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Investigating Sustainable Consumption Behavior Vis-à-vis Islamic Values: A systematic review

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Abstract

This paper aims to develop a rigorous, systematic exploration of the literature investigating the nexus between sustainable consumption behavior and Islamic values and identify the types of respondents used in the previous studies. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) is used to structure the research field. This paper identified eight articles that report empirical evidence of the proposed research topic. Prior studies focused on three respondents: students, consumers in major cities, and consumers in the clothing industry. The assemblage of reviewed research papers is necessary for academia and government to achieve the shared prosperity vision by 2030.

Keywords: Sustainable consumption behavior; Islamic Values; Religiosity; Muslim consumers

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1.0 Introduction

The term sustainable has been applied to ecosystems and goes back a long way. For example, fisheries managers have long used the concept of the maximum sustainable yield to denote the ultimate fish catch per year consistent with a stable fish population. In 1972, at the United Nations Conference on the Human Environment in Stockholm, the challenge of maintaining sustainability in economic growth and development was first brought to the global forefront (Sachs, 2015). In the same year, the Club of Rome published the blockbuster book entitled "Limits to Growth," arguing forcefully that continued economic growth on the prevailing economic patterns would collide with the Earth's finite resources, leading to a future overshoot and collapse. A year later, Schumacher (1973) introduced the term sustainability representing the main tipping point in western societies bringing a tremendous environmental and social awakening. It's creating a significant influence in the following years, even from an economic perspective. Seven years later, an influential publication entitled "World Conservation Strategy: Living Resources Conservation for Sustainable Development" has noted in its forward that human beings, in their quest for economic development and enjoyment of the riches of nature, must come to terms with the reality of resource limitation and the carrying capacity of ecosystems and must take into accounts of the needs of future generations. The phrase sustainable development

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was adopted and popularized in the United Nations Commission on Environment and Development (UNCED), known widely by its Chairman, Gro Harlem Brundtland.

1.1 Issues, Research Problems, and Research Questions

Consumption of everyday goods has an enormous impact on the environment. Human activities, including solid waste generation and recycling, have threatened the environment. It is stated that over time depletion of natural capital will exacerbate conflict and migration, climate change, and vulnerability to natural disasters, such as flooding and drought, and harm physical and mental health and well-being. If consumers do not change their current lifestyles and be agents of change, they would be a potent impediment to achieving a high quality of life. The quality of life of Malaysians was highlighted in 2021 Malaysia's budget. Therefore, Malaysian consumers must consume sustainably and responsibly in tandem with the National Environmental Policy to achieve this goal.

For the last few decades, eliciting environmentally sustainable consumer behavior has been a vital topic that has increasing attention in the consumer marketplace and academia (Dong et al., 2020). Environmentally sustainable consumer behavior, whose alternative term is environmentally responsible consumer behavior, is hard to pin down when defining it. Still, the term is broadly utilized and employed as an umbrella concept that highlights an individual's various actions saving natural resources (e.g., water and energy), reducing environmental harm (e.g., waste decrease), meeting the green need of society, and improving their quality of life (Han, 2020). Similarly, according to Krajhanzl (2010), 'pro-environmental behavior' is such behaviors that are generally (or according to the knowledge of environmental science) judged in the context of the considered society as a protective way of environmental behavior or tribute to the healthy environment (p.252).

A growing body of research stresses the importance of religion in understanding and addressing climate change and sustainability. However, little is known about the relationship between Muslim communities and climate change (Koehrsen, 2021). Globally, Muslims constitute the second-largest faith group, with 60% of the global Muslim population living in Asia. There is a strong concentration of Muslims in regions particularly affected by global warming and other environmental crises, including Malaysia. Thus, studying Islamic values and sustainable consumption behavior becomes more important as Malaysia is a Muslim-dominated country. Malaysia is a Muslim majority country, where approximately 61.4 % of Malaysia (constituted by 50.4% Malays and 11% of other races) are Muslim (World Population Report, 2000; Statistica, 2019).

In recent years, religion has been a rising consideration in climate change and environmental research (Clingerman & O'Brien, 2017). The increasing focus on culture, values, and worldviews in research on climate change appears to have encouraged directing attention to religion (Ives, Freeth, & Fischer, 2020; Otto et al., 2020). Therefore, scholars have argued that there is a fundamental need to understand the role of religion to fully grasp the cultural dynamics of climate change (Jenkins et al., 2018). To construct a relevant systematic review, the current article was guided by the main research question – What is the relationship between Islamic Values and Sustainable Consumption behavior? Besides, this study also attempts to identify: What types of respondents group (e.g., student, household, young consumers) were used? Findings from this section will help determine the discrepancies for future research related to sustainable consumption behavior.

