

A Systematic Review On Consumer Behavior toward Plastic Consumption In Asian Countries

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Abstract

The consumer's consumption of plastic continues to increase and has contributed to the global environmental concern, even though certain new environmental conservation policies or laws have been adopted and enforced. However, there were still insufficient studies that systematically review the existing literature on consumers in Asian Countries. Hence the present article conducted a systematic literature review on the plastic consumption behavior and the effect of plastic use by the customers. The present study joined multiple research designs and the review was based on the publication standard. (Reporting standards for systematic evidence syntheses). This study selected articles using two leading databases namely Scopus and Science Direct. Based on the thematic analysis, this review has three main themes namely 1) action to reduce plastic consumption; 2) waste management 3) impact of plastic on the ecosystem. The three main themes have further produced 11 sub-themes. The study offered several significant contributions for practical purposes and the body of knowledge. The findings explained the importance of integrating consumer awareness and knowledge into consumer plastic consumption, 1) to encourage respect for knowledge and the role played by the consumer on the usage of plastic consumption policy; 2) to strategize an adaptation plan that is in line with the needs, abilities, and intention to use plastic; and 3) to inform on effect on the ecosystem to the specific areas and content of researches that should be the focus of the future studies.

Keywords: consumer behavior , Plastics consumption , environment pollution, Asian countries.

1. Introduction

Exposure to dangerous substances in the environment could raise particular threats to both humans and ecosystems. Tests have also shown that toxicity to such pollutants can increase the risk of diseases such as asthma, and heart problems. Exposures to toxic agents can increase susceptibility to infections such as COVID-19. (Birnbaum and Heindel, 2020). Within a decade, plastic waste has become a significant environmental problem that has impacted the health of the environment.

Previous research proved that plastic waste is seriously affected by population and economic development, climate, and social behavior. Of all the factors listed, social behavior is the most important aspect that contributes to the production of plastic waste since people are the buyers of plastics in daily life, unfortunately, it will cause damage not only to humans but also to wildlife and earth. However, it is a challenging task for the customers. Even though consumers are aware of the effect of plastics, yet they still decide to use plastic bags instead of carrying their own shopping bags. After it was used once the plastics will be disposed of and end up as waste in the oceans. The results can, however, lead to serious possible pollution. This systematic review uses effective and explicit methods for the detection, selection, and critical evaluation of the relevant research. The collection and analysis of data from studies included in the review to explore a clearly defined issue.

In the study and summary process, statistical techniques may or may not be used for the outcome of the included studies. Through a systematic review, it is possible to justify the authors' statements of rationality in their study. And also it enables the identification of limitations and important directions for future research. Nevertheless, research on plastic use by customers is still low. This paper aims to identify and also fill in the gaps in understanding

of the plastic usage issues. The process addressed a major gap in the literature and used a systematic review to analyze the adaptation to minimize the use of plastics in Asian countries. The systematic review articles from the previous study about the consumers' adaptation practices towards plastics usage, is still lacking and very little is currently known about consumer behavior. This study provides new insight into the situation regarding consumer behavior on plastic consumption. So, this study is vital to enhance lifetime awareness among consumers therefore, the details on this systematic review literature have focused to provide the opportunity in understanding where and which points that need to concentrate and to be put into priority.

2. Methodology

The technique used to collect journals linked to global environmental concerns related to plastic consumption among consumers around the world is discussed in this section. The researchers used the PRISMA method to carry out a systematic review, eligibility and exclusion requirements, evaluation process stages such as identification, screening, eligibility and abstraction, and data analysis. The PRISMA Statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was used to direct the study. It provides three distinct advantages, according to Sierra-Correa and Cantera Kintz (2015), which are to identify specific research issues that allow for systematic research, it defines conditions for inclusion and exclusion, and aims to review a broad science literature database at a given time.

