Abstract

Based on a thorough literature review and meta-analysis, this research aims to outline the use of the theory of planned behaviour (TPB) in predicting Waqf Intention (WI). A meta-analysis was used as a research approach, and 17 studies with a total population of 4575 persons (mean = 269.118) were included in this study. Previous studies that employed the TPB to predict the authors summarized WI. WI is determined by Attitudes about Waqf, Subjective Norms (SN), and Perceived Behavioral Control (PBC). The fundamental implication of this meta-analysis is to deconstruct the core of Waqf and its determinants for Islamic financial institutions and Waqf Institutions to promote the practice of this behaviour in their respective fields. However, a notable weakness in the present literature is a potential "cooperation bias," in which individuals are inclined to overstate their WI. Therefore, this is the first meta-analysis to explore the TPB's predictive value for identifying WI. While there are various discrepancies noted in the research that employed the TPB in the Waqf setting, the outcomes of this research have been compiled and presented.

**Keywords:** Islamic Endowment, Islamic Financial Institutions, Meta-analysis, The Theory of Planned Behavior (TPB), Waqf Intention

### Introduction

Waqf has been consistently considered as putting aside the original property and donating its benefits for the sake of Allah (Tahiri-Jouti, 2022). Therefore, it is recognized as an inalienable *Shariah* charitable endowment. It usually entails donating a building, a piece of land, or other assets to a Muslim religious or philanthropic organization with no intention of regaining the property. Because of the critical function of Waqf management, Islamic financial institutions have no alternative but to implement Waqf management methods.

Waqf Intention (WI) is the most critical aspect of Waqf management. Encouraging Muslims to donate their wealth to Waqf has a good influence on the economy, legal system,

administration, and information systems (Ramli et al., 2018). Waqf might allow Muslims to build and come closer to Allah for reasons other than charity and public gain. Furthermore, Waqf can lead to greater heart reconciliation between the haves and the have-nots, as well as the fulfilment of the unfortunate's fundamental economic necessities, the protection of the Muslim Ummah and its philosophy, and the resolution of issues such as poverty, unemployment, and natural disasters (Ramli et al., 2018). Therefore, it is well said that the practical WI is the heart of Waqf management.

Despite the importance of Waqf, it is difficult to persuade Muslims to contribute to Waqf to ensure their continued benefit in life after death. Due to their actions, it is difficult for them to donate their possessions to Waqf. Moreover, based on a study by Dudun et al. (2020), the existing digital waqf platforms has not succeeded in cultivating waqf. Less interest of waqf intention also concerns with a contributor's trust and complete reliance on the Waqf assets' manager and accountability (Ramli et al., 2018; Jalil, 2020). To put it another way, if Muslims do not value incentives, they will not acquire a desire to contribute to Waqf, resulting in a negative attitude toward Waqf, Subjective Norms (SN), and Perceived Behavioral Control (PBC).

Waqf scholars have recently grown interested in using socio-psychological theories to better understand the psychological components of a person's WI. For example, individual psychological factors may either stimulate or discourage WI. The Theory of Planned Behaviour (TPB) is a well-known psychological theory frequently used in the Waqf management field. According to this theory, an individual's conduct is driven by his or her purpose toward the activity, which is a function of the individual's attitude toward the behaviour, Subjective Norms (SN) about the behaviour, and Perceived Behavioral Control (PBC) (Seyal & Rahman, 2017). Recent study on waqf related issue also shows that Theory of Planned Behaviour plays a vital role in assessing and evaluating an individual intention to contribute to Waqf itself and Waqf Management consequently (Zawawi et al., 2023).

The literature studies reviewed on the TPB appliances in WI reveal discordances in the findings reported. For instance, while Shukor et al (2017) rejected the relationship between SN and PBC with WI in their studied population, this relationship was confirmed by (Mutalib et al., 2019). For further clarification, some researchers did not acknowledge the relationship between PBC and WI, such as Rahman et al (2016), but others supported it significantly (Hasbullah et al., 2016). Similarly, most previous studies significantly shows that Attitude have a significant impact on Waqf Intention (SAPiR et al., 2023), while there is other study that had proven Attitude to not have a significant impact on Waqf Intention (Muhammad et al., 2023). These ambivalences create an ambiguous interpretation, raising whether the Attitudes, SN and PBC can eventually predict and explain WI in a Muslim context effectively. This deficiency that has already existed in the literature would impair the decision-making process regarding the development of WI among Muslims. This study aims to bridge this knowledge gap as its contribution to the literature by using a meta-analysis method to clarify whether TPB explains WI.

Regarding the relevance of addressing such a problem, doing a thorough meta-analysis would assist Islamic Financial Institutions, especially Waqf management, in making more informed decisions based on a summary of prior studies. A meta-analysis is a quantitative tool using statistical methodologies to determine the effect size of completed research on a particular subject. Meta-analysis is appropriate for empirical results to derive divergent conclusions, and it displays empirical generalizations across several investigations by

measuring and comparing relationship effect sizes. Furthermore, researchers could assess genuine correlations between researched variables using such analysis. The remainder of this paper explains the literature search and hypothesis construction outcomes, methodology, meta-analysis results, and discussion.

