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DONATION-BASED CROWDFUNDING FOR COMMUNITY DEVELOPMENT PROJECTS IN THAILAND

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Abstract

This study explores the factors that affect intention to donate via crowd-funding digital platforms, and donors' decisions to participate in online donation crowdfunding. The convenience sample comprised 638 participants who had donated to any organisation. Data were gathered via online questionnaires and analysed through multivariate analysis of variance (MANOVA) to test the hypotheses. The findings indicated that demographic factors such as educational background, occupation and communication tools were associated with online donation fundraising for community development. The variance analysed in terms of donation histories and attitudes towards donating revealed that the relationship to online funding for community development had a significance level of 0.05. However, 80.3% of participants were uninterested in donating to community development projects. These results may indicate the most reliable connections, facilitating the creation of guidelines to set proper plans and strategies for online community donations.

Key words:

Crowdfunding, Donations, Community project.

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1. Introduction

Crowdfunding is the practice of funding a project by a large number of people. Funders will set a funding goal and then promote and share their campaign with a crowd. Whoever is interested in supporting it can do so through fundraising (Asiola Limited, 2017, Kuppuswamy & Bayus, 2013). Franke and Klausberger (2008) have found that people tend to participate in funding projects that they perceive as being fair.

Lambert and Schwienbacher (2010) have indicated that the majority of crowdfunding projects do not have a direct relationship with project decision making. If investors are unable to participate in any of the project's processes, rewards and reasonable deals must be offered. In other words, the negative effects that exist during passive investment can be compensated by rewards and being a controller.

MIT Technology Review identified online crowdfunding as an emerging technology of 2012 (Greenwald, 2012). Indeed, it reflects a new pattern of using the Internet as a funding portal, and extends opportunities to invest in businesses to people with less capital. Moreover, crowdfunding processes are not complicated (Suwannathat, 2013). The most important step is to create excellent and interesting ideas. Crowdfunding can then be initiated through registration with a crowdfunding website such as Kickstarter, Indiegogo, or Pledge Music (Kemgumnird, 2014). Platforms vary in terms of industry and objective. Once initiators have registered on a crowdfunding website, they must submit the project's details (including its aims and scope of cooperation) in order to share information with those potentially interested in investing. Today, crowdfunding projects can be promoted via social media such as Facebook and video platforms like YouTube in order to increase recognition. These online platforms can also be used by funders to develop project details such as funds management, project goals, timeframe and details regarding compensation (Djamchid, 2015). On viewing the campaign, the audience may opt to donate directly via crowdfunding platforms. There are also numerous forms of compensation available for supporters, such as a 'thank you' email. These methods differ from traditional fundraising, for instance by banks.

A Mastercard survey regarding donations in Thailand has revealed that 70.5% of Thais donate for merit-making. Due to the convenience provided by recent technological advances, online donations are increasing; yet, concerns regarding the safety of online transactions may affect donation amounts. Nevertheless, tracking the transactions of donations via registered charity websites is generally easier than tracking transactions of cash donations (Thai Rath Online, 2016).

Apinunmahakul (2015) has examined the factors that affect Thais' donations and the possibility of individuals donating money, items and time. His findings demonstrate that decision making in monetary donations has no relation to item donations, while donated money and stuff or volunteer are the products that donors must consider simultaneously. Social capitals, especially formal and informal social and religious networks, positively affect donation decision making.

1.1. Objectives

1. To study the factors that affect crowdfunding for a community development project.

2. To study acceptance of user behaviour on an online crowdfunding platform.

1.2. Conceptual Framework

Independent variables include personal factors, gender, age, education level, monthly income, occupation, community tools and attitudes towards donations, while dependent variables comprise donation decision making and the amount donated to community projects.

1.3. Definitions

Decision making in regard to donating for community development constitutes the practice of funding a community project by a large number of people, each of whom donates small amounts of money, typically via a crowdfunding platform. This pattern of fundraising is well-suited to the contemporary world due to its convenience (Office of the Electronic Transactions Commission, 2016). This study includes two variables: the amount of donated money and the decision to donate (or not) to community development projects.

Donation platform software can readily record the activities of and information regarding donors and communication. New functions and modules have been improved in recent years, resulting in cutting-edge innovations that can be connected with a financial technology system or FinTech (Numnoon, 2015).

1.4. Scope of the study

1. Population: a group of 638 donors who have never donated money to charity, selected via convenience sampling.

2. Timeline: three months, from December 2018 to February 2019.

3. Content: this study aims to study the factors that affect crowdfunding for a community's project development.

1.5. Hypotheses

1. Personal factors (including gender, age, education level, monthly income, occupation and communication tools) are relevant to decision making regarding donating for community development.

