



Factors Influencing the Undergraduate's Behavioural Intention to Second-hand Clothing Donation in Ho Chi Minh City: Extended Theory of Planned Behaviour

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Abstract. The unsustainable development of fast fashion is causing serious environmental and social consequences worldwide. With the accumulation and waste of resources that result from throwing away clothings to landfill, it is necessary to encourage people to dispose of their second-hand clothes as sustainably as possible. Therefore, second-hand clothing donation is preferred as offering comprehensive and optimal solutions, especially in developing countries like Vietnam. It is also a compassionate act that provides necessary clothes to people in need. This study aimed to explore the factors influencing the undergraduate's behavioural intention to second-hand clothing donation in Ho Chi Minh City (HCMC). By extending the Theory of Planned Behavior (TPB) with environmental factor - "Environmental Concern" and social factor "Philanthropic Awareness" to construct a research framework, the result of 244 valid responses from students at universities in HCMC confirmed three out of five hypotheses. The findings reveal that three factors: "Philanthropic Awareness", "Perceived Behavioral Control", and "Environmental Concern" have significant and positive influence on HCMC university students' intention of second-hand clothing donation while "Attitudes" and "Subjective Norm" are found no impact. The study contributes to new insight on the factors that influence the intention of second-hand clothing donation in Ho Chi Minh city. Based on this result, recommendations for charity organisations, local governments, and clothing drive fundraisers to enhance clothing donating intention is proposed.

Keywords: Environmental Concern, Philanthropic Awareness, Second-hand Clothing Donation.

1 Introduction

In recent years, the rapid growth in production and consumption of fast fashion is raising social, economic and environmental aspects. The era of fast fashion with "planned obsolescence" concept, therefore, has come where ZARA, H&M, and Adidas are the leading brands (according to The 2019 Fast Fashion Brand Ranking) thus promoting a throwaway culture. Fast fashion industry has been devastating the

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environment, agricultural lands while requiring extensive water usage in clothing production. The widespread use of synthetic fibres and microfiber contributes significantly to environmental degradation, particularly through its connection to ocean plastic pollution, ocean acidification, and climate change (Brooks, A., 2019). This concern has prompted various stakeholders, including society, academia, and governments, to shift their focus towards sustainable development, low-carbon economy, and circular economy as potential solutions to mitigate these environmental and social effects. According to Statista (2023), by 2029, the fast fashion market is expected to grow by 20 percent, which means the fast fashion market value will reach 43 billion U.S. dollars. Clothing is among the largest polluters in the world.

On the social-economic aspect, according to Vietnam Household Living Standard Survey (2022), the region with the lowest average income per person per month is the Rural area (3.86 million VND), particularly the Northern Midlands and Mountains (3.17 million VND). The left-behind families in rural areas, characterised by a lack of social welfare support, high dependency ratio and frequently facing natural disasters (storms, floods, and droughts, ...). Miserability is now not only the mentioned uneven development but also an enormous amount of old clothing being released out into nature (Roy et al., 2023), which can instead be redistributed as second-hand clothing to these small areas to help relieve the financial burden.

The predominant method of disposing of clothing in most countries continues to be landfilling, which poses challenges in terms of reusability and ecosystem degradation, even though natural fibres used as raw materials for sustainable fabrics decompose, they still contribute to the emission of greenhouse gases. Second-hand clothing (SHC) donation among ongoing efforts to circulate the life of these materials is preferred. Second-hand clothing donation refers to the act of giving or contributing used or pre-owned clothes to individuals, organisations, or initiatives for charity, which the authors consider to be meaningful to society, economy, environment and especially sustainable development (Muller, 2019). Firstly, donation for charity will reduce poverty when disadvantaged households can redirect their cash flow to human development instead of spending part of which on garments. Secondly, consumers simultaneously may feel pleased to maintain purchasing power in the fast fashion industry because the more clothes purchased, the more diverse people receiving used clothes will be. The view is supported by (Norris, 2012) who agreed that charitable donations provide a market-based solution to managing the textile waste stream that appears to benefit everyone. Thirdly, beneficial to the environment, donating SHC reduces resource usage, conserving water and energy needed for textile production (Shirvanimoghaddam et al., 2020). Additionally, it cuts down on waste generation, easing landfills burden, CO₂ emissions and promoting a circular economy (Farhana et al., 2022).

The sustainable disposal behaviour of second-hand clothes is attracting scholars' attention. Particularly, research by Hassan et al. (2022) and Vlastelica et al. (2023) on clothing disposal methods has been conducted within various theoretical frameworks and contexts. However, these studies lack comprehensive assessment of the primary motivations driving the donation of used clothing, considering both altruistic factors and environmental concerns within the same context. This has led to inconsistent

focus on donation as a sustainable disposal method but often revolves around reselling or recycling. Additionally, differing contexts in terms of donation conditions and socio-cultural environments across regions with varying levels of development have created significant disparities between previous research and research conducted in the Vietnamese context. Particularly during the onset of the Covid-19 pandemic, there was a notable influence on consumers' perception of the value of second-hand clothing (Galante Amaral & Spers, 2022). Therefore, findings from previous studies on clothing donation conducted before and during the Covid-19 period may differ from the current concept (Amin & Herjanto, 2023).

Despite being considered to be ignorant and uncaring when becoming the dominant consuming group in fast fashion (Herold & Prokop, 2023; Li, 2021), this Later – Millennials, the undergraduate in particular, have exhibited an increasing involvement in charitable donation activities (Agourram & Agourram, 2022; Konstantinou & Jones, 2022). Thus, the authors study the topic of "Factors influencing the undergraduate's behavioural intention to Second-Hand Clothing Donation in Ho Chi Minh City: Extended Theory of Planned Behaviour" to answer the following questions: Q1: "What factors influence undergraduate students' behavioural intention to donate second-hand clothes in Ho Chi Minh City?" and Q2: "Whether the undergraduates in Ho Chi Minh City are social activists, environmental activists or just performance activists?"

