

A PROPOSED INTEGRATED ZAKAT-CROWDFUNDING MODEL (IZCM) FOR EFFECTIVE COLLECTION AND DISTRIBUTION OF ZAKAT FUND IN MALAYSIA

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Abstract: *This paper has proposed IZCM to assist Zakat institutions for effective collection and distribution of zakat fund in Malaysia. Upon the proposed model, this study examines the behavioural intention of Zakat payers to use IZCM. The primary data are collected from the survey administered to Zakat payers in the Klang Valley (n=93) and the analysis is conducted using Partial Least Squares (SmartPLS). Furthermore, the model has been validated its acceptance in the field by adopting the Technology Acceptance Model (TAM). This study has revealed that both the perceived usefulness and perceived easy to use are found to have a positive impact on the intention of Zakat payers to use IZCM, which later assist Zakat institutions for effective collection and distribution of zakat fund in Malaysia. Furthermore, perceived easy to use has a positive relationship and direct effect with perceived usefulness of Zakat payers to use the IZCM. The findings of this study can be used to develop a specific framework in which to examine other components of using the IZCM's behavior and to plan appropriate intervention strategies to increase collection and distribution of Zakat fund by Zakat institutions.*

Keywords: Integrated Zakat-Crowdfunding Model, Collection, Distribution, Malaysia

INTRODUCTION

Zakat seems as one of the most important redistribution elements in establishing social justice and social security among the Muslim community by distributing the wealth of the rich among the less fortunate. In order to ensure the potential role of Zakat in establishing social justice and social security among the Muslim community, it is important for the institution of Zakat to ensure those roles to be achieved and protected. In the context of Malaysia, the practice and operation of Zakat varies according each state depending on the advice and fatwa issued by State Islamic Religious Councils (SIRCs). All aspects pertaining to the administration of Zakat are handled by the states through its respective Majlis Agama Islam Negeri (State Islamic Religious Councils). In Malaysia, the amount of Zakat collection has been

increasing at all of its states level every year, for example, Zakat collection has increased from a total of RM450 million in 2004 to RM 806.28 million in 2007. Once the Zakat collection is privatized at the state level, it exhibits highest amount of Zakat collection, for instance, in Selangor, Zakat collection was RM 202.19 million in 2007, an enormous increase compared with the collection of the previous year, whereas the amount of Zakat collection was around RM 159.84 million, RM 133.12 million and RM108.83 million in 2006, 2005 and 2004 respectively.

Despite the massive success in Zakat collection, the performance of institutions in Zakat disbursement is not up to the mark. It is found that on average 26 percent of Zakat proceeds were left undistributed every year. Indeed, this imbalance indicates a bad impression on the overall Zakat disbursement in Malaysia (Hidayati and Tohirin, 2010). In relation to this, Hairunnizam et al. (2009) reveals that the Zakat payers are not satisfied with the Zakat institution in Zakat distribution because the institution is not disbursing to all Zakat recipients fairly. According to the findings of some studies, the present process of Zakat distribution is quite vague and the information regarding Zakat distribution is unclear (Sanep et. al, 2006; Hairunnizam et. al, 2008 and Hairunnizam et al. 2009). A study on a group of academician shows that the respondents are not satisfied with the Zakat distribution in Kelantan (Anuar Muhamad, 2008). Besides, Nik Mustapha (1987) states that zakat has no place in the Malaysian economic system and merely confined as a religious obligation. Furthermore, according to Abd Halim et al. (2011) inadequate number of staffs in the zakat institutions has a significant impact on the quantity and quality of zakat distributed. Wahairi (2001) identified that Zakat institutions have lack of manpower and experts in managing Zakat. On the other hand, in terms of management, most of the top managers of Zakat institutions in Malaysia realize about the internal concept and performance measurement which should be applied in their daily operations (Jamaliah, 2004). However, they did not really adopt the concepts in their managerial and administrative activities. According to Zazli (1998), the Zakat institutions did not have a systematic monitoring system on the progress of the Zakat recipients, particularly the beneficiaries who receive the Zakat funds in terms of scholarships and educational aids.

