*Ramanujan International Journal of Business and Research*, 2024, 9(1), 44-56

**doi:** https://doi.org/10.51245/rijbr.v9i1.2024.1451
**P-ISSN:** 2455-5959
**E-ISSN:** 2583-0171

ARTICLE

# A study of motivators impacting the Purchase Intention of Refurbished Electronic Goods: An Empirical Investigation of Generation Z

Shweta Bansal [1, *], Sadaf Siraj [2, †], Syeedun Nisa [3, ‡] and Kajal Mittal [4, §]

[1]Department of Management, School of Management and Business Studies, Jamia Hamdard University, New Delhi and [2]Department of Management, School of Management and Business Studies, Jamia Hamdard, New Delhi and [3]Department of Management, School of Management and Business Studies, Jamia Hamdard, New Delhi and [4]School of Management Studies, IGNOU, New Delhi

[*]sbansal013@gmail.com
[†]sadafsiraj@jamiahamdard.ac.in
[‡]snisa@jamiahamdard.ac.in
[§]kajal.mittal60@gmail.com

## Abstract

This study analyses the motivators influencing Generation Z's intention to purchase refurbished electronic goods, a critical aspect of achieving SDG 12 for responsible consumption and production. Using the extended Theory of Planned Behaviour (TPB), the research integrates perceived benefits (PB), product knowledge (PK), and perceived risk (PR) to examine their impact on purchase intention (PI). Data from 215 students across three Indian universities were analysed through Structural Equation Modelling with Smart PLS 3.0. Findings indicate that purchase attitude (PA), perceived behavioural control (PBC), subjective norms (SN), PB, and PR significantly influence PI for refurbished electronics. Surprisingly, PI is not significantly impacted by the PK. Attitude emerged as a significant mediating variable affecting PI for refurbished electronic goods. This research is among the pioneering empirical studies focusing on Gen Zs motivations in the context of refurbished electronics, a sector ripe for growth yet underexplored in academic literature. Unlike studies on broader sustainable consumption, this paper uniquely addresses the intersection of TPB with additional constructs specific to refurbished goods. The insights are valuable for companies in shaping business models and marketing strategies that highlight the benefits and mitigate the risks associated with refurbished products. For policymakers, the findings support initiatives to foster sustainable consumption and contribute to achieving net zero carbon emissions by 2050. Overall, the study's focus on a significant and emerging market segment enhances its relevance to sustainable economic practices and consumer behavior literature. This study underscores refurbished electronics' potential to transform consumption patterns, aligning with SDG 12 goals.

**Keywords**: Refurbished, e-waste, purchase intention, consumers, SDG, Theory of Planned Behavior.

## 1 Introduction

Copyright ©2024 Ramanujan International Journal of Business and Research. Published by Ramanujan College. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

### 1.1 E-waste and the world

As the world grapples with increasing environmental concerns, civil societies, governments, policymakers, corporations and consumers have realised the gravity of the situation and the pressing need to take corrective actions. With the rising purchase, usage and disposition of electronic products, E-waste has emerged as one of the most significant areas of concern. According to "E-waste (Management) Rules, e-waste includes electrical and electronic equipment (EEE) including solar photo voltaic modules or panels or cells, whole or in part, discarded as waste by consumers as well as rejected from manufacturing, refurbishment and repair processes" (CPCB, Central Pollution Control Board,2022). According to the Platform for Accelerating the Circular Economy (PACE) report and the UN E-Waste Coalition (2019), "global e-waste production will reach 120 million tons annually by 2050 if current trends continue. India is the top third country in the world generating e-waste" (Biswas ,2020)

One solution to reduce e-waste and bring sustainability is refurbishing the goods, which involves returning the goods to a manufacturer or vendor for various reasons. These products are typically electronics and electrical. Before being sold, refurbished devices are examined for functioning and flaws and generally sold at a discount. This study differentiates itself from extant literature on TPB and sustainable consumption through several key aspects. Firstly, while TPB has been widely applied to understand consumer intentions towards various green products like organic foods or sustainable fashion (Patel et al. 2022), this research specifically focuses on refurbished electronic goods, a rapidly growing yet understudied sector (Wang et al., 2016). Given the significant environmental impact of electronic waste, the study's focus on refurbished electronics addresses a critical area where sustainable practices can have a profound effect (Lee et al., 2021). This choice is particularly relevant as refurbished electronics offer a dual advantage of economic savings and environmental sustainability, aligning well with the pressing need to manage e-waste effectively.

