# THE EFFECT OF TECHNOLOGY CHARACTERISTICS IN THE CONTINUED USE OF CHARITY CROWDFUNDING PLATFORMS THROUGH TRUST AND USER SATISFACTION

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ARTICLE INFO	ABSTRACT
Article history:	This research's objective is to examine the effect of technological
Received: December 26 <sup>th,</sup> 2022	characteristics on trust and satisfaction in using a charity
Revised: Febuary, 20 <sup>th</sup> , 2023	crowdfunding platform so that the user will reuse the platform. The
Accepted: May 19 <sup>th</sup> , 2023	use of technology in excellent and sustainable online donation
<b>Keywords:</b>	fundraising requires the fulfilment of technological characteristics. A
Technology Characteristics	study by Bhattacherjee (2001)) stated that continued use influences
Continued Use	information technology's success. Another significant area in
User Satisfaction	information systems research is user satisfaction because it is an
User Trust	essential factor in measuring the use and success of an information
Charity Crowdfunding Platform	system (Bailey and Pearson, 1983; Ives et al., 1983; Doll and
Correspondence: Eska Almuntaha eska@akprind.ac.id	Torkzadeh, 1988; Delone and McLean, 1992 in Roca et al., 2006). This study used the purposive sampling method and tested the hypothesis using the Structural Equation Model (SEM). This research proves that trust affects the satisfaction of using a charity crowdfunding platform, but not with technological characteristics. Meanwhile, users' satisfaction influences continued use but not trust

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#### **INTRODUCTION**

Information technology development for Indonesia's financial sector is very rapid. Many digital financial services create alternatives for people to carry out economic activities with the presence of digitally financial services in society, making life easier. Not only for banking and business matters, but digital financial services can also be used for mutual assistance. Since the Covid-19 pandemic hit, digital financial services have increased, including charity crowdfunding platform services. The advances in information technology have positively impacted finance, including social fundraising activities through online applications or so-called charity crowdfunding. A charity crowdfunding platform is a non-profit online fundraising method used in various fields, such as education, health, natural disasters, culture, performing arts and others (Belleflamme et al., 2014).

Donation fundraising is a social and humanitarian program carried out by a group of people or non-profit organizations to raise funds for a specific purpose. Online donation fundraising makes the circulation of funds in the community even more significant, resulting in increased economic growth. The development of charity crowdfunding platforms has been quite significant in the last five years, both in terms of the number of platforms, the diversity of applications, and the total amount of income earned (Ministry of Finance, 2022). Donations can be made easily, quickly, and as desired with a charity crowdfunding platform. Donors deciding to use charity crowdfunding platform services have special considerations in choosing the transaction application service to be used by considering the convenience features of technological characteristics. Donors will make online transactions using service applications that are easier, more practical, faster and less complicated (Li et al., 2020). In addition, the applications offered must have technological innovations so that the quality of services and products is increasingly experiencing dynamic development. The use of technology in excellent and continued use of online donation fundraising meets the technological characteristics. Technological characteristics are divided into three categories (Ayyagari et al, 2011):

Usability features, there are three indicators used, namely usefulness, complexity and reliability.

- 1. Disturbance feature, there are two indicators used, namely presenteeism and anonymity.
- 2. Dynamic features as measured by the speed of changes in technology used.

An online donation fundraising application that meets the technological characteristics mentioned above can increase user trust and satisfaction so that users will return to donate online by using the application. The large number of charity crowdfunding platform that are currently developed, such as kitabisa, dompetduafa, ayopeduli.id, gandengtangan, benihbaik, WeCare.id, etc., make people have choices to be easier and more reliable to donate. Therefore, this research can be a reference for the platform developers. This research examined the effects of technological characteristics in building trust and user satisfaction with information technology so that users will reuse it. The limitation of the problem in this study is that the information technology tested is an charity crowdfunding platform where data collection is carried out using a purposive sampling technique through Google form, distributed mainly through the research team's social media.

# THEORETICAL FRAMEWORK AND HYPOTHESES

### Charity crowdfunding platform

Donation fundraising is a social and humanitarian program by several people or non-profit organizations to raise funds for a specific purpose. In Indonesia, many fundraising activities are carried out because of the culture of mutual help inherent in society. According to Filantropi Indonesia, one of the goals of raising donations is to participate in achieving social justice and sustainable development. Dataindonesia.id states that internet use in Indonesia reached 73.7% of the population in early 2022. This increase in internet use is mainly due to the use of mobile phones in society, which has increased significantly since the Covid-19 pandemic. Studies show that mobile phones and internet use for financial transactions have increased significantly (Demirgüc-Kunt et al., 2018). Increasing internet access through affordable devices can enable people to use cheaper payment systems when making transactions. According to World Bank data, in general, two-thirds of 1.7 billion adults still do not have a bank account but have a cell phone. This allows the public to access financial services, including charity crowdfunding platforms, to increase community financial inclusion. According to Bank Indonesia, one of the goals of financial inclusion is to minimize inequality and improve people's welfare to reduce poverty. Financial inclusion is a bridge between the gap between the rich and the poor. With physical restrictions due to the Covid-19 pandemic, many people have switched to charity crowdfunding platform to donate, both smartphone-based and web-based.