### **Empirical Studies & Hypotheses Development**

Waqf has drawn significant attention from researchers interested in Islamic financial institutions, and hence, it is worthy of being managed effectively. However, despite its importance, there has yet to be a consensus on the definition of Waqf. Interchangeably, researchers have applied various terms such as Islamic endowment, Shariah endowment, inalienable Islamic charitable endowment, financial, charitable endowment, and religious endowment to describe Waqf.

### **The Theory of Planned Behavior (TPB)**

The TPB, founded by Ajzen in 1985, is the most commonly cited explanation of human behaviour, which is vastly applied for explaining and predicting particular behaviours. The TPB was derived from the Theory of Reasoned Action (TRA), which postulated that a person's specific behaviour is derived from his/her intention toward it, which in turn is determined by that person's attitude and SN regarding the behaviour.

Regarding TRA, one of the basic assumptions is that most social-related behaviours are shaped based on volitional control, which means that the person can feel free to choose to act in a certain way. Hence, when there are certain external constraints (such as a lack of resources or required opportunities), the mere intention is not enough to form a behaviour. Considering the limitation of TRA in predicting behaviours in that people do not have complete volitional control, TPB was developed with the companion of PBC as one of the determinants of intention and behaviour.

TPB postulates that the intention toward a specific behaviour is determined by attitude, SN and PBC. Accounting for the Attitudes, SN and PBC as individual behaviour, this meta-analysis assessed the capability of the TPB model in predicting Waqf Intention (WI).

### ***Waqf Intention (WI)***

Waqf Intention (WI) is a motivational factor that indicates a person's readiness to get involved in a particular behaviour. In other words, it refers to an individual's willingness to try or exert efforts to perform a Waqf behaviour. In other words, it includes a process by which individuals refine their Attitudes, Subjective Norms (SN), and Perceived Behavioral Control (PBC) which can be used directly to predict behavioural intention. Tahiri-Jouti (2022) defined Waqf as a degree forbidding the movement or exchange of something and must have perpetuity. However, if followed with good intentions and sincere desire, Waqf is a kind of charity that leads to drawing a close relationship with Allah S.W.T.

Ajzen (1985) defined intention as a mental state which illustrates a commitment to executing a specific action to achieve a goal. In the context of Waqf management, intention means a Muslim's readiness and willingness to behave toward Waqf. Regarding the mentioned literature, the intention in the TPB context is determined jointly by Attitude, SN and PBC.

### ***Attitude toward Waqf***

Attitude is the degree to which a person has a favourable or an unfavourable evaluation toward a specific object, such as a behaviour that is shaped based on his/ her past and present experiences (Ajzen, 1985). An attitude is one's evaluation of an object, ranging from extremely negative to highly positive. Ajzen (1985) considered attitude a psychological tendency toward an object that can influence intention.

According to the TPB, attitude is formed based on beliefs about the expected outcomes of behaviour and the extent to which these consequences are favourable or unfavourable. The research on the TPB in a Waqf management context postulates that attitude significantly and positively influences the intention toward WB. However, some researchers have questioned this relationship. For instance, Musa & Salleh (2018) claimed that a mere positive attitude toward Waqf significantly relates to intention, while a negative attitude has a non-significant relationship with intention (Zain et al., 2019). From these findings, the following hypothesis can be drawn:

*H1.* The attitude toward Waqf is associated with Waqf Intention (WI).

### ***Subjective Norms (SN)***

SN is based on normative beliefs, which refer to perceived social pressure regarding whether one expects one to be involved in a particular behaviour (Ajzen, 1985). In other words, it is defined as a person's belief that significant others or reference groups expect him/ her to involve in a particular behaviour. For example, these significant others and reference groups might be the executive board, top managers, supervisors, peer groups, and organizational role models.

Applying the TPB in the Waqf management context, SN reflects the perceptions of whether WI is accepted, encouraged, and performed by significant others. Waqf occurs whenever individuals or corporate wish to contribute their assets towards the Waqf wealth-sharing system for achieving a nation's economic balance in a holistic sense through eligible facilities such as schooling, health care, worship, highways, and others. Although some studies have questioned the relationship between SN and WI, such as Shukor et al (2017), many researchers have reported a significant positive relationship between both constructs, such as (Kasri & Chaerunnisa, 2022). Based on the mentioned findings, the following hypothesis is derived

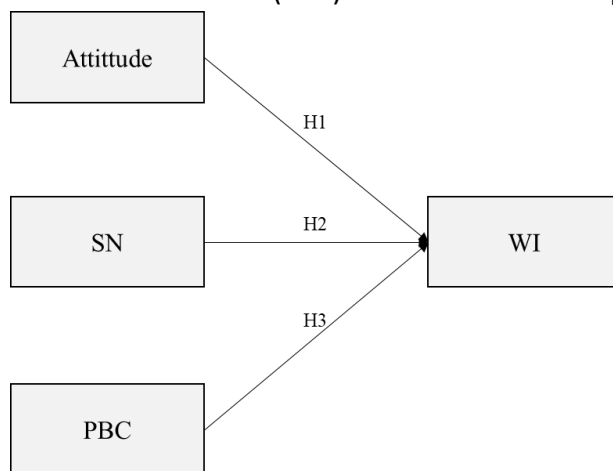
*H2.* The Subjective Norms (SN) are associated with Waqf Intention (WI).

