
**IMPACT OF SUSTAINABILITY AWARENESS AND ATTITUDES ON
INTENTION TO PURCHASE SUSTAINABLE FASHION CLOTHING:
MEDIATING ROLE OF SUSTAINABILITY COMMITMENT¹**

Zanete GARANTI ^{2 3}

ABSTRACT

Sustainability has gained its attention in last decades, and nowadays both public and private sector, as well as customers give high importance to the sustainability issues, expecting the present actions to have minimal economic, social and environmental impact on future generations. Nevertheless, academic literature indicate existing research gap on customer sustainability knowledge- behavior relationship. To address the gap in the literature, current study is designed to (1) identify sustainability awareness and sustainability attitudes impact on sustainability commitment and intention to purchase sustainable fashion clothing, (2) test the sustainability commitment and purchase intent relationship and to (3) clarify the mediating role of sustainability commitment in sustainability awareness, attitudes and purchase intention relationship. Quantitative study approach was used and total of 400 questionnaires filled by international students studying in Northern Cyprus were used for the analysis. Data then was analyzed using PLS-SEM. The results of the study indicate that sustainability awareness significantly impacts sustainability commitment, which then has an impact on purchase intent for sustainable fashion clothing. In contrast, sustainable attitudes does impact purchase intent for sustainable clothing, but does not have an influence on sustainability commitment. Therefore, sustainability commitment plays the mediating role only in sustainability awareness and purchase intent for sustainable clothing relationship. Drawn from the current outcomes, both theoretical and practical implications are presented in the research.

Keywords: Sustainability awareness, sustainability attitudes, purchase intention, sustainable fashion, Northern Cyprus

1 Extended abstract partially covering current study titled “Does Sustainability Awareness and Attitudes Contribute Towards Purchase Intention for Sustainable Fashion Clothing?” has been prepared to present in International Conference on Applied Economics and Finance and Extended with Social Sciences (ICOAEF’19), 9-11 April, 2019, Kyrenia, Northern Cyprus.

2 Dr. Öğr. Üyesi Uluslararası Kıbrıs Üniversitesi İktisadi ve İdari Bilimler Fakültesi, İşletme Bölümü
zgaranti@ciu.edu.tr. ORCID: 0000-0001-9990-8788

3 İletişim Yazarı / Corresponding Author zgaranti@ciu.edu.tr,
Geliş Tarihi / Received: 04.04.2019, Kabul Tarihi / Accepted: 23.10.2019

SÜRDÜRÜLEBİLİRLİK FARKINDALIĞININ ETKİSİ VE SÜRDÜRÜLEBİLİR MODA GIYSİLERİNİ SATIN ALMA NİYETİNE YÖNELİK TUTUM: SÜRDÜRÜLEBİLİRLİĞE YÖNELİK BAĞLILIĞIN ARABULUCU ROLÜ

ÖZ

Sürdürülebilirlik konusunun geçtiğimiz bir kaç on yıllık sürede dikkatleri üzerine çektiği görülmektedir. Mevcut dönemde gerçekleştirilen eylemlerin gelecek nesiller üzerindeki olası etkilerinin asgari düzeyde olmasını ümit eden kamu, özel sektör ve müşteriler, sürdürülebilirlik konularına büyük önem atfetmektedirler. Buna rağmen, akademik literatür müşteri sürdürülebilirlik bilgisi - davranış ilişkisi konusunda bir araştırma boşluğu olduğuna işaret etmektedir. Bahsekonu boşluğu doldurmak amacıyla gerçekleştirilen mevcut araştırma, (1) sürdürülebilirlik farkındalığı ve sürdürülebilirliğe yönelik yaklaşımların sürdürülebilirliğe olan bağlılık ve sürdürülebilir moda giysilerini satın alma yönelimine olan etkisini belirlemek, (2) sürdürülebilirliğe yönelik bağlılık ve satın alma yönelim ilişkisini test etmek ve (3) sürdürülebilirliğe yönelik bağlılığın, sürdürülebilirlik farkındalığı, yaklaşımlar ve satın alma yönelimi ilişkisindeki arabuluculuk rolünü netleştirmek üzere tasarlanmıştır. Bu çalışmada nicel araştırma yöntemi kullanılmış olup, veriler Kuzey Kıbrıs'ta öğrenim gören uluslararası öğrenciler tarafından cevaplanan 400 adet anketten oluşmaktadır. Veriler PLS-SEM kullanılarak analiz edilmiştir. Araştırma sonuçları, sürdürülebilirlik farkındalığının sürdürülebilirliğe yönelik bağlılığı önemli derecede etkilediğini ve aynı etkinin daha sonra sürdürülebilir moda giysilerini satın alma yönelimine de yansıdığını göstermektedir. Mevcut araştırma ayrıca, sürdürülebilir yaklaşımların, sürdürülebilir kıyafetleri satın alma yönelimini etkilediğini ancak sürdürülebilirliğe olan bağlılık üzerinde herhangi bir etkisi bulunmadığını ortaya koymaktadır. Bu da sürdürülebilirliğe yönelik bağlılığın sadece sürdürülebilirlik farkındalığı ve sürdürülebilir moda giysilerini satın alma yöneliminde bir arabuluculuk rolü oynadığını göstermektedir. Sonuçların gerek teorik gerekse pratik çıkarımları çalışmada sunulmaktadır.

