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CHAPTER 2

REVIEW OF LITERATURE

Introduction

A bird's eye view of the results of other academic scholars is necessary to have a proper perspective on the topic. Since it helps familiarise with the work done in that field and provides useful information on research techniques, a thorough review of the literature in related fields should come before planning and executing any research. This chapter is aimed at providing a conceptual understanding of the research problem, by presenting some of the empirical work done in this area. It aims to present the subject in question by extending to earlier research on the subject conducted by other academics, which offers a fundamental understanding of the issues being studied. The specific factors covered include Demographic, Knowledge, Attitude, Consumer readiness, Subjective Social Norms, Moral Norms, Environmental Self-Identity, Warm Glow and Perceived Barriers to Green Household Appliances.

Given the importance of this stage of research, this chapter provides the reader with an overview of studies related to consumer purchasing behaviour, with a particular emphasis on consumer purchasing behaviour connected to energy-efficient household appliances. This chapter is thus divided into two parts. In the first part, the researcher reviews various studies about the topic of the study. In the second part, the researcher discusses variables to be incorporated in the study of consumer buying behaviour towards energy-efficient home appliances.

2.1 Review of Related Research Papers/ Articles (Snap Shot Period: 2014 - 2024)

Qiao, Q., and Lin, B. (2024) examined the factors that impact households' change from habitual to consumption-oriented energy-saving behaviour. It moreover examines the possibilities for green alternatives to traditional energy consumption. Empirical results show an inverted U-shaped link between household income and energy usage, which occurs when individuals are aware of energy savings. Better-income households with

better Energy Saving Awareness tend to consume less energy, highlighting the possibility for green solutions.

Liang, C., Ding, J., and Lee, E. S. (2024) used green household appliances as an example and explored how green product features influence consumers' perceived value and buying intention. The paper investigates how consumer innovativeness and perceived value act as moderators and mediators. Green products' fundamental (functional and value-for-money) and peripheral (emotional and social) features have a favourable influence on consumer perceived value, leading to increased purchase intention. Perceived value is a positive mediator between green product features and consumer purchase intentions.

Oanh, T. T. T. (2024) the findings revealed that customers were keen to help safeguard the environment, were aware of their environmental responsibilities, and were eager to learn more in relation to sustainable products. Supporting environmental protection, the urge for responsibility for the environment, green product experience, the sustainability of companies, social attractiveness, and green brand image is all regarded as important characteristics that influence customers' decisions to buy green products. Furthermore, the study discovered that the relationship between these parameters and decisions to buy green products is intervened by green brand images.

Widodo, A., Yusiana, R., and Hidayat, A. M. (2024) evaluated the relationship among attitudes, social marketing media, green product knowledge, and green purchase intentions in the relation of bottled mineral water consumption. The findings revealed that client attitudes towards green products were positively connected with increased knowledge about green products, which led to a larger tendency to purchase green items—particularly bottled mineral water. Furthermore, the study found that social media marketing has a significant role in increasing consumer knowledge of green bottled mineral water products, which leads consumers to choose environmentally friendly options when making purchases.

Rahman, M. H., Akter, M., Uddin, M. K., and Biswas, R. (2023) examined the impact of responsibility and knowledge on consumer behaviour, specifically while making purchases. The study also examines how environmental concern acts as a mediator. The study found a correlation between knowledge and ecological responsibilities, as well as the intention to make environmentally friendly purchases. Research indicates that understanding the environment increases people's concern for it. Knowledge can influence consumers' environmental consciousness and lead to green purchasing behaviours.

Lin and Dong (2023) used the theories of planned behaviour, perceived value, and environmental awareness by building a comprehensive model. According to the findings, consumers' intentions to purchase energy-efficient household appliances were positively influenced by their attitude towards purchasing the goods. Functional value, pricing value, environmental value, and environmental awareness all had a significant and favourable impact on this mind-set. However, neither emotional nor social value had a substantial impact on consumers' opinions about acquiring this equipment.

Chan et al. (2023) in their paper aimed to understand the impact of environmental factors on energy-efficient appliance purchasing and to evaluate the role of ecological attitudes as a moderator. Environmental factors have a favourable influence on both ecological beliefs and ecological activity, according to the findings; ecological beliefs are favourably associated to ecological behaviour. Furthermore, ecological ideas serve as a bridge between environmental conditions and ecological behaviours.

Zhang, Y., and Song, B. (2023) explored users' preferences and WTP for the attributes of online stores, comments, and products relevant to new national standard (NS) ACs. The results demonstrate that the Heckman model estimates the premium for the new NS energy-efficiency designation at 6.24%, which is 23.71% lower than the HPM directly estimates. New NS AC pricing are also affected by online shop attributes and comment elements.

Ferreira et al. (2023) investigated the effects of environmental awareness on individual intentions and behaviour towards smart home devices, a theoretical model based on the extended unified theory of acceptance and use of technology (UTAUT2) was presented. Environmental awareness had a significant influence on all the target variables studied and connected with the adoption of smart houses.

Zhu and Thøgersen (2023) used induction cookers as a case study in which researchers analysed Chinese customers' aspirations to purchase extremely energy-efficient electrical household appliances. According to the SEM investigation, consumers' inclinations to purchase an energy-efficient induction cooker are mostly determined by their attitudes towards doing so, with perceived control also playing a role. Furthermore, multi-group analysis demonstrated that paying attention to energy labels moderates model correlations. For Chinese consumers who do not pay attention to energy labels in general, the intention to buy an energy-efficient induction cooker is only weakly associated to the TPB's proposed antecedents, and only the attitude to doing so is significant.

Pernice et al. (2023) intended to appreciate working-age persons' attitudes towards high-energy efficient household appliances and their apparent green skepticism regarding company-provided sustainability-related information. The study furthermore looked at customers' green skepticism towards information provided by businesses, such as energy consumption. According to preliminary data, even highly educated customers who are conscious of environmental issues and consider themselves to be informed about energy efficiency are skeptical of the sustainability-related information offered by corporations and professionals in the field. The absence of precise information communicated to consumers may aggravate their cynicism, negatively influencing their selections to purchase household appliances that consume energy.

Adepoju et al. (2023) revealed that socioeconomic factors such as home size, income, number of appliances, and weather have a noteworthy impact on people's energy conservation behavior, with income having the biggest structural weight. The study also reveals that income influences inhabitants' electricity-saving practises, as higher-income households use more electricity and conserve it less.

Mustafic et al. (2023) intended to determine the influence of specific attributes of white appliance manufacturers on customer purchasing decisions. Conferring to the findings, the following aspects are most significant to customers in Bosnia and Herzegovina when selecting a white appliance brand: quality, service and product guarantee; advertising; payment and sales services; and product added value.

Adu Henaku (2023) evaluated how purchasing decisions were influenced for refrigerating appliances (refrigerator and/or freezer) by using The Ghana Energy efficiency guide label. Consumers use many information sources to make refrigerating appliance purchase decisions, according to the research. They discovered that consumers' acquaintance and sales help are the most often used sources of information before purchasing an appliance and throughout the purchase process, respectively. The research also demonstrated that the energy efficiency guidance label influenced consumers' decision to buy a refrigerator. The study finds that the energy efficiency guidance label has a good impact on customers' purchase selections for refrigerating equipment, contributing to the country's efforts towards energy security, achieving SDG7 and SDG13, and lowering the environmental impact of greenhouse gas emissions.

Chanda et al. (2023) using an extended TBP, researchers investigated the effect of environmental knowledge and environmental sensitivity on Bangladeshi consumers' green purchase intentions. This study's findings show that subjective norms, attitudes towards green items, and perceived behavioural control all have a positive and substantial association with green purchasing intention. Furthermore, environmental knowledge is related to environmental sensitivity in a good and meaningful way. The findings also show that environmental sensitivity influences the association among environmental knowledge and attitudes concerning green products.

Adepoju et al. (2023) revealed that socioeconomic factors such as home size, income, number of appliances, and weather have a significant impact on people's energy conservation behaviour, with income having the biggest structural weight. This shows that income is important in residents' energy-saving habits, as higher-income households consume more electricity and conserve it less.

Nie et al. (2023) explored the adoption of technical and behavioural energy-saving techniques in Northern China and Western Europe as a key approach to achieving carbon neutrality in the residential sector. The findings discovered that the residential sectors in China and Europe are both aiming towards carbon-neutral goals, albeit in different ways. The direct energy-saving subsidy policy in Northern China encouraged residents to implement technical energy-saving solutions. According to our econometric research, differences in respondents' socio-demographic backgrounds, building features, environmental concerns, or views played a role in the observed differences, although not a significant one.

Kumar and Basu (2023) examined the impact of eco-labels on green product buying intention among consumers of electrical/electronic items in an emerging market scenario. To analyse the effects of eco-labels, this study used an extended TPB. Eco-labels have a considerable impact on perceived behavioural control, attitude, subjective standards, and consumers' willingness to pay higher costs for ecologically friendly green items, according to the findings.

Issock Issock and Muposhi (2023) scrutinized how consumption values influence consumers' purchase intentions of energy-efficient home equipment in South Africa, a developing market. The study also looks into the mediating impact of customers paying attention to energy-efficient labelling on home appliances when making a purchasing decision, as well as the moderating effect of consumer trust in environmental claims. The findings demonstrated that economic, emotional, and social values can only affect customers' aims to purchase energy-efficient appliances if consumers pay attention to the appliance's energy-efficiency label. Furthermore, the findings suggest that consumer faith in energy-efficiency labels amplifies the effect of functional and emotional values on their attention to energy-efficiency labels.

Xin and Long (2023) attempted to fill this gap and contributes by incorporating three additional factors (eco-label knowledge, environmental attitudes, and customer belief) into the TPB, allowing for a more detailed analysis of sustainable consumption in Chinese

culture. The study's findings also reveal that consideration of environmental labels is positively and significantly influenced by purchase intent. These findings add to the body of information on sustainable purchasing behaviour and open up new possibilities for researchers and policymakers to change societal norms, raise consumer awareness, and restructure regulatory frameworks through coordinated and integrated initiatives.