2.0 Literature Review

Sustainable consumption is often synonymous and interlinked with ecologically responsible behavior, environmentally friendly behavior, ethical consumption, green consumption, pro-environmental behavior, environmentally significant behavior, ecological behavior, and responsible consumption. Generally, sustainable consumption can be defined as using resources and energy directly by end-users or creating goods and services for them. This definition does not count the labor input into producing goods and services. Concisely, sustainable consumption emphasizes how environmentally friendly consumers may adopt behavior that actively seeks to minimize the environmental impacts through their consumption on the planet and strive to achieve sustainability and ensure future generations' well-being.

According to Stern (2000), pro-environmental behavior should be defined as human activities that generate intention related to environmental protection or environmental deterioration prevention. This definition indicates that individuals should be considered sustainable consumers if they intend to connect to environmental conservation. Every consumer is responsible for the environment and future generations through their purchases. If consumers adopt and practice sustainable consumption, they protect the universe. They will not jeopardize future generations' needs, simultaneously expressing care and concern over the planet's sustainability. We must change our vision for a more global and profound view, knowing that consumer decisions affect the environment and people. Sustainable consumption refers to consumption choices made by consumers considering environmental issues during their purchase decisions. When engaging in sustainable consumption, consumers assess whether products are benevolent to the environment, recyclable or conservable, and responsive to ecological concerns. Hence, sustainable consumption reflects the pro-environmental behavior of consumers.

3.0 Methodology

The systematic review aims to structure the research field by identifying respondents, theories used by the previous studies, and discussing the relationship between sustainable consumption behavior and Islamic values, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This study reports the steps followed in the PRISMA checklist to minimize the risk of

bias. This section will explain the systematic review process in detail, including resources or databases used, screening, and selecting relevant articles to be included in the present study.

3.1 Resources

The article search was based on the two interdisciplinary electronic database repositories: Scopus and Web of Science (WoS). WoS is recognized as one of the largest databases comprising more than 33,000 journals with more than 256 disciplines, including subjects related to environmental studies, interdisciplinary social sciences, behavioral studies, economics, and psychology. It includes over 100 years of complete back record and reference information governed by Clarivate Analytics and ranks them by three different measures: citations, papers, and citations per paper (Shaffril, Krauss, & Samsuddin, 2018).

In addition, Scopus is another extensive database. Scopus indexed over 14,000 social science research from 4000 publishers, stating that it is the "largest single abstract and indexing database ever built" (Burnham, 2008). Moreover, Scopus is an exceptionally far-reaching database covering various disciplines, including science, economics, finance, behavior, and psychology. Hence, the selection of these two databases made this study relevant and justified.

3.2 Systematic Review Process for Selecting Articles

3.2.1 Identification

PRISMA suggested that there are four steps involved in the systematic review process (SLR). The review started in August 2021, with the first step to determine the keywords used for the search. Relying on the prior studies and thesaurus. Keywords and synonyms related to sustainable consumption behavior studies were used, as depicted in Table 1. After thorough and careful screening, 33 duplicated articles were removed at this stage.

Table 1: The search string

Database	Keywords used
Web of Science	TS = (("sustainable consumption" OR "ethical consumption" OR "green consumption" OR "responsible consumption" OR "virtuous consumption" OR "green consumer") AND ("Muslim" OR "Islam" OR "Islamic Values" OR "religiosity"))
Scopus	TITLE-ABS-KEY (("sustainable consumption" OR "ethical consumption" OR "green consumption" OR "responsible consumption" OR "virtuous consumption" OR "green consumer") AND ("Islam" OR "Islamic Values" OR "Muslim" OR "religiosity"))

3.2.2 Screening

The goal of the first stage of screening was to remove duplicate articles. In this case, 33 articles were excluded during the first stage. In comparison, 66 articles were screened based on several inclusion and exclusion criteria determined by the researchers in the second stage. The first criterion was the literature type, in which the researchers only proceeded with the journal article as it acts as the primary source that offers empirical data. Hence, this further implies that publication in the form of systematic review, meta-analysis, meta-synthesis, book, chapter in a book, and conference proceedings were excluded in the current research.