The answers to the two questions above will provide valuable recommendations for stakeholders aiming to promote donation among this demographic through tailored appeal strategies. Aligned with our research objectives, we advocate for sustainable disposal in the fashion industry, stressing its affordability and eco-friendly benefits for economic growth. Our focus includes promoting responsible consumption and production (SDG12) and reducing inequalities (SDG10), while ensuring access to social welfare for vulnerable households without financial strain.

2 Literature Review

2.1 Theoretical foundation

The Theory of Planned Behaviour (TPB) is often widely applied in explaining behaviours related to sustainability and environmental friendliness (White et al., 2023; Yadav & Pathak, 2017; Yuriev et al., 2020). Based on the foundation of TPB, intention (willingness to perform) is behaviour determined by three variables. The first variable is Attitude, which is the consumer's willingness to engage in the above behaviour. The second variable is the Subjective Norm, which includes a person's beliefs about whether significant others think they should perform the behaviour. The third variable measures the perception of control and available resources needed to perform the behaviour, called Perceived Behavioral Control (Ajzen, 1991).

According to Ogiemwonyi (2022), TPB is a widely used and experimental theory for predicting individual behaviour. However, Gifford & Nilsson (2014) believe that the model lacks a series of important social and personal factors, which also have an important impact on environmental protection behaviour. Wan et al. (2017) proposed

a potential solution, by introducing and exploring more factors than the original three. Expanding TPB in this way is considered to be very important for solving social and moral problems (Gansser & Reich, 2023; Y. Wang et al., 2024).

Academics have expanded upon the Theory of Planned Behavior (TPB) in their discussions on various sustainability practices, with a particular focus on environmental considerations. For instance, in a study conducted by Chaturvedi et al. (2020), the TPB was augmented to include factors such as willingness to pay, environmental concern and perceived value were major predictors of purchase intention for recycled clothing in developing countries. Similarly, (Rotimi et al., 2023) extended the theory by incorporating self-identity, general recycling behaviour, eco-literacy, self-efficacy to understand Australian consumers' intentions to recycle end-of-life garments. This research adheres to the original model of the TPB proposed by Ajzen (1991) and introduces an additional construct: Environmental Concern and Philanthropy Awareness to observe individuals' intentions to donate second-hand clothing in Ho Chi Minh City.

2.2 Hypotheses Development

Attitude “refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question” (Ajzen, 1991) or in donation context, is thoughts and feelings about the act of helping (Clowes & Masser, 2012; Erlandsson et al., 2018). The authors examine attitude as a measure of the positive or negative evaluation of students regarding the intention of donating second-hand clothes. A positive attitude plays a crucial role in shaping charity giving behaviour by influencing the undergraduate's awareness regarding non-profit organisations (Conlin & Bauer, 2022), in intentions to reuse end-of-life garments including donation (Oluwadamilola Olufemi Rotimi et al., 2024) or in donating intention towards flood-affected victims in Indonesia, whose geographical situation is similar to Vietnam (Utomo et al., 2020). Thus, hypothesis H1 is proposed:

H1: Attitudes has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation

Subjective Norm encompasses an individual's perception of social pressure and their inclination to either engage or abstain from a particular behaviour (Ajzen, 1991). Social pressure comes from those close to a person whether family member or friends (Oluwadamilola Olufemi Rotimi et al., 2024). Individuals with positive subjective norms towards a particular behaviour are more inclined to develop a positive intention to revisit (Manosuthi et al., 2020). People looking for their social image augment their status through the approval of the surrounding community (Burroughs & Rindfleisch, 2002; Urien & Kilbourne, 2011). Numerous investigators have consistently highlighted the significance of subjective norms in shaping intentions such as organic food purchasing (Ahmed et al., 2021), and the intentions of blood donors (Salazar-Concha & Ramirez-Correa, 2021). Therefore, hypothese H2 is proposed:

H2: Subjective Norms has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation

Perceived Behavioral Control (PBC) refers to "the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen, 1991) or individual beliefs about the ability and opportunities, obstacles in displaying behaviour (Susanto et al., 2021). Studies suggest that a higher PBC leads to a stronger intention to charitable giving. In Egypt university, perceived behavioural control determines students' intention to donate (Madiha Metawie, 2015). Similarly, it was found that an individual's intention to charitable donation increases when a sense of "perceived control" is strengthened, such as in social ethical standards (Lee & Kim, 2023), in food waste separation (Leeabai et al., 2023) or in handling textile waste of female consumers in South Africa (Sonnenberg et al., 2022). Consumers' decisions to donate are typically utilitarian, driven by the desire to optimise closet space rather than prosocial or pro-environmental motivation. The convenience of the donation location is a key factor (Ha-Brookshire & Hodges, 2009). Hypothesis H3 is proposed:

H3: Perceived Behavioral Control has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation

Environmental concern refers to the level of awareness regarding ecological issues and the willingness to reinforce, address, or contribute solutions (Fauzan & Azhar, 2020; Marvi et al., 2020). Donations are considered positive environmental behaviours as they keep unwanted clothing out of landfills (Bianchi & Birtwistle, 2010; McQueen et al., 2021). Several studies have provided evidence that environmental concern is a crucial determinant of environmental behaviour (Chen & Hung, 2016; Mukherjee & Chandra, 2022; Paul et al., 2016). Individuals with a high level of environmental concern tend to have a greater engagement in donation than those who do not care about damaging consequences of fast fashion on fragile environment, which is supported in the context of sustainable fashion and in donating excess clothes (HO et al., 2020; Lai & Chang, 2020). However, Yan et al. (2021) later rejected this. Therefore, we propose the H4 hypothesis:

H4: Environmental Concern has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation

