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Thesis Booklet

Sustainable Consumption: Motivations and Characteristics of Consumers' Post-Purchase Behaviour of Fashion Products

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1. Introduction and research background

The fashion business, one of the most significant economic sectors in the world, is coming under more and more criticism for its impacts on society and the environment. The "fast fashion" model has sparked serious questions about sustainability due to high pollution and resource consumption, labour exploitation, and overproduction. Therefore, sustainable fashion has emerged as a vital means of reducing environmental harm and promoting ethical conduct throughout the value chain. Customers continue to play an essential yet often overlooked role in driving significant change, even as manufacturers, designers, and brands have received much attention. Through their decisions, actions, and values, consumers actively shape production methods, drive market demand, and influence the life cycle of apparel.

This research investigates how customers may adapt to sustainable fashion consumption, examines the factors influencing sustainable choices, and explores the obstacles and motivations of the consumers' behavioural changes. It also highlights the importance of accessibility, education, and awareness in enabling customers to make informed decisions. By analysing consumer behaviour within the sustainable fashion movement, this research aims to enhance understanding of how bottom-up change can contribute to the global movement for social and environmental responsibility in fashion.

At present, due to the sustainability issue, the environmental and social implications of the fashion industry are increasingly recognized. The fashion industry has begun searching for ways to recycle and reuse used goods. Customers are also considering making fashion consumption more sustainable and recycling their used garments. However, not all consumers like this way of thinking; more environmentally conscious consumers prefer it and show interest in the post-purchase stage. A study found that consumers are more likely to respond to second-hand platforms that are materialistic and ecologically conscious than those that are not. This reduces cognitive dissonance associated with the consumption of second-hand products (Parguel et al., 2017). But when a person tries to establish internal harmony, consistency, or congruity among one's opinions, attitudes, knowledge, and values, the effort can create stress, leading to cognitive dissonance (Harmon-Jones and Harmon-Jones, 2008). So, it is better to think about consumption in a way that may bring environmental benefits.

Fashion (clothing) supports sustainable development by becoming more eco-friendly, as it is a significant contributor to waste. The industry is transforming consumption patterns by using green and recycled materials in production (Niinimäki and Hassi, 2011). The fashion industry uses green and recycled raw materials to satisfy consumers while reducing waste (Howarth and Hadfield, 2006). More clothing recycling factories should be established, more

second-hand clothing stores launched, and more environmentally friendly packaging introduced (da Costa et al., 2018).

Moreover, awareness and education of consumers are directly related to slow fashion consumption and contribute to sustainable development. Slow fashion allows consumers to purchase fewer, better, long-lasting items in terms of quality. Thus, fashion consumption plays a vital role in sustainable development by repairing, reusing, recycling, and repurchasing fashion products. As a result, this research aims to focus on the post-purchase behaviour of consumers of fashion (clothing) products to motivate them sustainably. Organic, environmentally friendly, renewable, slow, greener, and other aspects refer to sustainable fashion (Cervellon et al., 2010).

The global textile and fashion industry is a key economic sector worldwide, recognized for its substantial investments, revenue generation, contribution to GDP, and role in employment. The fashion industry, known for its complexity and prominence, has progressively adopted an economic framework and strategic approach (Jacometti, 2019). The European Union's fashion industry mainly consists of small and medium-sized enterprises (SMEs) and is the world's second-largest exporter after China. It holds significant economic importance, employing around 3 million individuals and contributing roughly 170 billion EUR annually (European Commission 2020).

Hungary has a vast fashion textile market. The Hungarian market is home to approximately 12,000 small and medium-sized enterprises in the fashion industry (European Commission, 2019). Major international and multinational corporations largely control the clothing and footwear industry. By 2025, the apparel e-commerce industry was expected to generate US\$806 million, or 16.4% of all Hungarian e-commerce, and by 2029, it was expected to grow to US\$885 million (ecommercedb.com). Hungarian consumers primarily purchase apparel from fast fashion brands, which make trendy clothing accessible to a broad audience by utilising innovative production and sales techniques that enable quick, cost-effective manufacturing (Euronews, 2019). According to Statista. (2024), Hungary's women's clothing market brought in roughly €1.37 billion in 2024, with the average Hungarian spending €141 per person on 28 clothes annually. About 3% of total consumption is spent by households on apparel and footwear, just less than the EU average of about 4%.