Given the absence of proper collection and distribution of zakat fund, it can, therefore, be rightly asserted that the collection and distribution of zakat fund are requiring other innovative mechanism, to assist SIRC's role as collector and distributor of zakat fund. As such, a new mechanism that will allow for a sustainable collection and distribution of zakat fund is needed in improving zakat administration in Malaysia. In lieu with this, the present study proposed Integrated Zakat-Crowdfunding Model (IZCM). The proposed model is expected as the most suitable model that can effectively improve the collection and distribution of Zakat fund in Malaysia. Crowdfunding takes advantage of crowd-based decision-making and innovation, and applies it to the funding of projects/activities. Since this mode of raising initial capital has proven to be successful in many countries like Australia, United States, Canada, Netherland, United Kingdom, France, India and Brazil (The World Bank 2013), the potential of this model to revamp the zakat collection and distribution in Malaysia is great.

Later, we will show this study's use of the Technology Acceptance Model (TAM) to justify the behavioural intention of zakat payers to use the Integrated Zakat- Crowdfunding Model (IZCM). Therefore, the objectives of this study are to (1) propose a sustainable model that could address that the issue of collection and distribution of zakat fund in Malaysia; (2) test empirically the behavioural intention of zakat payers to use the proposed model; and (3) recommend ways and policies to enhance optimization of crowdfunding in zakat fund collection and distribution. To the best knowledge of the researchers, there has been no any research conducted proposing crowdfunding to assist zakat institutions in collecting and distributing zakat fund to the recipients. The present research was designed to test empirically the behavioural intention of zakat payers in using the proposed model. It is therefore expected that the model being developed together with other key findings from this research will be

applicable to Zakat institutions in the country and will benefit not only individuals, organizations, and the country as a whole but could also be adapted and validated for other countries as well.

LITERATURE REVIEW CROWDFUNDING

Crowdfunding is known as a process of collection of funds (in small amount) from many donors or investors by using a web-based platform for a specified project, business venture or for the social cause. Crowdfunding can be divided into four types namely donation crowdfunding, reward crowdfunding, lending crowdfunding, and equity crowdfunding. Donation crowdfunding is where the collection of funds takes place for the purpose such as social, artistic, philanthropic and others. Basically, this type of crowdfunding is not based on any exchangeable of tangible value. Reward crowdfunding is the collection of funds, where the investors or donors receive some tangible reward (such as membership rewards scheme) as a token of appreciation. Lending crowdfunding is a platform that matches lenders or investors with borrowers or issuers to provide loans with lower interest rate, which is set by the platform. Equity based crowdfunding refers to the fund raised through online by a business, particularly early-stage funding, by offering equity interests in the business to investors. Businesses that are looking to raise capital through this mode typically advertise online through a crowdfunding platform website, which serves as an intermediary between investors and the start-up companies.

THE DEVELOPMENT OF CROWDFUNDING PLATFORM

Over the last 10 years, it seems that crowdfunding platform (CFP) has achieved tremendous growth. In terms of geographical distribution of CFP, it shows that the largest number of CFPs existed in the U.S followed in European countries. In 2014, around 60 percent of CFPs are existed in Europe, while around 20 percent of all CFPs are based in North America. In European continents, United Kingdom is leading with more than 70 CFPs in 2014, followed by France with 70 CFPs, and Germany with around 50 CFPs.

Meanwhile, in terms of funding volumes of different types of CFPs, it shows that based on data from 2010 to 2012, the most important types of CFP are lending-and donation-based CFPs with funding volumes of USD\$1169.7 million and USD\$979.3 million, respectively (Iizuka, 2014). Meanwhile, in the context of successful campaign in CFPs, majority of campaigns (62 percent) are donation based. Only 15 percent are reward-based or a mix of donation-based and reward-based, while 22 percent are lending-based (i.e., fundraisers incur a debt). Other investment-based campaigns (equity-based) contribute with less than 1 percent to the total.

CROWDFUNDING DEVELOPMENT IN MALAYSIA

According to Asian Institute of Finance (2014), there are three main web-platforms on crowdfunding in Malaysia namely pitchIN, MyStatr and MDeC. However, these crowdfunding platforms are reward-based and donation-based crowdfunding. So far, as August 2015, only 19 out of 103 projects are successfully raise funding through these crowdfunding platforms (Asian Institute of Finance, Unpublished). Indeed, all the successful projects are focusing on community projects, film and video, arts and music. The market volume for crowdfunding platform in Malaysia was over \$5million between years 2013-2015. This is covering

approximately 6 percent of total market activity across South East Asia. The total volume was dominated by donation-based crowdfunding, which accounted for 92.4% of total Malaysian market, which raised a total of \$4.68m. Reward-based crowdfunding accrued a total of 6 percent, which amounted to over \$325,000 over the period.