Philanthropy is defined as "a social relation governed by a moral obligation that matches a supply of private resources to a demand of unfulfilled needs and desires that are communicated by entreaty" (Wuthnow, 2013). Empathy is one characteristic of philanthropy (Andreoni et al., 2017). Therefore, empathic concern has a positive impact on donation decisions (O'Loughlin Banks & Raciti, 2018; Verhaert & Van den Poel, 2011). A study by Shim (1995) also found that donations motivated by charity significantly influence the clothing disposal decisions of US consumers. In the United States, charitable considerations serve as the main motivation behind consumer donations (Joung & Park-Poaps, 2013). Similarly, philanthropic motivations can influence where consumers choose to dispose of their products, leading consumers to donate them to charitable organisations (Bianchi & Birtwistle, 2010; Degenstein et al., 2020; Paden & Stell, 2005; Wai Yee et al., 2016). From this, the authors propose hypothesis H5:

H5: Philanthropic Awareness has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation

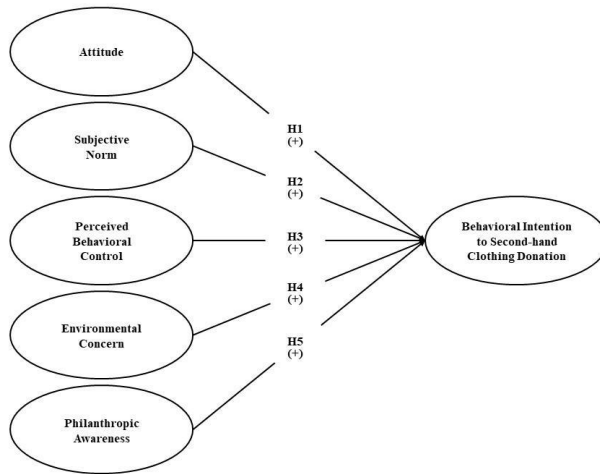


Fig. 1. Factors influencing the undergraduate's behavioural intention to second-hand clothing donation in Ho Chi Minh City: Extended Theory of Planned Behaviour

3 Methodology and Data

To collect the data needed, the research team sent a questionnaire with Google Forms to the undergraduate studying in HCMC and having known about SHC donation. The data was collected from January 21st to January 29th. Items for measuring the 5 latent constructs in the model were drawn from previously validated studies. Minor modifications were made to the items to match the context of this study. Respondents were asked to evaluate all items on a 5-point Likert scale ranging from “Strongly disagree” (1) to “Strongly agree” (5).

Table 1. Measurement Scales

Item	Description	Adopted from
Attitudes		
AT1	“I like the idea of donating clothes that I no longer want”	Paul et al. (2016)
AT2	“I have a favourable attitude toward donating clothes that I no longer want”	
AT3	“Donating clothes that I no longer want is a good idea”	

AT4	“Donating second-hand clothes makes me feel very satisfied.”	Z. Wang et al. (2016)
AT5	“I think it is a wise choice to donate old clothes”	Paul et al. (2016); Sun et al. (2017)
AT6	“I believe donating old clothes is beneficial.”	
AT7	“I think advocating for the donation of old clothes is necessary”	
Subjective Norms		
SN1	“Most people who are important to me think I should donate clothes that I no longer want”	Oluwadamilola Olufemi Rotimi et al. (2024)
SN2	“Most people who are important to me would want me to donate clothes that I no longer want”	
SN3	“People whose opinions I value would prefer that I donate clothes that I no longer want”	
SN4	“My friend’s positive opinion influences me to donate clothes that I no longer want”	
SN5	“Media information influences me to donate old clothes”	Zhou et al. (2024)
Perceived Behavioral Control		
PBC1	“For me, donating my old clothes is easy”	Sonnenberg et al. (2022)
PBC2	“I have a lot of options to donate my old clothes”	
PBC3	“I am confident that I would be able to donate my old clothes”	
PBC4	“If I want to, I could donate my old clothes”	Veludo-de-Oliveira et al. (2017)
PBC5	“It is mostly up to me whether or not I donate my old clothes”	
Environmental Concern		
EC1	“I am very concerned about the environment.”	Paul et al. (2016)
EC2	“I would be willing to reduce my consumption to help protect the environment.”	
EC3	“Major political change is necessary to protect the	

	natural environment.”	
EC4	“Major social changes are necessary to protect the natural environment.”	
EC5	“Anti-pollution laws should be enforced more strongly.”	
EC6	“I think daily habits can affect the environment.”	Z. Wang et al. (2016)
EC7	“I think everyone should contribute to environmental protection.”	
Philanthropic Awareness		
PA1	“It is important for me to donate my clothes to charity for the needy”	O’Loughlin Banks & Raciti (2018)
PA2	“I like to give away my clothes to help others”	
PA3	“Clothing donation brings enjoyment to people’s lives.”	
PA4	“I feel compassionate towards those less fortunate than me”	
PA5	“I have a good life - donating clothes is my way of giving back”	
PA6	“I am genuinely concerned about those I am supporting”	
Behavioural Intention to Donate Clothes		
BI1	“I intend to donate Second-hand clothes in the near future”	Vlastelica et al. (2023)
BI2	“I am going to donate Second-hand clothes in the future again”	
BI3	“I will continue to donate Second-hand clothes”	
BI4	“The next time I donate I intend for it to be old clothes”	
BI5	“I am willing to tell my friends about the experiences of donating second-hand clothes”	Z. Wang et al. (2016)
BI6	“I will consider donating second-hand clothes”	Vlastelica et al. (2023)

To process and analyse the surveyed data, the authors used SPSS 25 to identify factors influencing undergraduate students' Behavioural Intention to Second-hand Clothing Donation in HCMC. The authors use Cronbach's alpha whose value above 0.6 is reliable and Exploratory Factor Analysis (EFA) which factor loading greater than 0.5 is valid.

4 Results and Discussions

4.1 Demographic characteristics

The proportion of students participating in the survey is 29.9% from UEH, 29,1% from the VNU-HCMC, and the remaining are from other universities. Among them, the proportion of female students is higher at 57.8%, the rest are mostly men. Most of them said they had knowledge about donating old clothes with 88.9%.