In future environmental management assessments, the PRISMA Statement allows for a comprehensive analysis for terms relating to environmental plastic consumption and its effect and coded details. The approach can be used to track consumer behavior in terms of plastic use and how plastic has a negative effect on the environment. Two major journal databases, ScienceDirect and scopus used where 34,346 of which are peer-reviewed journals in top-level subject areas: life sciences, social sciences, physical sciences, and health sciences. There are a few eligibility and exclusion criteria used where firstly, only paper journals with analytical evidence are chosen with regard to the literature category, meaning that review papers, book series, novels, book chapters, and conference proceedings are all omitted. Secondly, the search concentrated only on papers written in English to prevent any misunderstanding and difficulties in translating them. Thirdly, a period of 5 years (between 2017 and 2021) is chosen with respect to the timeline, which is an appropriate period of time to see the progression of research and related publications.

As the analysis approach centered on an improvement to the better environment only articles indexed in databases focused on social sciences are selected and articles published in a hard science index (Science Citation Index Expanded) are omitted. Finally, in line with its consumer-focused mission, the selected papers concentrate exclusively on Asian countries

In the search strategy, an automatic search was used for the identification of primary studies in order to gain the widest possible perspective and range of research. From the searching process, we have queried two name databases. The keywords that we used to search for the relevant articles were "theory of planned behavior" AND "environment AND plastic". Having harvested our initial data from our chosen data sources employing the search string, we subjected the papers to analysis to check how relevant they were to our review questions and according to our exclusion and inclusion criteria. For the systematic review process, duplicated articles were removed after careful screening. A total of 58 papers qualified to be reviewed. in the eligibility stage, full articles were accessed. After the articles have passed the careful examination, there are 3 articles were excluded because it does not follow the requirement of the articles chosen, or did not concentrate on countries and territories in Asia. A total of 55 papers used for qualitative research culminated in the last step of the study. (see Figure 1). The remaining articles were examined and evaluated, then the review is recorded by the following study elements: study ID, title, authors, publishing date, publishing location which is conference and journal. These categories were aligned with the research objectives and questions. Table 3 shows the form that then steered the data extraction process.

The data were classified by reading through the abstracts first, then examining the full text of each primary study. All the relevant data then was separated and synthesized to enable a discursive analysis of a range of issues, including the topic, methodology, theoretical framework, and research domain. The following section will outline the results of this.

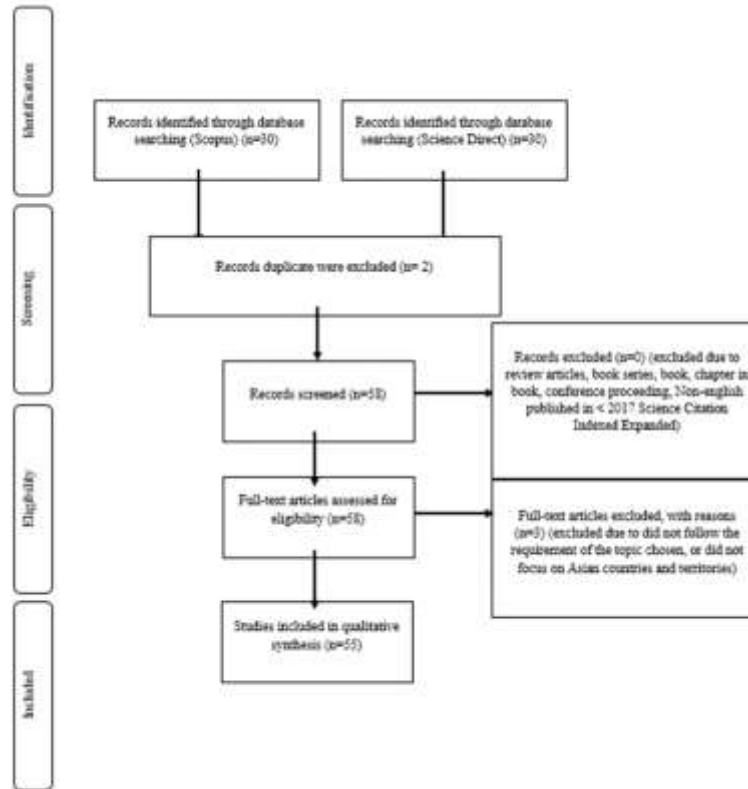


Fig. 1: The flow diagram of the study

Table 1: Data Extraction for each study

Extracted Data	Description
Study ID	Unique identify for the paper
Bibliographic References	Author, Title, Publication Source & Publication year
Type of Paper	Journal Article
Data Collection Method	E.g. Survey, Interview, or otherwise
Data Analysis Method	Quantitative, Quantitative, Mixed Method or otherwise
Context of Application	Description of the Plastic issues, e.g. plastic pollution, plastic free campaign, and sustainable packaging and bioplastics.