### **Technology Characteristics**

The technology characteristics used in this study were adopted from (Ayyagari et al., 2011) as follows:

1. Usability Features

Usability features can be identified by three indicators as follows:

- a) Usefulness is defined as one of the technology characteristics that can improve users' performance.
- b) Complexity is defined as one of the characteristics of technology that make users feel easy to use the technology.
- c) Reliability is defined as a technological characteristic that makes the features and capabilities provided reliable by its users.

## 2. Interruption Feature

Disturbance features can be identified by two indicators as follows:

- a) Presenteeism has defined a technology characteristic that allows users to access each other.
- b) Anonymity is a characteristic of technology that allows identifying its users.
- 3. Dynamic Features

The pace of change can identify usability features, that is, the technology characteristic that continues to change along with its development, so users must continuously update and adapt to rapidly changing technology.

In previous research about technology adoption, the importance of developing technologies that demonstrate characteristics of usefulness and reliability (Ayyagari et al., 2011).

### Trust

Trust is defined as user confidence in conducting transactions with an information system. Trust is one of the critical factors in e-commerce (Gong et al., 2022). Moreover, it can adapt to financial technology, including charity crowdfunding platform.

H1: Technology characteristics positively affect users' trust in charity crowdfunding platform.

# Satisfaction

Satisfaction is defined as the user's feelings that compare their expectation and experience to reusing the technology. Ding et al. (2017) stated that satisfaction consists of being satisfied with the application, having a pleasant experience using the application, and the application's performance according to what is expected.

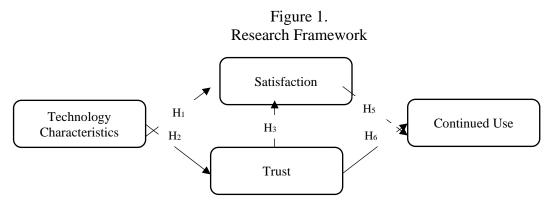
- H<sub>2</sub>: Technology characteristics positively affect the user's satisfaction of charity crowdfunding platform.
- H<sub>3</sub>: Trust positively affects the user's satisfaction of charity crowdfunding platforms.

# **Continued Use**

A study conducted by Bhattacherjee (2001) shows that the success of information technology is influenced by its continued use. One of the critical reasons for the continued use of information technology is that the investment in information technology provides benefits from the start of implementing the information technology onwards. In the information technology adoption literature, it is implicitly assumed that the decision to adopt information technology has almost the same meaning as the decision to continue using it (Hong et al., 2006). In information systems research, user satisfaction is an essential factor in measuring the use and success of an information system (Roca et al., 2006). Roca et al. (2006) propose a taxonomy and interactive model as a framework for conceptualizing and operationalizing successful information systems. They included six main dimensions of information system success: system quality, information quality, usage, user satisfaction, individual impact, and organizational impact. In this model, system and information quality individually and collectively affect system use and user satisfaction. Continued use can be defined as customer loyalty. Customer loyalty is a customer commitment to a brand, store, supplier, based on a positive attitude that is reflected in a consistent repurchase (Suariedewi, 2020). In financial sector, trust is the basis for maintaining customer loyalty. Building customers loyal in charity crowdfunding platforms is an important factor (Husain, 2017). The more trust, the more the customer will use the platforms.

H<sub>4</sub>: Trust positively affects the continued use of charity crowdfunding platforms. Customer's satisfaction can increase the platform use's intensity. Suariedewi (2020) proved that satisfaction will affect the loyalty to continue using mobile banking application.

H<sub>5</sub>: Satisfaction positively affects the continued use of charity crowdfunding platforms.



Source: processed data, 2022

#### **RESEARCH METHODS**

The source of data in this research is primary data. The object of this research is the community of users of online donation fundraising applications in Indonesia. Sampling in this study used a purposive sampling method by giving questionnaires to people who have used charity crowdfunding platforms. Questionnaire distribution was carried out through Google Forms on social media. Nine variables in this study are measured by a Likert scale of 1-5, from disagreeing to strongly agreeing.