Table 2. Profile of respondents

		Frequency	Percent (%)
Gender	Male	102	41.8
	Female	141	57.8
	Other	1	0.4
University	HCMIU	21	8.6
	HCMUTE	22	9
	HCMUSSH	28	11.5
	UEH	72	29.9
	Other	100	41
Total		244	100

4.2 Reliability analysis

Table 3. Cronbach's alpha

Cronbach's Alpha	Variable name	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Attitude (AT)	AT1	0.739	0.893

0.908	AT2	0.710	0.896
	AT3	0.703	0.897
	AT4	0.727	0.894
	AT5	0.754	0.891
	AT6	0.737	0.893
	AT7	0.711	0.895
Subjective Norm (SN) 0.860	SN1	0.660	0.836
	SN2	0.794	0.800
	SN3	0.716	0.822
	SN4	0.673	0.832
	SN5	0.555	0.862
Perceived Behavioral Control (PBC) 0.820	PBC1	0.589	0.792
	PBC2	0.666	0.768
	PBC3	0.663	0.769
	PBC4	0.648	0.776
	PBC5	0.501	0.815
Environmental Concern (EC) 0.876	EC1	0.670	0.856
	EC2	0.587	0.870
	EC3	0.704	0.853
	EC4	0.727	0.850
	EC5	0.686	0.855
	EC6	0.626	0.862
	EC7	0.625	0.862
Philanthropy Awareness (PA)	PA1	0.700	0.850

0.875	PA2	0.708	0.849
	PA3	0.663	0.856
	PA4	0.660	0.857
	PA5	0.670	0.859
	PA6	0.698	0.851
Behavioural Intention to Second-hand Clothing Donation (BI) 0.893	BI1	0.737	0.870
	BI2	0.794	0.862
	BI3	0.800	0.859
	BI4	0.726	0.872
	BI5	0.591	0.893
	BI6	0.640	0.885

According to Table 3, all scales for each variable have Cronbach's Alpha values above 0.6, suggesting that our measurement scale is reliable.

4.3 Exploratory Factor Analysis (EFA)

Table 4 is the final factor analysis when eliminating the variable PA4 whose Factor Loading difference is lower than 0.5.

Table 4. EFA results for the factors influencing

	Factor				
	AT	EC	SN	PBC	PA
AT1	0.810				
AT2	0.738				
AT3	0.746				
AT4	0.671				
AT5	0.714				

AT6	0.767				
AT7	0.692				
SN1			0.765		
SN2			0.810		
SN3			0.788		
SN4			0.684		
SN5			0.535		
PBC1				0.622	
PBC2				0.713	
PBC3				0.666	
PBC4				0.764	
PBC5				0.674	
EC1		0.650			
EC2		0.674			
EC3		0.779			
EC4		0.740			
EC5		0.674			
EC6		0.622			
EC7		0.676			
PA1					0.701
PA2					0.553
PA3					0.547
PA5					0.661
PA6					0.653

Sig. (Bartlett's Test of Sphericity)	0.000
KMO (Kaiser-Meyer-Olkin Measure)	0.911
Eigenvalues for 5 extracted factors	1.177
Cumulative Variance (%)	64.369

The KMO value of 0.911 indicated that the data utilised for factor analysis meets the adequacy criteria ($KMO > 0.5$). At the Eigenvalues 1 threshold, the factors extracted need to be able to explain at least 50% of the variance of the data set (Meyer et al., 2006). The table 4, which showed 5 extracted factors converged at lowest Eigenvalues of 1.177, proved our EFA model's validity, with 5 factors explaining 64.369% of the cumulative variance of the observed variables. The rotated matrix results indicated that all variables have Factor Loading coefficients above 0.5, with no remaining unsatisfactory variables. In this final factor analysis 28 observed variables converged and discriminated into 5 factors.

Table 5. EFA results for Behavioural Intention to Second-hand Clothing Donation

	BI
BI1	0.829
BI2	0.874
BI3	0.877
BI4	0.821
BI5	0.699
BI6	0.744

EFA results for Behavioural Intention to Second-hand Clothing Donation (BI) were valid with a KMO value of 0.899 ($0.5 \leq KMO \leq 1$), which showed that all 6 observed variables converged at least Eigenvalues = 3.936 (greater than 1). With Cumulative Variance = 65.603%, BI factor explained 65.603% of the cumulative variance of 6 observed variables.

Table 6. Pearson Correlation

		AT	SN	EC	PA	PBC
BI	Correlation	0.517	0.515	0.569	0.705	0.641
	Sig	0.000	0.000	0.000	0.000	0.000

Table 6 showed that all independent variables have the Pearson correlation coefficient higher than 0.5 (p -value \approx 0.000). All independent variables have linear correlation with dependent variable.

Table 7. Multiple Regression^a

	Unstandardized Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0.067	0.250		-0.269	0.788		
AT	0.074	0.064	0.064	1.165	0.245	0.552	1.811
SN	0.051	0.049	0.057	1.038	0.300	0.565	1.769
PBC	0.298	0.052	0.301	5.764	0.000	0.614	1.627
EC	0.185	0.066	0.150	2.783	0.006	0.575	1.739
PA	0.402	0.068	0.370	5.931	0.000	0.430	2.325
$R^2 = 0.601$, Adjusted $R^2 = 0.593$							
F = 71.845, Sig. (Anova) \approx 0.000							

a. Dependent Variable: Behavioural Intention to Second-hand Clothing Donation

According to Table 7 and Table 8, 3 out of 5 variables were positively significant. Moreover, consistent with H5, H3, and H4: Philanthropic Awareness (PA) ($\beta = 0.370$, p -value \approx 0.000), Perceived Behavioral Control (PBC) ($\beta = 0.301$, p -value \approx 0.000), and Environmental Concern (EC) ($\beta = 0.150$, p -value = 0.006) respectively are positively associated with the Behavioural Intention to Second-hand Clothing Donation. While Subjective Norms (SN) (p -value = 0.300 > 0.05) and Attitudes (AT) (p -value = 0.245 > 0.05) are insignificant in the regression model and does not influence Behavioural Intention to Second-hand Clothing Donation (BI).