Anahtar Kelimeler: Sürdürülebilirlik farkındalığı, sürdürülebilirliğe yönelik yaklaşımlar, satın alma yönelimi, sürdürülebilir moda, Kuzey Kıbrıs

1. Introduction

Meeting customer needs while preserving resources for the future generations (Kates, 2001) have become more difficult, as the world's population is growing fast. Meanwhile, increased awareness towards environmental and social sustainability amongst customers (Danciu, 2018), are forcing companies to implement sustainable practices within their supply chain (Sauer and Seuring, 2018). Sustainability requires to integrate all the aspects- economic, social and environmental (Santoyo-Castelazo and Azapagic, 2014). Economic sustainability implies that system of production should satisfy present consumption levels without compromising the needs of future generations (Basiago, 1998). Social sustainability aims to “support the capacity of current and future generations to create healthy and liveable communities” (McKenzie, 2004). Finally, environmental sustainability aims to “meet the resource and service needs of current and future generations without compromising the health of the ecosystems that provide them” (Morelli, 2011).

Fashion industry being one of the largest consumer industries, creating high economic, social and environmental impact. Greenpeace (2017) reports that sales of clothing have increased from one trillion dollars in 2002 to 1.8 trillion dollars in 2015, leading to overconsumption. The Pulse Score (2018), global and holistic baseline of the sustainability performance in the fashion sector, reports that fashion industries score in 2018 is 38 out of 100, with slight improvements since 2017 due to enhancements in resource efficiency in the supply chain. Still, pollution and environmental and social impact fashion industry creates is one of the highest in the world. In the era of “fast foods” and “fast fashion” (Joy et al., 2012), companies had undertaken business practices that lead to unsustainability just to satisfy customer need for cheap and quickly obtainable goods. But during the last two decades major shifts in business models for global fashion industry have taken place (Lueg et al., 2013), mainly due to global trends, customer demand and competition. Also, fashion industry is being extremely sensitive towards sustainability scandals (Moretto et al., 2018), such as use of transgenic cotton (which is genetically modified cotton) at C&A and H&M (Caniato et al., 2012) or child labor in producing the fashion products. All this have led to high concerns towards sustainability issues in fashion industry. To address above mentioned issues, 2017 Milan Fashion Week incorporated Green Carpet Fashion Awards (Fashion and Environment, 2017), where sustainable products were presented, e.g. eco-friendly clothing, re-generated cashmere, Giorgio Armani alternative to animal furs and other creative pro-environmental products. Buerke et al. (2017) reports that arise of responsible consumption are mainly driven by consumers' social responsibilities and willingness to do good, as well as consumers' responsibilities towards their personal well-being.

The current study aims to address several research gaps in sustainable fashion industry literature. Firstly, consumers' sustainable attitudes (Minton et al., 2018) and sustainability awareness (Johnstone and Lindh, 2018) are the concepts reflecting consumer knowledge and feeling towards sustainability, which have not yet gained

enough empirical attention. Moreover, limited studies on these concepts focus on organization and managers (e.g. Newell and Moore, 2010; Johnson, 2015) rather than consumers. Consumers' awareness and attitudes – behavior research gap has been identified before (e.g. Prothero et al., 2011; Yong et al., 2010). To address this gap, Kumar et al. (2017) introduce the concept of purchase intentions for environmentally sustainable products, suggesting to validate in other countries and industries. Furthermore, Shukla et al. (2010) suggested that impulse- behavior link is more complex than direct relationship, therefore author also introduce the concept of sustainability commitment (Shukla et al., 2016) as a mediator that is also used in this study. The sample of this study has also been selected very carefully. Hume (2010) emphasize that young subjects are the key stakeholders of sustainability issues, having the necessary knowledge and awareness. Moreover, young subjects that are studying, are assumed to have wider access to information and therefore better knowledge and awareness regards sustainability, so the population of this study is international students who study in universities in Northern Cyprus.

Current study addresses the discussed research gaps, and aims to test (1) the impact of sustainability awareness and attitudes on sustainability commitment, (2) the impact of sustainability awareness and attitudes on purchase intent for sustainable fashion clothing, (3) the relationship between sustainability commitment and purchase intent, and finally (4) the role of sustainability commitment as mediator.

2. Literature Review and Conceptual Framework

Sustainability “refer to company voluntary activities demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders” (Van Marrewijk, 2003; Herremans and Reid, 2002). Increased importance given to sustainability issues both in national and international levels (Clift, 2007) has led to consumers demanding sustainable products and services in the marketplace (Van Loo et al., 2015). The sustainability issues and relationships investigated in the current study are discussed below.

2.1. Sustainability Awareness and Attitudes Impact on Sustainability Commitment

Commitment reflects to the “consistent behavior, which is maintained in time and the rejection of other alternatives of action” (Becker, 1960). With growing awareness regards sustainability issues, consumers are becoming more and more educated (Cerri et al., 2018) on choosing the right products and services to reflect their pro-environmental behavior. When given the right information, consumers are expected to consistently choose products promoting sustainability. Elmualim et al. (2010) discussed that besides the economic focus organizations have to sustain their presence, sustainability awareness has significantly increased, leading to higher commitment towards sustainable behavior. Abidin and Pasquire (2007) discuss the importance of organizations to introduce sustainability issues that would create higher commitment to it at organizational level, and allow it to be communicated to customers.