Table 1	
Research variables	
Variable	Questionnaire
	items
a. Technology Characteristics:	
1. Usefulness (U)	4
2. Complexity (C)	3
3. Reliability (R)	3
4. Presenteeism (P)	4
5. Anonymity (A)	4
6. The pace of change (PoC)	4
b. Satisfaction (S)	4
c. Trust (T)	4
d. Continued use (CU)	3
~	

Source: processed data, 2022

The validity criteria include convergent validity and discriminant validity. Convergent validity is measured by factor loading (with valid criteria > 0.70), as well as AVE (Average Variance Extracted) and commonality with valid criteria above 0.50 each. Meanwhile, discriminant validity was assessed based on factor loading or comparing the AVE root value with the correlation between constructs. The construct is valid if the AVE root value exceeds the correlation between constructs. Reliability measured using Cronbach's Alpha and Composite Reliability that meets the requirements > 0.70. This study uses a composite reliability measure to determine to construct reliability because composite reliability is a closer approximation assuming that parameter estimates are accurate and a measure of internal consistency used for constructs with reflective indicators.

Hypothesis measured using Partial Least Square – Structural Equation Modeling (PLS-SEM) by smartPLS 4.0. PLS-SEM is a powerful analytical method because it is not based on many

assumptions (it does not have to be the multivariate normal distribution, and the sample does not have to be significant). PLS-SEM can be used to confirm the theory, also can explain the relationship between laten variable. Hypothesis testing can be done using p-value with Alpha used at 0.05, if p-value < 0.05 the research hypothesis is accepted.

# **RESULTS AND DISCUSSION**

Data were collected from respondents who have experience using charity crowdfunding platform applications. The questionnaire was distributed online through the researcher's social media, 106 respondents participated, but only 85 respondents filled out the questionnaire completely, met the criteria and could process for analysis. The following table is the descriptive data of respondents in this study:

Table 2.	
Descriptive Data	
<u>Genders:</u> Female Male	72.94% 27.06%
	27.0070
<u>Age:</u> < 21 years old 21 - 40 years old 41 - 60 years old	10.59% 72.94% 16.47%
Education: High school Diploma Bachelor Master Doctor	5.88% 1.18% 49.41% 42.35% 1.18%
Occupation: Employee Self-employed State Civil Apparatus Freelance Housewife Student	43.53% 12.94% 20.00% 3.53% 5.88% 14.12%
Domicile: Java Island Outside of Java Island	82.35% 17.65%

Source: processed data, 2022

Table 2 shows that the majority respondent of this study is female (72.94%). In addition, the majority age is about 21 - 40 years old (72.94%), categorized as millennials and gen z so that they can be experts in information technology. It relates to education that mostly the respondents are a bachelor's (49.41%) and a master's (42.35%). The respondents also have a reasonable salary rate, which their occupation can see. We simplify respondents' domicile into two categories: Java Island and Outside of Java Island because most internet usage is in Java Island (Statistics Indonesia, 2021).

### Validity and Reality Test

Test the validity and reliability using a result of more than 0.70. In testing, the following are valid question items:

			Tab	le 3			
			Factor L	oadings			
	Factor		Factor		Factor		Factor
_	Loading		Loading		Loading		Loading
A1	0,859	PoC1	0,936	R3	0,928	<b>S</b> 1	0,871
A2	0,867	PoC2	0,962	U1	0,829	<b>S</b> 2	0,857
A3	0,906	PoC3	0,966	U2	0,731	<b>S</b> 3	0,917
C1	0,974	PoC4	0,907	U3	0,875	S4	0,821
C2	0,972	R1	0,854	U4	0,886	CU1	0,94
P3	0,941	R2	0,946	T3	0,943	CU2	0,916
P4	0,886			T4	0,933		

Source: processed data, 2022

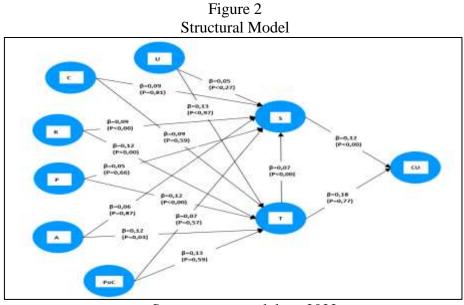
The table above is a valid question item with a factor loading value above 0.70. The question items with factor loading less than 0.70 mean not valid is excluded from the hypothesis test.

	Table	4		
	Validity and Reliabil	lity Test Res	ults	
	Cronbach's alpha	rho_a	rho_c	AVE
А	0,852	0,861	0,910	0,770
С	0,943	0,944	0,972	0,946
Р	0,807	0,864	0,910	0,835
PoC	0,959	0,976	0,970	0,890
R	0,896	0,904	0,935	0,829
U	0,853	0,910	0,900	0,693
Т	0,864	0,868	0,936	0,880
S	0,890	0,892	0,924	0,752
CU	0,840	0,856	0,925	0,861
	Source: process	ed data, 202	2	

Hair *et al.* (2019) state that if the AVE value is > 0.5, then the data is valid. In the table above, the AVE value is above 0.5, so the data is valid, with Cronbach's alpha and composite reliability values. Therefore, the respondent's data is valid and reliable from the processed data.