3. Findings

The findings resulted in three main themes and 11 sub-themes related to global environmental issues towards plastic consumption. The three main themes are ways to reduce plastic consumption (four sub-themes), waste management (five sub-themes), and impacts on the ecosystem (two sub-themes).

3.1 Actions to reduce plastic consumption

A total of 13 articles reported that the campaign is one of the popular ways used. Under this theme, four sub-themes emerged, namely informative campaign, plastic bag levy or plastic bag charges, single-use plastic, and green behavior. Three studies were mentioned in an informative campaign and plastic bag charges were mentioned by five studies. Four studies were mentioned in 4 studies while only one study was mentioned in green behavior.

3.1.1 Informative campaign

According to Malaysian regulations, paying a levy is a tactic used to prevent the use of disposable bags. Enforcement plays a major role in promoting the ethical engagement of companies (Zaman, 2018). This ethical obligation can also clarify the pro-environmental actions of the general population. In a study conducted in Indonesia, students' reaction during the pre-intervention revealed that they performed pro-environmental actions by carrying in bags for shopping, limiting the usage of single-use plastic bags, and also reducing the purchasing of food and drinks using plastic packaging. (Risqo, Fitriya, Endah, 2020). Theory of Planned Behavior suggests that consumers will become more likely to generate a higher degree of "Bring Your Own Bags" favorableness, which evidence to recent studies, may be translated as a higher "Bring Your Own Bags" attitude. Therefore, a campaign focused entirely on information will fail to alter one's habitual behavior. While this initiative exceeded the awareness campaign, the information was a focal point that could only enter the mind of subgroups of participants.

3.1.2 Plastic bag charges

Plastic bags are typically made from non-biodegradable high-density polyethylene (HDPE), a material sourced from fossil fuels (Edwards & Fry, 2020). Many national and local governments have introduced policies to reduce the number of bags used (Clapp & Swanston, 2020). Malaysia previously has launched the No Plastic Bag Day policy in which retailers charge MYR0.20 for any used plastic sac. Observations reveal that participation in the program, 47.7% of customers voluntarily paying the fee, is moderate. Usually, female and Malay customers carry their own bags. In the central region, customers prefer to skip the levy. (Asmuni, Jamaliah, Bashirah & Zahariah, 2018). Malaysian neighbors, Thailand ranked sixth globally as regards its contribution to marine plastic emissions in 2015 due to its high plastic use and mismanagement of plastic waste. While several countries have imposed plastic bag charges or usage fees, the Thai government is similarly unable to consider to implement them because of the fear that the people have. The findings suggest that the conduct and charging acceptance of students' reusable bags has improved with time. Determined by the degree of awareness of waste effect and the perceived ease of carrying a reusable bag has the most effect on consumer's intent. Furthermore, the charging systems break the tradition of using plastics, which results in a permanent behavioral improvement (Sujitra, Dawisa & Dany, 2020). The studies are based on Theory Planned behavior which involving the behavior of people and their intentions towards plastic bag charges.

3.1.3 Single-use plastic

According to the Theory of Planned Behavior (TPB), individuals have a high intention to achieve behavior when they have a positive perspective about it. Further, there is more purpose it is likely to transform into real behavior where people have actual behavioral controls (Rosenthal, 2018). For instance, there is a lack of proper design of single-use plastic in many cities in India where the study has been conducted. Landfills, thus, even after enforcing a ban on illegal dumping operations, the garbage is already filled up in these dump yards. Lack of campaign to increase awareness on the linked environmental pollution is another significant barrier to the removal of plastic waste. According to (Ilangovan, 2017), roughly 1240 hectares of land will be required per year at the current dumping rate. The research by (Ritch et al,2020) supports the failure of government policies to encourage biodegradable single-use goods. The benefit of biodegradable plastic goods is a bit superior to their synthetic plastic

counterparts. As a whole, a number of studies have cited factors that obstruct the removal of single-use plastics; however, a comparative analysis has been undertaken to determine the relationship between these variables has not been identified in the literature, which is the motivation behind the present study. (Vimal, Mathiyazhagan, Agarwal, Luthra, Sivakumar, 2020). Although conducting normal actions, such as consumption patterns, discovered knowledge may be ignored if it does not suit one's habitual behavior [Olivos, Aragonés, 2020].