Sabitha et al. (2023) carried out research in order to ascertain the level of consumer knowledge of green marketing. Customers were informed about the use of environmentally friendly packaging, manufacturing procedures, and materials. According to the survey, people who spend more money on ecologically friendly products are more aware about green marketing. The emphasis of green marketing is on advertising products and services that are either ecologically benign or have no negative environmental effects.

Ferreira et al. (2023) investigated the effects of environmental awareness on individual intentions and behaviour towards smart home devices, a theoretical model based on the extended unified theory of acceptance and use of technology (UTAUT2) was presented. The findings confirm that environmental awareness increases the importance of facilitating conditions in explaining use behaviour, reinforcing the idea that product developers and marketing managers must emphasise the role of energy-saving features in their smart home products and services to promote consumer use.

Asif et al. (2023) intended to find the determinants of customers' inclinations to buy eco-friendly appliances for their residences. In the context of an emerging economy, this study analyses the association between environmental knowledge (EK), consumer attitude (CAT), green trust (GT), and buying intention (PI). This research looks at survey data from 331 Pakistani consumers who utilise energy-efficient household items. According to empirical results, EK has a favourable and considerable influence on CAT and green trust. CAT has a similar negative and negligible effect on PI. Green trust, on the other hand, is considerably and positively associated to PIs.

Ekawati et al. (2023) proposed to analyse society's awareness of the natural environment, particularly the awareness of living a healthy existence, which leads to an awareness of using a natural-based product (environmentally friendly product). This study focused on the factors that affect green purchasing behaviour, including social influence, green attitude, green value, and green trust. The findings discovered that social influence had no noteworthy effect on green purchasing behaviours. Green attitudes, values, and trust all had a favourable and significant influence on green purchasing behaviours. Green trust was influenced favourably and significantly by social influence, green attitude, and green value. Green trust acted as a mediator between social impact, green attitude, and green value and green buying behaviour.

Iqbal et al. (2023) aimed to discover the emerging phenomenon of eco-friendly green environment in the marketing area. It addresses the question of how purchase intentions for eco-friendly products would evolve through the use of green marketing strategies, as well as how consumer consumption behaviour would have shifted to green consumption. It evaluates how buying green products will mediate the effect of green concern on the dependent variable of green consumption behaviour. According to the study, green product quality and green value have a substantial impact on green purchase intention and green consumption behaviour. According to research, green product quality, green value, and environmental concern are all predictors of green consumption behaviour. However, perceived consumer effectiveness (PCE) among Pakistanis was shown to be insignificant.

Kennedy and Adhikari (2023) explored the parameters that influence customers' green purchasing intentions towards green products, with a focus on the Nikaweratiya Divisional Secretary region in Kurunegala District. This study employs four antecedent characteristics as independent variables: green buying attitudes, green perceived values, green perceived trust, and ecological knowledge, with green purchase intention as the dependent variable. The findings show that green buying attitudes, perceived values, perceived trust, and ecological knowledge have a moderately favourable association with green purchase intention. There was also a strong favourable impact on green buying intention towards green products. As per the findings of the study, antecedents have a resilient beneficial influence on Green Purchase Intention towards Green Products, with

special reference to Nikaweratiya Divisional Secretary. According to the findings, green perceived trust has the greatest influence on green purchasing intention.

Saini et al. (2023) aimed to examine at the environmental perception of urban people in the Indian state of Rajasthan, with a specific emphasis on their attitudes in relation environmentally friendly goods and practises. According to the study, due of the COVID-19 outbreak in Rajasthan, buyer's attitude and intentions towards green restaurants are becoming more relevant. Furthermore, the buyer is alert of environmental issues and their negative consequences. Furthermore, they were aware of ecological items but had no idea how they could benefit the ecology.

Zhou et al. (2023) explored potential aspects influencing green purchasing behaviour and aids in the disclosure of influential processes from a methodical standpoint. Exogenous driving forces, as opposed to endogenous variables, are more likely to push household appliance manufacturers to pursue green buying strategies. Furthermore, business strategy, government legislation, and customer knowledge have a stronger effect on green purchasing behaviour than corporate culture, manufacturing system, and suppliers.

Hossain et al. (2022) intended to forecast customer purchase intentions for energy-efficient household appliances using an enhanced model of the TPB. Under this study, two extra components, moral norms and environmental concern, were introduced into the TPB model. The findings exposed that customer purchase intentions of energy-efficient appliances (EEAs) are highly influenced by attitude, subjective standards, and perceived behavioural control. According to the classic TPB, the extension of moral norms is a strong interpreter of consumer purchasing intention. However, environmental concerns had no substantial impact on Bangladesh. The findings imply that customers' attitudes towards energy-efficient household products (EEHA) positively connect with consumers' purchase intentions of energy-efficient appliances, because EEAs are typically purchased by customers who are environmentally conscious. The study discovered a significant relationship between perceived norms and purchase intention of energy-efficient equipment.

Sureshkumar et al. (2022) examined the common household items in rural Chengalpattu, such as a television, a mixer grinder, a refrigerator, a washing machine, and an air conditioner. Based on their location, the study examines the purchase behaviours of customers in rural Chengalpattu districts. The study found that a customer's decision to buy a certain good or service is significantly influenced by their habits. The report recommends that companies focus more on developing marketing strategies, promoting their products, and providing high-quality goods and services. The report claims that there are significant differences between the respondents' sources of certain household equipment and their personal criteria, such as degree of education, in one instance.

Qalati et al. (2022) intended to explore the elements impacting households' intentions and actual behaviours in terms of energy conservation. This research builds on the theory of planned behaviour (TPB) by including descriptive standards and moral responsibility. The research findings show that TPB factors (attitude, subjective norms, and perceived behaviour control) and extended factors (descriptive norms and moral responsibility) have a positive and noteworthy effect on households' intention to save energy, as well as a significant effect of perceived behaviour control, moral responsibility, and intention on households' energy-saving behaviour. This study also shows that households' goal to preserve energy and moral responsibility have an important mediating and moderating effect. The findings of the study demonstrate that the intention to save energy has both direct and indirect effects on energy-saving behaviour. Several factors (attitude, subjective norms, perceived behaviour control, descriptive norms, and moral duty) have a positive and important influence on families' intention to save energy, according to the conclusions of this study. Furthermore, perceived behaviour control, moral responsibility, and the goal of households to save energy all have a major impact on households' energy saving activity. Aside from the direct effect, households' goal to save energy largely mediates the association among attitude and subjective norms and energy-saving activity, and completely mediates the relationship among perceived behaviour control and household energy-saving behaviour.

Vani and M. M. P. (2022) examine Bangalore customers' opinions and preferences about green marketing strategies and goods. The statistical data indicates a strong correlation between customer perception, consumer green values, product variables, and marketing strategies. The study finds that consumer purchasing behaviour is significantly impacted by consumer awareness of green marketing. Gender, educational attainment, and awareness of green marketing are related. Age group, monthly income, and awareness of green marketing are uncorrelated. The study's conclusions indicate that most Bangalore consumers are aware of green marketing ideas and offerings.

Tran et al. (2022) used a mixed-methods approach, including thematic examination and the SEM-PLS technique, to examine how Vietnamese Gen Z's perceptions of product-service quality, environmental knowledge, and pro-environmental behaviour influence their purchase intention and loyalty towards eco-friendly fashion products. The qualitative findings revealed that young customers' knowledge of and attitudes in relation to eco-friendly fashion practises were insufficient to persuade them to buy eco-friendly fashion products. The findings suggest that for fashion production, perceived behavioural control has a greater impact on purchase intention than customer fulfilment and environmental concerns. The SEM-PLS results, on the other hand, show that Gen Z's knowledge and awareness are minimal when compared to perceived product quality and control practises. When attracting Vietnamese Gen Z, the study indicated that enterprises should prioritise increasing service and product quality over spending green marketing.

Teoh et al. (2022) explored the effect of after-sales service (ASS), brand equity (BE), environmental awareness (EA), and product price (PP) on green home appliance customer purchasing intention (CPI). The findings revealed that BE, EA, and PP have a substantial effect on the CPI of a green home appliance brand. However, ASS have no effect on CPI on green home appliance brand. This research assists home appliance manufacturers in better designing marketing promotions that take into account consumers' preferences for BE, EA, and price. BE has a positive impact not only on green home appliances, but also on other industries like as automobiles, electronic gadgets, fashion, food and beverage, and so on. This study's findings also demonstrated a significant effect of EA on CPI on green homes. The data verified the strong favourable effect of PP on CPI for green home

appliances. According to the conclusions of this study, ASS have no significant impact on CPI on green home appliance brand.

Prigita and Alversia, Y. (2022) intended to investigate factors that may impact green product buying intentions among Indonesia's generation Y and generation Z. Generations Y and Z are known for their environmental concerns, and they are potential current and future consumers. The TPB framework was enhanced with additional factors, including environmental concern, environmental knowledge, readiness to pay premium, moral attitude, and health consciousness, for this study. According to the findings, all variables, with the exception of environmental concern, had a positive influence on purchase intention.

Harun et al. (2022) examined consumer purchasing of energy-saving appliances (EEAs). The implementation of EEA would lessen the negative impact of the environment on consumer behaviour. The theory of planned behaviour (TPB), environmental considerations, and consumer energy-efficient behaviour (EEB) are used to analyse consumer purchases of EEA in this study. The findings presented that EEB had a strong influence on EEA purchase intentions and subsequent purchasing activity. Except for attitude, the TPB variables were important predictors of EEB and desire to purchase. Meanwhile, only environmental awareness was important among the environmental components.