Secondly, unlike traditional applications of TPB that primarily consider PA, SN and PBC, this study extends the TPB framework by incorporating additional variables -PB, PK and PR (Chen & Tung, 2014; Cronan et al., 2018). These factors are crucial in refurbished electronics, where consumer perceptions about the economic and environmental benefits, familiarity with refurbished products, and concerns over product quality and reliability significantly influence purchasing decisions (Thorn & Rogerson, 2002). Integrating these variables provides a more comprehensive understanding of the factors driving purchase intentions for refurbished electronics.

Moreover, the research focuses on Gen Z, a demographic that is both environmentally conscious and technologically adept, making them pivotal in driving the adoption of sustainable practices (Schenarts, 2020). By targeting a diverse sample of university students from three major Indian institutions, the study captures insights into the attitudes and behaviours of a segment of consumers who will be increasingly influential in shaping future market trends (Seemiller & Grace, 2018). This demographic focus is particularly opportune as Generation Z's purchasing power and influence continue to grow, making their sustainable consumption practices crucial for the broader market's shift towards sustainability.

Additionally, the use of SEM with Smart PLS.0 for data analysis allows for a nuanced understanding of the complex interplay between various motivators impacting purchase intentions (Kashyap et al., 2019). This methodological rigour, combined with the study's focus on a specific and emerging market segment, sets it apart from existing studies and provides valuable insights for both academic research and practical applications in sustainable consumption and marketing strategies (Conner & Armitage, 1998). Through these unique contributions, the study offers a deeper insight into how refurbished electronics can play a pivotal role in reducing e-waste and promoting sustainable consumption, especially among the younger generation.

### 1.2 Refurbished market and its future scope

Thierry et al. (1995) posit, "The purpose of refurbishing is to bring used products up to specified quality. Quality standards are less rigorous than those for new products". Refurbishing is the "process of disassembling, cleaning, inspecting, repairing, replacing, and reassembling the components of a part or product to like new conditio" (Thorn & Rogerson, 2002). As per Rule 3(ff) of the E-Waste (Management) Rules, 2016, "refurbishment means repairing used electrical and electronic equipment to increase its working life and selling it in the market or returning it to the owner". (CPCB, Central Pollution Control Board, 2015)

The global refurbished smartphone market shows a rising trend, with an increase of 15% yearly in 2021 from 2020. According to the Redseer report, the market size of India's used smartphones, including refurbished ones, will reach USD 10 billion by FY 26. Apple is the leading global player in the refurbished smartphone market with more than 40% share, followed by Samsung with a huge margin, whereas the major Chinese players, such as Oppo and Vivo, saw a growth spill in Chinese and Indian markets. As per estimates by Statista (2022) the market for refurbished consumer electronics was estimated to generate the highest revenue in 2022 which is approx. USD 55.6 billion and it is forecasted to rise to USD 120 billion by 2026 (Smith, 2022).

### 1.3 Refurbished Electronic Goods and Sustainable Development Goals

According to Lee et al., 2021, "a smartphone generates an average of 8 kg of emissions during its working life, commonly between 2 and 5 years". Since the refurbishment process extends the lifespan of already manufactured electronics, it helps reduce e-waste and CO2 emissions. This process leads to sustainable production and consumption, thereby contributing to

the targets of Sustainable Development Goal 12. Sustainable consumption by adopting refurbished electronics can serve as a tool to lower the effect of increasing electronic waste and greenhouse gases on the earth, leading to a more resilient and sustainable future practice.