Empirical studies show that increased environmental awareness equips individuals to become more commitment (Abramovich and Loria, 2015). Moreover, with increased awareness consumers also form their attitude towards sustainability. Those attitudes have been shown to be significant components of consumer behavior (Dascher et al., 2014). A study conducted on eco-tourists (Singh et al., 2007) reveals the positive attitudes formed towards sustainable tourism allows tourists to be actively engaged in conservation and advocacy efforts to show their sustainability commitment, which allows author to propose the following hypothesis:

H1: Sustainability awareness positively impacts sustainability commitment.

H2: Sustainability attitudes positively impacts sustainability commitment.

2.2. Sustainability awareness and attitudes impact on purchase intent for sustainable fashion clothing

Several authors (e.g. Vermeir and Verbeke, 2006) debates that despite awareness and positive attitudes towards sustainability, consumer behavioral patterns are not always consistent. Author argues that when consumers are aware about sustainability concept, more likely they would seek out to purchase sustainable products. Previous studies have examined the impact of sustainability awareness impact on consumer responses (e.g. Alevizou et al., 2018) and indicate positive relationship. Studies summarize that engagement in pro-sustainability behavior is largely impacted by education of consumers and the attitude their form towards sustainability issues (Cerri et al., 2018). Generally speaking, consumer awareness and attitudes were found to positively impact consumer behavior when exposed to instant coffee advertisement (Aaker and Day, 1974). Sustainable attitudes and awareness and consumer behavior link has been explored in food industry (e.g. Vermeir and Verbeke, 2006) and other industries (e.g. Park and Ha, 2012), and allows author to propose hypothesis stating that:

H3: Sustainability awareness positively impacts purchase intention for sustainable fashion clothing.

H4: Sustainability attitudes positively impacts purchase intention for sustainable fashion clothing.

2.3. Sustainability commitment impact on purchase intent for sustainable fashion clothing

Commitment as an outcome of an individual's identification with a sustainability issues (Keh and Xie, 2009) over time would lead to the behavior that reflect the consistency of those ideas. Park and Kim (2003) argues that when consumers trust a company, they know that this company is able to fulfill their needs and wants and eventually, they become committed to the company. Such a commitment over time would most likely lead to purchase behavior. Empirical studies (Hsu et al., 2010) approves that from a relationship marketing perspective, commitment is

international students studying in universities of Northern Cyprus. Questionnaire was prepared in Google Forms and distributed via social media platforms to international students studying in Northern Cyprus. The study adapted quasi-convenience snowball sampling method (Krishen et al., 2016).

Questionnaire was prepared and distributed in English and consisted of 2 parts. Part I consisted of questions regards demographic profile of respondents (age, gender, level of studies, and country of origin). Part II consisted of statements to measure respondents’ sustainability awareness, attitudes, purchase intent for sustainable fashion clothing and sustainability commitment.

Multiple measures were taken to address common method bias. First of all, the measures of variables were obtained from different sources as suggested by Podsakoff et al. (2003). Also, respondent anonymity was guaranteed.

Total of 400 questionnaires were obtained and used for the purpose of this study, evaluated as suitable sample size to proceed with structural equation modelling (SEM) by Wolf et al. (2013). A demographic profile of the sample is represented in Table 1.

Table 1. Demographic profile of the respondents (N=400)

<i>Demographic category</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Age</i>		
18-25	196	49
26-30	99	25
31-35	60	15
36-40	33	8
Above 41	12	3
<i>Gender</i>		
Male	246	61
Female	154	39
<i>Level of studies</i>		
Undergraduate	188	47
Masters	149	37
PhD	47	12
Other	16	4
<i>Country of origin</i>		
Nigeria	135	34
Zimbabwe	61	15

Cameroon	35	9
Turkey	20	5
Jordan	18	5
Congo	14	4
Lebanon	10	3
Iran	9	2
Palestine	9	2
Iraq	9	2
Cyprus	9	2
Libya	6	2
Other	65	15

Out of 400 respondents that participated in the survey, half (49%) were 18-25 years old, while 25% were in the age of 26-30, and less of respondents reported being age of 31-35 (15%), 36-40 (8%) and above 41 (3%). This is due to survey exclusively focusing on international students. Regards the gender, total of 246 respondents (61%) were male, while 154 (39%) being female. Majority of the students (N=188) are undergraduate students, while 37% of respondents studying for their masters' degree, 12% studying in PhD programs and 4% in other study levels. Overall respondents of this study are from 41 different countries, representing rich cultural background of international students in Northern Cyprus. The three leading countries (Nigeria, Zimbabwe and Cameroon) represent 58% of the respondents of this study.

3.2. Measurement Scales

Measurement scales used for this study was adapted from previous studies. Sustainability awareness was measured with 3 items adapted from Johnstone and Lindh (2018) study. Sustainable attitudes were measured with 3 items adapted from Minton et al. (2018). Purchase intent for sustainable fashion clothing was measured with four items from Kumar et al. (2017). Finally, sustainability commitment was measured with four items adapted from Shukla et al. (2016). A study used 5 point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

3.3. Data Analysis Strategy

The data obtained for this study was analyzed using Smart PLS-SEM, which allows researcher to operationalize theories and determine the appropriate construction of statistical models (Flecha-Ortíz et al., 2019). Moreover, Smart PLS-SEM is a tool used in recently published marketing research (e.g.; Martins et al., 2019; Al-Htibat and Garanti, 2019). The data analysis was conducted following the procedure suggested by Lowry and Gaskin (2014). The results are presented below.

4. Results

4.1. Model Validity and Reliability

Model validity analysis and internal consistency summary is represented in Table 2.