### ***Perceived Behavioral Control (PBC)***

PBC refers to the extent to which a person perceives his/her ability to perform a particular behaviour. It is a perception of ease or difficulty in doing the behaviour. Ajzen (1985) postulated that self-efficacy and controllability jointly determine PBC. The TPB proposes that PBC influences intention because people are not naturally interested in behaviours, which leads them to failure.

Reviewing the literature, some researchers have questioned the relationship between PBC and WI and even deduced that PBC negatively impacts WI (Yusof et al., 2018). However, others acknowledge that PBC influences intention (Aldaihani, 2019). Considering that supportive researches outweigh the negative ones, the following hypotheses can be drawn:

H3. The Perceived Behavioral Control (PBC) associated with Waqf Intention (WI)



Notes: SN= Subjective Norms; PBC= Perceived Behavioral Control; WI= Waqf Intention

Figure 1: The Meta-Analysis Research Model

Figure 1 presents the hypotheses generated for investigation in this meta-analysis. Furthermore, Table I reveals the summarized definition of constructs used in the study.

Table 1  
Summarized Definition

Construct	Definition
Attitude	A psychological tendency, based on an individual's previous and present experiences, with which he/she evaluates a behaviour ranging from extremely negative to highly positive
SN	One's perceived social pressure based on normative beliefs as to whether a particular behaviour is accepted, encouraged and performed by significant others
PBC	The extent to which a person perceives his/her ability to perform a particular behaviour which is determined jointly by self-efficacy and controllability
WI	Motivational factors indicating the readiness of an individual to exert efforts to perform a particular behaviour for achieving a goal of Waqf

**Method**

Meta-analysis has been widely accepted during the past 25 years in the social and managerial context as a sound research methodology that quantitatively integrates the findings of a set of single primary studies on a specific topic. The method used in this research is declared as follows:

**Eligibility Criteria**

For conducting a meta-analysis, an explicit set of inclusion and exclusion criteria should be developed for developing reliable guidance to decide which studies should be included in the

meta-analysis, defining the population to which the meta-analysis makes conclusions; and finally following the transparency goal in reporting, in the case that a reader performing the exact searches could come to the same conclusions.

For defining inclusion criteria, any study applying regression or structural equation modelling for analyzing the impact of TPB components on WI was considered in this research. In addition, studies were included if they applied WI as the dependent variables, considered TPB elements entirely as a research model, presented analyzable data (i.e. correlation, p-value), used a self-report questionnaire for measuring or experimental research, were written in English only, and finally, were research papers, dissertations and industrial studies, importing useful statistics to meta-analysis, and there were no constraints about the time and population of the studies.

### **Literature Search**

A multi-step literature search was operated to collect required primary studies for inclusion in the current research. First, the below databases were used for the literature search by applying the keywords of "Waqf," "Waqf Intention (WI)", and "Theory of Planned Behavior (TPB)".

- EBSCO
- ProQuest
- ScienceDirect
- Elsevier
- Sage
- Emerald insight; and
- Taylor & Francis Online

Second, chain searching, also known as backward reference searching, was performed to ensure that the maximum related studies, based on the considered criteria, had been identified in this meta-analysis. Chain searching involves identifying the studies cited in an article. The study selection process flow diagram is presented in Figure 2, and the results of literature searching are detailed in Table 2.

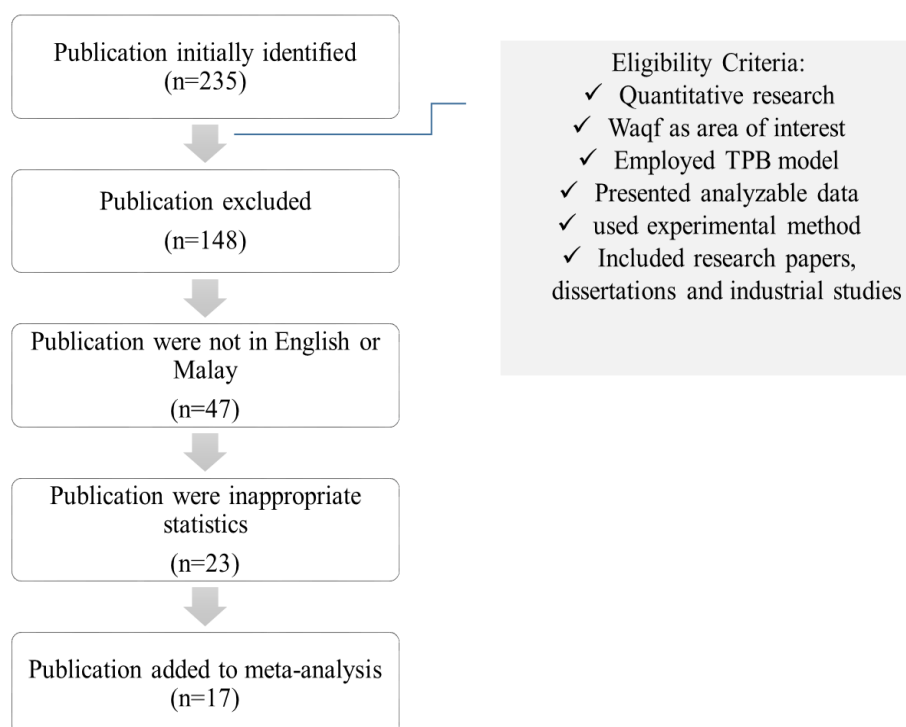


Figure 2: Flow Diagram of the Study Selection Process

Table 2

*Identification of Included Samples*

Criteria	Studies	%
Initial hits	235	100
Not relevant (based on inclusion and exclusion criteria)	148	-62.98
Not in English	47	-20.00
No or inappropriate statistics for meta-analysis	23	-9.79
Available sample	17	7.23