### 1.4 Generation Z and Sustainable Consumption

Generation Z members comprise the youngest generation of consumers born in the period from 1993 to 2012. This age cohort demonstrates the characteristics of "technology adoption, risk-taking, pragmatism, individualism and a sense of financial responsibility" (Schenarts, 2020). Gen Z is the generation facing serious environmental challenges such as climate change, and their involvement is essential to ensure ecological sustainability. Thus, this implies that Generation Z follows a more genuine approach to creating a sustainable environment for all. (Seemiller and Grace 2018). There is inadequate research and information available on Gen Z's PI towards green products, like refurbished products in general and electronics in particular. Thus, it becomes imperative to study and analyse the Generation Z's PI towards refurbished goods.

## 2 REVIEW OF LITERATURE

### 2.1 Theory of Planned Behaviour (TPB)

The TPB extends the prior Theory of reasoned action (TRA), which holds that behavioural intention plays an important role in determining an individual's purchase behaviour. The TPB provides a strong theoretical base to understand and analyse the green PI and behaviour of the consumers (Chen & Tung, 2014; Cronan et al., 2018; Wang et al., 2016). Three factors-PA, SN and PBC-jointly shape a person's behavioural intention; these factors impact that person's actual behaviour (Fishbein & Ajzen, 1975). TPB holds that the joint effects of SN, PA and PBC determine the behavioural intention of an individual. (Ajzen, 1991; Wang et al., 2018).

#### *2.1.1 Purchase Attitude (PA)*

Attitude refers to an individual's predisposition to behave in a positive or negative manner. In 1993, Irland put forth a definition of attitude as a cognitive and neurological state of preparedness that influences an individual's reactions to the situations they encounter. Previous studies consider attitude an essential factor in purchasing decisions (Ajzen, 1991; Hini et al., 1995; Cheng et al., 2006; Hamzaoui-Essoussi & Linton, 2014). According to Wang et al.(2018a), PI is affected by attitude and PBC. In their study, Srivastava and Mahendar (2018) concluded that Customers' attitude significantly and positively affects the households' intention to purchase the solar products. According to Lestari et al 2020 there exists significant positive effect of attitude towards the intention of purchasing green products. The study conducted by Tunji-Olayeni, P in 2024 posits that attitude is the utmost significant predictor in the intention of the construction professionals to adopt the green construction in South Africa.

On the basis of above discussion, following are the hypothesis

H1. The purchase attitude toward refurbished goods affects the consumers' purchase intention towards refurbished electronics.

#### *2.1.2 Subjective norms (SN)*

Subjective norms refer to "people's perceptions of whether essential people would want them to engage in a particular behaviour"(Taylor & Todd, 1995). Mhatre and Srivatsa (2019) indicated significant impact of SN on the PI of millennial towards refurbished smartphones. SN are the direct antecedents to the PI of remanufactured/refurbished goods (Gaur et al., 2018; Park and Lin, 2020; Zhuang et al., 2021, Jim'enez-Parra et al., 2014; Ma et al., 2017; Khor and Hazen, 2017; Wang et al., 2018a; Singhal et al., 2019. The study by Bulsara and Vaghela (2022) indicated that SN exerts an influence on the online shopping intentions of Indian millennial consumers when it comes to electronic products.

H2: The subjective norms affect the purchase attitude of consumers towards refurbished electronics.
H3: The subjective norms affect the purchase intention of consumers of refurbished electronics.
H4: The subjective norms affect the purchase intention of consumers towards refurbished electronics with attitude as the mediator.