2. Crowdfunding attitudes influence decision making regarding donating for community development.

2. Methodology

This is a quantitative study using convenience selection sampling. The data were collected from 638 sets of online questionnaires. Before completing the surveys (questionnaire link: https://bit.ly/2TDh2no), all participants were required to explore the websites of two Corporate Social Responsibility: CRS projects (Doi Fah Ngam Smart Community Project and Phu Kae Smart Community Project) containing details and video clips in order to understand these projects' overviews (website link: https://goo.gl/VNyVKD). Next, the data were analysed via two methods of analysis: descriptive analysis and inferential statistics analysis. The former was used to analyse demographic factors in mean and percentage values, while the latter was used to analyse the hypotheses through multivariate analysis of variance (MANOVA).

3. Results

For MANOVA to be used, dependent variables must be either interval scale or numeral measurement and present a relationship with one another. In this study, the dependent variables include the exact amount of money given to charity and decision making regarding whether or not to donate money for community development projects.

3.1. Descriptive analysis for demographic factors analysis

Table 1

Factors affecting donations for community projects

Personal information		
Factors		Percentage
Sex	Male	36.2
	Female	63.8
Age	20-29	60.0
	50+	2.8
Education level	Lower than bachelor's degree	12.9
	Bachelor's degree or equivalent	66.3
Monthly income	20,001–30,000 Baht	39.2
	Over 40,001 Baht	11.4
Occupation	Company employee	46.6
	Merchant/freelance	2.8
Communication tools	Facebook and LINE	29.6
	Facebook	4.9
History of donating		
Annual number of donations	1-3 times/year	44.2
Average amount of money per donation	Less than 100 Baht	51.4

Purposes of donating	For religion purpose	28.5
Donation or not		
Not interested in donating		80.3
Interested in donating		19.7

Table 1 presents the factors that influence donations to community development projects. We note that 80.3% of participants did not donate online for community projects. Females are nearly twice as likely as males to donate (63.8% vs. 36.2%, respectively), while the proportion of 20- to 29-year-old participants is over 20 times greater than those aged 50 or over. The majority of respondents are company employees (46.6%) and 66.3% of people have a bachelor's degree or equivalent. The percentage of participants who earn 20,001–30,000 Baht is 39.2%. In terms of history of donating, most respondents donate one to three times per year, give less than 100 Baht and donate for religious purposes (44.2%, 51.4% and 28.5%, respectively).

3.2. Assumptions test for appropriate MANOVA use

Table 2

Correlation of dependent variables

Correlation of variables		**Amount of donated money**	**Decision making to donate or not**
Amount of money donated	Pearson correlation	1	.843**
	sig. (2-tailed)		.000
	N	638	638
Decision making to donate or not	Pearson correlation	.843**	1
	sig. (2-tailed)	.000	
	N	638	638

The amount of money donated is related to decision making to donate or not (dummy variables: to donate to charity = 1, not to donate to charity = 0) at a significance level of 0.05, and the relationship's direction is positive. According to Wanitdumrongsak (2012) reference range, the correlation coefficient of 0.843 represents a large association, and so the dependent variables of amount of money donated and decision making presents a strong correlation with the MANOVA use criteria.

Table 3

Data distribution

Descriptive statistics			Statistic	Std Error	Criteria
Amount of money donated	Mean		11.7382	1.11182	
	95% confidence interval for mean	Lower bound	9.5550		
		Upper bound	13.9215		
	Variance		788.658		
	Std deviation		28.08306		
	Skewness		2.658	.097	2.658/.097=27.402
	Kurtosis		7.010	.193	7.010/.193=36.321

The statistic/standard error being between +/-1.96 indicates a normal distribution. This formula of statistic/standard error demonstrates:

Skewness: 2.658/.097 = 27.402, above 1.96

Kurtosis: 7.010/.193 = 36.321

The results are beyond the range of +/-1.96, hence these data exhibit a positively skewed distribution with a high kurtosis value, as shown in Figure 1.

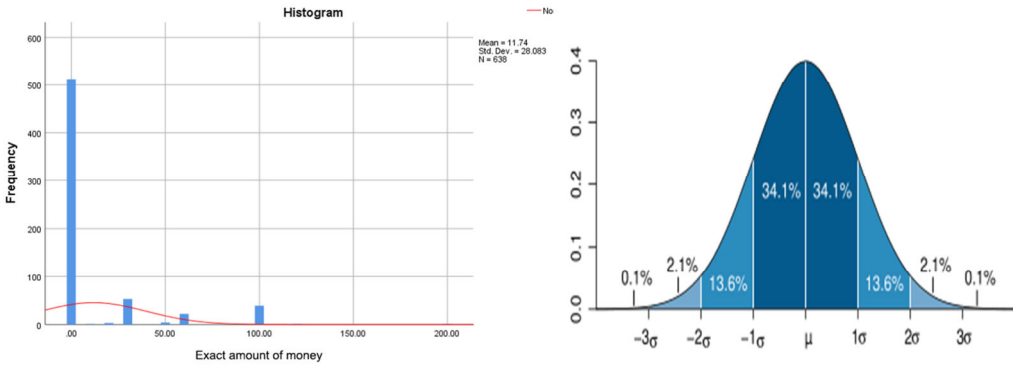

Fig. 1. Histogram

Given that the distribution is positively skewed, the natural logarithm (LN) is used to adjust the data values via the formula Log_e = LN (amount of money donated). The results are presented in Table 4.