Hossain et al. (2022) aimed to investigate customers' views and trust in energy-efficient household appliances, and their knowledge of the environment and eco-labels, in order to discover how these may influence pro-environmental behaviour (PEB). Furthermore, the study looked at how attitude and green trust mediated the hypothesised frameworks of environmental and eco-label knowledge in connection to consumer pro-environmental activity. Environmental knowledge, eco-label knowledge, attitude, and green trust were all found to be strongly connected with consumer pro-environmental conduct. Furthermore, attitude and green trust mediated the connection between environmental knowledge, eco-label knowledge, and pro-environmental activity significantly. This study also discovered

that green trust influences consumer attitudes positively, and that those attitudes act as a substantial mediator between green trust and pro-environmental conduct. Eco-label knowledge is related to attitude and green trust in a significant and favourable way. On the other hand, there is evidence of positive and significant impacts of eco-label knowledge on customer pro-environmental behaviour. The findings indicate that attitudes have a strong and favourable link with PEB consumers. It has also been discovered that attitude and green trust function as a large and powerful positive mediator between EK and PEB and ELK and PEB.

Bhutto et al. (2022) examined young people's preferences for more sustainable items. The aim of this study was to acquire a better understanding of millennial purchasing behaviour while purchasing energy-efficient equipment in this particular developing market. The findings reveal that utilitarian environmental advantages have a considerable influence on attitudes, whereas self-expression has little effect on views. This study also discovered that moral obligation has little effect on subjective norms. The study examined the impact of EEA buying intentions on EEA purchase behaviours. This study discovered a substantial link between ATT, SN, and PBC and EEA purchase intent. The mind-set of young people was found to be more predictive of their desire to purchase EEAs. According to the findings, moral norms are required to predict undesirable behaviours such as dishonesty, stealing, and fraud. Buying energy-efficient equipment is a positive and clearly satisfying conduct that is not motivated by moral obligations. As a result, the data show that young customers' purchase intentions for energy-efficient appliances are positive and reasonable, and may not be influenced by their moral commitment to social recognition.

Dutta et al. (2022) aimed to investigate factors influencing customers' green purchasing behaviour in the setting of a developing country, India. The study proposed an integrated model based on TPB and Social cognitive theory, combining perceived environmental knowledge, personal norm, recycling participation, perceived value, and willingness to pay as independent factors to predict individuals' green purchase intention. The data revealed that three TPB characteristics, recycling involvement, personal norm, perceived value, and environmental awareness, all had a substantial impact on consumers' green purchasing intention. A favourable mediation effect was also discovered in terms of customers' green

purchasing intentions. However, consumers' willingness to pay had a negative impact on their green purchase intention. There is a connection between perceived environmental knowledge and consumers' behaviour intention to buy green products. The perceived behavioural control was seen to be the most important element influencing customers' behavioural intentions, followed by attitudes in relation to green purchases and subjective norm.

Tian et al. (2022) investigated elements influencing green purchase intention. Based on an ethical decision-making perspective, this study investigates the effects of perceived quality and perceived price on moral intensity and moral judgement, as well as the effects of moral intensity and moral judgement on green purchase intention. This study delves deeper into the impact of customers' perceived quality and price on moral judgement and moral intensity, giving a more comprehensive framework for understanding the influencing elements influencing consumers when choosing green products. The empirical findings show that moral intensity and moral judgement both strongly influenced green purchase intention. Moral intensity and moral judgement were both positively affected by perceived quality and perceived price. The green degree of a product impacted both the association between perceived price and moral judgement and the relationship between perceived quality and moral judgement. According to the findings, moral intensity and moral judgement both significantly increase green buying intention. Both perceived quality and perceived price influenced moral judgement and moral intensity positively.

Michel et al. (2022) used Generation Z buyers in an emerging country as the statistical unit to study the effect of Perceived Environmental Knowledge, Drive for Environmental Responsibility, Perceived Consumer Effectiveness, Attitude Towards Green Consumption, and Perceived Marketplace Influence on Green Consumption Intention. It also investigated gender disparities, family economic condition, and parental education for the hypothesised correlations. This study found that the consequence of these characteristics on Generation Z consumers' green purchase intentions varies depending on their gender, family education, and degree of family income. Furthermore, it demonstrates that Perceived Consumer Effectiveness does not always impact green consumption. Perceived Environmental Knowledge, Drive for Environmental Responsibility, Attitude

towards Sustainable Consumption, and Perceived Marketplace Influence all have a positive and significant effect on green consumption intention. Nonetheless, the findings display that Perceived Consumer Effectiveness has a negative and statistically significant effect on green consumption intention. Only the effect of perceived environmental awareness on green consumption intention remained consistent across gender, family economic status, and family education, according to the findings.

Teoh et al. (2022) aimed to look at the impact of after-sales service (ASS), brand equity (BE), environmental awareness (EA), and product price (PP) on consumer purchase intention (CPI) of green home appliances. The findings revealed that BE, EA, and PP had a substantial influence on the CPI of a green home appliance brand. However, ASS have no effect on CPI on green home appliance brand. This study's findings also demonstrated a considerable effect of EA on CPI on green household appliances. According to the study, if a consumer has a pleasant emotion about a specific product, it produces a purchase intention. For price-sensitive buyers, pricing is regarded as the most important factor influencing their purchase of green products. Aside from these findings, tax breaks, utility discounts, and price reductions will encourage them to use green home appliances. Furthermore, household appliances are generally expensive commodities that have both short and long-term financial implications according to household budgets.

Steffy Lawrence and Pallavi Tyagi (2022) studied the development of enterprises towards sustainable products, as was the expansion of eco-friendly manufacturing techniques and the variables influencing consumer purchasing behaviour towards green things, all contributed to the rise of green consumerism. Through the TPB, this research investigates the relationship of six components on purchasing behaviour towards green purchases. The findings revealed that environmental concern had little relationship with green purchasing behaviours. The article investigated the TPB model's system to discover if there is a link between customers' purchase intents for green items, SN, PBC, and ecological purpose. Perceived Behavioural control had the greatest impact on purchasing behaviour, while ecological knowledge also had a substantial impact on purchasing behaviour for green commodities.

Singh et. al (2022) provided a detailed perspective of green energy appliances, which helps to reduce electricity bills and dependency on utilities. The efficiency of the fundamental elements of grid-like grid-tied inverters, battery bank, and solar charge controller is demonstrated. The green appliances are separated into two categories, the first of which contains the appliances that are fundamental pieces of the system and function between the source and the load, such as the battery, charge controller, fuses, and so on. The second section comprises common domestic AC or DC appliances.

Jamil et al. (2022) focused on energy efficiency on Pakistan's young population in the post COVID-19 Era. The findings revealed that knowledge of eco-labels has a significant influence on perceived functional values, green trust, and buying intent of energy efficient household equipment. The findings also show that consumers' social duty has a substantial impact on their personal norms and purchasing intentions for energy-efficient household appliances. Although customer attitudes towards energy efficient appliances moderate the association between consumer social responsibility and purchase intention, there is no mediating impact between consumer social responsibility and buy intention of energy efficient household appliances.

Stasiuk and Maison (2022) aimed to investigate and discover the extent to which consumers are conscious of the new labelling system, along with the impact that the new labels have (in comparison to the previous ones) on the perception of household appliances and consumer decision-making. The findings revealed that most individuals are now unaware of the new energy classes. Furthermore, products with the new labels are seen as being less energy efficient than products with previous labels, indicating that customers are confused about the new energy efficiency labelling scheme.

Qi et al. (2022) did an empirical analysis from the perspective of customer psychological mechanism, government behaviour, green buying intention and behaviour. According to the findings, consumer innovation and the effectiveness of cognitive behaviour, as well as the government environment, have an important and advantageous impact on green

purchasing intention. Furthermore, green purchase intention serves as a bridge between the policy environment and green purchasing activity.

Hossain et al. (2022) in their study sought to forecast consumer purchasing intentions for energy-efficient household equipment using an enhanced model of the TPB. In this study, two extra components, moral norms and environmental concern, were introduced in the TPB model. According to the classic theory of planned behaviour (TPB), the extension of moral norms is a strong forecaster of consumer purchasing intention. However, environmental concerns had no substantial impact on Bangladesh.

Mansoor et al. (2021) investigated the direct and indirect effects of green advertisement as an external stimulus and pro-environmental self-identity and perceived environmental responsibility as internal stimuli on consumers' pro-environmental behaviours via an underlying mechanism of their engagement in sustainable consumption for green electronics. The findings revealed a favourable relationship between environmental advertising, pro-environmental self-identity, and perceived environmental responsibility and consumers' pro-environmental behaviours. Furthermore, the findings demonstrated that consumers' participation in sustainable consumption functions as an internal conduit, transmitting the effect of numerous internal and external stimuli to consumers' responses in the form of green purchasing and restriction behaviours.

Shukla et al. (2021) emphasised the environmental impacts of reduced energy consumption. The aim of this study is to look into the result of green marketing and its tactics on domestic energy-saving and green product buying habits. Green packaging and environmental beliefs have a considerable impact on respondents' purchasing and energy-saving behaviours, highlighting the significance of green marketing in influencing purchase and energy-saving behaviour. It should also be emphasised that, while advertising is efficient at raising knowledge among respondents, it has little influence on their views about purchasing Green products.

Ansu-Mensah (2021) conducted the study with the purpose to find out if awareness, price, availability, value, and quality affect university students' intentions to buy environmentally friendly products. It also looked into how these factors predict university students' intentions to buy environmentally friendly products. University students' intentions to buy green items were most significantly positively impacted by green perceived quality, while their intentions to buy green products were least significantly positively impacted by green perceived availability. The survey also showed that price, high value, and outstanding quality have a significant impact on university students' intents to make green purchases when it comes to their awareness of green products. The results of the study show that university students' intentions to make green purchases are significantly influenced by perceptions of availability, perceived quality, perceived value, perceived price, and perceived availability. It was shown that there was a significant correlation between GPI (Green Perceived Intention) and GPQ (Green Perceived Quality) and GPP (Green Perceived Price). The results of the study indicate that there are significant positive correlations between university students' GPI and GPQ and GPP.