#### *2.1.3 Perceived behavioural control (PBC)*

"The extent to which individuals believe that they have control over their behaviour is reflected in perceived behavioural control" (Taylor & Todd, 1995). Wang et al. (2018a) concluded that PBC shows a positive and significant correlation with the intention to purchase remanufactured products in China. Srivastava and Mahendar (2018) also concluded the presence of a significant and positive impact of PBC on the consumers' intention to purchase household solar products. Similarly, Denyse (2018) find a notable correlation between PBC and PI concerning the buying habits of Generation Y in Rwanda.

H5. Perceived behavioural control affects the purchase attitude of consumers towards refurbished electronics.
H6. Perceived behavioral control affects the purchase intention of consumers towards refurbished electronics.

H7. Perceived behavioral control affects the purchase intention of of consumers refurbished electronics with attitude as the mediator.

Earlier researches have pointed the need for more variables impacting the behaviour for the products even after considering the TPB (Conner & Armitage, 1998). Three critical variables that play a significant role are PR, PK and PB. However, little work has been done to show their relationship with the variable PI to purchase refurbished electronics.

### 2.2 Perceived risk (PR)

PR is "a combination of uncertainty plus seriousness of outcome involved, and the expectation of losses associated with the purchase and acts as an inhibitor to purchase behavior" (Peter & Ryan, 1976). People generally perceive a certain level of uncertainty regarding their safety, usefulness, and performance (Sweeney et al., 1999). Grewal et al. (1994) identified six types of perceived risks in their studies: "performance risk, financial, privacy, social, physical and time risk".

Since risk perception is the possible expected loss, it negatively influences a buyer's purchase attitude (Featherman & Pavlou, 2003). In the context of refurbished electronics, PR is derived from the "existence of asymmetric information and the difficulty in achieving product information" (Hamzaoui-Essoussi & Linton, 2014)

According to Mitchell and Boustani (1994), consumers are likelier to minimise the perceived risk while purchasing than to maximise the perceived value. Studies by Featherman and Pavlou (2003) and Forsythe and Shi (2003) confirm that PR directly impacts consumers' purchase intention. PR negatively affects the intention of the buyers to purchase refurbished speakers (Wallner et al. 2024)

According to the TPR, the following hypotheses can be developed:

H8. Perceived risk affects the purchase attitude of customers towards refurbished electronics.
H9. Perceived risk affects the purchase intention of customers towards refurbished electronics.
H10. Perceived risk affects the purchase intention of customers towards refurbished electronics with attitude as the mediator.

### 2.3 External variables

#### *2.3.1 Product knowledge (PK)*

Generally, PK refers to understanding the product concept and its features by the customer or, in other words, how familiar the consumer is regarding the products. The PI can be influenced by the knowledge possessed by the consumers of a product in many ways. Rao and Monroe (1988) find that consumers' purchase behaviour is influenced by PK in the sense that the latter controls consumers' information processing. Wahjudi et al. (2018) found a positive correlation between PK and PI of remanufactured short-life cycle products, mainly mobile phones in Indonesia. According to Saleem et al. (2017), knowledge about frozen foods significantly influences predicting the products' purchase intentions.

Thus, the hypotheses formulated are as follows:
H11. Product knowledge affects the purchase attitude of customers towards refurbished electronics.
H12. Product knowledge affects the purchase intention to buy refurbished electronics.
H13. Product Knowledge affects the purchase intention of customers towards refurbished electronics with attitude as the mediator.

#### *2.3.2 Perceived benefit (PB)*

Refurbished products provide social as well as personal benefits. Personal benefits are achieved in the form of huge savings in terms of cost. Social benefits are provided in the form of resource and energy savings and e-waste reductions by enhancing the life of electronic products. Mhatre and Srivatsa (2019) identified the determinants that affect the millennial and Generation X consumers' intention to purchase refurbished mobile phones. The paper finds the significant impact of PB on the PI of Generation X consumers.

Therefore, on the basis of the above studies
H14. Perceived benefits affect the purchase attitude of the customers towards refurbished electronics.
H15. Perceived benefits affect the purchase intention to buy refurbished electronics.
H16. Perceived benefits affect the consumers' purchase intention to buy refurbished electronics with attitude as the mediator.