Excessive natural resource consumption and mass production at low costs raise significant social and environmental concerns in the fashion industry. As a result, companies must reconsider their strategies and adopt more ethical and environmentally sustainable practices (Claudio, 2007). Scaling textile recycling, encouraging sustainable consumption habits, and promoting locally made, heritage-based, and eco-friendly clothing through occasions like Budapest Fashion Week are all essential to future success.

Therefore, companies must understand fashion textile consumption. Sustainable fashion consumption can assist the growth and development of Hungary's fashion textile industries. Thus, it is essential to facilitate more research from the Hungarian context.

Figure 1 shows the entire outline of this research work, which outlines a systematic research framework that begins with a literature review, followed by a survey of key stakeholders and consumers of second-hand textile stores to identify research gaps and issues.

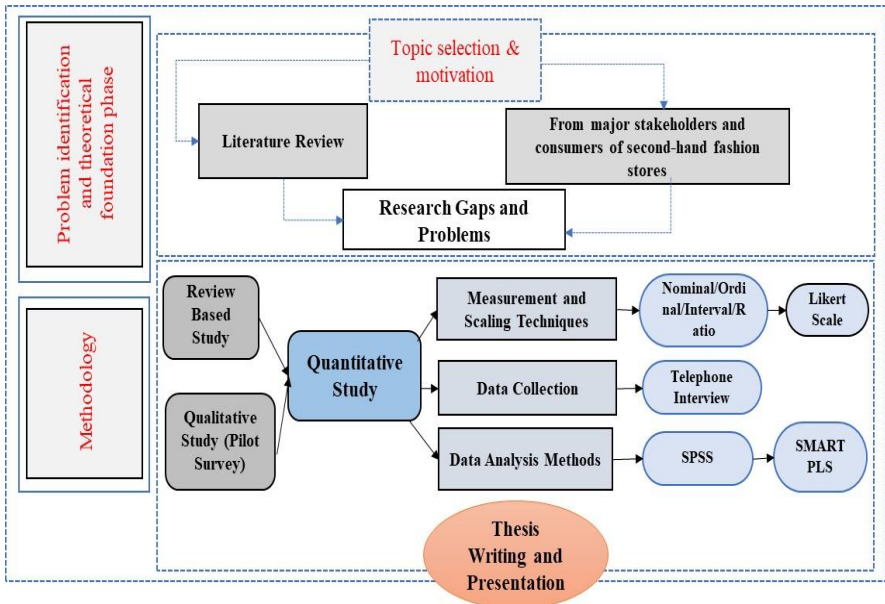


Figure 1: Research Outline (Source: Own Edition)

2. Objectives, research questions and hypothesis of the research

This research aimed to comprehensively review the relevant literature better to understand consumer post-purchase behaviour regarding sustainable fashion textile products. Thus, the research aims to investigate different factors influencing those behaviours. Therefore, the objectives of the research are:

- To review the related literature on sustainable post-purchase behaviour to understand the research trends better and find out research gaps.
- To discover the factors and motivators to sustainable post-purchase intentions and behaviour of new and second-hand fashion textile products.
- To examine the different components of the theory of planned behaviour on post-purchase intentions
- To analyse different demographic characteristics of such intentions and behaviour

To identify different clusters of consumers based on sustainable post-purchase behaviour regarding reuse, repair, and recycling

After exploring this research gap in more detail, this thesis focuses on understanding fashion consumers' motivations behind various sustainable post-purchase behaviours, including reusing, repairing, and recycling textile products. The primary research questions guiding this research are:

1. What are the characteristics of different consumer clusters based on their post-purchase behaviour of fashion products?
2. What factors influence consumers' sustainable post-purchase behaviour?

To address these questions, this thesis presents the findings of a survey conducted among fashion consumers in Budapest, the capital city of Hungary. The structure of the thesis is as follows: first, a review was conducted on different types of sustainable post-purchase behaviours and the literature on consumer motivations for engaging in them. Next, this thesis focused on the fashion industry, providing an overview of the literature on post-purchase behaviour in this sector. Then, this thesis presented the hypotheses and research methods, followed by a discussion of the empirical survey results. Finally, a conclusion summarising the findings and directions for future research was provided.