Luong et al. (2021) explored characteristics that influence Vietnamese customers' green consumption behaviour for household appliances using the TPB. As per the findings, attitude, perceived behavioural control, knowledge, fair pricing, and trend all have a noteworthy and beneficial influence on consuming intention. Furthermore, it was discovered that consuming intention had a large favourable impact on consumption behaviours. According to SEM analysis, attitude, perceived behavioural control, knowledge, acceptable pricing, and trend all have a positive and significant impact on consumption intention for environmentally friendly products. Furthermore, it was discovered that consumption intention had a favourable and noteworthy impact on consumption behaviours. According to the findings, attitude had a significant and favourable influence on consumption intention. The attitude factor has a significant impact on green consumption intention; consumers have a favourable attitude towards environmental protection and energy conservation. According to the findings, perceived behavioural control has a favourable and significant impact on consumption intention.

Hutahaean and Kurnia (2021) studied impact of non-demographic characteristics on Indonesian consumers' attitudes in relation to green products was investigated. Furthermore, this study looked into the relationship between consumers' attitudes and intentions to buy green products. According to the findings, only five of the six non-demographic characteristics evaluated were demonstrated to influence Indonesian consumers' attitudes towards green products. The five factors are altruism, perceived consumer effectiveness, collectivism, perceived benefit, and environmental understanding, in order of their quantity of influence. The impact of non-demographic characteristics on Indonesian consumers' attitudes towards green products was investigated. Furthermore, this study looked into the relationship between consumers' attitudes and intentions to buy green products. According to the findings, only five of the six non-demographic characteristics evaluated were demonstrated to influence Indonesian consumers' attitudes towards green products. The five factors are altruism, perceived consumer effectiveness, collectivism, perceived benefit, and environmental understanding, in order of their quantity of influence.

Afridi et al. (2021) aimed to determine the influence of generativity in green purchasing behaviour. Furthermore, the functions of environmental concern and pro-social attitude as mediators have been proposed. The findings supported the positive impact of generativity concerns on green purchasing behaviour. Furthermore, the mediation functions of environmental concern and pro-social attitude were validated. This study expands the paradigm of environmentally friendly purchasing behaviour by include new psychological components. It adds to the theory by shedding light on the elements that influence GPB, specifically the impact of EC and prosocial attitude. This article explores into green conduct by examining how generative concern, environmental concern, and a pro-social mindset contribute to environmentally responsible consumption. The empirical outcomes of this study demonstrated that generative concern has a favourable and significant impact on individual GPB. It is concluded that individuals with a high level of generative concern have a more prosocial attitude and are more involved in green purchasing practises.

Rathore et al. (2021) undertook a study to explore more about consumer attitudes towards green products. The study reveals an intriguing finding: while consumers are

environmentally concerned and agreeing to pay a premium for green items, they are unaware of what constitutes environmentally friendly products. It would be significantly more beneficial for marketers to concentrate on increasing consumer awareness of green products. According to the findings, respondents' attitudes regarding the importance of green products in their life and the environment were generally positive. It is said that because young people's awareness of green issues is quite high, the term "green products" is more familiar to those in the 18–29 age range. It suggests that consumers choose environmentally friendly items over non-green ones but have low confidence in their ability to perform, which causes confusion over the use of green products by consumers. The study also revealed that respondents' attitudes regarding the importance of green products in their lives and the environment are generally positive.

Gupta (2021) aimed to examine the elements influencing Indian customers' intentions towards green packaging (environmentally friendly packaging). The study takes into account three factors/variables: environmental concern, attitude towards green packaging, and agreeing to pay as independent variables, and consumer purchase intention towards green packaged products as dependent variable. The study's findings exposed that all three variables (environmental concern, attitude towards green packaged products, and willingness to pay) have a significant effect on the dependent variable (consumers' intention to purchase green packaged products). According to the findings, environmental concern, attitude towards green packaging, and willingness to pay all have a favourable effect on customers' purchasing intentions towards their choice of green packaged items. The findings strongly suggest that if consumers' attitudes towards green packaging are improved, and they are convinced of the premium price charged for green products green packaging, as well as their environmental concern and knowledge, consumers are willing to prefer more green packaged products.

Skourtos et al. (2021) in their research article displayed the conclusions of a choice-based experiment carried out in Greece. The results revealed that putting yearly running cost estimates on refrigerator energy labelling has little effect on consumer choices due to the refrigerator's comparatively low annual operating cost.

Yadav et al. (2021) concluded that consumers in Gaya and Patna Districts have a higher level of awareness regarding green marketing and green FMCG items. The report also demonstrates a positive association between demographic characteristics and the 04 Ps.

Varah et al. (2021) used enhanced version of TPB that integrates willingness to pay a premium and environmental concern to investigate young customers' intentions towards green items. The findings verified the expanded TPD's suitability for investigating young consumers' attitudes towards green products. This research provides insights from an emerging economy view as well as upcoming research directions on young customers' intentions towards green products.

Singh and Gupta (2021) focused on the influence of factors determining the procurement of green products. Following the literature study, the identification phase yielded 20 factors. ISM is used to construct a hierarchical paradigm for the factors influencing the purchase of green products, as well as the contextual interactions between those elements.

Li et al. (2021) studied the factors influencing the buying intention of energy-efficient household appliances in Bangladesh. The findings demonstrated a substantial link between environmental concern, environmental knowledge, subjective standards, eco-labelling, and purchasing behaviour. It also confirmed that, unlike environmental knowledge, green self-identity moderates the existing association between attitude and purchasing intention of energy-efficient home appliances. Environmental concern, according to the conclusion of this study, influences subjective norms, perceived behavioural control, and attitude towards the purchase of EEHA in Bangladesh. The findings also demonstrated that environmental knowledge was associated with a more favourable attitude and intention to purchase energy-efficient products. This study supports the significance of green self-identity in moderating the relationship among attitude and purchasing intention, meaning that a consumer with a higher level of green self-identity has a stronger conviction to be eco-friendly and is thus more likely to behave in an eco-friendly manner. The study demonstrated subjective norms as an important predictor of EEHA purchase behavioural intention.

Lavuri et al. (2021) investigated the elements that promote green purchasing intentions and comprehends the distinctions in green purchasing behaviour across two generations, such as millennials and Generation Z. According to the study's findings, customers are environmentally conscious and worried for environmental sustainability. Subjective norms (SNs) had no statistically significant association with Green purchase intentions (GPI). The GPI was significantly influenced by variables such as media exposure (ME), environmental concern (EC), environmental knowledge (EK), and attitude (EA), as well as Perceived Behavioural Control (PBC). The ME, SNs, and PBC variables revealed no behavioural differences across generations. Nonetheless, variables such as EK, EC, EA, and GPI demonstrated a behavioural difference in buying the green items.

Wijayaningtyas et al. (2021) focused on the Theory of Planned conduct was used to detect and assess the millennial generation's conduct towards energy efficiency activities in environmentally friendly homes. Based on the findings of the study and hypothesis testing, it is determined that subjective norms and attitudes, with perceived behavioural control, positively and significantly influence the millennial generation's energy efficiency intention.

Dilotsotlhe and Duh (2021) studied prior to developing a strategy, focus on the first and second steps of the community-based social marketing (CBSM) framework, in which behaviours, their drivers, and barriers. The Theory of Consumption Values (TCV), Diffusion of Innovations Theory (DOI), and TPB were then used to explore consumer- and product-related aspects that aid or hinder sales. Respondents reported favourable sentiments towards green appliances and a desire to purchase green appliances.

Damigos et al. (2020) added to the expanding reservoir of study on the causes of the energy efficiency gap. It shows the results of a stated preference survey done on a representative sample of Greek households using computer-assisted web interviewing (CAWI) as part of the "Consumer Energy Efficiency Decision Making (CONSEED)" project. The focus was on issues that previous studies identified as requiring additional

research, such as the impact of the EU labelling scheme on consumer decision-making, the relationship between pro-environmental behaviour and willingness to invest in more energy-efficient appliances, and the role of peer effects, misinformation about current electricity prices, and an imperfect understanding of energy operating costs on the energy efficiency gap.

Zhang et al. (2020) found influencing factors in terms of product, consumer, legislation, and publicity. The information was acquired using the questionnaire survey method, which yielded 327 valid replies, and the information was analysed using partial least squares. The findings reveal that consumers' attitudes towards purchasing energy-saving equipment influence their willingness to pay a price premium. Consumer perceptions of quality, price, emotional, and environmental values all have a substantial and beneficial impact on their purchasing behaviour.

Kinoshita (2020) conducted a conjoint analysis with data from 750 Japanese families gathered via web-based questionnaires to observe the factors that motivate households to buy energy-efficient equipment by concentrating on The association with inclinations for renewable energy is one of the non-monetary motivations. An unsystematic parameter logit model and a layered logit model are used for estimate. According to the survey, Japanese households preferred energy-efficient home appliances only when the electricity is provided from renewable sources such as solar panels and micro-wind generators.

Ali et al. (2020) explored consumer decision making styles (CDMS) towards the purchasing of energy-efficient domestic equipment. In this context, the application of Sprotles and Kendall's Consumer Styles Inventory (CSI) is investigated, as is the significance of religion. According to the findings, religiosity has a substantial influence on consumer purchase intentions, while other significant decision making styles include "Perfectionism, Brand Consciousness, Price Consciousness, Recreation Consciousness, and Brand Loyal." The conclusions of this study confirm a link between recreational decision-making style and customer aspirations to purchase energy-efficient household appliances. They also discovered that consumers' buying intentions are primarily

determined by the perceived value of energy-efficient equipment. It was also observed that there was a favourable association between price consciousness and customer intentions to buy energy-efficient household appliances. The paper also suggests that a consumer's habitual or brand loyal decision-making style influences purchaser intentions to buy energy-efficient home products. These customers are extremely devoted to specific companies and continue to shop at the same locations.