Table 8. Hypothesis test

Hypothesis	Description	P-values	Conclusion
H1	Attitudes has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation	0.245	<i>Rejected</i>
H2	Subjective Norms has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation	0.300	<i>Rejected</i>
H3	Perceived Behavioral Control has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation	0.000	<i>Accepted</i>
H4	Environmental Concern has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation	0.006	<i>Accepted</i>
H5	Philanthropic Awareness has direct and significant impact on Behavioural Intention to Second-hand Clothing Donation	0.000	<i>Accepted</i>

According to Table 7, in the multiple linear regression model according to the method of OLS, the assumptions of the model including multicollinearity, normality of residual, linearity and linear autocorrelation were checked and determined by the author to be satisfied.

4.4 Discussion

The findings of the evaluation on consumers' priority concerns in forming the intention to donate second-hand clothes suggest that Philanthropic Awareness ($\beta = 0.370$), Perceived Behavioral Control ($\beta = 0.301$), and Environmental Concern ($\beta = 0.150$) respectively are the factors that significantly influence the intention second-hand clothes donation. These findings are supported by Degenstein et al. (2020) who argued that altruism is the foundation of donation practices. They demonstrate that college students prioritise the well-being of people when deciding to donate clothing. For individuals in Asian countries such as Vietnam (P. A. Nguyen & Doan, 2015), Malaysia (Wai Yee et al., 2016), and Hong Kong (Liu et al., 2018), who are encouraged by the culture of mutual assistance, the value of compassion holds priority in charitable activities such as donating. Additionally, the same agreement of (Lee & Kim, 2023; Zhang et al., 2020) suggests that these GenZ students' decisions to donate are directly influenced by internal factors such as knowledge, experience, and confidence in donating, as reflected in the factor of Perceived Behavioral Control. Although environmental concern is proved to have strongly influence on the intention

to donate clothing (Chen & Hung, 2016; Mukherjee & Chandra, 2022; Paul et al., 2016), in this study, environment concern is identified as a less prioritised factor.

However, Subjective Norm and Attitude do not show statistical significance with the intention to donate second-hand clothes. For Attitude, not all individuals with a positive attitude necessarily form the intention to carry out a specific action, especially when it requires more effort, such as donating (C. M. Nguyen et al., 2020; Perry & Chung, 2016). The remaining factor, Subjective Norm, can be explained by the behaviours and lifestyles of GenZ which is proved to be the most independent and effective in searching for information about contributions using technology by Vlastelica et al. (2023) and Dimitriou & AbouElgheit (2019).

4.5 Recommendations

Firstly, to encourage young adolescents to participate in clothing donation, NGOs and charitable organisations in Ho Chi Minh City should raise awareness about philanthropy among them. This can be achieved by demonstrating processes of how donated clothing can improve the disadvantaged households' lives in relation to the ecosystem, resonating with teenagers' values and emotions to encourage their participation. Secondly, fundraisers should enhance clothing donation feasibility, which requires the effort of the government and brands who have the advantage of reputation and assurance. Thirdly, the authors suggest that the lack of influence of attitudes on the intention to donate second-hand clothing may be due to repetitive donation campaigns without highlighting the meaningful impact of donations, which is related with C. M. Nguyen et al. (2020) who found the same with students' reading. Therefore, educators and parents should foster critical and innovative thinking in younger generations, emphasising the true value of donating over traditional methods. Moreover, research by Alshurafat et al. (2023) and Ananzeh (2024) highlights the positive impact of Corporate Philanthropic Donations (CPD) on Corporate Economic Performance (CEP), especially in emerging economies. Consequently, brands are urged to play an active role in donation initiatives, utilising their strong advertising capabilities. By integrating CPD into corporate social responsibility strategies can boost long-term profitability and societal well-being. Collaboration between brands and the government can enhance students' intentions to donate clothes. Lastly, our study reveals that Subjective Norms do not directly influence Donation Intention. This highlights the need to reconsider Subjective Norms as an indirect factor affecting donation intentions. In today's digital age, where individuals interact not only in physical but also in digital environments, the influence of strangers' comments and digital footprints on the undergraduate students requires further investigation. Moreover, the impact of the COVID-19 pandemic, with its economic repercussions and prolonged digital interactions, underscores the necessity for specific research on the attitudes of individuals.

5 Conclusion

Donating second-hand clothes is considered to be significant solutions to social and environmental problems of fast fashion as it contributes to mitigating waste and supporting sustainable consumption practices. Our research investigates the factors influencing the intention of the undergraduate consumers in Ho Chi Minh City to donate second-hand clothing. We address a significant research gap in the context of limited attention given to second-hand clothing donation behaviour. By developing and validating the TPB model, we identify the determinants that shape their donation intentions, taking into account both environmental and social factors. The findings underscore the importance of Philanthropic Awareness, Perceived Behavioral Control, And Environmental Concern in shaping these intentions. Since then, provide valuable insights for the fashion industry, enabling them to formulate effective strategies that promote sustainable consumption and production. Moreover, aligning with the Sustainable Development Goals (SDGs), particularly SDG12 and SDG10, this research contributes to reducing inequalities and fostering sustainable consumption and production practices. The authors hope that these findings will inspire future strategies and policies aimed at advancing sustainable development in the fashion industry while addressing social welfare concerns.