**Results**

The meta-analysis was conducted using comprehensive meta-analysis software. In meta-analysis research, the statistical outcomes of every study are quantified using an effect-size index (i.e. correlation, odds ratio, etc.) which enables us to compare and interpret all results in the same metric. The effect-size index was calculated for each study using statistics such as correlation, t-value, sample size, standard error, and p-value, depending on the data provided by the chosen studies.

**Descriptive Statistics**

Participant characteristics, research methodology, and countries of the included studies were coded for meta-analysis. The final sample included 36 surveys and just one experimental study. The range of publication dates is from 2016 to 2022 (mode = 2022, median = 2019). Five countries were presented in the sample illustrated in Table 3.



Table 3

*Sample Characteristics*

Study (in chronological order)	Sample Size	Country	Sample Characteristics
Pitchay (2022)	701	Malaysia	Management of publicly listed companies (PLC) in Malaysia
Nordin & Khalid (2022)	200	Malaysia	Muslim adults
Berakon et al (2022)	225	Indonesia	Digital Shariah Banking on Muslim Youth
Kasri & Chaerunnisa (2022)	418	Indonesia	Muslim Millennials
Khuwarazmi et al (2021)	316	Indonesia	Sustainable Development Goals for the Muslim Community
Hermuningsih et al (2021)	98	Indonesia	Mapping Muslim behaviours
Alifiandy & sukmana (2020)	98	Indonesia	The willingness of waqif to donate through the Airlangga University Social Fund Management Center (PUSPAS)
Niswah et al (2020)	129	Indonesia	Shariah Fintech
Afroz et al (2019)	350	Malaysia	Rice farmers
Aldaihani (2019)	212	Kuwait	Contributors in the education sector
Kunju & Amin (2019)	125	Malaysia	YOUNG INTELLECTUALS'
Yusof et al (2018)	50	Malaysia	UUM students
Musa & Salleh (2018)	459	Nigeria	Entrepreneurs
Zabri & Mohammed (2018)	260	Malaysia	Customers IFI that have the intention to buy a house and are 21 years old and above
Shukor et al (2017)	386	Malaysia	Muslim attitudes
Rahman et al (2016)	400	Bangladesh	micro-entrepreneurs
Hasbullah et al (2016)	148	Malaysia	Employees of Majlis Agama Islam (MAIWP)

About 29.41 per cent of the included studies targeted professionals in different industries as their populations. Table 4 summarizes the descriptive statistics of the included studies.



Table 4

*Characteristics of Included Studies*

Category	Characteristics	No. of Studies	Per cent of Studies
Participants Characteristics	Students	3	17.65
	Professionals	5	29.41
	Students & Professionals	9	52.94
Study Continent of Origin	Asia	14	82.35
	Middle-East	1	5.88
	Africa	1	5.88
	South Asia	1	5.88
Scope of Waqf	General	3	17.65
	Cash	12	70.59
	Corporate	1	5.88
	Investment	1	5.88

**Heterogeneity Tests**

Testing the heterogeneity is crucial in meta-analysis studies. The absence or the presence of true heterogeneity identifies the proper statistical model that should be applied in a meta-analysis study. Whenever the results of the chosen studies only differ by the sampling error (homogeneous case), the fixed-effects model is proper for attaining an average effect size.

Conversely, meta-analysis can be calculated using the random effect in case the included studies' results differ more than the sampling error (Borenstein et al., 2021). Three different heterogeneity tests are commonly used in meta-analysis studies to assess whether there is true heterogeneity; the tests are listed as follows:

- Tau-square is a statistical test for determining absolute heterogeneity that involves measuring the variance between studies
- The Q-test is a statistical test derived by adding the squared deviations of each research's impact size from the aggregate effect estimate. The inverse variance of each research's contribution is used to weigh the contribution of each study in the Q-test. When the homogeneity hypothesis is rejected, the random-effect model for meta-analysis is used, which accounts for both within-study and between-study heterogeneity. Fixed effects, on the other hand, would be appropriate for meta-analysis.
- I-square is a statistical test that measures the extent of true heterogeneity by dividing the difference between the result of the Q-test and its degrees of freedom (k-1) by the Q-value itself and multiplied by 100

The results of the heterogeneity tests are listed in Table 5. All of the hypotheses investigated had a substantial Q-value ( $p < 0.001$ ), indicating no genuine heterogeneity between investigations. Furthermore, the estimated I-squared in hypotheses is much larger than 75, indicating that the extent of the lack of heterogeneity in each hypothesis is considerable. So the I-squared test results are consistent with the Q-test findings. Finally, the resultant tau-squared in all included papers testing the research hypotheses is significantly less than 0.19, indicating no actual heterogeneity in any hypothesis. All heterogeneity tests revealed no

significant heterogeneity amongst the included studies. As a result, for meta-analysis calculations, the random-effect model is appropriate.