3.2.3 Eligibility and Inclusion Criteria

To identify the available and potential articles to be analyzed in this study, two criteria were used:

- 1) The study employed sustainable consumption behavior as the dependent variable and Islamic values/religiosity as the independent or moderating, or mediating variable
- 2) The study only limits articles with full text written in English, published from 2015 to 2022.

The initial two criteria were required for recognizing records regarding the scoping review. In addition, the English language limitation was applied since English can be considered a global language, and most research articles were published in English. It also helps avoid confusion and difficulty translating the full text.

The screening stage was conducted after the search string. Based on the data gathering, out of 66 articles that qualified for further investigation, 42 articles were removed. The next stage was the eligibility screening, whereby the full articles were accessed and examined. After careful reading, 16 articles were rejected as specific criteria were not fulfilled. The final stage is then conducted to review eight articles that will be useful for further investigation.

3.3 Data Abstract and Analysis

The remaining articles were analyzed and appropriately assessed – endeavors on specific studies that responded to the formulated research questions. The data were extracted by reading through the abstracts first, then the full articles, to identify appropriate themes and sub-themes. In addition, qualitative analysis was conducted using content analysis to determine the nexus between sustainable consumption behavior and religiosity (Islamic Values).

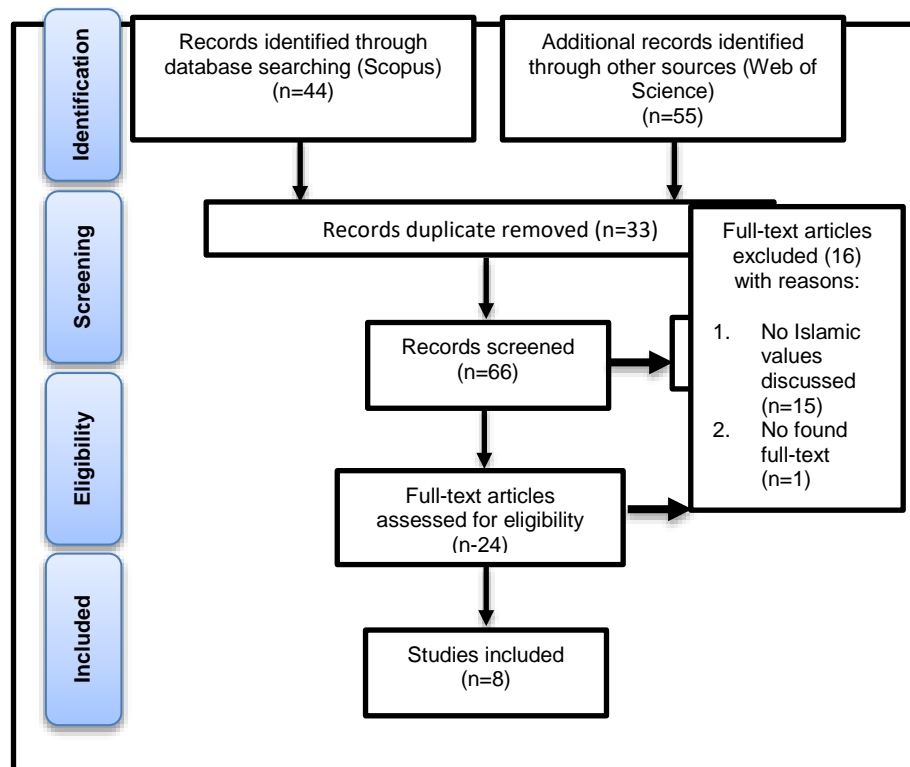


Figure 1: PRISMA selection process
(Adapted from Moher, Liberati, Tetzlaff, and Altman, 2009)

4.0 Findings and Analysis

Based on Table 2, the study on sustainable consumption and its nexus with Islamic values has received special attention, internationally and locally. Additionally, most prior studies used general consumers as respondents, and only one research indicated that respondents were selected from the clothing industry. There are also research studies that employed university students as respondents. Besides, only one research investigates generational differences (Baby Boomers, Generation X, and Generation Y) and religiosity with sustainable consumption behavior. In addition, a systematic review reported that there is no study investigating the differences between men and women in responding to and practicing sustainable consumption behavior.