In addition to existing crowdfunding platforms in Malaysia, recently, in June 2015, Malaysian Securities Commission has approving six equity-based crowdfunding platforms for operation by the end of December 2015. Malaysia was one of the first countries in Southeast Asia to give regulatory approval for equity crowdfunding. Among the approved equity-based crowdfunding platforms in Malaysia are Alix Global, Ata Plus, Crowdonomic, Eureca, pitchIN and CrowdPlus.asia. Equity-based crowdfunding began to emerge with a very small total volume of \$58,000, equating to 1.1 percent of total market activity.

TECHNOLOGY ACCEPTANCE MODEL (TAM)

The Technology Acceptance Model (TAM) has been known as a useful model of identifying technology acceptance behaviours in a variety of information system or information technology contexts (Davis, 1989). TAM predicts the intention to use and acceptance of information systems and information technology by individuals (Chen et al., 2011).

TAM incorporates two belief variables namely perceived usefulness and perceived ease of use. Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989). On the other hand, perceived ease of use is defined as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). Perceived ease of use has both an immediate effect and an indirect effect on adoption intention via perceived usefulness; therefore, this construct has effects on both perceived usefulness and attitude (Davis, 1993; Venkatesh and Davis, 2000). Many researchers have conducted empirical studies to examine the explanatory power of TAM, producing relatively consistent results on the acceptance behaviour of information technology end users (Venkatesh and Davis, 2000; Horton et al., 2001). According to Chang and Tung (2008), researchers agree that TAM is valid in predicting the individual acceptance of numerous systems including technological based system and information technology-based system (Chin and Todd, 1995).

Realizing the application of the TAM in various fields, this study aimed for the additional contribution of TAM in the area of crowdfunding platform and Zakat. To the best knowledge of the researcher, there has been no any research conducted using crowdfunding platform for collecting and distributing zakat fund and tested the particular model using TAM. Thus, the present research is designed to test empirically the behavioural intention of zakat payers to use Integrated Zakat-Crowdfunding Model (IZCM) in assisting zakat institutions in collecting and distributing zakat fund in Malaysia, as shown in Figure 1.

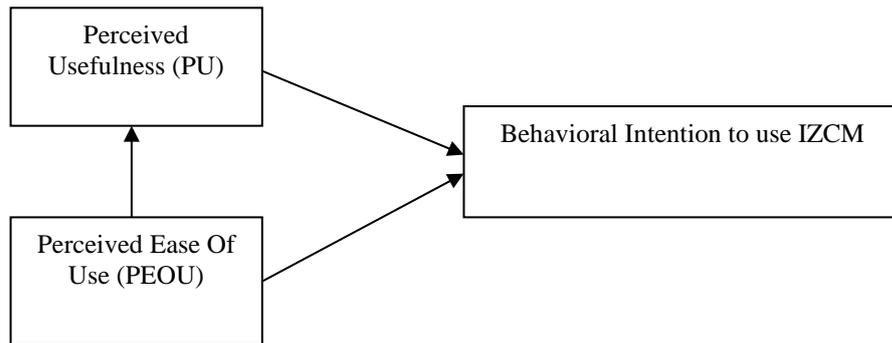


Figure 1: Technology Acceptance Model (TAM)

Based on TAM framework, the present study comes out with three main hypotheses, which are:

(i) **Hypothesis 1**

Ho: There is no significant (positive) influence of perceived usefulness on the intention to engage in Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

Ha: There is a significant (positive) influence of perceived usefulness on the intention to engage in Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

(ii) **Hypothesis 2**

Ho: There is no significant (positive) influence of perceived ease of use on the intention to engage in Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

Ha: There is a significant (positive) influence of perceived ease of use on the intention to engage in Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

(iii) **Hypothesis 3**

Ho: There is no significant (positive) influence of perceived ease of use on perceived usefulness of Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

Ha: There is a significant (positive) influence of perceived ease of use on perceived usefulness of Integrated Zakat-Crowdfunding Model (IZCM) among zakat payers.

PROPOSED INTEGRATED ZAKAT-CROWDFUNDING MODEL (IZCM)

The current research proposed zakat-based crowdfunding model platform for effective collection and distribution of zakat fund by zakat institutions in Malaysia. It involves Zakat recipients, Zakat institutions and Zakat payers. The proposed model platform could be illustrated by Figure 2.