Table 5

*Heterogeneity Tests Results*

Hypotheses	Q-value	p-value	I <sup>2</sup>	Tau <sup>2</sup>	Standard Error	Result
WI←Attitude	424.747	0.000	96.233	0.098	0.042	Considerable
WI←SN	209.420	0.000	92.837	0.051	0.023	Considerable
WI←PBC	554.915	0.000	97.657	0.167	0.078	Considerable

**Publication Bias Analysis**

The reliability of the conclusions of the meta-analysis strongly depends on publication bias (Borenstein et al., 2021). Publication bias mainly results from reporting bias which arises when the nature and direction of results influence the submission of research findings (Borenstein et al., 2021).

"Positive" discoveries that are statistically significant are more likely to be reported, published in high-impact journals, and referenced (Borenstein et al., 2021). Negative or non-significant data can be filtered, modified, or presented as positive outcomes. According to Cooper (2016), researchers are less likely to submit papers with insignificant or negative results, a phenomenon known as "the file drawer effect," which might lead to overestimating the impact size in a meta-analysis. The funnel plot, the trim and fill approach, the fail-safe N, and rank correlation were used to assess publication bias.

**Funnel Plot**

The funnel plot (Figures 3-5) is a graphical scatter plot of the effect estimates from individual studies against some measure of each study's size or precision. In this plot, the more extensive, most powerful studies were placed toward the top (Sterne et al., 2011). An asymmetrical funnel plot would suggest publication bias (Whitehead, 2002). Without publication bias, the plot presents a symmetrical inverted funnel.

Figures 3-5 illustrate the funnel plot of the included studies for every single hypothesis. By investigating the presented funnel plots, it is found that there is no evidence of asymmetry. Therefore, there is no publication bias in the included studies examining the relationship between Attitude and WI, SN and WI, and finally, PBC and WI. The trim and fill method,

presented in the next session, defines to what extent this bias would influence the results of this meta-analysis study.

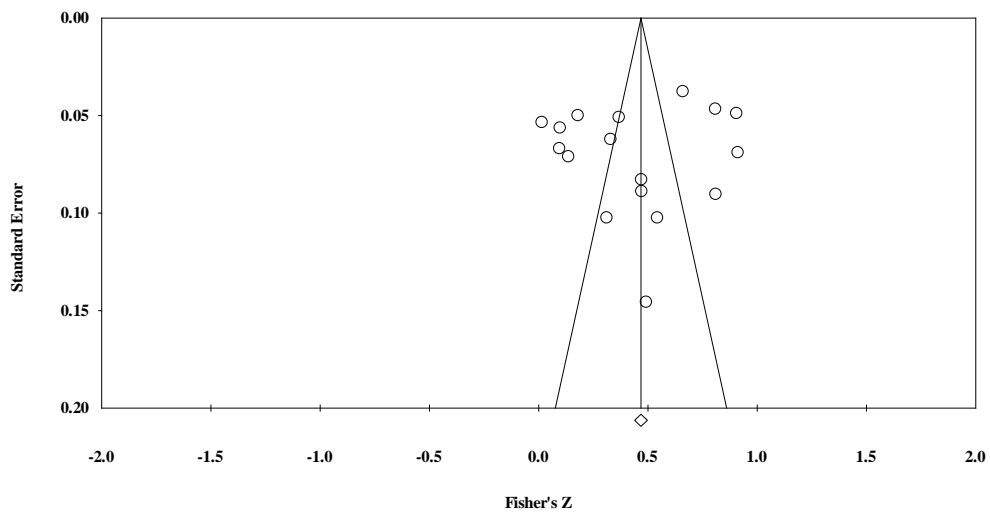


Figure 3: The Funnel Plot of the Standard Error by Fisher's Z of Chosen Studies Investigating WI ← Attitude