Additionally, a study of Islamic ethical consumption values and their practice in an affluent market should be conducted, looking at the impact of age and gender. According to the socialization theory, women are claimed to be more interdependent, compassionate, nurturing, cooperative, and helpful in caregiving roles than men. Women should have a stronger ethic of care for others (altruism), including the environment, compared to men. There is also a need to explore the generational cohorts' differences, as most previous studies have separated them. Young adults play a role in shaping the next generation's present-day lifestyle, which would drive more sustainable consumption patterns to ensure that consumption works.

Meanwhile, the older generations' actions and behavior will influence the young generations' behavior and lifestyle. Prior research corpus assumed that the older generation possessed greater income stability, hence more inclined to purchase sustainable products. Therefore, this generation also needs to be a good role model, especially for the younger generations.

Regarding the theory, most previous studies employed the Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA), followed by the Theory of Consumption and Value-Attitude-Behavior. However, many previous researchers have highlighted certain limitations of TPB and TRA and proposed various other frameworks to study sustainable behavior. This is because the application of TPB and TRA is restricted as TPB does not represent oblivious and secondary pathways to axiological change.

Table 2: Publication related to the types of respondents and sustainable consumption behavior

Authors (year)	Title	Respondents	Theory	Factors/Determinants	Relationship with Islamic Values/Religiosity
Sharif, K. (2015)	Investigating the key determinants of Muslim ethical consumption behavior amongst affluent Qataris	243 Muslim Qatari. Respondents were consumers in a public university consisting of students, staff, and faculty members.	Theory of Planned Behavior Theory of Rationalization	Fair trade attitude Environmentalism Materialism Consumption Ethics Religiosity Social Well-being	Religiosity seems to be having a limited impact on ethical consumption conduct.
Anuar, M.M, Omar, K., Ahmed, Z.U., Saputra, J., and Yaakop, A.Y. (2020)	Drivers of green consumption behavior and their implications for management	700 respondents residing in five (5) major cities in Malaysia: Kota Kinabalu, Kuala Lumpur, Malacca City, Penang, and Putrajaya	Theory of Reasoned Action and Value-Attitude-Behavior	Peers influence, Environmental affect Environmental knowledge Religiosity Brand influence Values	There is no significant relationship between religiosity and green consumption behavior
Qaisar, A., Shazia, P., Hakimah, Y., Zaki, Z., & Nur Anissa, S. (2021)	Covid-19 and dynamics of environmental awareness, sustainable consumption, and socially responsibility in Malaysia	700 respondents of different age groups (Baby Boomers, Generation X, and Generation Y) and religious backgrounds in Malaysia.	Not discussed	Environmental awareness Social responsibility Sustainable consumption	Generations differences and religiosity moderate the relationship
Arif Billah, Md. Ahbabur Rahman & Md Tareq bin Hossein (2020)	Factors influencing Muslim and Non-Muslim consumers' consumption behavior: A case study on halal food	500 consumers across 10 provinces of Southern Thailand aged from 20 to 60 years old.	Theory of Planned Behavior	Consumer's habit Knowledge Religious	There is a significant relationship between religious and consumption behavior
Graafland, J. (2017)	Religiosity, attitude, and the demand for socially responsible products	997 Dutch consumers who adhere to Christianity	Theory of Planned Behavior		Religiosity increases the positive attitude toward socially responsible products.
Iqbal, S., and Khan, M.I. (2020)	Spirituality as a predictor of psychological well-being: An exploratory mechanism of religiosity and sustainable consumption	400 clothing industry consumers	Not Discussed	Spirituality Religiosity Psychological Well-Being	Religiosity moderates the relationship between reusing and spirituality
Ali, S., Danish, M., Faiz, M.K., Muhammad Shoaib, S., and Hassan, Z. (2019)	The intention to adopt green IT products in Pakistan: Driven by the modified Theory of Consumption	536 residents of major metropolitan cities in Punjab: Multan, Sahiwal, Faisalabad, Sargodha, and Lahore	Theory of Consumption	Functional values, Social value, epistemic value, emotional value, conditional value, and religious value	Religion value has a significant positive impact on the consumer intention to adopt green IT product
Arli, D., and Tjiptono, F. (2016)	God and green: Investigating the impact of religiousness on green marketing	684 respondents in Indonesia, comprised of students and non-students	Theory of Planned Behavior	Pro-environmental identity, attitudes towards environmental issues, and subjective norms	There is a significant difference between religion and green marketing

4.1 Sustainable Consumption and Its Nexus with Islamic Values

A growing body of research stresses the importance of religion in understanding and addressing climate change and sustainability. However, little is known about the relationship between Muslim communities and climate change (Koehrsen, 2021). Globally, Muslims constitute the second largest faith group, with 60% of the global Muslim population living in Asia (Pew Research Center, 2009). There is a strong concentration of Muslims in regions particularly affected by global warming and other environmental crises. The review shows inconsistent results on the relationship between religiosity and sustainable consumption behavior.