## 3 METHODOLOGY

### 3.1 Research Design

The present research employs a quantitative method to evaluate and analyse the relationship of different variables of TPB on the consumers' PI towards refurbished electronic goods. The current methodology allows the analysis findings to be generalised upon the population and helps predict and explain a particular phenomenon (Chawla & Sondhi, 2020).

### 3.2 Questionnaire development

The questionnaire has been adapted from Wang et al. (2013) and Taylor & Todd (1995). The earlier work was done on remanufactured products which was adapted for refurbished electronics. The instrument included the basic demographic information about the respondents in various categories such as gender, income, occupation, age and education level followed by the elementary meaning of the refurbished products. The next part covered the seven constructs, which are PK, PA, PR, SN, PBC, PB and PI measured on a seven-point Likert scale ranging from very strongly disagree (1), to very strongly agree (7). The constructs were based on the earlier literature of TPB along with some external factors. To assess the reliability of the constructs, scores of Cronbach alpha and composite reliability as given in Table 1 showed strong and significant reliability results. To assess the convergent validity of the survey development the values of AVE as shown in Table 1 greater than 0.5 as specified by Fornall and Larcker,1981 and Kumar & Singh 2022 and more than 0.6 as specified by Henseler (2017)

### 3.3 Sampling and Data Collection

The purposive sampling method was used for this study, and students pursuing undergraduate and post-graduate programmes at three different universities of Delhi were approached so that the findings could be generalised as this sample appropriately represented Gen Z consumers. Delhi's role as a national capital and its diverse student groups offer a more representative sample of Indian Gen Z, consistent with findings from studies on diverse urban populations. The population targeted for this study was Gen Z which are "born between 1995 and 2010" (Seemiller & Grace, 2018). According to Ha, Jeon, and Park's (2023) research, college students with access to environmental education were far more inclined to adopt a green lifestyle than their peers without such exposure.

The data through online surveys was collected from the respondents of diverse demographics through social media platforms. Delhi, being the national capital, was chosen to conduct the study. Additionally, the heterogeneity and diversity of students from all over India reduce the impact of regional bias and provide a holistic and composite portrayal of Indian college students. Delhi's diverse and cosmopolitan student population helped counteract regional bias, as the city attracts students from across India, providing a microcosm of the nation's Gen Z demographic.

The sample was gathered following the Structural Equation Modelling (SEM) recommendations, using the general formula ($n$ = 5$x$ number of items). The inquiry used 22 indicator variables, multiplying 22 by five results in 110, indicating a minimal sample size for analysis. Nevertheless, a sample of 215 was finally used to improve study accuracy and reduce error susceptibility. Moreover, the larger-than-required sample size of 215, compared to the minimum of 110 as recommended for Structural Equation Modeling (SEM), enhances the robustness of the findings and reduces error susceptibility (Wolf et al., 2013). The sample comprised students between 18 and 25 years of age. Further, data was collected from October 2023 to Feb 2024. Collecting data over this period helped in maintaining temporal consistency, and any significant external influences during this period were noted to understand their impact on the responses. Three hundred students were approached; out of 226 responded, after preliminary screening, 215 responses were found valid. The respondents' demographic profile consisted of age, gender, and education qualification. 95 respondents were female (44%), and 120 were male (56%) out of the total of 215 responses collected. Also, Among the total respondents, 45% were undergraduates and 55% were post-graduates.

## 4 ANALYSIS AND INTERPRETATION

### 4.1 Measurement Model

In the present study, Smart-PLS 3.0 (Ringle et al., 2015) was adopted for data analysis, which is the most popular tool for analysis used in social sciences research (Haenlein & Kaplan, 2004). The software is based on structural equation modelling and measures both the measurement and structural models at the same time (Hsiao et al., 2017; Kumar & Singh, 2022). The present study was conducted in two phases: measurement and structural model (Abbasi et al., 2021). The measurement model was evaluated by considering Factor Loading, Composite Reliability, Average Variance Extracted (AVE), and Discriminant Validity.