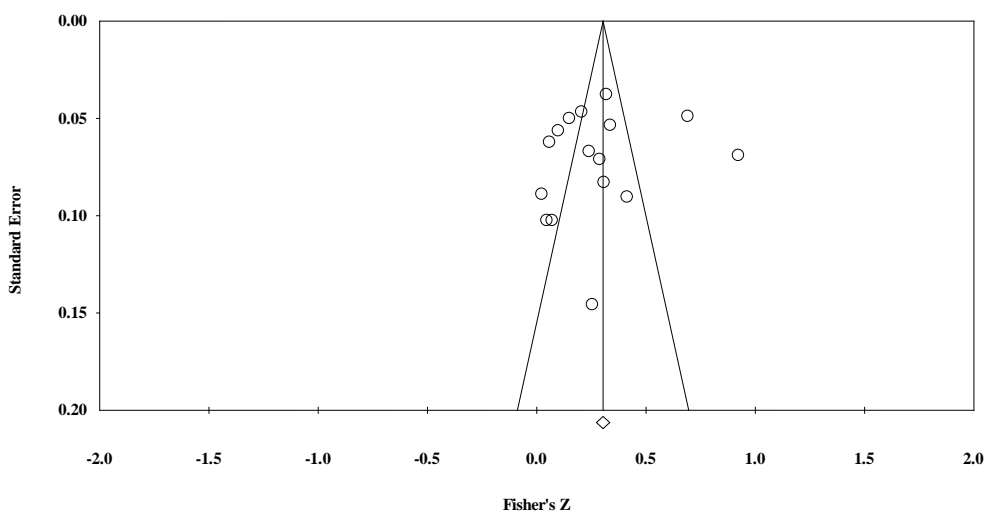


Figure 4: The Funnel Plot of the Standard Error by Fisher's Z of Chosen Studies Investigating WI ← SN

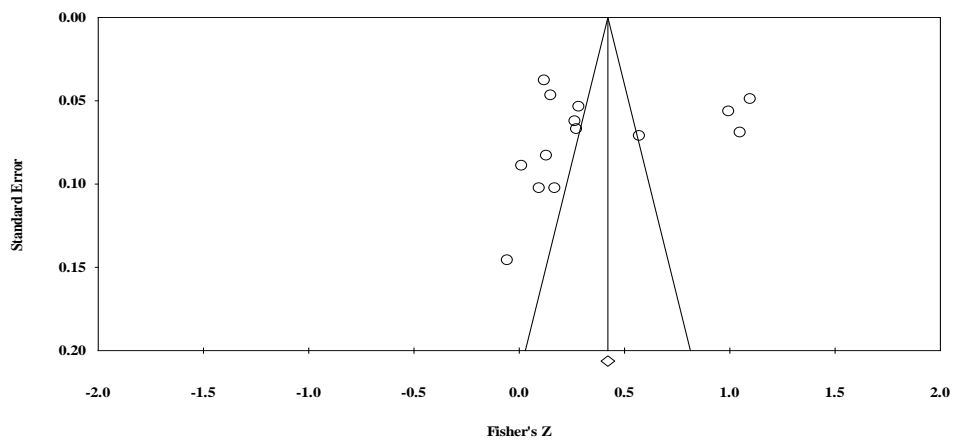


Figure 5: The Funnel Plot of the Standard Error by Fisher's Z of Chosen Studies Investigating  $WI \leftarrow PBC$ 

### The Trim and Fill Method

The trim and fill method is based on the funnel plot's formalization of the qualitative approach (Figures 3-5). After computing the number of studies placed in the asymmetric part of the funnel plot, it first cuts off the asymmetric outlying part. Second, the symmetric remainder is utilized to calculate the open funnel centre, after which the trimmed studies and their missing equivalents are replaced around the centre. The filled funnel plot is then used to get the final estimate of the actual mean and its variance.

The illustrated results in Table 6 reveal four studies containing publication bias. They would make a difference in the calculated effect size of the included studies investigating the relationship between SN and WI ( $WI \leftarrow SN$ ). If these studies included this meta-analysis, the results would shift to the right side of the mean, in which the effect size would change from 0.275 to 0.341, and the lower and upper limits would increase from 0.163 to 0.239 and from 0.379 to 0.435, respectively. The same state also exists for the included studies about the relationship between PBC and WI ( $WI \leftarrow PBC$ ). If the unseen publication is added to this research, the effect size will grow from 0.358 to 0.384, with a modest change to the right side of the mean in the lower and upper limits.

Table 6

#### The Trim & Fill Method

Trim & Fill Method	Studies Trimmed		Studies Trimmed	Random-Effect Model		
	To Left of Mean	To Right of Mean		Point Estimate	Lower Limit (LL)	Upper Limit (UL)
$WI \leftarrow$ Attitude			OV	0.449	0.296	0.602
	0	0	AV	0.449	0.296	0.602
$WI \leftarrow$ SN			OV	0.275	0.163	0.379
	0	4	AV	0.341	0.239	0.435
$WI \leftarrow$ PBC			OV	0.358	0.155	0.531
	0	1	AV	0.384	0.191	0.548

**Notes:** OV= Observed Values; AV=Adjusted Values

### The Fail-Safe N

One concern of publication bias is that some non-significant studies need to be included in our analysis and that these studies if included, would nullify the observed effect. Robert Rosenthal suggested that rather than speculate about the impact of the missing studies, we compute the number of studies required to nullify the effect. If this number is relatively small, there is indeed cause for concern. However, if this number is large, we can be confident that the treatment effect, although possibly inflated by some studies' exclusion, is not nil.

He suggested that this analysis be called a 'File-drawer' analysis, file drawers being the presumed location of the missing studies. Harris Cooper proposed the term 'Fail-Safe N', referencing the number of missing studies that would nullify the effect.

This approach is limited in two important ways. First, it assumes that the effect in the hidden studies is nil rather than considering the possibility that some of the studies could have shown an effect in the reverse direction. Therefore, the number of studies required to

nullify the effect may be smaller than the Fail-Safe N. Second. More fundamentally, this approach focuses on statistical significance rather than clinical or substantive significance.