In Islamic teachings, humans are made to be Caliphs of the Earth and entrusted with the responsibility of looking after and protecting the Earth. Protecting and conserving the environment is a fundamental aspect of the Islamic faith. For example, some of the verses in the Quran state:

“Walk on the Earth in Humility.” (Quran, 18:63)

“Then We appointed you viceroys in the Earth after them, that We might see how you behave” (Quran, 10:14)

Based on these scriptures, Muslims are always obliged to protect and conserve the Earth in every aspect, as the Earth is a sacred and holy place. Additionally, the act of protecting and conserving the environment is the duty of each Muslim. More than 750 verses have referred to natural phenomenon, and more than 10% of verses in the Holy Quran have been allocated to the issue of nature (Bermanian & Saleh, 2011).

However, there is little work done on the relationship between Islam and sustainable consumption (Ali Razzaq, Ansari, Razzaq, & Awan, 2018). Even though Islamic theological discourse on ecological issues is quite well studied, less attention has been directed to how Islamic values as been translated into activism and practical ecology (Harmala, 2014). Thus, the present study must investigate the nexus between Islamic values and sustainable consumption behavior to answer this call.

5.0 Conclusion and Direction for Future Research

This systematic review has highlighted the most used respondents to measure sustainable consumption behavior and the importance of religiosity, especially Islamic Values, and its nexus with sustainable consumption in our effort to combat climate change. It has been noted that students were the most popular respondents in the previous studies. It may be due to the fact that students come from different backgrounds and geographic locations. Thus, the result could be generalized to the whole population. Regarding religion, it is believed that everyone in this world belongs to at least one faith. Therefore, the role of religion could not be neglected. The investigation of the association between Islamic values and sustainable consumption is still in its infancy, and more research is needed to understand the relationship fully. This study is important because it responds to the literature and empirical gaps. In addition, the assimilation between these two will facilitate a society's practice of sustainable consumption behavior by adapting it to their religious worldview.

Future research needs to consider exploring the effect of generational cohorts' differences on sustainable consumption behavior. The effect on ethical consumption could vary according to consumers' age groups: millennials, generation Y, and baby boomers, for example. Sustainable consumption behavior among generational cohort consumers plays an important role in solving ecological crises like deforestation, acid rain, water pollution, waste production, ozone layer depletion, and climate change. Their consumption behavior will directly impact the environment that the future generation will inherit. Understanding their consumption pattern and evaluating their potential role in a transition toward sustainable consumption behavior or lifestyles is pivotal. In addition, future research needs to explore the differences in sustainable consumption between consumers in major cities and rural areas. This is because most prior studies have been conducted in metropolitan areas.

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Paper Contribution to Related Field of Study

This study will help increase understanding, provide more information, and add to the existing body of knowledge on consumers' sustainable consumption behavior to combat climate change. Regarding the practical contributions, this study will help provide information that would yield insights to the organizations, especially religious institutions and marketers, in forming a plan of action on SCB.