#### *4.1.1 Construct Reliability*

To assess construct reliability, the Cronbach alpha & composite reliability values play a significant role, the values of both are given in Table 1. As represented in Table 1 the values of composite reliability and Cronbach's alpha for all the constructs are more than 0.7, thus representing good reliability (Oliveira et al., 2016; Fornell & Larcker, 1981).The convergent validity was achieved based on average variance extracted (AVE) as the values were found to be greater than 0.5 (Fornell & Larcker, 1981; Kumar & Singh, 2022) i.e. more than 0.6 as specified by Henseler (2017).

Latent variables are thus found to have internal consistency, meaning that variance is evident among all the indicator variables that are loading on the latent variables (i.e., Purchase Intention).

**Figure 1: Measurement Model**

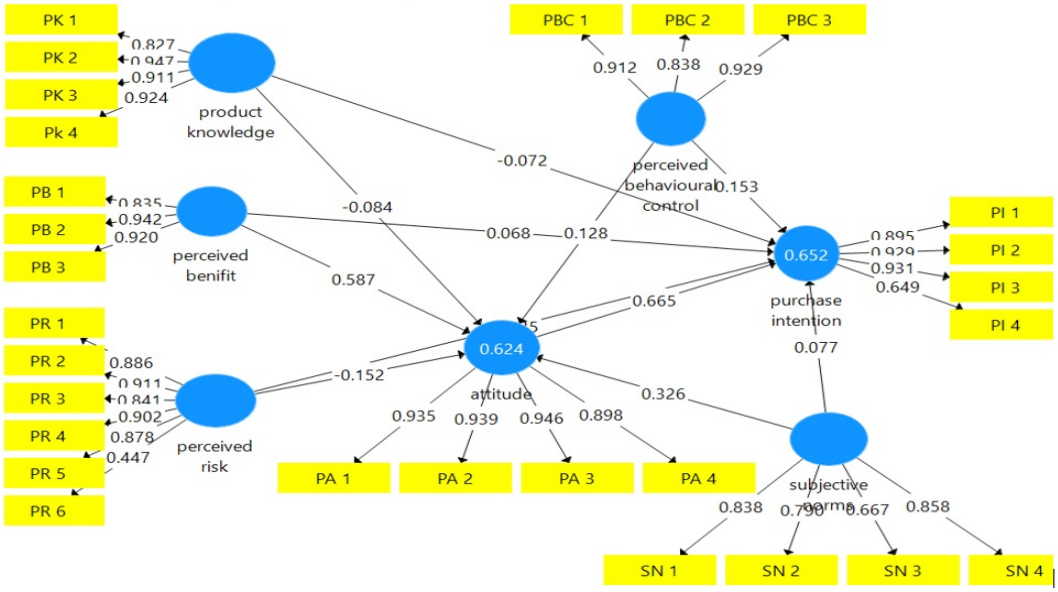



**Table 1: Cronbach alpha, Composite reliability & Average Variance Extracted (AVE)**

| | Cronbach's Alpha | Rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| Attitude | 0.947 | 0.948 | 0.962 | 0.864 |
| Perceived Behavioural Control | 0.876 | 0.928 | 0.923 | 0.799 |
| Perceived Benefit | 0.882 | 0.885 | 0.928 | 0.811 |
| Perceived Risk | 0.903 | 0.954 | 0.926 | 0.684 |
| Product Knowledge | 0.924 | 0.945 | 0.947 | 0.816 |
| Purchase Intention | 0.875 | 0.905 | 0.917 | 0.738 |
| Subjective Norms | 0.797 | 0.798 | 0.87 | 0.627 |