Hasnain et al. (2020) evaluated the influence of customer personality parameters on green purchasing intentions by measuring the mediation effects of eco-labels and environmental attitude, along with the moderating of gender. The findings indicate that, with the exception of collectivism, consumer personality factors have a considerable impact on Green purchasing intention. Furthermore, mediation of ecolabels and environmental attitudes, as well as gender moderation, have a significant influence on consumers' green purchasing intentions. The study fills a research vacuum by examining the interaction effect of gender, environmental mind-set, and eco-labels on green purchasing intention. The findings show that environmental mind-set is a variable that contributes to green purchasing intention. The current study's findings demonstrated the mediation influence of environmental views and imply that green products could help to connect more collective beliefs. There is also a link between eco-labels and green purchasing intentions. According to research, the inclusion of eco-labels promotes consumer familiarity and provides a good perception of green items over conventional ones. Finally, the article finds that the influence of male gender as a moderator has a favourable outcome on green purchasing intention.

Fatoki (2020) studied the elements that effect the purchasing of EEAs by young South African customers. Furthermore, the study looked at the influence of purchasing intention on purchase behaviour. The findings suggested that the expanded TPB model can be applied to predict EEA buying intentions. Buying intention also influences buying behaviour. As per the data, subjective norms have no effect on the intention to purchase EEAs. Environmental concern (EC) and EEA purchasing intention were having a substantial positive association. The study also observed a substantial positive association between informative publicity (EC) and EEA buying intent. According to the findings,

perceived benefits are a major predictor of the aim to acquire EEA. The research demonstrated that customers' purchasing intentions have a favourable impact on EEAs' purchase behaviours.

Waris, I., and Hameed, I. (2020) attempted to disclose factors influencing consumers' purchasing intentions for energy-efficient items (energy awareness, perceived benefits, perceived price, and consumer attitudes). It also investigates the influence of customer perceptions on purchasing intentions of energy-efficient products (EEP) from the viewpoint of Jordanian families. Energy awareness influences purchasing intentions, perceived advantages, and consumer attitudes in a favourable and significant way. Energy awareness has a negative but insignificant effect on perceived pricing. Furthermore, perceived price has a negative and considerable impact on perceived benefits and consumer attitudes. Furthermore, customer attitudes have a favourable and considerable impact on purchasing intentions.

Shabbir et al. (2020) in their research article attempted to research and examine the key green marketing strategies and their impact on customer behaviour in the United Arab Emirates (UAE). This research was conducted in the UAE to study the impact of green marketing tactics on customer views and behaviour in relation to the environment. The study's findings reveal some intriguing inferences about eco-labelling (EL), green packaging and branding (GPB), green goods, premium, and pricing (GPPP), and consumer environmental concerns and beliefs (ECB) that influence their perceptions of the environment. It was discovered that important green marketing characteristics such as EL and GPPP have a considerable beneficial influence on customer perceptions about the environment (CBTE). Furthermore, in the UAE, environmental concerns and beliefs (ECB) have a strong and favourable influence on CBTE.

Khor and Mah (2020) studied the determinants of attitude, normative beliefs, green product experience, and price concerning to consumers' willingness to pay premium for green products, as well as investigated whether price moderates the associations between attitude, normative beliefs, and green product experience and consumers' willingness to

pay for green products. It also seeks to bridge the gap by examining whether the price of green products modifies attitudes, green product experience, and normative assumptions about customers' willingness to pay for environmentally friendly products. According to empirical evidence, attitude and price have a considerable positive link with consumers' willingness to pay for green items. Additionally, it has been found that the relationship between attitude and consumers' willingness to pay for environmentally friendly products is negatively moderated by price. In this sense, the positive correlation between attitude and consumers' willingness to pay for environmentally friendly products decreases as the cost of these products rises. The empirical results of the study showed that price and customer attitudes towards green consumption both significantly positively impact consumers' willingness to pay for environmentally friendly products.

Bhutto et al. (2020) explored warm glow advantages, utilitarian environmental benefits, normative views, and moral obligations of TPB characteristics. The findings show that utilitarian environmental benefits and warm glow advantages have a considerable impact on attitudes towards EEAs. The findings also demonstrate that normative ideas have a favourable effect on subjective norms. Eco-literacy has a favourable interaction effect on the connection among attitude and purchase intention, with comparable results for subjective norms and purchase intention. The findings demonstrate considerable group disparities, with females, younger customers, and more educated consumers being more easily swayed. The findings back up the idea of planned behaviour by demonstrating a substantial positive association between TPB constructs of attitude towards EEAs, subjective norms, perceived behaviour control, and intention to purchase EEAs. Attitude has the greatest influence on willingness to purchase EEAs, indicating that customers in Pakistan have positive attitudes towards EEAs. The association between subjective norms and EEA buying intention is strongly moderated by eco-literacy. Furthermore, it discovers that there is no interaction link between eco-literacy and EEA buying intention. The findings of this study reveal that disparities in demographic variables such as gender, age, education, and income level cause significant variances in purchasing intentions. For females, the association between subjective norms and EEA purchase intentions, utilitarian environmental benefits, and attitudes towards EEAs passes the significance test.

Anand and Acharya (2020) empirically investigated Indian customers' attitudes towards the environment in general and specifically towards green products. The study seeks to comprehend the factors that drive environmental focus behaviour for green products, as well as perceptions of green product buying. In this regard, it was discovered that elements such as environmental concern, price, safety, concern for welfare, and accessibility were significant. These criteria, coupled with item classification, have a significant impact on the amount of money people are ready to spend for green products.

Waris and Hameed (2020) empirically examined the antecedents of customers' purchasing intention of energy-efficient household equipment. The study's findings show that all antecedents have a considerable impact on customers' purchasing intentions for energy-efficient household equipment. The most influential elements in the buying of energy-efficient household appliances are environmental concern, green trust, and product functional values.

Durgamani et al. (2020) focused on the newest trends in marketing eco-friendly products. The researchers investigated why people choose to buy eco-friendly green products. The researchers conducted extensive research on the many eco-friendly green products utilised by customers and found possible gaps for marketers to capitalise on. The study discusses potential consumer-attraction strategies as well as causes for the lack of sales. The report also focuses on customer purchasing power and attitudes towards new products on the market. There is no association between respondents' monthly income and their degree of satisfaction with the elements that impact their decision to purchase green products. The association between level of satisfaction and expectation gap with green products was discovered to be adversely associated. There is a considerable difference in the level of satisfaction of green products with purchasing criteria. There is a substantial gap in the varied levels of pleasure with green products. According to the study, there is a substantial difference in the level of satisfaction with green products and factors that impact buying.

Ahmad et al. (2019) explored the repurchase intention of eco-friendly household appliances, two major elements were studied: perceived value and personal values.

Personal values were viewed as looking at the consumer's perceived environmental consciousness and health consciousness, while perceived values were represented by functional value, social value, and financial worth. The information was gathered from Malaysian users of green home products such as air conditioners, refrigerators, and lighting. The responses of 193 respondents were used for further study. Only functional value, environmental consciousness, and health consciousness were found to have a direct influence on consumers' decisions to repurchase green home equipment.

Kulshreshtha et al. (2019) made an attempt to investigate the utility score and relative value of the various attribute levels of high participation products. The findings demonstrate that consumers' preferences differed depending on the green-labels used for items as part of companies' green initiatives. When given the option, customers chose the green-distribution label as more successful in resolving environmental issues than others.

Joshi et al. (2019) identified five barriers to purchasing energy-efficient household appliances among Indian buyers (risk perception, societal norms, perceived personal inconvenience, price sensitivity, and cynicism regarding label claims). A five-point Likert scale survey questionnaire was utilised to collect data from 300 respondents in Pune, Maharashtra, India. The data was analysed using multiple regression analysis. According to the data, respondents were ignorant of energy-efficient home appliances and were dubious of energy label claims. It has been demonstrated that there is a negative relationship between perceived personal inconvenience and purchasing intention. Cultural norms, risk perception, and price sensitivity were the other three factors discovered to have a positive relationship with purchase intention.

Jasmine and Rustha (2019) attempted to research working women's preferences for energy-efficient home appliances. The study's goal is to examine the factors that influence working women to buy energy-efficient home appliances and to investigate the relationship between working women's choice for energy-efficient home appliances and their socioeconomic circumstances. The level of preference for energy-efficient household appliances among working women of various occupations is displayed.

Hua and Wang, S. (2019) emphasized on exploring the antecedents of customers' acceptance of energy-efficient equipment. The technological acceptance model and the idea of planned behaviour were merged into a framework. According to the study, perceived simplicity of use had a considerable impact on perceived usefulness; additionally, it favourably influenced customers' opinions. Consumer purchasing intentions were highly influenced by subjective norms, perceived behavioural control, and attitude. However, perceived utility had no direct effect on consumers' purchasing intentions. According to the survey, customers will have a favourable attitude towards energy-efficient appliances if they believe they are easy to use.

Sharma and Kushwaha (2019) aimed to establish a relationship between eco-labels and customer understanding, information communication, trust, and the impact on green purchasing intention. Eco-labelling, according to the research, is a critical requirement for consumer trust and green purchase intention via consumer information and understanding. The study also discovered that eco-labels alone are not responsible for influencing consumer knowledge unless they provide customers with information. The study's goal was to focus on the effectiveness of eco-labels as one of the most important instruments in green marketing practises. The study also discovered that eco-labels alone are not responsible for influencing consumer knowledge unless they provide customers with information. Eco-labels and other certifications aid in the development of consumer trust in the purchasing process. To improve the market effectiveness of eco-labels, customers' awareness and trustworthiness must be raised.

Mandawala Gamage, T. C. (2019) in their article, measured the impact of factors supporting environmental protection, driving for environmental responsibility, environmental friendliness of companies, social influence, perceived value, perceived quality identified from literature, and their influence on the purchase of green electronic products in Western Province. The study sought to answer the question of what factors influence the buying of green household gadgets.

Jibril et al. (2019) in their research paper aimed to analyse and report the results of the Customers' strong relationship with the use of green items. According to the paper, the young population is the most likely to utilise the green product in the herbal market. The nonparametric test results demonstrated that demographic characteristics (gender, age, education, and occupation) have an inverse connection with green product use.