3.1.4 Green behavior

Pro-environmental or green behavior is a good behavior as doing good that minimizes harm to the environment include minimizing energy use and reducing waste. The latest NASA study claimed that since the end of the 19th century, the planet's average surface temperature has increased by 1.62 °F because of rising ambient human pollution. This world has gained protection from contamination because of the latest COVID-19 pandemic. These facts demonstrate that people around the world are responsible for increasing emissions so the new research seeks to test a model that could help to transform consumer behavior into green behavior. However, plastic bags continue to be the most popular and used by many people who use them to place their needs or products and to buy different items, or to conserve food and drink for their convenience. Data from the Cyberjaya (Malaysia) and Bangkok (Thailand) buyers have been collected. Results show that awareness and attitudes have an important and positive effect on the Green behavior of consumers. The analysis also found that the ban on plastic bags has an important and positive impact on Green behavior (Shahid Khan, Poramet Saengon, Amr Mohammed, Duangkamol & Muhammad Farrukh, 2020). It clearly shows the Theory of Planned Behavior can be used to examine the attitude and perception of people towards plastic bag consumptions.

3.2 Waste Management

3.2.1 Plastic waste recycling

Some studies have reported on the practices of plastic waste recycling among customers when it comes to plastic waste management. A total of 3 studies reported plastic waste recycling as one of the adaptation measures taken by many countries in order to combat plastic consumption issues. The studies stated that there is an emergence of habits which is plastic waste recycling behavior among young consumers. However, the lack of local authorities' dissemination of information about plastic waste recycling programs, centers, procedures, etc may restrict the impact of behavioral control on the plastic waste recycling purpose. In addition, when the consumers are satisfied with their local plastic waste recycling infrastructure and facilities, the motivation of individuals to plastic waste recycling may depend on their perceived behavioral control. This is because the study revealed that poor waste recycling facilities would lead to a weak effect of behavioral control. As a result, it would give an impact on the decline of household contribution to waste recycling activities.

3.2.2 Recycling scheme

As we know, the recycling scheme is common used to educate people on how to reduce pollution. A total of 2 articles talking about recycling in which the study indicated extensions of the Theory of planned behavior in plastic recycling practices. The first study related to the determinants of the intentions and actions of 637 institutions in Belgium towards a sustainable environment for plastics. The study also showed that an understanding of the actions of individuals and institutions is required, as psychological consequences sometimes weaken technological solutions. (Khan, O., 2020). However, the second study revealed that the adaptation of TPB is intended to explore the desire of the user to recycle the waste product. The purpose of this study is to help understand the consumer's plan to recycle waste products. The variable used in theory includes mood, subjective standards, interpreted behavior, motive, and behavior to describe human behavior. (Khan, 2019).

3.2.3 Household recycling

Recycling can be done by everyone including in the household. Due to the adjustment way of living and rising population statistics, the quantities of waste and materials people throw away is increasing over the year. Recycling is a method that we as a community are taking to transform our waste into new goods and products. If people are optimistic about recycling, feel socially under pressure to recycle, and are physically able to recycle, they would have a definite willingness to do so. Wagner, C. (2020). There is also a study that believes that the simpler the

source separation scheme is for plastic disposal, the more plastics are segregated at drop-off facilities because of the ease and desire of people to join. A simplified separating system is expected to result in further interest in this scheme (Buysse, J. 2018).