The review of the literature reveals that various factors influence consumers' post-purchase behaviour of fashion products. However, there is no consensus on which factors are the most important or their relative significance. Many studies are constrained by sample

characteristics, as they often focus on specific social groups, such as university students, limiting the broader applicability of the findings. To address this gap, several research hypotheses regarding the post-purchase behaviour of fashion consumers were formulated.

Building on the findings of Weber et al. (2017), which indicate that fashion consumers tend to handle textiles more sustainably than non-fashion consumers, this research proposed the following hypotheses:

H1: Fashion consumers who purchase second-hand products engage in sustainable post-purchase behaviours more frequently than those who do not or rarely purchase such products.

H2: Fashion consumers can be categorized into distinct clusters based on their sustainable post-purchase behaviours.

Additionally, this thesis applied the Theory of Planned Behaviour (Ajzen, 1991) to formulate research hypotheses related to two specific post-purchase behaviours: repairing and giving away fashion products. Based on the work of Izagirre-Olaizola et al. (2015) and Mugge et al. (2010), this thesis proposed the third hypothesis:

H3: Environmental knowledge positively influences environmental attitudes regarding fashion products.

While attitude has been explored as a key determinant of post-purchase behaviour, the findings are not entirely consistent. Drawing from the studies of Young Lee et al. (2013), Abelson (2009), and Nadro et al. (2024), this thesis defined the following hypotheses regarding attitudes and perceived behavioural control:

H4a: Attitude positively influences the intention to repair fashion products.

H4b: Attitude positively influences the intention to give away unwanted fashion products.

H5a: Perceived behavioural control positively influences the intention to repair fashion products.

H5b: Perceived behavioural control positively influences the intention to give away unwanted fashion products.

Finally, building on the research by H. Joung and Park-Poaps (2013), which found that subjective norms influence behaviours such as reselling and donating, and Lang and Armstrong (2018), who revealed a positive correlation between subjective norms and the intention to adopt sustainable clothing product-service systems, including clothing repair, this thesis proposed the following hypotheses regarding subjective norms:

H6a: Subjective norms positively influence the intention to repair fashion products.

H6b: Subjective norms positively influence the intention to give away unwanted fashion products.

Figure 2 illustrates the research's conceptual model, which is based on the Theory of Planned Behaviour.

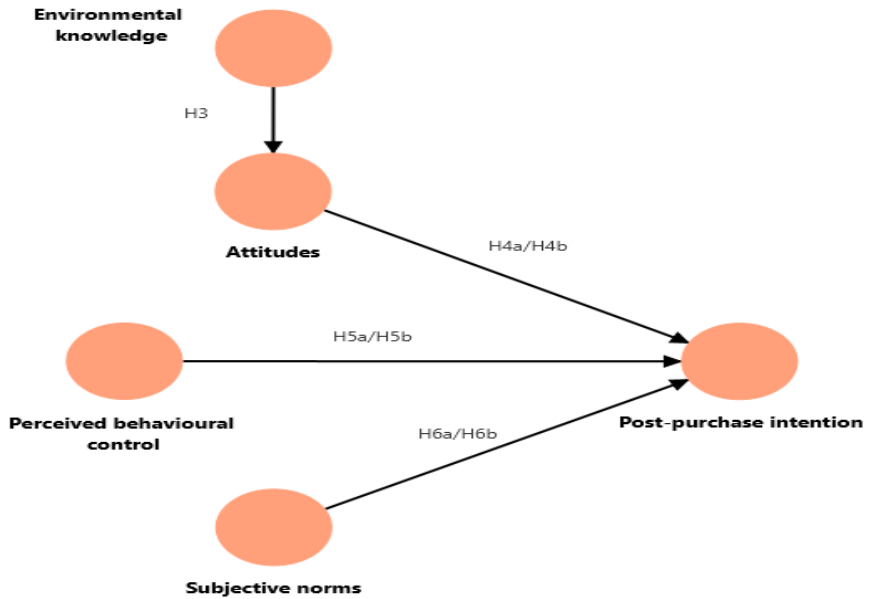


Figure 2: The research model using the Theory of Planned Behaviour (Factors influencing on post-consumption behaviour)

3. Methodology of the research

3.1 Research Designs and Sampling Method

This thesis conducted a representative survey of the citizens of Budapest, Hungary, a European capital with a busy fashion scene, to better understand the sustainable post-purchase behaviour of fashion products.

Figure 3 illustrates the various research methods employed throughout the study. The following section provides detailed information on each step of the research process and the results.