Li et al. (2019) constructed a model of the factors influencing residents' willingness to purchase energy-efficient appliances and an empirical study of urban residents in Shanxi Province, China, was conducted using extended planned behaviour and combined with environmental concern variables and environmental knowledge variables. According to the findings, homeowners' propensity to acquire energy-efficient equipment is strongly positively connected with environmental concern, environmental awareness, attitude, and perceived behavioural control. Subjective norms have no substantial influence on residents' willingness to purchase energy-efficient appliances; environmental concern and environmental knowledge have a beneficial impact on attitudes and indirectly affect residents' willingness to purchase energy-efficient appliances.

Ali et al. (2019) aimed to study the determinants of customers' intention to buy energy-saving household products by combining the Theory of Planned Behaviour (TPB) with the Technology Readiness Index (TRI). The findings revealed that contributors to technology readiness positively influence inhabitants' attitudes towards their purchasing intentions, but inhibitors of technology ready have the opposite effect. Furthermore, attitude and perceived behavioural control were discovered to be important predictors of desire to purchase energy-saving household items.

Divyapriyadharshini et al. (2019) attempted to learn about customers' awareness of green products and how switching to green products would aid the environment. According to the findings of the study, promotional actions on eco-friendly products increase customer awareness of green products. The vast majority of respondents are aware of green items. This survey also identifies green product awareness as a crucial factor influencing consumers' green purchase decisions.

Skackauskiene and Vilkaite-Vaitone, N. (2019), aimed to analyse the methodological standpoint of green marketing evaluation. This study adds to the literature by laying the groundwork for the development of benchmarks for assessing green marketing performance in modern organisations. According to the study's findings, green marketing performance should be pursued at the strategic, tactical, and operational levels.

Harajli and Chalak (2019) sought to determine Lebanese individuals' willingness to pay (WTP) for five types washing machines, air conditioners, televisions, light bulbs, and refrigerators are all examples of energy-efficient home appliances. A survey of 605 households was undertaken. The findings show the importance of several socio-demographics, such as income, education, and age, in determining WTP for more energy efficient appliances, as well as the importance of perceptions and experience factors, including energy labelling implementation and electricity cost.

Shin et al. (2018) examined the failure elements of eco-friendly product consumption activation the consumer's perspective, with a particular focus on detergent-free washing machines, which are exemplary novel goods of eco-friendly home appliances. This study investigates the attitude-behavior gap that arises during the consumer decision-making process, as well as customer preferences for the fundamental qualities.

Ray and Sahney (2018) explored the impact of financial risk, performance risk, psychological risk, social risk, and physical danger on total risk perception when purchasing environmentally friendly commodities such as energy-efficient LED light bulbs. Data was collected from 272 Indian respondents using a self-administered questionnaire with 29 statements. The data was investigated using structural equation modelling with partial least squares (PLS-SEM). According to the study's findings, psychological risk has the greatest influence on perceived overall risk of any other element. This was followed, in that order, by financial, physical, and performance risks as the second, third, and fourth most influential risk factors determining total risk perception. However, social risk was discovered to have no effect on perceived overall risk.

Mokha (2018) aimed to study the impact of green marketing strategies i.e. eco-labelling, eco-branding and environmental advertising, on customers buying behaviour. The study was conducted to investigate the impact of green marketing tools (eco-labels, eco-brands, and environmental advertising) on customer purchasing behaviour and discovered that they do have an impact. According to the findings, eco-labels, eco-brands, and environmental advertising have a favourable and significant impact on customer purchasing behaviour. According to the survey, consumers are highly aware of eco-labels and have sufficient information about them, but they lack faith in these labels. It also demonstrated that eco-brands have a beneficial influence on purchasing decisions since customers are aware of the brands and have faith in them, which aids them in distinguishing these from other unorthodox products.

Goyal and Pahwa (2018) emphasised on current green marketing mix tactics used by firms to compete in the market, and intends to describe the findings of a review of literature in the green marketing domain and offer a green marketing mix model to achieve sustainability.

Hasan et al. (2018) focused on the barriers that trigger the green purchasing gap and; identify which barriers are supposed as the most applicable in acquiring eco-friendly home appliances. The study focuses on number of barriers namely, price, social influence, trust, product attributes, availability, eco-labels, and communication. In order to investigate the constructs' dimensions, EFA (Exploratory Factor Analysis) was carried out.

Kalsi and Singh (2018) sought to ascertain the effect Green Marketing Tools' Influence on Consumer Green Purchase Intentions and Purchasing Behaviour (i.e. Green Purchase Behaviour) in metropolitan Punjab, India. This study's analysis suggests that Green Marketing Tools have a direct effect on consumers' Green Purchase Intentions and Green Buying Behaviour (i.e. green purchase behaviour). Furthermore, the study's findings are unusual in that Green Purchase Intentions entirely mediators the association between Green Advertising and Green Price, respectively, and Green Purchase Behaviour; and partially mediates the relationship between Green Product Availability, Green Product and

Brand, and Eco-labels. Furthermore, the study demonstrates that green marketing tools have a direct and considerable impact on customers' green purchasing behaviour. This study also concludes that Green Purchase Intentions fully mediates the relationship between the two predictors (Green Advertising and Green Price) and Green Purchase Behaviour, and only partially mediates the relationship between the other three predictors (Green Product Availability, Green Product and Brand, and Eco-labels).

Akter and Yesmin (2018) in their article examined the level of awareness and impression of green products. The study's goal is to assess consumers' understanding of various green product aspects. It attempts to determine whether there are any customer misconceptions about the benefits of green products. According to the study, customers like to assume that green items are of higher quality than conventional products, but they are unsure about the high pricing of green products. The research findings also reveal consumers' dissatisfaction with the marketer's promotional efforts.

Hameed and Waris (2018) carried out empirical investigation, the structural equation modelling technique, to investigate the relationship between the variables in the study. Furthermore, the effects of green trust and environmental concern on customer behaviour have been investigated. The study's findings emphasise the favourable influence of eco labels on consumers' environmentally conscious conduct. Green trust has a full mediation impact on the relationship between eco labels and environmentally conscious customer behaviour, according to the research. However, there was no environmental concern mediation effect between eco labelling and environmentally conscious consumer conduct. The conclusions of this study show that eco-labels influence customers to be more environmentally sensitive. The impact of green trust on eco-conscious consumer behaviour has been demonstrated, indicating that green trust has a beneficial impact on consumer eco-conscious behaviour. Furthermore, eco-labels had a large and positive effect on green trust, implying that eco-labels are the real source of information for green items. The study went on to investigate the influence of eco-labels on environmental concern. It was discovered that eco-labels have a favourable impact on environmental concern.

Nguyen et al. (2018) intends to investigate a variety of cognitive, moral, emotional, and self-identity elements that may assist or obstruct green purchasing behaviour among young

consumers in Vietnam, an expanding market. Except for subjective social standards and warm glow, multivariate statistics demonstrated that most factors (knowledge, attitudes, personal norms, self-identity, and perceived barriers) significantly influenced customer purchasing of energy efficient equipment. According to the findings of a multivariate analysis, environmental self-identity is the most important predictor of green purchase behaviour among young consumers, and knowledge greatly improves pro-environmental activity. It also concludes that knowledge improves pro-environmental behaviours significantly.

Nedumaran and Manimegalai (2018) entails validating how advertising can aid in the controlled course of events. It starts with the topics of likely turn of events and economical advertising, which are written about. It tries to produce a creative report that can be implemented in the present market situation.

Baldini et al. (2018) utilised empirical survey data from the Danish Energy Agency to estimate influential elements driving Danish customer choice of energy efficient appliances. The study creates an energy efficiency index by regressing over this unique mix of end-use behavioural characteristics. Statistical findings demonstrate that home style, population density, age, and end-use behaviour are all major determinants of adopting energy-efficient appliances.

Singh et al. (2018) in their research paper proposed a novel I-O modelling framework by incorporating a bottom-up approach into an I-O model that is combined with technical data for the holistic assessment of energy efficient technologies in the residential sector, which can assist India's energy decision-makers in assessing the future impacts of current national energy saving targets.

Tan et al. (2017) intended to bridge the gap by investigating the determinants of customers' purchase intentions for energy-efficient household equipment using the moral extension of the theory of planned behaviour (TPB). A self-administered questionnaire survey was given to 210 consumers. According to the findings, customers' more favourable attitudes towards energy-efficient household appliances, as well as perceived behavioural

control, have a substantial influence on their purchase intention for such devices. This study also demonstrated that the moral norm extension in the classic theory of planned behaviour is a major predictor of consumer purchase intention.

Nguyen et al. (2017) aimed to understand consumers' purchasing behaviour of energy efficient household appliances in emerging regions, researchers used both motivational and cognitive techniques. A distinct value, knowledge, attitudes, and behaviour model was created and verified using data from Vietnamese consumers, yielding 682 viable responses. The findings suggest that customers who adhere more strongly to egoistic ideals are more likely to develop negative attitudes towards environmental conservation, while they are more likely to develop favourable attitudes towards individual inconvenience connected with the purchase of energy-efficient appliances.

Göçer and Sevil Oflaç (2017) centred on investigating several aspects impacting young customers' attitudes towards eco-labeled items in a rising country, Turkey. An exploratory factor analysis was used first to discover the important dimensions' constructs on the environment and eco-label perceptions, followed by structural equation modelling to test the research hypotheses. The findings show that the presence of perceived environmental awareness influences the purchase of eco-labeled products, with environmental concern (EC) acting as a key moderator. This study adds to practise by examining perceptions of youthful consumers in emerging markets such as Turkey. This link can be used to boost the likelihood of purchasing eco-labeled products in order to establish EC strengthening programmes in education as well as environmental understanding by leveraging ones. Furthermore, these insights may be useful in the marketing of eco-labeled products. This study adds to the literature by explicitly analysing the perceptions of young customers in an emerging market, as well as adopting a more specific eco-label focus, which it blends with an environmental perspective.