Table 2. Validity and reliability test (N=400)

<i>Dimensions</i>	<i>Items</i>	<i>Factor loadings</i>	<i>Composite reliability</i>	<i>Cronbach's alpha</i>	<i>AVE</i>
Sustainability awareness	Saw1- I always check that the fashion clothing I buy are produced with fair conditions for workers	0.829	0.826	0.825	0.612
	Saw2- I always check that there is no child labor involved in the production of fashion clothing I buy	0.752			
	Saw3- I always buy ecological when possible	0.765			
Sustainability attitudes	Satt1- Sustainability is very important for me	0.723	0.793	0.792	0.562
	Satt2- To help environment I seek to reduce overall number of purchases I make	0.792			
	Satt3- Buying more than I need hurts the environment	0.731			
Sustainability commitment	Scom1- I am emotionally attached to issues of sustainability of fashion clothing	0.702	0.814	0.814	0.523
	Scom2- Sustainability of fashion clothing has a personal meaning to me	0.749			
	Scom3- I strongly identify myself with sustainability issues in fashion clothing	0.708			
	Scom4- Sustainability of fashion clothing is very important	0.732			
Purchase intent for sustainable products	Pint1- I would like to use sustainable fashion clothing	0.770	0.806	0.806	0.510
	Pint2- I would like to buy sustainable fashion clothing if I happen to see it in store	0.708			
	Pint3- I would actively seek out sustainable fashion clothing in store in order to purchase it	0.664			
	Pint4- I would patronize and recommend to use sustainable fashion clothing	0.710			

All items, except Pint3, have achieved acceptable factor loadings and range between 0.702 and 0.829, which is higher than suggested threshold of 0.7 by Hair et al. (2010). The Pint3 item loading 0.664 is still greater than 0.5 suggested by Truong and McColl (2011). According to Peterson and Kim (2013), better measure than Cronbach's alpha is composite reliability assessing within the scale consistency of responses. All composite reliability measures were greater than 0.793, consistent with studies of Lawson-Body and Limayem (2004) recommending accepting values above 0.6. Cronbach's alpha values varies between 0.792 and 0.825, all exceeding the cutoff value of 0.7 (Hair et al., 2010). Finally, average variance extracted (AVE) is a construct that estimates "average amount of variation that a latent construct is able to explain in the observed variables to which it is theoretically related" (Farrell, 2010). All constructs show AVE values greater than 0.5 as suggested by Lai and Chen (2011). Also, t-values were greater than 1.96 (Hair et al., 2010).

4.1.1. Discriminant Validity

To assess discriminant validity in order to detect whether there is a significant variance between variables that could have the same meaning, Fornell-Larcker and Heterotrait-Monotrait (HTMT) ratio were used, summarized in Table 3.

Table 3. Fornell-Larcker criteria and HTMT ratio (N=400)

	Purchase intent for sustainable products	Sustainability awareness	Sustainability commitment	Sustainability attitudes
Purchase intent for sustainable products	0.714	0.463	0.736	0.363
Sustainability awareness	0.464	0.783	0.639	0.352
Sustainability commitment	0.483	0.636	0.723	0.246
Sustainability attitudes	0.362	0.353	0.246	0.749

Note: values above diagonal marked bold are HTMT ratios.

Following Fornell and Larcker (1981) and Ab Hamid and Sami (2017) recommendations, square root of each constructs' AVE is greater than the correlations with other latent constructs, while HTMT ratio is below 0.85, therefore acceptable according to Kline (2015). To sum up, author concludes that scale reliability, convergent and discriminant validity have been established.

4.1.2. Common Method Bias

To access common method bias, author used assessment of inner IVF values at factor level that ranged from 1.143 to 2.901 which is lower than 3.3 suggested by Kock (2015), and indicates that model is not contaminated with common method bias.

4.2. Hypothesis Testing

Both direct and indirect effects were assed and summarized in Table 4.

Table 4. Total and indirect effects (N=400)

	<i>Coefficient</i>	<i>t-value</i>	<i>p value</i>	<i>Hypothesis result</i>
Sustainability awareness -> Sustainability commitment	0.626	11.623	0.000	Approved
Sustainability attitudes -> Sustainability commitment	0.030	0.380	0.704	Not approved
Sustainability awareness -> Purchase intent for sustainable products	-0.084	1.070	0.285	Not approved
Sustainability attitudes -> Purchase intent for sustainable products	0.208	3.620	0.000	Approved
Sustainability commitment -> Purchase intent for sustainable products	0.744	10.788	0.000	Approved
Sustainability awareness -> Sustainability commitment -> Purchase intent for sustainable products	0.467	6.964	0.000	Approved
Sustainability attitudes -> Sustainability commitment -> Purchase intent for sustainable products	0.022	0.374	0.709	Not approved

Sustainability awareness shows a positive impact on sustainability commitment ($\beta = .626, \rho < .00$), thus H1 is approved as it has gained empirical support. Meanwhile, sustainable attitudes impact on sustainability commitment was not significant ($\beta = .030, \rho > .00$), therefore H2 failed to achieve an empirical support. Sustainability awareness impact on purchase intent for sustainable products was also insignificant ($\beta = -.084, \rho > .00$), failing to obtain empirical support for H3. Study results also reveal that sustainable attitudes and sustainability commitment does have a direct positive relationship on purchase intent for sustainable products ($\beta = .208, \rho < .00$) and ($\beta = .744, \rho < .00$) respectively, showing empirical support for H4 and H5. The indirect effect predicted in H6 stating that sustainability commitment would mediate the link between sustainability awareness and purchase intent for sustainable products did receive an empirical support ($\beta = .467, \rho < .00$), indicating that sustainable commitment is partial mediator. In contrast, H7 assuming sustainability commitment would mediate the relationship between sustainability awareness and purchase intent for sustainable products did not receive empirical support ($\beta = .022, \rho > .00$). Overall, the predictive power of the model is high, with R2 for sustainability commitment and purchase intent for sustainable products standing at 0.413 and 0.595 respectively. The results are discussed further.