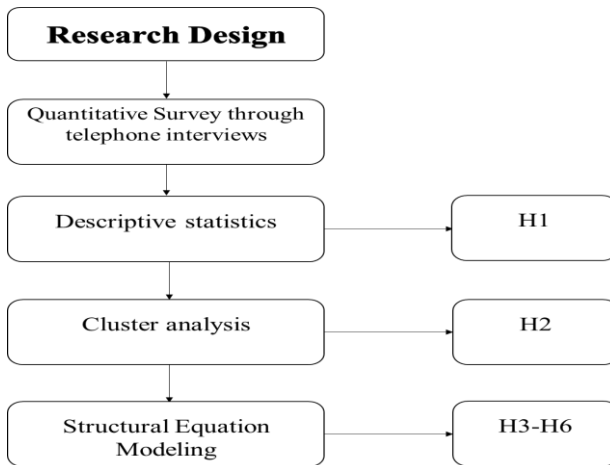


Figure 3: Research methods and respective research hypotheses

To assess the research hypotheses, this thesis conducted a representative survey of the citizens of Budapest, Hungary, a European capital with a vibrant fashion scene. The quantitative survey was designed to reflect the demographic composition of Budapest, including age, gender, education, income, occupation, and city districts. This thesis employed a random sampling strategy and reached 500 citizens through telephone interviews conducted in December 2021. After addressing missing values and cleaning the data, this thesis retained 452 responses for detailed analysis. Table 1 presents the demographic characteristics of the sample.

Table 1: Demographic profile of the respondents (N=452)

Variable	Frequency	%	Variable	Frequency	%
Gender			Age		
Male	209	46.2	16-29	96	21.2
Female	243	53.8	30-44	130	28.8
Education			45-59	100	22.1
Lower than the 8th grade of primary school	1	0.2	Over 60	126	27.9
Primary school 8 th grade	17	3.8	Monthly Income per capita (EUR)		
Secondary school diploma, with professional qualification	40	8.8	< 250	39	8.7
High school diploma	216	47.8	250 - 500	166	36.7
College or bachelor's degree	71	15.7	500 - 750	106	23.4
University or master's degree	98	21.7	750 - 1000	37	8.2
Postgraduate training (doctoral degree)	9	2.0	>1000	60	13.3
			Don't know/ don't answer	44	9.7

3.2 Questionnaire Development and Data Collection

Multiple methodologies (qualitative-quantitative approach), known as triangulation, were used to conduct this thesis. Triangulation is described as the incorporation of two or even more philosophies, collection methods, processes, or investigations into a single study of a specific concept, and a researcher can sometimes interview people of differing perspectives and vastly different levels of authority, like high-level management staff as well as position executives in the same company. (Denzin, 2007). Triangulation is significant in research and includes interviews to get a complete view of the current situation and problems (Davies, 2001). At first, interviews of the major stakeholders and consumers of second-hand fashion products were conducted to determine the research questions concerning post-purchase behaviour and disposition of fashion products. The data collection methods were as follows-

- **Qualitative Research**

In social science, qualitative research considers various problems with the interview. According to researchers, qualitative is the reality generated interactively and then becomes meaningful subjectively (Hopf, 2004). Initially, this research conducted consumer focus groups and interviews to understand the critical themes relating to fashion consumption patterns and the disposition of second-hand fashion products. Then, the qualitative research results were validated, and the intensity of repair, reuse, or recycling of second-hand fashion products was evaluated. Furthermore, this research intended to set the research goal. A survey questionnaire was conducted to do quantitative analysis based on understanding the problems and limitations from the focus group interviews with the major stakeholders and consumers of second-hand fashion products. It was done so that the quantitative survey questionnaire variables would be valid, reliable, and valuable for our research. This preliminary focus group interview revealed consumers' lack of understanding of how their behaviour affects the environment and how cloth trash and clothing consumption can be made entirely sustainable.

As a representative city of Europe, this research chose Budapest as the sample area for the research. Budapest has 23 districts, 16 of which are on the Pest side. As a result, this research focused on the Pest side and preferred various second-hand fashion stores in some of the largest districts: V, VII, and VIII. First, the significant stakeholders directly related to second-hand fashion stores such as Hada, Cream, and Vintage shops were interviewed. Some of the shop's managers and a few of its employees were interviewed. A total of ten stores were visited, but stakeholders from eight were able to provide information because the managers of the other two stores were busy with a new collection of stocks and were unwilling to participate in the interview. As a result, interviews with eight managers and four staff of second-hand fashion stores were conducted. Then, this research narrowed to focus on consultations with customers of second-hand fashion products. Finally, ten consumers were interviewed who had bought clothes at second-hand fashion stores.