Wang et al. (2017) explored the effect of government incentives on people's inclinations to buy energy-efficient home appliances. Data for the study were collected from 436 urban residents from 22 Chinese regions. Structural Equation Modelling (SEM) was used to analyse the data. The study indicated that the variable 'policy' had no effect on respondents' plans to acquire energy-efficient household appliances. On the other hand, environmental

awareness, past purchasing experiences, social links, age, and level of education were found to have a significant influence on respondents' intentions to purchase energy-efficient household equipment.

Park and Kwon (2017) explored customers' adoption of energy-efficient home appliances in South Korea, researchers employed a combined framework of the general model of perceived value and the Theory of Planned Behaviour (TPB). To collect data from 1050 respondents, in-depth interviews and a pen-and-paper survey were employed. The data was analysed using Structural Equation Modelling (SEM). According to the study, customers' perceived value of energy-saving devices is mostly driven by perceived benefits, which are bolstered by social duty and weakened by environmental understanding. Perceived danger and perceived value had a moderate relationship. In addition, the study showed a link between social responsibility-perceived value-intention and use-actual usage. Demographic variables had no significant influence on the outcomes.

Heo and Muralidharan (2017) focused on marketers claiming that their products help preserve the environment as awareness of environmental sustainability grows. Their efforts may be ineffective unless they have a thorough understanding of how emerging target audiences, such as youthful millennials, were compelled to purchase green promises. As a result, the current study investigated the interdependence of significant environmental antecedents such as environmental knowledge (EK), perceived consumer effectiveness (PCE), and environmental concern (EC) on ecologically conscious consumer behaviour (ECCB). According to an online poll of younger Millennials, EK and EC were both significant predictors of ECCB, with EC being the stronger predictor. The study also discovered that EC plays an important mediating role between EK and ECCB, as well as PCE and ECCB. According to the conclusions of the current study, marketers cannot simply declare that by purchasing their products, people may alter the world. They should back up such a claim with references to environmental issues (i.e. knowledge) and company concerns.

Kumar and Polonsky (2017) suggested that according to research, achieving sustainability necessitates that both consumers and organisations monitor and analyse how their activities effect the natural environment. The original marketing debate of sustainability' as we now define it was into green customer behaviour, and the literature in this field has continued to grow. This report examines 677 journal papers with a green consumer focus that appeared between 1975 and 2014 in 34 top marketing, psychology, and environmental publications. Citation analysis is used to identify the most influential papers, authors, and institutions. An assessment of trends in research topics across eight five-year intervals revealed that behavioural intents, demographics, and marketing strategy were the top three subjects in the domain. Overall, the findings indicate that green consumer research is a broad field of study. This has been investigated across a wide range of challenges and contexts, with researchers spread globally, ensuring that sustainability remains a consumer domain of interest.

Zhang et al. (2016) in their research paper, 'Challenges of Green Consumption in China: A Household Energy Use Perspective' outlines the obstacles that the country must address through green consumption. Changes in total population, urbanisation rate, energy efficiency, inter-industry input mix, household consumption preferences, and per capita household consumption level are used to deconstruct energy utilised indirectly by households.

Pothitou et al. (2016) investigated the impact of environmental and energy knowledge on possible pro-environmental behaviours in families, such as energy consumption behaviour, attitudes, and habits. The data was collected from 249 homes in Peterborough, UK. Principal Component Analysis (PCA) and correlation were two data analysis methodologies used. According to the study's findings, households with a high level of environmental knowledge and positive environmental attitudes are more likely to participate in energy-saving measures. Weak connections were discovered between environmental predisposition and knowledge, as well as ownership and frequency of usage of household equipment.

Parikh and Parikh (2016) forecasted the stock of four major electrical appliances in households through 2030. In this study, they also advocated regulatory reforms that might help to drive demand for energy-efficient home equipment. According to the study, if customers are made aware of the market's plethora of energy-efficient household equipment, there is a significant reduction in energy consumption and, as a result, greenhouse gas (GHG) emissions.

Yadav and Pathak (2016) in their article attempted to establish young purchasers' motivations for purchasing green items in a non-industrial country, India. The review took the Theory of Planned Behaviour (TPB) as its starting point and aimed to develop it by including other structures (natural concern and ecological knowledge). Data was collected via self-controlled poll research, which was then broken down utilising underlying condition showing (SEM). TPB's efficacy in anticipating young customers' plans to purchase green items was revealed by the investigation. The results also indicated the importance of remembering more builds for TPB by increasing the predictive usefulness of the proposed model (from 27.1% to 37.7%). At the end, the consequences for strategy developers and the scope of subsequent research were highlighted.

Maichum et al. (2016) studied Thai customers over the age of 18, with a secondary school education, their purchasing intentions for green things using a detailed structure of the theory of planned behaviour (TPB). The data demonstrated that purchaser attitude, emotional standard, and perceived social control all have a strong positive influence on green commodity purchasing goal. In addition, the data demonstrated that environmental concerns had a major impact on mind-set, social control, and purchasing intentions for green items, but not on emotional standards. Furthermore, environmental information had a significant impact on the buy expectation for green items. All else being equal, it had a particularly indirect impact on purchasing green things, emotional standards, and societal control. The study's findings lead to a better understanding of the expectation to buy green items, which could play an important role in sustainable use.

Kamalakaran et al. (2016) attempted to compare the performance, efficiency, and other attributes of various household appliance motors, such as those in refrigerator compressors, ceiling fans, air conditioners, washing machines, water purifiers, mixer-grinders, and air coolers, to those of BLDC motors.

Pillai (2016) in her research paper attempted to comprehend customer attitudes towards eco-friendly white goods, consumer awareness of such products' availability, and the demographic profile of green consumers. The survey concluded that customers view eco-friendly items to be overly priced, lack effective promotion, are difficult to distinguish from conventional ones, and are unsure about the quality or performance.

Ramos et al. (2016) intends to study the determinants of EE-related decisions. In its results, it found that no effects are found for households with environmental attitudes based on stated willingness to pay to protect the environment. Furthermore, households with higher incomes and education levels are more likely to invest in EE but not to practise energy-saving activities.

Bajada, N. (2016) in her paper, aimed to determine whether Maltese consumers are aware of the marketing strategies used to promote energy-efficient appliances, whether green marketing influences their purchasing behaviour, and whether ownership of energy-efficient appliances has helped households save money on energy utility bills. According to the findings, Maltese green consumers are mostly females between the ages of 18 and 40 with a high level of education; Maltese consumers are becoming more aware of green marketing strategies, particularly those involving eco-labels; and price is not a factor when purchasing energy-efficient products.

Kumar S. (2015) demonstrated that the majority of reputable home appliance businesses operating in India are aware of their CSR and sustainability responsibilities in terms of green marketing. GM, CSR, and environmental sustainability are all intertwined. Despite the fact that home appliance firms offer information on their websites regarding CSR and sustainability, recycling methods have been implemented.

Chahal and Mehta (2015) made an effort to comprehend the utilisation and non-usage of green products. It was discovered that people were not wearing organic clothing but were instead using eco-friendly electric appliances. Lack of awareness, non-availability, exorbitant prices, and lack of confidence in using them were identified as limitations.

Banerjee, T., and Banerjee, A. (2015) investigated the increased energy-saving consciousness and environmentally friendly factors among Indian customers when making purchasing decisions. This is in relation to the purchase of two home appliances - a refrigerator and an air conditioner - in Gujarat after 2010. Indicators such as star rating have been used to influence customer purchasing decisions. Findings reveal that organisations offer the additional feature of star rating to customers, but this does not always imply that it is free.

Wang et al. (2014), by combining energy awareness, information publicity, and habits and customs with the Theory of Planned Behaviour (TPB) variables, researchers evaluated consumers' adoption of energy-efficient household appliances in China. The Structural Equation Model (SEM) was used to examine data collected from 276 respondents. Subjective norms, environmental attitudes, information publicity, lifestyles, and perceived behavioural control all had a substantial impact on respondents' energy-saving activities, according to the study. Demographic factors had minimal influence on behavioural intentions. The variable of environmental knowledge has an indirect influence on behaviour intentions via environmental attitudes. According to the study, financial incentives may also help raise environmental awareness.

Singh, B., and Kumar, S. (2014) tried to discover why people prefer eco-friendly products. The report is based on empirical data analysis of Himachal Pradesh respondents. It demonstrates that respondents are aware of eco-friendly items and prefer to purchase them since they are safe for health/personal benefits such as lower electricity bills when utilising eco-friendly equipment. The correlation research found that as people's

knowledge or awareness of eco-friendly items grows, so does their choice for eco-friendly products.

2.2 Review of Related Ph.D. Thesis (Snap Shot of period: 2015- 2020)

G. Joshi (2020) in her thesis examined the barriers that Indian households face while buying eco-friendly white goods. The conceptual framework of the study was framed by the factors found during the literature evaluation. The following were found to be determinants: price sensitivity, subjective norm, felt personal inconvenience, perceived product hazards, and scepticism towards label promises. The study used a mixed method approach to acquire data. Quantitative data was gathered by a survey approach based on a questionnaire created using validated scales, while qualitative data was obtained through in-person interviews. The results of the study demonstrated that customers' intentions to buy environmentally friendly white goods are significantly and favourably impacted by price sensitivity and social influence. On the other hand, consumers' scepticism regarding label promises and their intents to buy environmentally friendly white goods were found to be strongly impacted by their perceptions of the risks associated with the products.

Gandhe R. (2019) conducted an empirical investigation in his thesis to investigate the effects of people' Perceived Behavioural Control (PBC), Energy Conservation Attitude (ECA), and Behavioural Intention (BI) on psycho-social aspects of values, beliefs, and subjective norms (SN). Data from 550 homes in the city of Bhopal (in the Indian state of Madhya Pradesh) was collected through the use of purposeful sampling. A well-structured questionnaire was created using six psychometric tests and one socioeconomic questionnaire, and results were gathered through a survey approach. The data were analysed using the t-test, correlation analysis, one-way ANOVA, linear regression analysis, and moderation analysis. The study found that the relationship between ECA and BI was significantly moderated by SN. Moreover, there was no association found between gender and energy-saving practices. The study also found a connection between energy-saving behaviours and property ownership status. Lastly, there was insufficient data in the

study to support the notion that "turn-off behaviour"—that is, shutting off lights while leaving a room—contributes to energy conservation.