5. Conclusion and Discussion

In order to promote purchases of sustainable products, customers should be educated regards sustainability issues and should specifically demand products and services produced and delivered in a sustainable manner (Miller, 2003). The current study was designed to explore the role of sustainability awareness and sustainability attitudes in promoting sustainable commitment and purchase intent for sustainable fashion clothing, as well as the mediating role of sustainability commitment in sustainability awareness, attitudes and purchase intent relationship. The results are based on 400 students studying in Northern Cyprus universities, and indicate the complexity of promoting purchases of sustainable fashion products amongst student population.

Herremans and Reid (2002) point out that students are rapidly gaining awareness towards sustainability issues during their study years, and when sustainability awareness is raised and consumers have gained a common understanding of sustainability context and dimensionality (Lozano, 2008), we can expect that they become responsible consumers purchasing sustainable products and services (Kumar and Ghodeswar, 2015). Interestingly, outcomes of the current study indicate that sustainability awareness does not influence purchase intent for sustainable fashion products, which to some extent is contrasting the findings of previous studies. There are several reasons for such an outcomes. Firstly, Warburton (2003) points out that in many cases the awareness students have gained through out their studies are mostly surface level, while sustainability being interdisciplinary and complex issue requires deep learning. Secondly, purchase intent for sustainable fashion clothing is known to be complex and personal (Henninger et al., 2016), and while students might gain some knowledge and awareness regards its sustainability, it is also obvious that sustainable fashion comes at a higher price (Hult et al., 2018) and is less available (Cerri et al., 2018), which are the main barriers to purchase intent of sustainable fashion clothing amongst students in Northern Cyprus.

The results of the current study also shows that sustainability awareness does have a positive impact on sustainability commitment ($\beta = 0.626$, $p = 0.000$), which then directly contributes to purchase intent for sustainable fashion products ($\beta = 0.744$, $p = 0.000$). Indirect effects shows sustainability commitment plays a mediating role in sustainability awareness and purchase intent for sustainable products relationship ($\beta = 0.467$, $p = 0.000$). Therefore, the current study results indicate that students who gain awareness regards sustainability issues in fashion industry do intent to purchase sustainable fashion clothing only when they show commitment to sustainability issues. Previous studies have recognized that students do show high levels of sustainability commitment (Buil et al., 2016), and higher level of commitment to sustainability promote student sustainability involvement (Dagiliūtė et al., 2018), Moreover, sustainability commitment tend to be high in fashion industry (Macchion et.al., 2018), therefore the outcomes of the current

study provide similar results as previous studies. The results are allowing author to conclude that to promote purchases of sustainable fashion clothing, students from aware about sustainability have to become committed to sustainability by always making educated decisions of their purchases.

Finally, sustainability attitudes shows a positive direct impact on purchase intent for sustainable fashion products ($\beta = 0.208$, $p = 0.000$), while it does not impact sustainability commitment, therefore commitment is not mediating sustainability attitudes- purchase intent for sustainable products relationship. Positive consumer attitudes are shown to impact behaviors in previous empirical studies (Billows and McNeill, 2018), while having an attitude based on concept introduction throughout coursework does not yet mean that students are conceptualizing the perception to fully commit to it (Hinton, 2018). Moreover, an empirical study in Portugal shows that although Generation Y consumers have very positive attitude towards sustainable footwear, it not necessary mean they become committed to purchase it (Bernardes et al., 2018). Therefore, current study approves outcomes of similar studies, that attitude towards sustainability only to some extend influence purchase intent of sustainable fashion clothing, but does not necessarily mean students become committed to sustainability concept.

6. Theoretical and Managerial Contributions

The current study aimed to address several research gaps in sustainable fashion industry literature by looking at consumer perspective on consumption of sustainable fashion clothing. The study measured consumers' sustainable attitudes (Minton et al., 2018) and sustainability awareness (Johnstone and Lindh, 2018) and provided empirical evidence on how these concepts contribute towards sustainability commitment and sustainable product purchases. Addressing this knowledge-behavior gap, more evidence is gained on how complex is the sustainable fashion clothing consumption. Moreover, study was conducted on students studying in Northern Cyprus, as students tend to be exposed to sustainability issues during their study work, while yet not much is known whether that allows them to become aware and form attitude towards sustainability. Finally, sustainability issues have gained enormous attention in agriculture and farming (e.g. Sunman, 2014) and tourism literature (e.g. Choi and Sirakaya, 2005), as well as other fields, but fashion industry seems to be ignored despite the fact that it is second largest polluter of fresh water resources in the world (Mahoney, 2018) and have high overall impact on sustainability. Pal and Gander (2018) shows that sustainability concept starts to become recognized and implemented within fashion business models, while this study looks at fashion industry's consumers whose perceptions are yet to be explored in empirical studies.