#### 4.1.2 *Construct's Validity*

By examining whether a scale accurately captures the idea that it is intended to assess, its validity can be verified. To assess construct validity, convergent and discriminant validity are established. Both convergent and discriminant validity are crucial in reflectively measured constructs. Convergent validity is attained when the items in a given measure concur in their representation of the underlying construct. The Average Variance Extracted (AVE) value is evaluated to gauge convergent validity. The average of the squared loadings of each indicator linked to a certain construct is used to determine the Average Variance Extracted (AVE). To statistically prove that the convergent validity is attained, the Average Variance Extracted (AVE) value must be greater than 0.50. The Average Variance Extracted (AVE) value for various variables is displayed in Table 1. Since AVE value of all the constructs is more than 0.5, we can conclude that the study's constructs have attained convergent validity.

#### 4.1.3 *Discriminant validity*

To ascertain the constructs' distinctiveness in the investigation, Discriminant validity is used. It proves the study's constructs have distinct identities and are not highly connected. The Fornell and Larcker criteria, cross-loading, and heterotrait-monotrait ratio are three alternate techniques used to demonstrate discriminant validity in the SMART-PLS. (refer Tables 2, 3, and 4 for the values).

i. *Fornell and Larcker Criterion*: According to this criterion, discriminant validity will be established if the square root of the average variance extracted (AVE) for a particular construct would be greater than the correlation of that particular construct with other constructs or if the construct shares more characteristics with its indicators than with other constructs.

ii. *Cross-Loading*: As per the cross-loading criterion, an indicator's outer loading with its construct must be bigger than any of its cross-loadings (correlations) with other constructs.

iii. *HTMT (Heterotrait-Monotrait Ratio of correlations)*: A popular metric for evaluating discriminant validity in Smart PLS is the HTMT (Heterotrait-Monotrait Ratio of Correlations). Discriminant validity in context to a measuring model refers to the degree to which a construct differs from other constructs in the model. The ratio of the average correlations between the latent variables and their corresponding indicators to the correlations between the latent variables is used

to calculate HTMT. The HTMT scores range from 0 to 1, with values under 0.85 indicating strong discriminant validity and values over 0.85 perhaps indicating weaker discriminant validity. If the HTMT values are greater than 0.85, it may be necessary to reevaluate the measurement model and to take into account updating the indicators or changing the model to improve the discriminant validity. Heterotrait-monotrait ratio of correlations (HTMT) is considered a necessary condition to confirm the discriminant validity as suggested by (Henseler et al., 2016). The values of HTMT are meeting the threshold range (Gold et al., 2001; Henseler et al., 2015) (see Table 4). Thus, discriminant validity is achieved.

**Table 2: Fornell and Larcker criteria**

| | Attitude | Perceived Behavioural Control | Perceived Benefit | Perceived Risk | Product Knowledge | Purchase Intention | Subjective Norms |
|---|---|---|---|---|---|---|---|
| Attitude | 0.93 | | | | | | |
| Perceived behavioural control | 0.428 | 0.894 | | | | | |
| Perceived benefit | 0.729 | 0.468 | 0.9 | | | | |
| Perceived risk | 0.215 | 0.399 | 0.41 | 0.827 | | | |
| Product knowledge | 0.352 | 0.704 | 0.457 | 0.428 | 0.903 | | |
| Purchase intention | 0.796 | 0.439 | 0.621 | 0.192 | 0.32 | 0.859 | |
| Subjective norms | 0.624 | 0.444 | 0.561 | 0.34 | 0.439 | 0.555 | 0.792 |