References

1. Agourram, H., & Agourram, H. (2022). The Impact of Mobile Technology on Consumers' Charitable Behaviors: a Research Protocol. *European Scientific Journal, ESJ, 18*(22), 1. <https://doi.org/10.19044/esj.2022.v18n22p1>
2. Ahmed, N., Li, C., Khan, A., Qalati, S. A., Naz, S., & Rana, F. (2021). Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness. *Journal of Environmental Planning and Management, 64*(5), 796–822. <https://doi.org/10.1080/09640568.2020.1785404>
3. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
4. Alshurafat, H., Ananzeh, H., Al-Hazaima, H., & Al Shbail, M. O. (2023). Do different dimensions of corporate social responsibility disclosure have different economic consequence: multi-approaches for profitability examination. *Competitiveness Review: An International Business Journal, 33*(1), 240–263. <https://doi.org/10.1108/CR-06-2022-0082>
5. Amin, M., & Herjanto, H. (2023). Should I donate secondhand clothes? Cognitive, affective, and conative model during the COVID-19 pandemic. *Journal of Social Marketing, 13*(2), 149–171. <https://doi.org/10.1108/JSOCM-12-2021-0279>
6. Ananzeh, H. (2024). The economic consequence of corporate philanthropic donations: evidence from Jordan. *Journal of Business and Socio-Economic Development, 4*(1), 37–48. <https://doi.org/10.1108/JBSED-10-2022-0112>
7. Andreoni, J., Rao, J. M., & Trachtman, H. (2017). Avoiding the Ask: A Field Experiment on Altruism, Empathy, and Charitable Giving. *Journal of Political Economy, 125*(3), 625–653. <https://doi.org/10.1086/691703>
8. Bianchi, C., & Birtwistle, G. (2010). Sell, give away, or donate: an exploratory study of fashion clothing disposal behaviour in two countries. *The International Review of Retail, Distribution and Consumer Research, 20*(3), 353–368. <https://doi.org/10.1080/09593969.2010.491213>
9. Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and Well-Being: A Conflicting Values Perspective. *Journal of Consumer Research, 29*(3), 348–370. <https://doi.org/10.1086/344429>
10. Chaturvedi, P., Kulshreshtha, K., & Tripathi, V. (2020). Investigating the determinants of behavioral intentions of generation Z for recycled clothing: an evidence from a developing economy. *Young Consumers, 21*(4), 403–417. <https://doi.org/10.1108/YC-03-2020-1110>
11. Chen, S.-C., & Hung, C.-W. (2016). Elucidating the factors influencing the acceptance of green products: An extension of theory of planned behavior. *Technological Forecasting and Social Change, 112*, 155–163. <https://doi.org/10.1016/j.techfore.2016.08.022>
12. Clowes, R., & Masser, B. M. (2012). Right here, right now: the impact of the blood donation context on anxiety, attitudes, subjective norms, self-efficacy, and intention to donate blood. *Transfusion, 52*(7), 1560–1565. <https://doi.org/10.1111/j.1537-2995.2011.03486.x>
13. Conlin, R., & Bauer, S. (2022). Examining the impact of differing guilt advertising appeals among the Generation Z cohort. *International Review on Public and Nonprofit Marketing, 19*(2), 289–308. <https://doi.org/10.1007/s12208-021-00304-4>
14. Degenstein, L. M., McQueen, R. H., McNeill, L. S., Hamlin, R. P., Wakes, S. J., & Dunn, L. A. (2020). Impact of physical condition on disposal and end-of-life extension of clothing. *International Journal of Consumer Studies, 44*(6), 586–596. <https://doi.org/10.1111/ijcs.12590>

15. Dimitriou, C. K., & AbouElgheit, E. (2019). Understanding generation Z's travel social decision-making. *Tourism and Hospitality Management*, 25(2), 311–334. <https://doi.org/10.20867/thm.25.2.4>
16. Erlandsson, A., Nilsson, A., & Västfjäll, D. (2018). Attitudes and Donation Behavior When Reading Positive and Negative Charity Appeals. *Journal of Nonprofit & Public Sector Marketing*, 30(4), 444–474. <https://doi.org/10.1080/10495142.2018.1452828>
17. Farhana, K., Kadirgama, K., Mahamude, A. S. F., & Mica, M. T. (2022). Energy consumption, environmental impact, and implementation of renewable energy resources in global textile industries: an overview towards circularity and sustainability. *Materials Circular Economy*, 4(1), 15. <https://doi.org/10.1007/s42824-022-00059-1>
18. Fauzan, N., & Azhar, F. N. (2020). The Influence of Environmental Concern and Environmental Attitude on Purchase Intention Towards Green Products: A Case Study of Students College in Universitas Muhammadiyah Yogyakarta. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3525917>
19. Galante Amaral, J. H., & Spers, E. E. (2022). Brazilian consumer perceptions towards second-hand clothes regarding Covid-19. *Cleaner and Responsible Consumption*, 5, 100058. <https://doi.org/10.1016/j.clrc.2022.100058>
20. Gansser, O. A., & Reich, C. S. (2023). Influence of the New Ecological Paradigm (NEP) and environmental concerns on pro-environmental behavioral intention based on the Theory of Planned Behavior (TPB). *Journal of Cleaner Production*, 382, 134629. <https://doi.org/10.1016/j.jclepro.2022.134629>
21. Gifford, R., & Nilsson, A. (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. *International Journal of Psychology*, n/a-n/a. <https://doi.org/10.1002/ijop.12034>
22. Ha-Brookshire, J. E., & Hodges, N. N. (2009). Socially Responsible Consumer Behavior? *Clothing and Textiles Research Journal*, 27(3), 179–196. <https://doi.org/10.1177/0887302X08327199>
23. Hassan, S. H., Yeap, J. A. L., & Al-Kumaim, N. H. (2022). Sustainable Fashion Consumption: Advocating Philanthropic and Economic Motives in Clothing Disposal Behaviour. *Sustainability*, 14(3), 1875. <https://doi.org/10.3390/su14031875>
24. Herold, P. I., & Prokop, D. (2023). Is fast fashion finally out of season? Rental clothing schemes as a sustainable and affordable alternative to fast fashion. *Geoforum*, 146, 103873. <https://doi.org/10.1016/j.geoforum.2023.103873>
25. HO, T. T. H., VU, T. N. P., & VU, H. M. (2020). Determinants Influencing Consumers Purchasing Intention for Sustainable Fashion: Evidence from Ho Chi Minh City. *The Journal of Asian Finance, Economics and Business*, 7(11), 977–986. <https://doi.org/10.13106/jafeb.2020.vol7.no11.977>
26. Joung, H., & Park-Poaps, H. (2013). Factors motivating and influencing clothing disposal behaviours. *International Journal of Consumer Studies*, 37(1), 105–111. <https://doi.org/10.1111/j.1470-6431.2011.01048.x>
27. Konstantinou, I., & Jones, K. (2022). Investigating <scp>Gen Z</scp> attitudes to charitable giving and donation behaviour: Social media, peers and authenticity. *Journal of Philanthropy and Marketing*, 27(3). <https://doi.org/10.1002/nvsm.1764>
28. Lai, C.-C., & Chang, C.-E. (2020). Clothing Disposal Behavior of Taiwanese Consumers with Respect to Environmental Protection and Sustainability. *Sustainability*, 12(22), 9445. <https://doi.org/10.3390/su12229445>
29. Lee, J. Y., & Kim, S. S. (2023). The effect of multidimensions of trust and donors' motivation on donation attitudes and intention toward charitable organizations. *Nonprofit Management and Leadership*, 34(2), 267–291. <https://doi.org/10.1002/nml.21567>