The qualitative study helped in examining the motives, behaviours, and perspectives of stakeholders and consumers in the second-hand fashion sector concerning sustainable consumption. Store managers and staff prioritise their role in advocating for reuse, repair, and recycling, while also ensuring that sustainable fashion is accessible to a wide demographic.

- **Quantitative Research**

To validate the research hypotheses, research was conducted via questionnaires distributed to a survey of responsible consumers in Budapest. The questionnaire was designed to examine both the initial purchase and post-purchase behaviour of fashion product consumers. It included questions about the types of textile products purchased (new and/or second-hand),

the factors influencing these purchases, and the determinants of various sustainable post-purchase behaviours, such as reusing, repairing, and recycling textile products.

After receiving the responses, this analysed the data to see if the reliability of the answers was significant. The population of Budapest in 2021 is now estimated to be 1,771,865. Budapest has a total land area of 525.2 square kilometers. With roughly 1.77 million citizens, the population density is approximately 3,351 persons per square kilometer (Source: World Urbanization Prospects - United Nations population estimates and projections of major Urban Agglomerations). So, it was challenging to collect data from all types of consumers in Budapest.

After reviewing the literature, some variables from the research model were utilized in developing the questionnaire to collect data through telephone interviews. The variables are attitude, subjective norms, perceived behavioural control, repairing, reusing, recycling, environmental knowledge, post-purchase intentions and post-purchase behaviour. In addition, age, gender, level of education, employment status, monthly income, and shopping frequency have all been considered demographic variables. A 5-point and 7-point Likert scale was also used in the survey questions to anticipate potential consumers' behavioural intentions.

3.3 Data Analysis

The database of this thesis provided valuable insights into fashion consumers' behaviour. Initially, this research applied descriptive statistical methods to characterize the sample. Next, this research aimed to identify and describe distinct consumer groups using clustering techniques, which are effective tools for understanding consumer behaviour (Frades and Matthiesen, 2010). This research employed both hierarchical and K-means clustering methods, followed by post-hoc analyses (Welch's test and Games-Howell test) to validate the clusters. Finally, correlation analysis was used to further characterize the clusters. To identify the key factors influencing post-purchase behaviour, this research developed a model based on the Theory of Planned Behaviour and analysed our data using SMART PLS (Ringle et al., 2015).

4. New scientific findings

Thesis 1: Fashion consumers who buy second-hand products engage in sustainable post-purchase behaviour more often than those who do not or rarely buy such products.

Related own publications:

[P1] Kemi, A. P., & Zilahy, G. (2025). Sustainable post-purchase behaviour of consumers of fashion textile products. *Discover Sustainability*, 6(1), 94. <https://doi.org/10.1007/s43621-025-00888-5>

[P3] Kemi, A. P., & Zilahy, G. Consumers' Post-purchase Behaviour of Fashion Products. In *Proceedings of the 28th International Sustainable Development Research Society Conference (ISDRS)* (pp. 795–817). ISBN: 978-91-89504-17-2

Findings:

This research's survey examined the behaviour and motivations of consumers purchasing second-hand fashion products and engaging in various sustainable post-purchase activities. The qualitative research facilitated a profound understanding of the emotional, social, and practical factors that influence post-purchase behaviour. It highlighted the shortcomings in ecological awareness and acknowledged the potential to enhance sustainable practices in the second-hand clothing sector. The findings provided a substantial basis for future research and policy initiatives aimed at promoting sustainable consumption in the fashion industry.

In Budapest, Hungary, the majority of fashion consumers purchase new fashion products, with only 58.8% buying second-hand items. statistically significant and interpretable. Three statistically significant and interpretable consumer clusters were identified in the analysis. The internal validity of the cluster solution was acceptable, with a mean silhouette coefficient of 0.47, indicating moderate cohesion and separation among clusters. The results were also stable, as a repeated analysis using a random subsample produced a similar cluster structure, confirming the reproducibility of the findings.