That is, it may allow us to assert that the treatment effect is not nil but needs to address whether it remains clinically meaningful after the missing studies have been included. Note also that the fail-safe N algorithm computes a p-value for each study and then combines these p-values. By contrast, the generally accepted approach today (and the one used by this program) is to compute an effect size for each study, combine the effect sizes, and then compute the p-value for the combined effect. The two approaches generally yield different results.

For  $WI \leftarrow$  Attitudes, this meta-analysis incorporates data from 17 studies, which yield a z-value of 29.088 and a corresponding 2-tailed p-value of 0.00000. The fail-safe N is 3728. Therefore, we must locate and include 3728 'null' studies for the combined 2-tailed p-value to exceed 0.050. Put another way, there would be a need to be 219.3 missing studies for every observed study to nullify the effect.

For  $WI \leftarrow$  SN, this meta-analysis incorporates data from 16 studies, which yield a z-value of 17.904 and a corresponding 2-tailed p-value of 0.00000. The fail-safe N is 1320. We must locate and include 1320 'null' studies for the combined 2-tailed p-value to exceed 0.050. Put another way, there would need to be 82.5 missing studies for every observed study to nullify the effect.

For  $WI \leftarrow$  PBC, this meta-analysis incorporates data from 14 studies, which yield a z-value of 23.311 and a corresponding 2-tailed p-value of 0.00000. The fail-safe N is 1967. Therefore, we must locate and include 1967 'null' studies for the combined 2-tailed p-value to exceed 0.050. Put another way, there would need to be 140.5 missing studies for every observed study to nullify the effect.

The results stated in Table 7 explain that 3728 studies with converse results are required to change the findings of this meta-analysis about the relationship between attitude and WI (H1). Similarly, in 1320 and 1967, further discordant studies were required to impair the findings of H2 to H3 testing, respectively.

Table 7  
*The Fail-Safe N Test*

Fail-safe N	k	z-value	NOMS
$WI \leftarrow$ Attitude	17	29.088	3728
$WI \leftarrow$ SN	16	17.904	1320
$WI \leftarrow$ PBC	14	23.311	1967

**Notes:** *k*= Number of observed studies; *NOMS*= Number of missing studies that would bring p-value to > alpha (=0.05)

### Rank Correlation

Kendall (2021) proposed a formal publication bias test called the "rank correlation" test, which is used based on Kendall's tau. The test is performed for the correlation between t and variance among the selected studies.

In this case, Kendall's tau b for  $WI \leftarrow$  Attitude (corrected for ties, if any) is 0.05882, with a 1-tailed p-value (recommended) of 0.37087 or a 2-tailed p-value of 0.74175 (based on continuity-corrected normal approximation). Next, Kendall's tau b for  $WI \leftarrow$  SN (corrected for ties, if any) is -0.03333, with a 1-tailed p-value (recommended) of 0.42854 or a 2-tailed p-

value of 0.85708 (based on continuity-corrected normal approximation). Lastly, Kendall's tau b for  $WI \leftarrow PBC$  (corrected for ties, if any) is -0.0330, with a 1-tailed p-value (recommended) of 0.435 or a 2-tailed p-value of 0.870 (based on continuity-corrected normal approximation).

To simplify, in this test, the significant harmful tau is concluded as the likelihood of publication bias with investigating the noted results in Table 8 asserts that there is no publication bias regarding the included studies investigating the research hypotheses.

Table 8

*The Rank Correlation Test*

Hypotheses	KS	KT without CC		KT with CC		Result
		Tau	z-value	Tau	z-value	
$WI \leftarrow$ Attitude	9	0.066	0.371	0.059	0.330	NPB
$WI \leftarrow$ SN	-5	-0.042	0.225	-0.033	0.180	NPB
$WI \leftarrow$ PBC	-4	-0.044	0.219	-0.033	0.164	NPB

**Notes:** KS = Kendall's S statistic; KT without CC = Kendall's tau without continuity correlation; KT with CC = Kendall's tau with continuity correlation; NPB = No publication bias; SN = Subjective Norms; PBC = Perceived Behavioral Control; WI = Waqf Intention

**Hypotheses Testing**

Table 9 declares the results of the meta-analysis of the data presented by the included studies for each hypothesis. Further investigation is reported in the following sections. For H1, using the random-effect model for meta-analysis, the effect size of the relationship between attitude and WI was calculated as 0.449, with the lower and upper limits of 0.296 and 0.602, respectively.

Overall, this meta-analysis acknowledges the relationship between attitude and WI (H1) and predicts that their correlation is 0.449. Regarding the fail-safe N result, 1967 research studies with discordant results are needed to make this relationship insignificant. Thus, the finding is reliable. Supporting the information, Table 1 states the findings, including the analysis of the 17 included studies.

For H2, the calculated effect size based on the random-effect model for the relationship between SN and WI was calculated as 0.275 with the lower and upper limits of 0.163 and 0.379, respectively.

Overall, this meta-analysis acknowledges the relationship between SN and WI (H2) and predicts that their correlation is 0.275. Considering the fail-safe N result (Table 7), 1320 research studies with the discordant result are required to shift the p-value by more than 0.05, which means the finding is reliable. Supporting the information, Table 2 shows the findings, including the analysis of 17 chosen studies.