Some articles have been talking about household recycling by using the Theory of planned behavior. The first study discussed the extensive analysis which impact of household recycling throughout three separate kinds of housing within the TPB concept. As its main determinant was the age of the family member most responsible for reusing, demonstrating the value of recycling programs and efforts to be Primarily mindful of cultural gaps, the second strongest predictor was housing sort. Therefore the role of the developed environment in particular the strategy and construction of housing seems to be crucial in enabling households to recycle. For the second analysis, however, its extended TPB was determined to influence the segregation of waste at the source behavior within households. The determinants include behavioral mood, subjective norm, perceived behavioral regulation, and moral norm were important and have a beneficial impact on the actions of waste separation. The study proved the most powerful determining factor of the expanded TPB model is the moral norm. Moral norm accompanied by perceived regulation of behavior, subjective norm, and attitude. (W. R. A., 2020)

3.2.4 Reusable Packaging / Plastics

A total of 3 studies reported reusable packaging made of plastics as one of the methods of plastic consumption. Reuse is a practice that is used progressively in the same function or function. Disposable containers for single-use cause different environmental and social problems. Although policymakers, corporations, local government, and customers share responsibility for reducing the waste of single-use containers, this study focuses on consumers and investigates how consumers' behaviors can shift. In particular, to understand the use of reusable containers by consumers, we advance the theory of planned behavior (TPB). Thus, motivation leads to behavioral intentions that are expected to fulfill certain wants (Ertz, 2017).

In Indonesia, the main contributors to plastic waste are retail shops, traditional markets, and street vendors. An effective solution to reduce plastic bags uses is replacing them with reusable shopping bags. Reusable shopping bags can be used several times as it is very convenient and it also suits with 3R R (reduce, reuse, and recycle) movement which is a form of waste management. Reduce is the way materials can be used to prevent environmental harm. Reuse is a practice for increasing the use of the same or other functions. Recycling is a form of waste handling and turns it into a new product. Consumption of the reusable bag is one of the 3R movement of adoption. The theory of planned behavior predicts this behavior (TPB). TPB notes that each decision of consumers is based on certain reasons predictable by attitude, subjective standard, and perceived behavioral control (Arifani, 2019).

However, reusable packaging is still not well utilized as the customers are not familiar to use it. The marketers are unable to communicate them directly to the consumers. This miscommunication has raised customer frustration with the new design on food packing. The packaging organization and business played essential roles in the food value chain. Consumers are not fully aware of the role played by the packaging company. Sustainability in packaging that they believe are sustainable but in fact, they are not (Boz, 2020).

3.2.5 Bio-plastics

Several studies stated that there is increasing awareness among consumers about consuming plastic made of bio-based plastic materials. This is because the usage of plastic made from bio-based materials can bring a lot of benefits to our environment rather than using plastic packages produced from fossil-based resources that have resulted in a large carbon footprint. The use of bio-plastics for plastic packaging has increased by 20-25% per year. This shows that bio-based materials are increasingly seen as a better solution to fossil-based materials since bio-based materials are biodegradable. By implementing the theory of planned behavior (TPB) model, the study shows that consumers viewed plastic made from bio-based materials has more environmental benefits than fossil-based plastic packages (Taufik, 2020).

Another study also indicated consumers are willing to pay more for a water bottle made of bio-based plastic instead of conventional plastic because of guilty feelings and concern they have towards the environment. Other than that, consumers have also opted to donate some of their income to help plant a tree and reduce atmospheric so that it will contribute to a better environment (Zwicker, 2020). According to another study using the TPB model,

they found that there is generally a positive attitude towards experimenting with bioplastics among product developers in order to enhance the sustainability of the products designed by them. However, the study also discovered the low level of perceived behavioral control on the side of product developers in respect of bioplastics. This is because they doubt technological efficiency and are held back by higher costs and they feel consumers would get overwhelmed by the impact of bioplastics and do not use them properly (Brockhaus, 2016).