Table 4

Data distribution having been adjusted by natural logarithm (LN)

	Descriptive statistics		Statistic	Std Error	Criteria
Total	Mean		.1026	.00864	
	95% Confidence Interval for mean	Lower bound	.0857		
		Upper bound	.1196		
	Variance		.048		
	Std deviation		.21813		
	Skewness		1.842	.097	1.842/.097=18.990
	Kurtosis		1.800	.193	1.800/.193=9.326

With LN (amount of money donated), the skewness and kurtosis fall: the former from 27.402 to 18.990 (statistic/std error = 1.842/.097) and the latter from 36.321 to 9.326 (statistic/std error = 1.800/.193). Thus, having adjusted the non-normally distributed (positively skewed) data, reductions in skewness and kurtosis can be observed, and hence the new set of data may be used for more effective analysis.

3.3. Hypothesis test using MANOVA

Table 5

Variance test of education level and occupation

Box's M	117.801
F	1.986
df1	51
df2	4030.314
Sig.	.000

There is a statistically significant difference at 0.05 in the between-groups variation of independent variables tested by Box's test of equality of covariance matrices.[a] This is not in line with assumptions, or alternatively assumptions have been violated. Therefore, the test is robust, or the power of the test decreases. As a result, Wilks' lambda, a commonly used test in MANOVA, must be amended to Pillai's trace, which is more robust when assumptions are violated. However, test statistic values are usually similar.

Table 6

Difference in mean of demographic variables by multivariate tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's trace	.134	38.405[b]	2.000	496.000	.000
	Wilks' lambda	.866	38.405[b]	2.000	496.000	.000
	Hotelling's trace	.155	38.405[b]	2.000	496.000	.000
	Roy's Largest Root	.155	38.405[b]	2.000	496.000	.000
Education level	Pillai's trace	.037	4.622	4.000	994.000	.001
	Wilks' lambda	.964	4.653[b]	4.000	992.000	.001
	Hotelling's trace	.038	4.683	4.000	990.000	.001
	Roy's largest root	.037	9.198[c]	2.000	497.000	.000
Occupation	Pillai's trace	.050	3.157	8.000	994.000	.002
	Wilks' lambda	.951	3.161[b]	8.000	992.000	.002
	Hotelling's trace	.051	3.165	8.000	990.000	.002
	Roy's largest root	.038	4.784[c]	4.000	497.000	.001

The demographic variables are age, education level, monthly income and occupation. In Table 6, Pillai's trace indicates that at the significance level of 0.05, only education level and occupation show a significant relationship with dependent variables. Furthermore, other tests including Wilks' lambda, Hotelling's trace and Roy's largest root show the same trends at a significance level of 0.05.

Table 7

Variance test of communication tools

Box's M	190.510
F	10.437
df1	18
df2	271769.945
Sig.	.000

At the significance level of 0.05, the variance in the between-groups variation of independent variables tested by Box's test of equality of covariance matrices[a] shows a statistically significant difference, hence there are violations of assumptions. Thus, the test shows robustness or a decrease in test power. Therefore, Wilks' lambda, a

commonly used test in MANOVA, needs to be replaced by Pillai's trace, which is more robust when assumptions are violated. However, there are usually similar trends in test statistics.

Table 8

Difference in mean of communication tools by multivariate tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's trace	.176	58.429[b]	2.000	547.000	.000
	Wilks' lambda	.824	58.429[b]	2.000	547.000	.000
	Hotelling's trace	.214	58.429[b]	2.000	547.000	.000
	Roy's largest root	.214	58.429[b]	2.000	547.000	.000
Communication tools	Pillai's trace	.067	3.169	12.000	1096.000	.000
	Wilks' lambda	.934	3.185[b]	12.000	1094.000	.000
	Hotelling's trace	.070	3.201	12.000	1092.000	.000
	Roy's largest root	.058	5.262[c]	6.000	548.000	.000

Pillai's trace indicates that the demographic variable of communication tools shows a significant relationship with dependent variables at 0.05. In addition, Wilks' lambda, Hotelling's trace and Roy's largest root show the same trends at a significance level of 0.05.