The study complements the growing interest on researching what drives sustainable product purchases and indicates that students who are aware and form positive attitude towards sustainability issues are most likely to commit to sustainable

purchases, therefore organizations who invest resources in producing sustainable fashion clothing has to also work on educating their consumers. Consumers who are not aware, and who do not have a positive attitude and commitment towards sustainable fashion will not source and pay higher prices for it.

When it comes to universities, it is clear that promoting deep learning of sustainability concept and its integration into everyday activities and choices is the key to develop students into educated, responsible consumers. Integrating sustainability into project based teaching (Brunetti et al., 2003), taking holistic approach to sustainability integration into students' curriculum (Watson et.al., 2013) and designing courses specifically considered to promote sustainability awareness (Erdogan and Tuncer, 2009) within Cyprus universities would lead to students' developing deep and universal knowledge regards sustainability.

7. Limitations and Suggestions for Future Research

The present study has several limitations that author suggest addressing in upcoming studies. Current study is cross-sectional, and although it provides significant contributions, to extend its generalization, longitudinal study approach is suggested. Secondly, the present study specifically looked at students' studying in Northern Cyprus and their perspective on sustainability issues in fashion industry, and extended study population, geographical location and industry might give new insights into studied concepts.

The results of the current study relieves the role of sustainability awareness, attitudes and commitment towards purchase intent for sustainable fashion products. However, the study does not look at the differences amongst demographic groups, therefore future studies might further explore the differences amongst gender, age and educational level and its role in sustainable knowledge- behavior gap, as previous studies have pointed out such a differences (Galbreath, 2011).

Finally, the current study looks at how sustainability awareness and attitudes, as well as sustainability commitment influences purchase intent for sustainable fashion clothing as an outcome. Future studies might look at other customer outcomes that are important in decision making, e.g. loyalty (Abbas et al., 2018) and customer retention (Yim et al., 2004). Also, inclusion of other mediating variables, e.g. trust in sustainability claims (Wehnert, 2019), when researching sustainability knowledge- behavior gap would extend the value of future studies.

References

- Aaker, D. A., and Day, G. S. (1974). A dynamic model of relationships among advertising, consumer awareness, attitudes, and behavior. *Journal of Applied Psychology*, 59(3), 281.
- Ab Hamid, M. R., Sami, W., and Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell and Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012163). IOP Publishing.
- Abbas, M., Gao, Y., and Shah, S. (2018). CSR and Customer Outcomes: The Mediating Role of Customer Engagement. *Sustainability*, 10(11), 4243.
- Abidin, N. Z., and Pasquire, C. L. (2007). Revolutionize value management: A mode towards sustainability. *International Journal of Project Management*, 25(3), 275-282.
- Abramovich, A., and Loria, Y. (2015). The long-term impact of an education for sustainability course on Israeli science and technology teachers' pro-environment awareness, commitment and behaviour. *Australian Journal of Environmental Education*, 31(2), 264-279.
- Ahluwalia, R., Burnkrant, R. E., and Unnava, H. R. (2000). Consumer response to negative publicity: The moderating role of commitment. *Journal of marketing research*, 37(2), 203-214.
- Alevizou, P. J., Oates, C. J., and McDonald, S. (2018). Signalling sustainability: approaches to on-pack advertising and consumer responses. In *American Academy of Advertising. Conference. Proceedings (Online)* (pp. 74-77). American Academy of Advertising.
- Al-Htibat, A., and Garanti, Z. (2019). Impact of interactive eReferral on tourists behavioral intentions. *Marketing Intelligence and Planning*.
- Basiago, A. D. (1998). Economic, social, and environmental sustainability in development theory and urban planning practice. *Environmentalist*, 19(2), 145-161.
- Becker, H. S. (1960). Notes on the concept of commitment. *American journal of Sociology*, 66(1), 32-40.
- Bernardes, J. P., Marques, A. D., Ferreira, F., Nogueira, M., and Luca, A. (2018, June). The Generation Y's sustainability perceptions and consumption habits in the footwear industry in Portugal. In *Proceedings da AUTEX 2018-Istanbul* (pp. 546-549). Association of Universities for Textiles (AUTEX).
- Billows, G., and McNeill, L. (2018). Consumer Attitude and Behavioral Intention toward Collaborative Consumption of Shared Services. *Sustainability*, 10(12), 4468.