Interestingly, the factors influencing the purchase of new and second-hand products are largely similar, with the exception of a reduced emphasis on guarantees when buying second-hand products. This research hypothesized that consumers who purchase second-hand fashion products exhibit distinct behaviours during the post-purchase phase compared to those who buy less frequently or avoid second-hand products entirely. The findings partially support this hypothesis, revealing differences in certain post-purchase behaviours. While the relationship between the frequency of buying second-hand fashion products and engaging in sustainable post-purchase activities is weak to moderate, significant patterns emerge. Consumers who regularly buy second-hand fashion are more likely to donate unwanted garments to charity, repurpose old items for handicrafts, repair their clothes, and take them

to recycling facilities. These behaviours occur more frequently among second-hand buyers than among those who seldom or never buy second-hand products. However, second-hand buyers do not tend to use their garments for extended periods compared to other consumers. These findings support the first hypothesis (H1), highlighting a nuanced link between second-hand fashion purchases and sustainable post-purchase practices.

Thesis 2: Fashion consumers can be classified into different clusters based on their sustainable post-purchase behaviours.

Related own publications:

[P1] Kemi, A. P., & Zilahy, G. (2025). Sustainable post-purchase behaviour of consumers of fashion textile products. *Discover Sustainability*, 6(1), 94. <https://doi.org/10.1007/s43621-025-00888-5>

[P3] Kemi, A. P., & Zilahy, G. Consumers' Post-purchase Behaviour of Fashion Products. In *Proceedings of the 28th International Sustainable Development Research Society Conference (ISDRS)* (pp. 795–817). ISBN: 978-91-89504-17-2

Findings:

Among the various sustainable post-purchase options, the most commonly practiced behaviours were using garments for an extended period and repurposing old garments for other purposes. Giving garments away to friends and family and donating to charity were also frequent practices, followed by repairing garments and taking unwanted items to recycling facilities.

Using clustering techniques, the study identified four distinct groups of fashion consumers: 'non-engaged,' 'committed,' 'give-away,' and 'repair'. 'Non-engaged' consumers represented the smallest cluster, while 'give-away' consumers formed the largest group, closely followed by 'committed' consumers. Among the demographic variables assessed, only gender significantly differentiated the clusters, with men being overrepresented in both the 'non-engaged' and 'repair' groups.

Beyond their engagement in sustainable post-purchase behaviours, the clusters also exhibit differences in their members' attitudes toward the environment, but not their attitudes towards the environmental and social impacts of the fashion industry. In most areas examined, the 'repair' and 'give-away' clusters show minimal differences. Nevertheless, members of the 'give-away' cluster stand out for deriving satisfaction from helping others by donating their old garments. The identified clusters are both statistically significant and meaningful, providing strong support for the second hypothesis (H2). So, H2 is accepted.

Thesis 3: Environmental knowledge positively influences environmental attitudes regarding fashion products.

Thesis 4:

- Attitude positively influences the intention to repair fashion products.
- Attitude positively influences the intention to give away unwanted fashion products.

Thesis 5:

- Perceived behavioural control has a positive influence on the intention to repair fashion products.
- Perceived behavioural control has a positive influence on the intention to give away unwanted fashion products.

Thesis 6:

- Subjective norm has a positive influence on the intention to repair fashion products.
- Subjective norm has a positive influence on the intention to give away unwanted fashion products.

Related own publications:

[P1] **Kemi, A. P., & Zilahy, G. (2025).** Sustainable post-purchase behaviour of consumers of fashion textile products. *Discover Sustainability*, 6(1), 94. <https://doi.org/10.1007/s43621-025-00888-5>

[P2] **Kemi, A. P., & Zilahy, G. (2023).** Green Fashion Consumption – a Review of the Literature. *Periodica Polytechnica Social and Management Sciences*, 32(2), 115–130. <https://doi.org/10.3311/PPso.21052>

[P3] Kemi, A. P., & Zilahy, G. **Consumers' Post-purchase Behaviour of Fashion Products.** In *Proceedings of the 28th International Sustainable Development Research Society Conference (ISDRS)* (pp. 795–817). ISBN: 978-91-89504-17-2

[P4] **Kemi, A. P., & Hasan, M. A. (2025).** Sustainable clothing consumption behaviour: A bibliometric review. *Discover Sustainability*, 6(1), 624. <https://doi.org/10.1007/s43621-025-01549-3>

Findings:

To better understand the motivations driving sustainable post-purchase behaviours among fashion consumers, the study tested two models grounded in the Theory of Planned Behaviour (TPB). These models incorporated constructs aimed at explaining consumers' intentions to repair garments and give away unwanted fashion products. The findings confirm that TPB is a valuable framework for analyzing factors influencing sustainable post-purchase behaviours in the fashion industry.