Table 9

Variance test of attitudes towards crowdfunding

Box's M	124.447
F	2.490
df1	48
df2	46120.325
Sig.	.000

There are statistically significant differences in the between-groups variation of independent variables tested by Box's test of equality of covariance matrices[a] at 0.05. This is not in line with assumptions, or there are violations of assumptions. Therefore, the test is robust or the power of the test decreases. As a result, Wilks' lambda, a commonly used test in MANOVA, needs to be changed to Pillai's trace, which is more robust when assumptions are violated. However, test statistic values are usually similar.

Table 10

The difference in mean by multivariate tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's trace	.109	37.241[b]	2.000	611.000	.000
	Wilks' lambda	.891	37.241[b]	2.000	611.000	.000
	Hotelling's trace	.122	37.241[b]	2.000	611.000	.000
	Roy's largest root	.122	37.241[b]	2.000	611.000	.000
Attitudes towards crowdfunding	Pillai's trace	.183	2.471	50.000	1224.000	.000
	Wilks' lambda	.822	2.512[b]	50.000	1222.000	.000
	Hotelling's trace	.209	2.552	50.000	1220.000	.000
	Roy's largest root	.168	4.117[c]	25.000	612.000	.000

Pillai's trace indicates that attitudes toward crowdfunding present a significant relationship with dependent variables at 0.05. The same trend is evident in other tests, including Wilks' lambda, Hotelling's trace and Roy's largest root, at a significance level of 0.05.

4. Conclusion and Discussions

The findings indicate that at a statistical significance level of 0.05, demographic factors including education ($p = 0.001$), occupation ($p = 0.002$) and communication tools ($p = 0.000$) are related to online donation crowdfunding for community development projects, and so these factors affect decision making in donation crowdfunding via digital platforms. According to Bin Mohd Noor et al. (2015), education level affected charitable donations in Malaysia, the United Kingdom, Brunei and Pakistan, but not Australia due to this country containing a large proportion of refugees who may lack a high level of education. The results of their study are congruent with our own, possibly because a high proportion of our participants had a bachelor's degree or similar. The next factor influencing participants' decisions to donate via a crowdfunding website was occupation. The majority of our respondents were company employees, who may be more willing to donate. Communication tools such as social networks also have an impact on online donation crowdfunding. Saxton and Wang (2011) have examined the impacts of social networks on giving, finding that the size of an organisation's social network is closely related to the receipt of charitable contributions. Accordingly, respondents who use Facebook and LINE predominated in this study's sample, and any information

regarding donations shared through these social networks may influence donors' decision making. In addition, statistics from the Bangkok Post have revealed that there were 46 million registered Facebook users in 2017 and 32 million LINE users in 2018 in Thailand. Therefore, both social networks represent an essential part of daily life for most Thai people (Norcross, 2017, Leesa-Nguansuk, 2018).

Attitudes towards donation can be related to crowdfunding on digital platforms for community development ($p = 0.000$). Many donors may be concerned about the safety of online donation crowdfunding systems. Jenik, Lyman and Nava (2017) have stated that fraud (such as fake campaigns and cyberattacks) is the most obvious risk that donors may encounter. Fake campaigns may be relevant when a campaign is not run by a reliable institution registered in a public register and subject to some minimum requirements, such as disclosing financial statements. Individual-run campaigns can be created for any lawful purpose, including purely selfish reasons that are not initially disclosed to donors. Therefore, if the platform fails to guarantee sufficient transparency, donors may not be able to track whether their donations were used for the purpose intended. Moreover, donors may be affected by issues such as cyberattacks, technological failure, or the potential closure of the platform, and so there is a risk of losing data and funds.

It is noteworthy that only 19.7% of respondents were interested in donating for community development projects, whereas 80.3% did not donate money via crowdfunding websites. There are numerous reasons why so many people do not donate to community projects. First, the majority of our respondents were aged between 20 and 29, which may have affected the donation trends we yielded. Although Gen Y people appear to be sociable, as individuals they seem to focus more on sharing and solidarity than on charity, and so they tend to reject institutionalised forms of giving, especially via charities. Another reason is that donors might not expect the money to be used efficiently. Southin (2013) has referred to Statistics Canada to argue that 56% of men aged 75 and over do not give because they do not believe that their money will be used efficiently. This concern regarding the efficiency of the use of funds is relevant to crowdfunding.

5. Recommendations

Most respondents did not rely on crowdfunding via a digital platform, and so pictures or video clips regarding donations for community support should be provided in order to ensure clearer communication, ultimately leading to greater trust.

Governments should set clear policies for crowdfunding by creating strict regulations that are enforced in local administrative organizations where cronyism will not

occur. They should also control and manage the money received from donations and increase penalties to reduce repeat offences. Given that donating is a voluntary action, the government cannot ignore it, and local participation will enlarge the nation development finally.

Future research should compare attitudes and behaviour regarding the giving of money for community development. The results may indicate the most reliable connections, facilitating the development of appropriate plans and strategies for online community donations.

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