# **Hypothesis Testing**

Based on what was discovered in the PLS-SEM, the results of the hypotheses were indicated as the following



Source: processed data, 2022

		Table 5		
		Hypothesis 1 Res	sults	
	β	<b>T-</b> Statistics	<b>P-Value</b>	
A > T	0,125	2,082	0,037	Accepted
C > T	0,099	0,537	0,591	Not accepted
P > T	0,122	2,014	0,004	Accepted
PoC > T	0,130	0,536	0,592	Not accepted
R > T	0,120	2,769	0,006	Accepted
U > T	0,134	0,029	0,977	Not accepted

Source: processed data, 2022

The table above shows that anonymity, presenteeism and reliability are the technology characteristics that positively affect trust in charity crowdfunding platforms. Meanwhile, the usefulness, complexity and pace of change did not positively affect trust in the charity crowdfunding platform. From the result above, we can see that the critical factors of technology characteristic for charity crowdfunding platform users' trust are anonymity, presenteeism and reliability of the information technology. However, the users use the charity crowdfunding platform because they think it is useful even though it is complex and often changes, so these three variables did not affect their trust.

H<sub>2</sub>: Technology characteristics positively affect the user's satisfaction with the charity crowdfunding platform.

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		Table 6 Hypothesis 2 Re	sults	
	β	T- Statistics	<b>P-Value</b>	
A > S	0,066	0,155	0,877	Not accepted
C > S	0,090	0,234	0,815	Not accepted
P > S	0,058	0,043	0,664	Not accepted
PoC > S	0,071	0,557	0,577	Not accepted
R > S	0,091	5,087	0,000	Accepted
U > S	0,055	1,099	0,272	Not accepted

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Source: processed data, 2022

The table above shows that reliability is the technology characteristic that positively affects the satisfaction of using a charity crowdfunding platform. Meanwhile, usefulness, complexity, presentability, anonymity and pace of change did not positively affect the satisfaction of using charity crowdfunding platforms. Charity crowdfunding platforms' technology must only be reliable to satisfy the user. The user does not care about the other technology characteristic when they realize the application is reliable.

H<sub>3</sub>: Trust positively affects the continued use of charity crowdfunding platforms.

	F	Table 7 Iypothesis 3 Res	ults	
	β	<b>T- Statistics</b>	<b>P-Value</b>	
T > S	0,076	6,617	0,000	Accepted
	Sou	rce: processed da	ata, 2022	

The table above shows that the trust variable positively affects the satisfaction of using a charity crowdfunding platform. This result supports Suariedewi and Suprapti (2020) that trust positively and significantly affects customers' satisfaction with m-banking applications. It also proves in charity crowdfunding platforms.

H<sub>4</sub>: Trust positively affects the continued use of charity crowdfunding platforms.

		Table 8		
		Hypothesis 4 R	esults	
	β	<b>T- Statistics</b>	<b>P-Value</b>	
T > CU	0,185	0,290	0,771	Not accepted

Source: processed data

The table above shows that the trust variable is not proven to positively affect the continued use of charity crowdfunding platforms. Therefore, trust without satisfaction cannot make the user reuse the charity crowdfunding platform, so trust does not directly affect the continued use of the charity crowdfunding platform.

H<sub>5</sub>: Satisfaction positively affects the continued use of charity crowdfunding platforms.

		i pourobio o	Results	Table 9. Hypothesis 5 Results			
l	β	T- Statistics					
S > CU (	0,124	5,001	0,000	Not accepted			

The table above shows that the satisfaction variable positively affects the continued use of charity crowdfunding platforms. Satisfaction is proven to affect the continued use of charity crowdfunding platforms, supporting previous studies.

### **CONCLUSIONS AND SUGGESTION**

This study shows that trust in charity crowdfunding platform applications positively affects satisfaction with charity crowdfunding platforms but does not directly affect the continued use of charity crowdfunding platforms. Furthermore, satisfaction with using the charity crowdfunding platform application has a positive effect on the sustainability of the use of the charity crowdfunding platform application. However, all technology characteristic variables do not affect charity crowdfunding platform satisfaction. The trust of charity crowdfunding platform users is affected by anonymity, which means that users trust that hides the donor's identity well. So is presenteeism. Meanwhile, the reliability of the charity crowdfunding platforms can pay more attention to the factors of reliability, anonymity and perspective in developing their applications to improve the user's trust and satisfaction, thus impacting the continued use of the application. This research proves that users

trust is essential to raise donations for social purposes.

In Indonesia, not many people use charity crowdfunding platform applications. Generally, people prefer to channel social donations directly, not through applications, especially people outside big cities. It shows that the financial inclusion of the Indonesian people is not evenly distributed. For further research, it is possible to test what variables affect user trust in a charity crowdfunding platform.

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