Among the constructs examined, attitude toward environmental issues had the weakest impact on intentions to repair and give away garments. Social norms exhibited a moderate influence, while perceived behavioural control emerged as the strongest predictor of both sustainable post-purchase intentions. Based on an analysis of path coefficients and effect sizes, accepted hypotheses H3, H4b, H5a, H5b, H6a, and H6b. However, we rejected H4a, as the effect size of attitude on repair intentions was very low ($f^2 \approx 0.02$) and statistically insignificant. Although the values ($t = 2.668, p = 0.008$) of H4a is significant but it indicates that the relationship of it is limited practical importance because of small effect size. Thus, the study rejected H4a. These findings contribute to the existing literature on fashion consumer behaviour by analyzing a representative sample of residents from a major European city and employing multiple, complementary research methods.

The findings of this research align with those of Weber et al. (2017), demonstrating that individuals who frequently purchase both new and second-hand fashion products ('fashion consumers') are more likely to engage in sustainable post-purchase activities. However, the results do not corroborate the findings of Potdar et al. (2024), who reported that older, more educated male consumers are more inclined to repair clothing than female consumers. While the 'Repair fashion consumers' cluster includes a significantly higher proportion of men, this does not necessarily indicate that men engage in repair activities more frequently than women, especially considering the higher representation of women in the 'Committed consumers' cluster.

When examining gender roles more broadly, women are notably overrepresented in the 'Committed consumers' cluster, which places greater emphasis on textile disposal and recycling. This finding reinforces prior research that highlights women's active involvement in these aspects of sustainable fashion consumption. Moreover, the results support studies by Domina and Koch (1999), Noh (2021), Potdar et al. (2024), Rezaei Arangdad et al. (2019) and Young Lee et al. (2013), showing that women who repair their garments also tend to participate in other post-purchase activities, thus aligning with the characteristics of the 'Committed consumers' category.

Many studies suggest that both environmental knowledge and environmental attitudes influence sustainable post-purchase behaviours. However, the findings of this research show

that, in the context of Budapest, attitude toward the environment as distinct from environmental knowledge had only a weak effect on repair and give-away intentions. Instead, other considerations, such as economic and convenience factors (as highlighted by Laitala and Klepp (2018) and Urmi et al. (2022)), appear to play a more significant role, particularly in repair activities.

Improving environmental knowledge through consumer education can strengthen attitudes toward sustainability, which in turn could promote sustainable consumption. However, our results suggest that while education may enhance knowledge, attitude alone remains a weak predictor of repair and give-away intentions. However, the results show that attitudes are the weakest predictors of repair and give-away intentions. While other post-purchase activities, such as recycling, may be more influenced by attitudes, the findings suggest that education alone may not be sufficient to address the challenges of sustainable fashion consumption.

Instead, greater emphasis should be placed on improving the reparability of products and showcasing practical examples of sustainable practices. These approaches may have a more substantial impact on encouraging sustainable fashion consumption and reducing the environmental burden of the fashion industry. The final aspect of this research was to examine the research gaps and future research directions available to researchers. Table 2 present a summary of the hypothesis based on their acceptance or rejections.

Table 2: Summarization of the evaluation of hypothesis

Hypothesis	Thesis	Acceptance/Rejection
H1:	Thesis 1: Fashion consumers who buy second-hand products engage in sustainable post-purchase behaviour more often than those who do not or rarely buy such products.	Accepted
H2:	Thesis 2: Fashion consumers can be classified into different clusters based on their sustainable post-purchase behaviours.	Accepted
H3:	Thesis 3: Environmental knowledge positively influences environmental attitudes regarding fashion products.	Accepted
	Thesis 4:	
H4a:	Attitude positively influences the intention to repair fashion products.	Rejected