- Brunetti, A. J., Petrell, R. J., and Sawada, B. (2003). SEEDing sustainability: Team project-based learning enhances awareness of sustainability at the University of British Columbia, Canada. *International Journal of Sustainability in Higher Education*, 4(3), 210-217.
- Buerke, A., Straatmann, T., Lin-Hi, N., and Müller, K. (2017). Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. *Review of Managerial Science*, 11(4), 959-991.
- Buil, M., Aznar, J., Galiana, J., and Rocafort-Marco, A. (2016). An explanatory study of MBA students with regards to sustainability and ethics commitment. *Sustainability*, 8(3), 280.
- Caniato, F., Caridi, M., Crippa, L., and Moretto, A. (2012). Environmental sustainability in fashion supply chains: An exploratory case based research. *International Journal of Production Economics*, 135(2), 659-670.
- Cerri, J., Testa, F., and Rizzi, F. (2018). The more I care, the less I will listen to you: How information, environmental concern and ethical production influence consumers' attitudes and the purchasing of sustainable products. *Journal of Cleaner Production*, 175, 343-353.
- Choi, H. S. C., and Sirakaya, E. (2005). Measuring residents' attitude toward sustainable tourism: Development of sustainable tourism attitude scale. *Journal of Travel Research*, 43(4), 380-394.
- Clift, R. (2007). Climate change and energy policy: the importance of sustainability arguments. *Energy*, 32(4), 262-268.
- Dagiliūtė, R., Liobikienė, G., and Minelgaitė, A. (2018). Sustainability at universities: Students' perceptions from Green and Non-Green universities. *Journal of Cleaner Production*, 181, 473-482.
- Danciu, V. (2018). The Changing Focus of Green Marketing: From Ecological to Sustainable Marketing (III). *Romanian Economic Journal*, 21(68), 121-144.
- Dascher, E. D., Kang, J., and Hustvedt, G. (2014). Water sustainability: environmental attitude, drought attitude and motivation. *International Journal of Consumer Studies*, 38(5), 467-474.
- Elmualim, A., Shockley, D., Valle, R., Ludlow, G., and Shah, S. (2010). Barriers and commitment of facilities management profession to the sustainability agenda. *Building and Environment*, 45(1), 58-64.
- Erdogan, M., and Tuncer, G. (2009). Evaluation of a Course: "Education and Awareness for Sustainability". *International Journal of Environmental and Science Education*, 4(2), 133-146.
- Farrell, A. M. (2010). Insufficient discriminant validity: A comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research*, 63(3), 324-327.
- Flecha-Ortiz, J., Santos-Corrada, M., Dones-González, V., López-González, E., and Vega, A. (2019). Millennials and Snapchat: Self-expression through its use and its influence on purchase motivation. *Journal of Business Research*.

- Galbreath, J. (2011). Are there gender-related influences on corporate sustainability? A study of women on boards of directors. *Journal of Management and Organization*, 17(1), 17-38.
- Greenpeace. "Fashion at the Crossroads". <https://www.greenpeace.org/international/publication/6969/fashion-at-the-crossroads/> (accessed 22 February, 2019).
- Hair, J. F., Anderson Jr, R. E., Tatham, R. L., and Black, W. C. (2010). *Multivariate data analysis 7th Ed.*(Global Edition).
- Henninger, C. E., Alevizou, P. J., and Oates, C. J. (2016). What is sustainable fashion?. *Journal of Fashion Marketing and Management: An International Journal*, 20(4), 400-416.
- Herremans, I. M., and Reid, R. E. (2002). Developing awareness of the sustainability concept. *The Journal of Environmental Education*, 34(1), 16-20.
- Herremans, I. M., and Reid, R. E. (2002). Developing awareness of the sustainability concept. *The Journal of Environmental Education*, 34(1), 16-20.
- Hinton, G. W. (2018). Sustainability Attitudes of College Students as Future Business Leaders.
- Hong-kit Yim, F., Anderson, R. E., and Swaminathan, S. (2004). Customer relationship management: Its dimensions and effect on customer outcomes. *Journal of Personal Selling and Sales Management*, 24(4), 263-278.
- Hsu, C. L., Liu, C. C., and Lee, Y. D. (2010). Effect of commitment and trust towards micro-blogs on consumer behavioral intention: A relationship marketing perspective. *International Journal of Electronic Business Management*, 8(4).
- Hult, G. T. M., Mena, J. A., Gonzalez-Perez, M. A., Lagerström, K., and Hult, D. T. (2018). A Ten Country-Company Study of Sustainability and Product-Market Performance: Influences of Doing Good, Warm Glow, and Price Fairness. *Journal of Macromarketing*, 38(3), 242-261.
- Hume, M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of World Business*, 45(4), 385-394.
- Johnson, M. P. (2015). Sustainability management and small and medium-sized enterprises: Managers' awareness and implementation of innovative tools. *Corporate Social Responsibility and Environmental Management*, 22(5), 271-285.
- Johnstone, L., and Lindh, C. (2018). The sustainability-age dilemma: A theory of (un) planned behaviour via influencers. *Journal of Consumer Behaviour*, 17(1), e127-e139.
- Joy, A., Sherry Jr, J. F., Venkatesh, A., Wang, J., and Chan, R. (2012). Fast fashion, sustainability, and the ethical appeal of luxury brands. *Fashion Theory*, 16(3), 273-295.

- Kates, R. W., Clark, W. C., Corell, R., Hall, J. M., Jaeger, C. C., Lowe, I., ... and Faucheux, S. (2001). Sustainability science. *Science*, 292(5517), 641-642.
- Keh, H. T., and Xie, Y. (2009). Corporate reputation and customer behavioral intentions: The roles of trust, identification and commitment. *Industrial Marketing Management*, 38(7), 732-742.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (IJeC)*, 11(4), 1-10.
- Krishen, A. S., Berezan, O., Agarwal, S., and Kachroo, P. (2016). The generation of virtual needs: Recipes for satisfaction in social media networking. *Journal of Business Research*, 69(11), 5248-5254.
- Kumar, B., Manrai, A. K., and Manrai, L. A. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *Journal of Retailing and Consumer Services*, 34, 1-9.
- Kumar, P., and Ghodeswar, B. M. (2015). Factors affecting consumers' green product purchase decisions. *Marketing Intelligence and Planning*, 33(3), 330-347.
- Lai, W. T., and Chen, C. F. (2011). Behavioral intentions of public transit passengers—The roles of service quality, perceived value, satisfaction and involvement. *Transport policy*, 18(2), 318-325.
- Lawson-Body, A., and Limayem, M. (2004). The impact of customer relationship management on customer loyalty: The moderating role of web site characteristics. *Journal of Computer-Mediated Communication*, 9(4), JCMC944.
- Linc Magazine. "Fashion and Environment". <https://www.lincmagazine.it/2017/09/18/fashion-environment-eco-chic/> (accessed 22 February, 2019).
- Lowry, P. B., and Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE Transactions on Professional Communication*, 57(2), 123-146.
- Lozano, R. (2008). Envisioning sustainability three-dimensionally. *Journal of Cleaner Production*, 16(17), 1838-1846.
- Lueg, R., Pedersen, M. M., and Clemmensen, S. N. (2015). The role of corporate sustainability in a low-cost business model—A case study in the Scandinavian fashion industry. *Business Strategy and the Environment*, 24(5), 344-359.
- Macchion, L., Da Giau, A., Caniato, F., Caridi, M., Danese, P., Rinaldi, R., and Vinelli, A. (2018). Strategic approaches to sustainability in fashion supply chain management. *Production Planning and Control*, 29(1), 9-28.
- Mahoney, M. (2018). *The latest fashion trend: water sustainability and social ethics* (Doctoral dissertation). SUNY New Paltz, USA.