References

- Ali, S., Danish, M., Muhammad Khuwaja, F., Sajjad, M.S., & Zahid, H. (2019). The intention to adopt green IT products in Pakistan: Driven by the modified theory of consumption ethics. *Environments*, 6(53). Doi: 10.3390/environments6050053
- Ali Razzaq, Ansari, N. Y., Razzaq, Z., & Awan, H. M. (2018). The Impact of Fashion Involvement and Pro-Environmental Attitude on Sustainable Clothing Consumption: The Moderating Role of Islamic Religiosity. *Special Collection - Sustainable Marketing*, 1-17.
- Annuar, M.M., Omar, K., Ahmed, Z.U., Saputra, J., & Yaakop, A.Y. (2020). Drivers of green consumption behavior and their implications for management. *Polish Journal of Management Studies*, 21(1). Doi:10.17512/pjms.2020.21.1.06
- Arli, D., & Tjiptono, F. (2017). God and green: Investigating the impact of religiousness on green marketing. *International Journal of Non-Profit and Voluntary Sector Marketing*. Doi: <https://doi.org/10.1002/invsm.1578>.
- Bermanian, M., & Saleh, E. (2011). Conceptual Verification of Nature and Human Being Regarding Eschatology in Holy Quran. *Journal of Interdisciplinary Research of Holy Quran*, 2(5), 61-70.
- Arif Billah, Md. Ahbabur Rahman & Md Tareq bin Hossein (2020). Factors influencing Muslim and Non-Muslim consumers' consumption behavior: A case study of halal food. *Journal of Foodservice Business Research*, 23(4): 324-349. Doi: 10.1080/15378020.1768040
- Brundtland, G. H. (1987). *World commission on environment and development: Our common future*. Oxford: Oxford University Press.
- Burnham, J. F. (2006). Scopus database: a review. *Biomed Digit Libr*, 3, 1. doi:10.1186/1742-5581-3-1
- Clingerman, F., & O'Brien, K. J. (2017). Is climate change a new kind of problem? The role of theology and imagination in climate ethics. *Wiley Interdisciplinary Reviews: Climate Change*, 8(5), e840. doi: <https://doi.org/10.1002/wcc.480>
- Dong, X., Liu, S., Li, H., Yang, Z., Liang, S., & Deng, N. (2020). Love of nature as mediator between connectedness to nature and sustainable consumption behavior. *Journal of Cleaner Production*, 242, 1-12.

- Graaland, J. (2017). Religiosity, attitude, and the demand for socially responsible products. *Journal of Business Ethics*, 144:121-138. Doi: 10.007/s10551-015-2796-9
- Han, H. (2020). Theory of green purchase behavior (TGPB): A new theory for sustainable consumption of green hotel and green restaurant products. *Business Strategy and the Environment*, 29(6), 2815-2828. doi:<https://doi.org/10.1002/bse.2545>
- Iqbal, S., & Khan, M.I. (2020). Spirituality as a predictor of psychological well-being: An exploratory mechanism of religiosity and sustainable consumption. *Religions*, 11 (634). Doi: 10.3390/rel11120634
- Ives, C. D., Freeth, R., & Fischer, J. (2020). Inside-out sustainability: The neglect of inner worlds. *Ambio*, 49(1), 208-217. doi: <https://doi.org/10.1007/s13280-019-01187-w>
- Jenkins, W., Berry, E., & Kreider, L. B. (2018). Religion and climate change. *Annual Review of Environment and Resources*, 43, 85-108.
- Koehrsen, J. (2021). Muslims and climate change: How Islam, Muslim organizations, and religious leaders influence climate change perceptions and mitigation activities. *Wiley Interdisciplinary Reviews: Climate Change*, 12(e702). doi:<https://doi.org/10.1002/wcc.702>
- Krajhanzl, J. (2010). Environmental and pro-environmental behavior. In E. Rehulka (Ed.), *School and Health* (pp. 251-274). MSD: Masarykova Univerzita.
- Otto, I. M., Donges, J. F., Cremades, R., Bhowmik, A., Hewitt, R. J., Lucht, W., . . . Doe, S. S. P. (2020). Social tipping dynamics for stabilizing Earth's climate by 2050. *Proceedings of the National Academy of Sciences*, 117(5), 2354–2365.
- Qaisar, A., Shazia, P., Hakimah, Y., Zaki, Z., & Nur Anissa, S. (2021). Covid-19 and dynamics of environmental awareness, sustainable consumption and social responsibility in Management. *Environmental Science and Pollution Research*. doi: <https://doi.org/10.1007/s11356-021-14612-z>
- Sachs, D. J. (2015). *The Age of Sustainable Development*. New York: Columbia University Press.
- Schumacher, E. F. (1973). *Small is beautiful: Economics as if people mattered*. . Evanston, IL: Harper and Row.
- Shaffril, H. A. M., Krauss, S. E., & Samsuddin, S. F. (2018). A systematic review on Asian's farmers' adaptation practices towards climate change. *Science of The Total Environment*, 644, 683-695. doi:<https://doi.org/10.1016/j.scitotenv.2018.06.349>
- Sharif, K. (2016). Investigating the key determinants of Muslim ethical consumption behaviour amongst affluent Qataris. *Journal of Islamic Marketing*, 7(3), 303-330. doi:10.1108/JIMA-01-2015-0001
- Statistica. (2019). Perceived and actual percentage of Muslim population in Malaysia as of 2018. Retrieved from www.statistica/statistics/953765/Malaysia-perceived-and-actual-share-of-muslim-population
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56, 407-424.