H4b:	Attitude positively influences the intention to give away unwanted fashion products.	Accepted
Thesis 5:		
H5a:	Perceived behavioural control has a positive influence on the intention to repair fashion products.	Accepted
H5b:	Perceived behavioural control has a positive influence on the intention to give away unwanted fashion products.	Accepted
Thesis 6:		
H6a:	Subjective norm has a positive influence on the intention to repair fashion products.	Accepted
H6b:	Subjective norm has a positive influence on the intention to give away unwanted fashion products.	Accepted

5. Application of the results

The study investigated the sustainable post-purchase behaviour of fashion product consumers using the theory of planned behavior and identified different associations with demographic variables. Understanding these associations can help tailor marketing strategies and interventions to promote sustainable behaviors among different consumer segments. Moreover, other associations suggest that different consumer groups exhibit varying attitudes, subjective norms, perceived behavioral control, and post-purchase intentions, which influence their behaviors related to sustainability and consumption practices. The empirical examination of most studies dealing with the topic is confined to consumers from a few countries, as shown when introducing the descriptive characteristics of the sample articles. Since there may be significant differences between how people in different countries and cultures behave, research should extend to other regions, as well as cross-cultural investigation is necessary to improve the generalisability of the results (Kang et al., 2013).

Moreover, the cluster analysis identified four consumer groups with varying gender compositions and sustainable behavior patterns. While some clusters were male or female dominated, it is important to note that cluster membership does not imply uniform behavior across all dimensions. Additionally, the telephone-based sample structure may influence the

observed gender ratios. These findings suggest differences in attitudes and behaviors toward sustainability. Future research should investigate the frequency of sustainable behaviors within clusters, use more diverse sampling methods to reduce bias, explore additional predictors of behavior, and test tailored interventions to better understand and promote sustainable practices. Researchers believe that the study of young female consumers can add to the understanding of sustainability practices in fashion consumption (C. Becker-Leifhold and Iran, 2018; L. McNeill and Venter, 2019). More research on other demographic variables is necessary to clarify the relationship between price, emotional and purchasing attributes, and long-term consumption (Haines and Lee, 2021). A study by Žurga et al. (2015) suggests that a good understanding and forecasting of consumer recycling behaviour can be achieved by exploring proper psychographic features. Future studies incorporating additional cognitive, affective, and motivational aspects may provide new insight into the fundamental factors that make socially responsible consumption advantageous (Park and Lin, 2020).

However, the novel findings and contributions of my research are:

The first novel output: My research indicates that consumers who use second-hand products are generally more environmentally conscious and engage more actively in sustainable practices than others. This finding supports the study's central hypothesis.

The second novel output: I worked on consumers in Budapest, which may represent similar behavioural patterns compared to other European countries.

The third novel output: Gender significantly influences cluster membership. Educated male consumers are more involved in post-purchase activities than others, while women who repair their garments also participate in additional post-purchase activities. This second contribution is aligned with the second research question.

The fourth novel output: My research found that different factors influence consumers' sustainable post-purchase behaviour, which supports the study's second research question. The aspects of the theory of planned behaviours have significant impacts on consumers' post-purchase activities.

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7. Academic publications related to the thesis statements

[P1] Kemi, A. P., & Zilahy, G. (2025). Sustainable post-purchase behaviour of consumers of fashion textile products. *Discover Sustainability*, 6(1), 94. <https://doi.org/10.1007/s43621-025-00888-5>

[P2] Kemi, A. P., & Zilahy, G. (2023). Green Fashion Consumption – a Review of the Literature. *Periodica Polytechnica Social and Management Sciences*, 32(2), 115–130. <https://doi.org/10.3311/PPso.21052>

[P3] Kemi, A. P., & Zilahy, G. **Consumers’ Post-purchase Behaviour of Fashion Products**. In *Proceedings of the 28th International Sustainable Development Research Society Conference (ISDRS)* (pp. 795–817). ISBN: 978-91-89504-17-2

[P4] Kemi, A. P., & Hasan, M. A. (2025). Sustainable clothing consumption behaviour: A bibliometric review. *Discover Sustainability*, 6(1), 624. <https://doi.org/10.1007/s43621-025-01549-3>

8. Additional scientific publications

[1] Hasan, M., Chun, C.Y., Yao, S., & Kemi, A.P. (2022). Forecasting the Quality of Port Infrastructure of Asian Port Countries: An Application of the Model GM (1, 1) and Clustering Them Using HCA Algorithm. *Operation and Supply Chain Management: An International Journal*, 105-121. <https://doi.org/10.31387/oscm0480334>