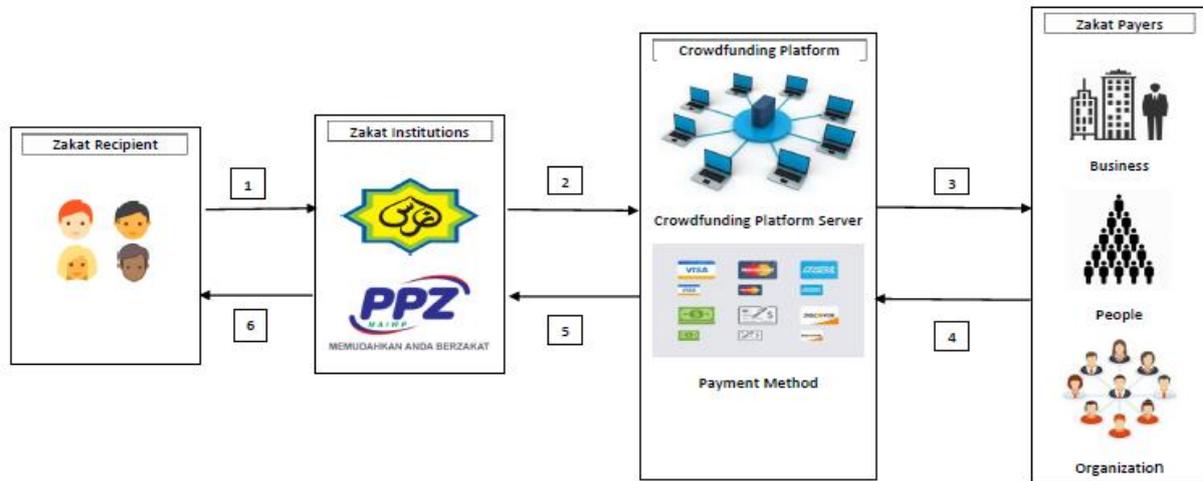


Figure 2: Proposed Integrated Zakat-Crowdfunding Model (IZCM)

The following are the detailed explanation of proposed crowdfunding-based model platform for healthcare financing:

1. Zakat recipients plans to go for zakat fundraising campaign using crowdfunding platforms. The fundraising campaign can be applicable for their fulfillment of basic needs or start-up business and other form of activities. All information on the campaign are provided in electronic format if it is in the form of photographs, movies or other forms of presentation, and then submitted to the zakat institutions.
2. The roles of zakat institutions are to manage and administer the proposed crowdfunding platform. They will collect zakat fund on behalf of zakat recipient. Once the zakat institutions receive the fundraising campaign from the recipients, the former will further screen and evaluate the latter's campaign before upload into the platform. After that, zakat institutions will label the campaign name and then uploaded into the proposed platform to attract potential zakat payers.
3. Once the campaign is uploaded into the system, the campaigns have to be funded within a predefined timeframe (an extension may apply). The platform will attract the zakat payers that consist of public, businesses and organizations.
4. The zakat payers choose campaign that they want to support. They browse the web to search requests and finally choose the projects they are willing to fund. The zakat payers transfer/send funds through payment gateways. The zakat institutions can have its own payment gateways through collaboration with existing financial institutions.
5. Once the target amount of fund from the zakat payers is reached, the system will update the status of projects and keep track of received fund until it is ready to be distributed. The system

distributes the fund to zakat institutions and notifies them to get ready for disbursing fund to particular campaign.

6. Zakat institutions will release the fund to particular recipients. Zakat institutions will manage and supervise their identified campaign. They must track the progress and updates the progress into the system until the particular campaign is completed. This will ensure transparency between them and the zakat payers. The system communicates with the zakat institutions as for control and audit purposes through a simple communication media such as short message services (SMS).

RESEARCH METHODS

DATA COLLECTION PROCEDURE AND SAMPLE

Data are collected from zakat payers in the Klang Valley (Selangor and Kuala Lumpur), who are above 18 years old. Using convenience sampling method, around 150 zakat payers are sent the questionnaire (including online survey). A total of 115 questionnaires are returned, where 93 are usable for data analysis purpose. The lower response received from the zakat payers may due to the time constraint, online survey through email may get caught in spam filters, respondents may not understand the question and many errors aroused during the filling up of the survey, and reluctance of donors or crowd funders to participate into the survey (privacy and confidential issue).