30. Leeabai, N., Siripaiboon, C., Taweengern, K., Buttanoo, C., Sujirapatpong, W., Yimyam, D., Takahashi, F., & Areeprasert, C. (2023). The integrated study of the effects of infographic design on waste separation behavior and the behavioral outcome implementation on waste composting. *Waste Management, 169*, 276–285. <https://doi.org/10.1016/j.wasman.2023.07.019>
31. Li, Y. (2021). *How Should Zara Optimize Its Marketing Strategies to Cater to the Needs of New Generations – Gen Z and Millennials*. <https://doi.org/10.2991/aebmr.k.210917.048>
32. Liu, L., Suh, A., & Wagner, C. (2018). Empathy or perceived credibility? An empirical study on individual donation behavior in charitable crowdfunding. *Internet Research, 28*(3), 623–651. <https://doi.org/10.1108/IntR-06-2017-0240>
33. Manosuthi, N., Lee, J.-S., & Han, H. (2020). Predicting the revisit intention of volunteer tourists using the merged model between the theory of planned behavior and norm activation model. *Journal of Travel & Tourism Marketing, 37*(4), 510–532. <https://doi.org/10.1080/10548408.2020.1784364>
34. Marvi, M. H., Minbashrazgah, M. M., Zarei, A., & Baghini, G. S. (2020). Knowledge foundation in green purchase behaviour: Multidimensional scaling method. *Cogent Business & Management, 7*(1), 1773676. <https://doi.org/10.1080/23311975.2020.1773676>
35. McQueen, R. H., Moran, L. J., Cunningham, C., & Hooper, P. M. (2021). Exploring the connection between odour and clothing disposal. *The Journal of The Textile Institute, 112*(11), 1859–1866. <https://doi.org/10.1080/00405000.2020.1848114>
36. Mukherjee, B., & Chandra, B. (2022). Unravelling the differential effects of pride and guilt along with values on green intention through environmental concern and attitude. *Kybernetes, 51*(7), 2273–2304. <https://doi.org/10.1108/K-04-2021-0336>
37. Nguyen, C. M., Nguyen, H. N., Tran, T. H. T., Tran, T. T., Nguyen, N. S., Vu, T. H., To, N. T. A., Do, M. T., & Tran, T. T. H. (2020). Current situation and some associated factors with reading books of full-time bachelor students of Hanoi University of Public Health in 2019. *Journal of Health and Development Studies, 04*(04), 90–99. <https://doi.org/10.38148/JHDS.0404SKPT20-024>
38. Nguyen, P. A., & Doan, D. R. H. (2015). Giving in Vietnam: A Nascent Third Sector with Potential for Growth. In *The Palgrave Handbook of Global Philanthropy* (pp. 473–487). Palgrave Macmillan UK. https://doi.org/10.1057/9781137341532_27
39. Norris, L. (2012). Trade and Transformations of Secondhand Clothing: Introduction. *TEXTILE, 10*(2), 128–143. <https://doi.org/10.2752/175183512X13315695424473>
40. O'Loughlin Banks, J., & Raciti, M. M. (2018). Perceived fear, empathy and financial donations to charitable services. *The Service Industries Journal, 38*(5–6), 343–359. <https://doi.org/10.1080/02642069.2017.1402888>
41. Ogiemwonyi, O. (2022). Factors influencing generation Y green behaviour on green products in Nigeria: An application of theory of planned behaviour. *Environmental and Sustainability Indicators, 13*, 100164. <https://doi.org/10.1016/j.indic.2021.100164>
42. Oluwadamilola Olufemi Rotimi, E., Kalantari Daronkola, H., Topple, C., & Johnson, L. (2024). Behavioural determinants of consumers' intention to reuse end-of-life garments in Australia. *Cleaner Logistics and Supply Chain, 10*, 100138. <https://doi.org/10.1016/j.clscn.2023.100138>
43. Paden, N., & Stell, R. (2005). Consumer Product Redistribution. *Journal of Marketing Channels, 12*(3), 105–123. https://doi.org/10.1300/J049v12n03_06
44. Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services, 29*, 123–134. <https://doi.org/10.1016/j.jretconser.2015.11.006>