Anbarsooz M. (2018) in her thesis titled investigated the presence and extent of marketing executives' and family members' effect on the decision-making process for home appliances. The study employed a descriptive research methodology, and a convenience sample technique was used to randomly select 500 respondents. A self-administered questionnaire was used to gather data, which was subsequently analysed using a variety of statistical techniques and tools, including ANOVA, Pearson's correlation, and the contingency coefficient. The study offered factual proof that the buying of household appliances in the Indian market is a collaborative decision-making process whereby family members choose what items to buy jointly.

Pooja Rani (2018) in her thesis, tried to assess urban customers' attitudes and how they relate to Haryana's environmental sustainability. Understanding Haryana's natural resources, assets, and usage patterns was the main objective. Ecological and carbon footprints were also computed, and the relationships between the footprints and different variables were analysed. The study focuses on non-market value—that is, people's willingness to pay for improved environmental quality—and sustainability in terms of consumption habits. For the purposes of this study, a sample of 1030 households was selected using the purposive sampling technique. Several techniques have been developed and employed for the analysis of primary data, including One Way ANOVA, Correlation Matrix, Descriptive Statistics, and Single Equation Multiple Regression. The connection between EFP and CFP reveals that, with the exception of distance from the main city, CFP has a small, positive, and significant association with all parameters. There is a medium-sized, statistically significant positive association between the computed Carbon Footprint (CFP) and the Ecological Footprint (EFP).

Renjish Kumar V. (2018) examined the patterns of household electricity use and energy-saving habits among families served by the Thrissur Corporation Electricity Department (TCED) and Kerala State Electricity Board (KSEB). A structured questionnaire was

utilised to gather data from a convenience sample of 300 residences, of which 163 were under KSEB and 137 were under TCED. The data were analysed using multiple regression and percentage analysis. The study found a favourable correlation between energy consumption expenditure and family size, purpose of power usage, and family income for both KSEB and TCED consumers. For TCED clients, family size and income are the most significant determinants of energy consumption expense; whereas, for KSEB consumers, power usage purpose and family income are more significant factors.

Abdul Brosekhan A (2018) focuses on the problems of the present day people and on how the advent of Home appliances has satisfied the needs of the public in his thesis. This research also helps to understand the factors which influence the consumers to purchase the Home appliances. The main objective of thesis was to find out the relationship between the marketing stimuli variables and respondents' purchase behaviour intentions and to investigate impact of demographic factors on factors influencing choice of purchase of the respondents. A regression analysis was performed to determine the influence of the marketing mix stimuli product, price, place and promotion on purchase behavioural intentions. It is evident from the study that with regard to the agreement given to purchase behavioural intentions, no significant difference among the respondents has been identified with regard to various demographic factors such as gender, marital status and type of family, since their respective "t" statistics are insignificant at five per cent level. Marital status has a significant association with the respondents sharing their good experiences with others of their Home appliance purchases.

Mahajan, Rashmi (2018) helps to understand the significance of the psychographic attributes of attitude, personality and lifestyle of Generation X and Generation Y customers in her thesis. The household electrical appliances selected for this study were Television, Fridge, Air conditioner and Washing Machine. Convenience / deliberate sampling technique was used to select the sample. 192 Generation X and 192 Generation Y customers have to be considered for examination for the said research. Hypotheses of the study have been tested using statistical methods like independent sample t-test, Mann-Whitney Test and Factor Analysis by using Principle Component Analysis. The study concludes that Generation X customers are very careful in trying out newly introduced

electrical appliances whereas Generation Y customers do not mind trying out the newly introduced electrical appliances. Both Generation X and Generation Y demonstrate same type of Attitude towards the purchasing of the selected household electrical appliances.

Bisoyi (2018) performed a Green Marketing investigation to find out what consumers knew about the effects of environmentally friendly products on the environment with the thesis. The primary goal of the research is to determine how sustainable development can protect the natural environmental features and ecological balance. The purpose of this study was to identify the variables influencing consumers' decisions to buy particular environmentally friendly products. Among the carefully chosen eco-friendly products are FMCG, energy-efficient items, stationary items that can be reused and recycled, organic food items, and items for solar energy use at home, among others. The survey also looks into customers' willingness to pay a premium for eco-friendly items and their awareness of the effects of eco-friendly products on the environment. The quota sampling method was utilised in the study to choose 650 respondents from the city of Bhubaneswar. Cross tabulation, correlation, regression analysis, and descriptive statistics are the first steps in the data analysis process in this study. The study's findings have added significant knowledge about the prerequisites for purchasing intentions, which in turn influence consumers' decisions to buy ecologically friendly goods in this situation. According to the study's findings, the majority of respondents believe that both the government and individual citizens have a duty to protect the environment.

Anisha T. (2017) in her thesis investigated rural customers' attitudes towards purchasing durables. The study sought to ascertain the amount of brand awareness, brand preference, brand loyalty, and the issues encountered by rural customers when purchasing household durable home appliances. 480 rural customers from eight talukas in Thoothukudi district were interviewed using a simple random sampling technique. The information was gathered through the use of a well-structured questionnaire and analysed using several statistical techniques such as the Chi-square test, Friedman Rank test, Mann-Whitney U test, Kruskal-Wallis test, and factor analysis. The study revealed four major elements that influence rural customers' purchasing behaviour for household appliances: price, comfort, and performance.

Gandhi, Ankit (2017) in his thesis sought to analyse the potential effects on customer purchasing decisions of eco-friendly items. In addition to examining the perceptual issues that consumers encounter when purchasing green products, the study looks at the relationship between consumer attitude towards green products and purchase behaviour. All of Gujarat's (India) urban, semi-urban, and rural areas—Ahmedabad, Rajkot, Surat, and Vadodara—had samples collected. There were only 500 responders included in the sample. According to research, there is no discernible difference in how respondents who are male and female are perceived. Compared to female respondents, more male respondents expressed interest in buying recycled products. According to the research, there is no discernible difference in the attitudes of respondents who are male and female.

B. Sabitha (2017) in her thesis examined customer demand and awareness regarding green home appliances. The study also made an effort to determine how much consumers were willing to spend on eco-friendly home appliances. With 210 respondents in a stratified sample, the poll was conducted in Dubai. Web surveys and in-person interviews were used to collect the data, which was then analysed using ANOVA, frequency and percentage analysis, and other techniques. The main conclusions of the study were (a) a moderate degree of knowledge about eco-friendly household appliances and (b) a low willingness to spend more for eco-friendly equipment.

Thilagavathy S. (2017) investigated the impact of customers' environmental commitment level on green marketing initiatives of selected white home appliances (refrigerator, washing machine, and air conditioners) in her thesis. The study also looked into whether or not customers' choice for green brands affects their purchase of white household appliances. The survey approach was used to perform this quantitative cross-sectional study in Tier-II cities of Tamil Nadu (India). After making sure that they had acquired at least one of the selected white home appliances, responses were collected from 570 respondents. The study offered a theoretical framework made up of eight constructs: environmental attitude, environmental commitment, green brand image, green brand satisfaction, green brand trust, green brand awareness, green brand preference, and green product purchasing behaviour. Covariance-based Structural Equation Modelling (CB-

SEM) was adopted to analyse the data. Except for two hypotheses, all of the hypotheses given in the framework were supported. The study found no significant relationship between green brand satisfaction and green brand image and green brand choice.

Gupta, Preeti M. (2017) in her thesis focused on the gap which exists between consumers who are concerned about the environment and take action to protect it. The study/research focused on three white goods: refrigerators, air conditioners, and washing machines. The study's goal is to determine whether consumers of different genders, occupations, and socioeconomic groupings differ in their environmental attitudes and intentions. The study will also investigate consumers' willingness to pay for environmentally friendly white products and the impact on their purchasing intentions. The study conducted focus group discussions to better understand the qualities of an environmentally friendly REF, AC, and WM. The respondents for the study were from Gujarat, specifically from the four major cities of Ahmedabad, Rajkot, Vadodara, and Surat. According to the survey, consumers' EC has an impact on their impression of eco-friendly items. The respondents' positive EC has formed a positive or favourable perception of eco-friendly items.

Kalaiselvi T (2015) scrutinized the behaviour of consumers from Tamilnadu in relation to white goods in his thesis. The study aims at identifying the purchase decision making process in the purchase of particular brand of selected white goods such as refrigerator, washing machine and air conditioner and how far the products' performance meets the expectation of consumers. The study also attempts to evaluate the consumer's satisfaction towards their experience at the retail outlet and about the quality of after sales service received. Total sample size of 517 consumers was taken into consideration. Chi-square Analysis, Z Test, ANOVA Test, Herny Garrett's test, factor Analysis and other tests were applied for data analysis. The findings indicate that the services provided by retail outlets provide high level of satisfaction to consumers. Along with that, it also states that, energy star rated products helps consumers to make an informed decision.

D.Padmavathi (2015) in her thesis sought to evaluate the respondents' level of environmental awareness and concern. In relation to a few products, the researcher

attempted to determine the factors that influence their environmentally conscious purchases as well as investigate the obstacles to such purchases. The purpose of the thesis was to examine how frequently respondents bought certain environmentally friendly products. Simple percentages, weighted averages, mean scores, ANOVA, chi-square tests, factor analysis, Cronbach alpha, cluster analysis, and the Likert scaling approach were the statistical techniques used to analyse the data. Karl Pearson's correlation was also used. The results indicate that the various groups of green consumers differed significantly in how frequently they made purchases. The ANOVA results showed that the groups of respondents based on gender, marital status, age, education, and occupation did not significantly differ in the frequency of purchases. Nonetheless, there were notable variations between the different income brackets.