- Martins, J., Costa, C., Oliveira, T., Gonçalves, R., and Branco, F. (2019). How smartphone advertising influences consumers' purchase intention. *Journal of Business Research*, 94, 378-387.
- Mathieu, J. E., and Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171.
- McKenzie, S. (2004). Social sustainability: towards some definitions.
- Miller, D. (2003). An asymmetry-based view of advantage: towards an attainable sustainability. *Strategic Management Journal*, 24(10), 961-976.
- Minton, E. A., Spielmann, N., Kahle, L. R., and Kim, C. H. (2018). The subjective norms of sustainable consumption: A cross-cultural exploration. *Journal of Business Research*, 82, 400-408.
- Morelli, J. (2011). Environmental sustainability: A definition for environmental professionals. *Journal of Environmental Sustainability*, 1(1), 2.
- Moretto, A., Macchion, L., Lion, A., Caniato, F., Danese, P., and Vinelli, A. (2018). Designing a roadmap towards a sustainable supply chain: A focus on the fashion industry. *Journal of Cleaner Production*, 193, 169-184.
- Newell, C. J., and Moore, W. B. (2010). Creating small business sustainability awareness. *International Journal of Business and Management*, 5(9), 19.
- Pal, R., and Gander, J. (2018). Modelling environmental value: An examination of sustainable business models within the fashion industry. *Journal of Cleaner Production*, 184, 251-263.
- Park, C. H., and Kim, Y. G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail and Distribution Management*, 31(1), 16-29.
- Park, J., and Ha, S. (2012). Understanding pro-environmental behavior: a comparison of sustainable consumers and apathetic consumers. *International Journal of Retail and Distribution Management*, 40(5), 388-403.
- Peterson, R. A., and Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, 98(1), 194.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W. E., Luchs, M. G., Ozanne, L. K., and Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy and Marketing*, 30(1), 31-38.
- Pulse Score (2017). https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf (accessed 22 February, 2019).

- Santoyo-Castelazo, E., and Azapagic, A. (2014). Sustainability assessment of energy systems: integrating environmental, economic and social aspects. *Journal of Cleaner Production*, 80, 119-138.
- Sauer, P. C., and Seuring, S. (2018). A three-dimensional framework for multi-tier sustainable supply chain management. *Supply Chain Management: An International Journal*, 23(6), 560-572.
- Shukla, P., Banerjee, M., and Singh, J. (2016). Customer commitment to luxury brands: Antecedents and consequences. *Journal of Business Research*, 69(1), 323-331.
- Singh, T., Slotkin, M. H., and Vamosi, A. R. (2007). Attitude towards ecotourism and environmental advocacy: Profiling the dimensions of sustainability. *Journal of Vacation Marketing*, 13(2), 119-134.
- Sunman, R. S. (2014). Attitude of Farmers towards sustainability of vegetable cultivation. *Journal of AgriSearch*, 1(1).
- Truong, Y., and McColl, R. (2011). Intrinsic motivations, self-esteem, and luxury goods consumption. *Journal of Retailing and Consumer Services*, 18(6), 555-561.
- Van Loo, E. J., Caputo, V., Nayga Jr, R. M., Seo, H. S., Zhang, B., and Verbeke, W. (2015). Sustainability labels on coffee: Consumer preferences, willingness-to-pay and visual attention to attributes. *Ecological Economics*, 118, 215-225.
- Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics*, 44(2-3), 95-105.
- Vermeir, I., and Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude-behavioral intention" gap. *Journal of Agricultural and Environmental Ethics*, 19(2), 169-194.
- Warburton, K. (2003). Deep learning and education for sustainability. *International Journal of Sustainability in Higher Education*, 4(1), 44-56.
- Watson, M. K., Lozano, R., Noyes, C., and Rodgers, M. (2013). Assessing curricula contribution to sustainability more holistically: Experiences from the integration of curricula assessment and students' perceptions at the Georgia Institute of Technology. *Journal of Cleaner Production*, 61, 106-116.
- Wehnert, P., Baccarella, C. V., and Beckmann, M. (2019). In crowdfunding we trust? Investigating crowdfunding success as a signal for enhancing trust in sustainable product features. *Technological Forecasting and Social Change*, 141, 128-137.
- Wolf, E. J., Harrington, K. M., Clark, S. L., and Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, 73(6), 913-934.
- Young, W., Hwang, K., McDonald, S., and Oates, C. J. (2010). Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), 20-31