45. Perry, A., & Chung, T. (2016). Understand attitude-behavior gaps and benefit-behavior connections in Eco-Apparel. *Journal of Fashion Marketing and Management*, 20(1), 105–119. <https://doi.org/10.1108/JFMM-12-2014-0095>
46. Rotimi, E. O. O., Johnson, L. W., Kalantari Daronkola, H., Toppo, C., & Hopkins, J. (2023). Predictors of consumers' behaviour to recycle end-of-life garments in Australia. *Journal of Fashion Marketing and Management: An International Journal*, 27(2), 262–286. <https://doi.org/10.1108/JFMM-06-2022-0125>
47. Roy, S., Chu, Y. Y. J., & Chopra, S. S. (2023). Life cycle environmental impact assessment of cotton recycling and the benefits of a Take-Back system. *Resources, Conservation & Recycling Advances*, 19, 200177. <https://doi.org/10.1016/j.rcradv.2023.200177>
48. Salazar-Concha, C., & Ramírez-Correa, P. (2021). Predicting the Intention to Donate Blood among Blood Donors Using a Decision Tree Algorithm. *Symmetry*, 13(8), 1460. <https://doi.org/10.3390/sym13081460>
49. Shim, S. (1995). Environmentalism and Consumers' Clothing Disposal Patterns: An Exploratory Study. *Clothing and Textiles Research Journal*, 13(1), 38–48. <https://doi.org/10.1177/0887302X9501300105>
50. Shirvanimoghaddam, K., Motamed, B., Ramakrishna, S., & Naebe, M. (2020). Death by waste: Fashion and textile circular economy case. *Science of The Total Environment*, 718, 137317. <https://doi.org/10.1016/j.scitotenv.2020.137317>
51. Sonnenberg, N. C., Stols, M. J., Taljaard-Swart, H., & Marx-Pienaar, N. J. M. M. (2022). Apparel disposal in the South African emerging market context: Exploring female consumers' motivation and intent to donate post-consumer textile waste. *Resources, Conservation and Recycling*, 182, 106311. <https://doi.org/10.1016/j.resconrec.2022.106311>
52. Sun, Y., Wang, S., Li, J., Zhao, D., & Fan, J. (2017). Understanding consumers' intention to use plastic bags: using an extended theory of planned behaviour model. *Natural Hazards*, 89(3), 1327–1342. <https://doi.org/10.1007/s11069-017-3022-0>
53. Urien, B., & Kilbourne, W. (2011). Generativity and self-enhancement values in eco-friendly behavioral intentions and environmentally responsible consumption behavior. *Psychology & Marketing*, 28(1), 69–90. <https://doi.org/10.1002/mar.20381>
54. Utomo, D. S., Paoprasert, N., & Yousuk, R. (2020). Determinants of Donation Behaviour on Flood Disasters in Indonesia. *IOP Conference Series: Materials Science and Engineering*, 847(1), 012068. <https://doi.org/10.1088/1757-899X/847/1/012068>
55. Veludo-de-Oliveira, T. M., Alhaidari, I. S., Yani-de-Soriano, M., & Yousafzai, S. Y. (2017). Comparing the Explanatory and Predictive Power of Intention-Based Theories of Personal Monetary Donation to Charitable Organizations. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 28(2), 571–593. <https://doi.org/10.1007/s11266-016-9690-7>
56. Verhaert, G. A., & Van den Poel, D. (2011). Empathy as added value in predicting donation behavior. *Journal of Business Research*, 64(12), 1288–1295. <https://doi.org/10.1016/j.jbusres.2010.12.024>
57. Vlastelica, T., Kostić-Stanković, M., Krstić, J., & Rajić, T. (2023). Generation Z's Intentions Towards Sustainable Clothing Disposal: Extending the Theory of Planned Behavior. *Polish Journal of Environmental Studies*, 32(3), 2345–2360. <https://doi.org/10.15244/pjoes/157007>
58. Wai Yee, L., Hassan, S. H., & Ramayah, T. (2016). Sustainability and Philanthropic Awareness in Clothing Disposal Behavior Among Young Malaysian Consumers. *SAGE Open*, 6(1), 215824401562532. <https://doi.org/10.1177/2158244015625327>

59. Wan, C., Shen, G. Q., & Choi, S. (2017). Experiential and instrumental attitudes: Interaction effect of attitude and subjective norm on recycling intention. *Journal of Environmental Psychology, 50*, 69–79. <https://doi.org/10.1016/j.jenvp.2017.02.006>
60. Wang, Y., Zhao, J., & Pan, J. (2024). The investigation of green purchasing behavior in China: A conceptual model based on the theory of planned behavior and self-determination theory. *Journal of Retailing and Consumer Services, 77*, 103667. <https://doi.org/10.1016/j.jretconser.2023.103667>
61. Wang, Z., Guo, D., & Wang, X. (2016). Determinants of residents' e-waste recycling behaviour intentions: Evidence from China. *Journal of Cleaner Production, 137*, 850–860. <https://doi.org/10.1016/j.jclepro.2016.07.155>
62. White, K. M., Starfelt Sutton, L. C., & Zhao, X. (2023). Charitable donations and the theory of planned behaviour: A systematic review and meta-analysis. *PLOS ONE, 18*(5), e0286053. <https://doi.org/10.1371/journal.pone.0286053>
63. Wuthnow, R. (Ed.). (2013). *The Encyclopedia of Politics and Religion*. Routledge. <https://doi.org/10.4324/9781315008516>
64. Yadav, R., & Pathak, G. S. (2017). Determinants of Consumers' Green Purchase Behavior in a Developing Nation: Applying and Extending the Theory of Planned Behavior. *Ecological Economics, 134*, 114–122. <https://doi.org/10.1016/j.ecolecon.2016.12.019>
65. Yan, R.-N., Diddi, S., & Bloodhart, B. (2021). Predicting clothing disposal: The moderating roles of clothing sustainability knowledge and self-enhancement values. *Cleaner and Responsible Consumption, 3*, 100029. <https://doi.org/10.1016/j.clrc.2021.100029>
66. Yuriev, A., Dahmen, M., Paillé, P., Boiral, O., & Guillaumie, L. (2020). Pro-environmental behaviors through the lens of the theory of planned behavior: A scoping review. *Resources, Conservation and Recycling, 155*, 104660. <https://doi.org/10.1016/j.resconrec.2019.104660>
67. Zhang, L., Wu, T., Liu, S., Jiang, S., Wu, H., & Yang, J. (2020). Consumers' clothing disposal behaviors in Nanjing, China. *Journal of Cleaner Production, 276*, 123184. <https://doi.org/10.1016/j.jclepro.2020.123184>
- Zhou, Y., Gao, W., Kato, T., Yao, W., Shi, C., Wang, J., & Fei, F. (2024). Investigating key factors influencing consumer plastic bag use reduction in Nanjing, China: A comprehensive SEM-ANN analysis. *Process Safety and Environmental Protection, 181*, 395–406. <https://doi.org/10.1016/j.psep.2023.11.043>

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