3.3 Impacts on the ecosystem

3.3.1 Microplastics

A total of 3 articles reported about microplastics brought serious impacts to the ecosystem. Microplastics are known to have serious negative effects on ecosystems and on human health, whether directly or indirectly (Proshad et al., 2018; Wong et al., 2020). A literature review by the World Health Organization (WHO) experts has also found that these particles will bring negative effects on human health. In the media and research, microplastics have gained substantial coverage, but there is little knowledge of people's perceptions of microplastics and their risks. This may be due to the size of microplastic particles, which cannot be seen by the naked eye, and the fact that it is difficult to separate them from the environment (Heidbreder et al., 2019) and it is also beyond the immediate control of people. This may be one of the reasons that most individuals do not perceive the environmental issues faced by microplastics as critical as those posed by larger plastic materials (Anderson et al., 2016). Other than that, these plastic particles are often coming from fishing activities, shipping, recreational pollution, aquaculture and oil, and gas exploration and development that are considered sea-based sources, as well as land-based sources such as floods and drain discharges. Plastic waste collection and proper management are also far from ideal at the moment, and about 5-13 million tonnes of plastic end up in the ocean each year (Geyer et al., 2017; Jambeck et al., 2015).

3.3.2 Marine plastic waste

A total of 4 articles speaks about plastics became the most contributor to the problem in the marine ecosystem. As consumers continually perceive the inappropriate use and recycling of plastic containers and bags to be an environmental issue (Fernqvist et al., 2015; Hartley et al., 2018; Lotze et al., 2018). There are a number of applications of plastics, one of them is human-like to throw-away plastics such as cotton buds, plates, and straws. As evidence, a significant percentage of the respondents (74 percent) segregate plastic waste and dispose of it properly in particular containers as per their nation's rules. While some respondents are not using segregation when treating plastic waste. This is why the harmful effects of plastic pollution are really visible in the aquatic ecosystem, particularly in the marine ecosystem (Leal Filho et al., 2019). Besides this, many consumers are still ignorant about the laws and regulations against plastics pollution in the aquatic world (Li et al., 2016). A theory of plan behavior suggests that there are many examples of current international regulatory action to resolve the problem of marine plastic waste arising from plastic bags and microbeads. This intervention was accompanied by a rise in global consciousness led by international organizations (Schnurr et al., 2018).

4. Conclusion

This paper presents a systematic review that discusses global environmental issues related to consumer plastic consumption. Based on the findings, the authors have listed three main points related to this research such as plastic pollution, plastic-free campaign, and sustainable packaging or also known as bioplastics. Plastic is very useful and provides us with numerous useful items. However, it has huge potential to contribute a serious threat to our climate. We should all do our best to implement 3R practices such as reduce, reuse, and recycle plastic wherever possible to reduce the amount of waste generated by plastics in the world in order to live in a better environment and less pollution from plastic waste.