For H3, the correlation effect size between PBC and WI was calculated as 0.358, with the lower and upper limits of 0.155 and 0.531, respectively. In conclusion, this meta-analysis asserts the significant correlation between PBC and WI (H3), predicting that this correlation would be 0.358.

Regarding the fail-safe N result (Table 7), 1967 research studies with the discordant result are needed to make this relationship insignificant. Thus, the finding is reliable. Supporting the information, Table 3 details the findings, including the analysis of 17 included studies.

Table 9

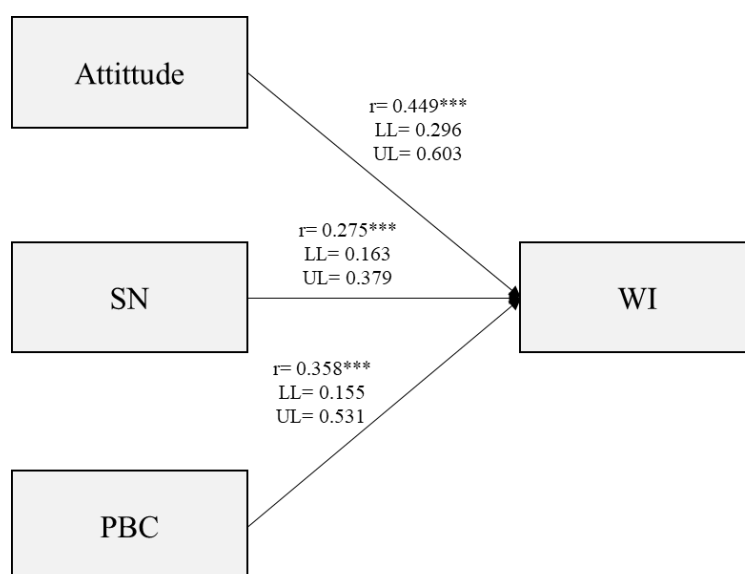
*Hypotheses Testing Results of Meta-analysis*

Hypotheses	Prediction	k	Correlation	LL	UL	p-value
WI←Attitude	+	17	0.449	0.296	0.602	0.000
WI←SN	+	16	0.275	0.163	0.379	0.000
WI←PBC	+	14	0.358	0.155	0.531	0.000

Notes: SN = Subjective Norms; PBC = Perceived Behavioral Control; WI = Waqf Intention; k = Number of studies cumulated; correlation is calculated based on random-effect model; LL = Lower limit (CI = 95%); UL = Upper limit (CI = 95%)

**Discussion****Summary of Results & Limitations**

This meta-analysis predicts that Attitude, SN and PBC would influence WI. Figure 6 summarizes the results. This investigation is a quantitative meta-analysis summary of the studies conducted to clarify WI in the context of the TPB. In addition, this investigation aims to generate a generalizable and integrated prediction of WI based on the TPB regarding the discord findings of the studies conducted on this topic.



Notes: SN= Subjective Norms; PBC= Perceived Behavioral Control; WI= Waqf Intention

Figure 6: The Results of Meta-Analysis Research

A critical limitation of this research was ignoring the antecedents of Waqf Behaviour (WB) because this research just focused on applying TPB in WI. Therefore, future research may be conducted on the determinants of these constructs. A second limitation was language bias. Forty-seven studies were eliminated from this meta-analysis because of the language barrier. Those studies were in other languages except English. Hence, other researchers can improve this meta-analysis's results by considering related studies in other languages. Although these excluded studies are much less than the calculated fail-safe N and cannot change the results, they can improve the quality of findings.



**Implications**

The primary implication of this meta-analysis is to deeply interpret the essence of WI and its determinant, by which Islamic Financial Institutions such as Waqf institutions can encourage the conduction of this valuable behaviour in their organizations. Furthermore, as regards the importance of WI as a knowledge process, understanding this behaviour plays a significant role in implementing successful Waqf management practices.

After a deep investigation, the results emphasize that a positive attitude has the most decisive influence on enhancing WI comparing other factors. Hence, Muslims can develop positive attitudes by incentivizing internal and external WIs to enhance positive attitudes. Next, SN has the most decisive influence on the intention of Waqf. Thus, Muslims can develop and prepare a supportive environment for the emergence of Waqf development programs within Islamic Financial Institutions. Finally, the PBC influence on WI suggests Muslims and Islamic financial institutions develop the knowledge competency to know how individuals can participate in Waqf.

**Conclusion**

This research reviewed conducted studies investigating the TPB application to describe WI. The results of this meta-analysis contribute to the WI by helping Muslim and Islamic Financial Institutions offering Waqf management understand the psychological antecedent of Waqf and the importance of each component. Based on the findings, attitude, SN, and PBC positively influence WI.

The TPB can be used as a psychological model to predict WI in organizations and individuals. However, this research has two limitations worthy of consideration in future research. First, this investigation ignores the antecedents of the TPB's constructs, for example, self-efficacy as a predictor of PBC and Waqf Behavior (WB). Hence, future research may investigate the additional antecedents for expanding the provided model. The second limitation this research encountered was the quality of measures for WI. The investigation reveals that there is potential that participants fall into "cooperation bias" and overestimate their tendency to contribute to Waqf.

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