The behavioural intention of zakat payers to use Integrated Zakat- Crowdfunding Model was tested by using partial least squares (PLS) regression. According to Thakur (2014), PLS is a structural equation modelling technique in which it assesses the reliability and validity of the measures of theoretical constructs and estimates the relationships among these constructs simultaneously. Furthermore, this approach allows researchers to assess measurement model parameters and structural path coefficients, and is widely used in information science research (Bock et al., 2005). The advantages of PLS include minimal restrictions on measurement scales, sample size and residual distributions (Chin et al., 2003).

RESEARCH FINDINGS AND DISCUSSION

DESCRIPTIVE ANALYSIS- DEMOGRAPHY INFORMATION & AWARENESS

Table 1 showed 32.2 percent of the respondents are male while 67.7 percent are female. Almost three-quarters (83 percent) of the respondents are between the age group of 20-40, few are over 40 years of age (17.2 percent). Consequently, the responses expressed in the survey well reflect the attitudes and perceptions of the middle-aged and younger respondents (that is if we consider those above 40 to be the older respondents).

Respondents are completed primary or secondary school (6.4 percent), 36.5 percent holding a college diploma or matriculation and about 57 percent holding at least a bachelor degree or above. In terms of employment, majority of the respondents are worked at private (47.3 percent), government (41 percent) and self-employed with 12 percent. In terms of awareness of crowdfunding, majority of them are aware off the crowdfunding (66 percent) and willing to use crowdfunding platform (77.4 percent). Indeed, 77.4 percent of the respondents are agreed with the usage of zakat-based crowdfunding platform for collection and distribution of zakat fund.

Table 1: Distribution of Respondents by Demography & Awareness Information

Items	Categories	N (%)
Gender	Male	30 (32.2)
	Female	63 (67.7)
Age	20-30	40 (43)
	31-40	37 (39.7)
	41-50	9 (9.7)
	>50	7 (7.5)
	Secondary school	6 (6.4)
Educational Level	Diploma	34 (36.5)
	Degree	37 (39.7)
	Master/PhD	16 (17.2)
Monthly Income	less than RM2500	46 (49.4)
	RM2501- RM5000	28 (30)
	RM5001-RM10,000	19 (20.4)
Type of Employment	Government	38 (41)
	Private	44 (47.3)
	Self-Employed	11 (12)
Awareness of crowdfunding	Yes	61 (66)
	No	32 (34.4)
Willingness to use crowdfunding	Yes	72 (77.4)
	No	21 (22.6)
Agree with Zakat-based Crowdfunding	Yes	72 (77.4)
	No	21 (22.6)

ASSESSMENT OF MEASUREMENT MODEL

The convergent validity was tested at the initial stage. During the test of convergent validity, indicator or items loadings, average variance extracted (AVE) and composite reliability (CR) were taken into the consideration. Based on the results presented in Table 2, items' loading exceeded 0.6 for items, which meet the recommended value suggested by Hair et al. (2009). In terms of AVE threshold or requirement, Hair et al. (2009) suggested that AVE should exceed 0.5. In the current study, AVEs were in the range of 0.650 and 0.727. The CR value ranged from 0.917 to 0.940, which meet the recommended value of 0.7 suggested by Hair et al. (2009). Table 6 shows the results of measurement model.

Table 2. Results of Measurement Model

Construct	Items	Loadings	AVE	CR
Perceived Usefulness (PU)	Q4	0.804	0.724	0.940
	Q5	0.895		
	Q6	0.856		
	Q7	0.846		
	Q8	0.859		
Perceived Ease of Use (PEOU)	Q9	0.843	0.650	0.917
	Q10	0.776		
	Q11	0.838		
	Q12	0.868		
	Q13	0.818		
	Q14	0.746		
	Q15	0.784		
Behavioral Intention (BI)	Q16	0.754	0.727	0.930
	Q17	0.830		
	Q18	0.888		
	Q19	0.875		
	Q20	0.907		

After conducting earlier test of convergent validity, next, the discriminant validity needs to be tested. Henseler et al., (2015) have suggested an alternative approach to access discriminant

validity using heterotrait-monotrait ratio of correlations. If the HTMT value is greater than HTMT_{0.85} value of 0.85 (Kline 2011), or HTMT_{0.90} value of 0.90 (Gold et al., 2001) then there is a problem of discriminant validity. The current results showed that all the values lower than the HTMT_{0.90} (Gold et al., 2001) and also the HTMT_{0.85} (Kline, 2011) as shown in Table 7, the results were indicated that discriminant validity has been ascertained by using HTMT inference. Based on these results, it indicates that measurement model has adequate convergent validity and discriminant validity.