References

- Alpizar, F., Carlsson, F., Lanza, G., Carney, B., Daniels, R. C., Jaime, M., ... & Wahdera, S. (2020). A framework for selecting and designing policies to reduce marine plastic pollution in developing countries. *Environmental Science & Policy*, 109, 25-35
- Angnunavuri, P. N., Attiogbe, F., Dansie, A., & Mensah, B. (2020). Consideration of Emerging Environmental Contaminants in Africa: Review of Occurrence, Formation, Fate, and Toxicity of Plastic Particles. *Scientific African*, e00546.
- Arifani, V. M., & Haryanto, H. (2018, November). Purchase intention: implementation theory of planned behavior (Study on reusable shopping bags in Solo City, Indonesia). In *IOP Conference Series: Earth and Environmental Science* (Vol. 200, No. 1, p. 012019).
- Asmuni, S., Khalili, J. M., Hussin, N. B., & Zain, Z. M. (2018). Consumer Participation and Effectiveness of the No Plastic Bag Day Program in Malaysia. *Asian Journal of Behavioural Studies*, 3(10), 33-41.
- Boz, Z., Korhonen, V., & Koelsch Sand, C. (2020). Consumer considerations for the implementation of sustainable packaging: A review. *Sustainability*, 12(6), 2192.
- Brockhaus, S., Petersen, M., & Kersten, W. (2016). A crossroads for bioplastics: exploring product developers' challenges to move beyond petroleum-based plastics. *Journal of Cleaner Production*, 127, 84-95.
- Chang, S. H., & Chou, C. H. (2018). Consumer Intention toward bringing your own shopping bags in Taiwan: An application of ethics perspective and theory of planned behavior. *Sustainability*, 10(6), 1815.
- Derraik, J. G. (2002). The pollution of the marine environment by plastic debris: a review. *Marine pollution bulletin*, 44(9), 842-852.
- du Toit, J., & Wagner, C. (2020). The effect of housing type on householders' self-reported participation in recycling. *Smart and Sustainable Built Environment*.
- Ertz, M., Huang, R., Jo, M. S., Karakas, F., & Sarigöllü, E. (2017). From single-use to multi-use: Study of consumers' behavior toward consumption of reusable containers. *Journal of environmental management*, 193, 334-344.
- Heidbreder, L. M., Steinhorst, J., & Schmitt, M. (2020). Plastic-Free July: An Experimental Study of Limiting and Promoting Factors in Encouraging a Reduction of Single-Use Plastic Consumption. *Sustainability*, 12(11), 4698.
- Henderson, L., & Green, C. (2020). Making sense of microplastics? Public understandings of plastic pollution. *Marine Pollution Bulletin*, 152, 110908.
- Jacobsen, R., Willeghems, G., Gellynck, X., & Buysse, J. (2018). Increasing the quantity of separated post-consumer plastics for reducing combustible household waste: The case of rigid plastics in Flanders. *Waste management*, 78, 708-716.
- Khan, F., Ahmed, W., & Najmi, A. (2019). Understanding consumers' behavior intentions towards dealing with the plastic waste: Perspective of a developing country. *Resources, Conservation and Recycling*, 142, 49-58.
- Khan, M. S., Saengon, P., Alganad, A. M. N., Chongcharoen, D., & Farrukh, M. (2020). Consumer green behaviour: An approach towards environmental sustainability. *Sustainable Development*.
- Khan, O., Daddi, T., Slabbinck, H., Kleinhans, K., Vazquez-Brust, D., & De Meester, S. (2020). Assessing the determinants of intentions and behaviors of organizations towards a circular economy for plastics. *Resources, Conservation and Recycling*, 163, 105069.
- Lavelle-Hill, R., Goulding, J., Smith, G., Clarke, D. D., & Bibby, P. A. (2020). Psychological and demographic predictors of plastic bag consumption in transaction data. *Journal of Environmental Psychology*, 72, 101473.

- Law, C. Y. Y., Zhao, J., & Lim, P. P. (2019). Influence of Environmental Awareness, Education, Government Policies & Regulation and Social Influence on Anti-Plastic Bags Usage Behaviour of Consumers.
- Razali, F., Daud, D., Weng-Wai, C., & Jiram, W. R. A. (2020). Waste separation at source behaviour among Malaysian households: The Theory of Planned Behaviour with moral norm. *Journal of Cleaner Production*, 271, 122025.
- Rebullar, N. C., Mabini, L. K., Cabral, M. J. M., & Dancalan, C. P. Student's Attitude and Action Regarding the No to Single-Use of Plastic Campaign in University Of Makati.
- Taufik, D., Reinders, M. J., Molenveld, K., & Onwezen, M. C. (2020). The paradox between the environmental appeal of bio-based plastic packaging for consumers and their disposal behaviour. *Science of the Total Environment*, 705, 135820.
- Vassanadumrongdee, S., Hoontrakool, D., & Marks, D. (2020). Perception and Behavioral Changes of Thai Youths Towards the Plastic Bag Charging Program. *Applied Environmental Research*, 42(2), 27-45.
- Vimal, K. E. K., Mathiyazhagan, K., Agarwal, V., Luthra, S., & Sivakumar, K. (2020). Analysis of barriers that impede the elimination of single-use plastic in developing economy context. *Journal of Cleaner Production*, 272, 122629.
- Wahid, R. M., Purnamasari, E. D., & Fauzi, F. (2020) Environmental Education To Boost Pro-Environmental Behaviour In Reducing Plastics Consumption Among Students In Universitas Bina Darma Palembang.
- Wu, C. Y., Hu, M. C., & Ni, F. C. (2020). Supporting a circular economy: Insights from Taiwan's plastic waste sector and lessons for developing countries. *Sustainable production and consumption*, 26, 228-238.
- Zwicker, M. V., Nohlen, H. U., Dalege, J., Gruter, G. J. M., & van Harreveld, F. (2020). Applying an attitude network approach to consumer behaviour towards plastic. *Journal of Environmental Psychology*, 101433.