Table 3. HTMT Criterion

	BI	PEOU	PU
BI			
PEOU	0.763		
PU	0.726	0.699	

Assessment of Structural Model

Ramayah et al. (2016) have suggested using R^2 to observe the goodness of the structural model. According to Hair et al. (2011), coefficient of determination and the level of significance of the path coefficients (beta values) can be captured by R^2 . The R^2 for the current research is 0.66, suggesting that 66 percent of the variance of behavioral intention of using IICME model can be explained by perceived ease of use and perceived usefulness.

Subsequently, in order to assess the statistical significance of path coefficients, the current study has calculated the path coefficients of the structural model and performed bootstrap analysis (re-sampling = 500) (please see Table 8). Based on results, it revealed that perceived usefulness and perceived easy to use has a positive relationship with behavioral intention to use IICME model with $b = 0.28$, $p < 0.01$ and $b = 0.600$, $p < 0.01$, respectively. In addition, perceived easy to use has a positive relationship and direct effect with perceived usefulness with $b = 0.65$ and significant at $p < 0.01$. Thus, H1, H2, and H3 are supported. Table 4 shows the results of Structural Model.

Table 4: The Results of Structural Model

Hypothesis	R/ship	Std. Beta	Std. error	t-value	Decision
H1	PEOU-> BI	0.600	0.596	8.50	Supported
H2	PU -> BI	0.280	0.084	3.35	Supported
H3	PEOU -> PU	0.649	0.657	9.54	Supported

DISCUSSION OF RESULTS

In this study, the behavioral intention of zakat payers to use Integrated Zakat- Crowdfunding-Model was found to depend on perceived usefulness and perceived easy to use. Perceived usefulness is the perception that a given a technological-based system (online fund raising), it will help a user (in our case zakat payers) to achieve his or her work goals. Zakat payers need a mechanism that could help zakat institutions to collect and distribute zakat fund in Malaysia.

The findings also suggest that zakat payers would like to engage with the proposed model because they believed that IZCM going to bring benefit and useful for them. This perception motivated them to utilise the technology for their work. Indeed, since IZCM is involving platform to collect and distribute zakat fund, thus zakat payers might only involve with this model if they believe that it provides useful and interactive platform. This finding is consistent with Venkatesh et al. (2000), Abassi et al. (2011), and Cheng et al. (2006). This model is expected to create a positive perception towards

zakat institutions, who are looking for alternative channel to collect and distribute zakat fund effectively.

On the other hand, according to Davis (1989), the degree to which a person believes that easy-to-use technology was associated with greater intent to use it is known as perceived ease of use. Thus, the easier to involve with IZCM, it will attract zakat payers to contribute zakat fund using this platform. It means zakat payers will have a positive attitude toward the use of IZCM when they feel greater benefits and easy accessibility into various elements such as faster information search, risk availability, projects/activities, and security. This finding is also similar to Davis (1989), Gefen et al. (2004) and Yi et al.(2003). Meanwhile, perceived ease of use was positively associated with perceived usefulness. It means that the easier the system was to use, the more useful it was perceived to be. Thus, IZCM may need to have the features that useful to the user particularly zakat payers.

CONCLUSION

Although the statistics show a very significant collection of zakat fund in Malaysia, a constraint on distribution among zakat institutions results in the limiting of opportunities for zakat recipients. This paper has developed Integrated Zakat-Crowdfunding Model (IZCM). The model is expected to assist zakat institutions to collect and distribute zakat fund effectively in Klang Valley, Malaysia.

Later, this study has empirically tested the behavioral intention of zakat payers in adopting this model by applying TAM. The author has extended the application of TAM in the context of zakat and crowdfunding. This study has proven that both perceived usefulness and perceived ease of use are directly significant in influencing the zakat payers' intention to use IZCM. The findings of this study can be used to develop a specific framework in which to examine other components of using IZCM's behavior and to plan appropriate intervention strategies to increase its capacity in boosting zakat collection and distribution in Malaysia.

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