**Table 3: Cross Loadings**

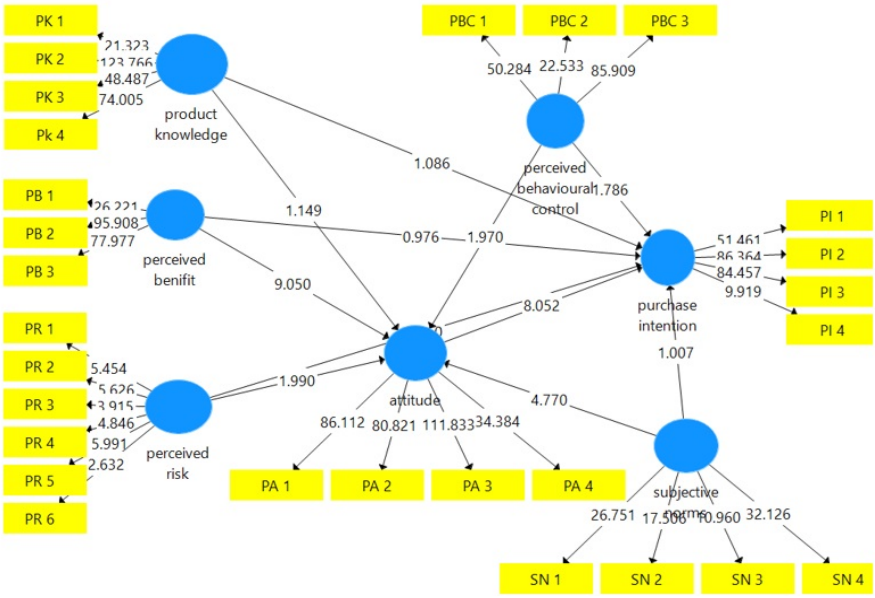
| | Attitude | Perceived behavioural control | Perceived benefit | Perceived risk | Product knowledge | Purchase intention | Subjective norms |
|---|---|---|---|---|---|---|---|
| PA 1 | 0.935 | 0.372 | 0.726 | 0.222 | 0.325 | 0.722 | 0.563 |
| PA 2 | 0.939 | 0.409 | 0.69 | 0.243 | 0.32 | 0.731 | 0.62 |
| PA 3 | 0.946 | 0.396 | 0.663 | 0.127 | 0.326 | 0.747 | 0.585 |
| PA 4 | 0.898 | 0.413 | 0.631 | 0.207 | 0.339 | 0.759 | 0.552 |
| PB 1 | 0.63 | 0.48 | 0.835 | 0.481 | 0.481 | 0.537 | 0.573 |
| PB 2 | 0.678 | 0.423 | 0.942 | 0.355 | 0.399 | 0.584 | 0.495 |
| PB 3 | 0.661 | 0.362 | 0.92 | 0.277 | 0.357 | 0.555 | 0.451 |
| PBC 1 | 0.367 | 0.912 | 0.456 | 0.422 | 0.688 | 0.333 | 0.422 |
| PBC 2 | 0.272 | 0.838 | 0.359 | 0.313 | 0.62 | 0.336 | 0.303 |
| PBC 3 | 0.47 | 0.929 | 0.434 | 0.34 | 0.6 | 0.478 | 0.444 |
| PI 1 | 0.718 | 0.398 | 0.512 | 0.095 | 0.286 | 0.895 | 0.479 |
| PI 2 | 0.747 | 0.408 | 0.55 | 0.099 | 0.31 | 0.929 | 0.473 |
| PI 3 | 0.747 | 0.395 | 0.589 | 0.157 | 0.246 | 0.931 | 0.523 |
| PI 4 | 0.484 | 0.298 | 0.49 | 0.39 | 0.266 | 0.649 | 0.439 |
| PK 1 | 0.27 | 0.557 | 0.444 | 0.447 | 0.827 | 0.242 | 0.345 |
| PK 2 | 0.365 | 0.675 | 0.449 | 0.358 | 0.947 | 0.364 | 0.45 |
| PK 3 | 0.319 | 0.63 | 0.399 | 0.415 | 0.911 | 0.261 | 0.378 |
| PR 1 | 0.199 | 0.416 | 0.438 | 0.886 | 0.447 | 0.177 | 0.302 |
| PR 2 | 0.184 | 0.386 | 0.394 | 0.911 | 0.416 | 0.189 | 0.276 |
| PR 3 | 0.029 | 0.345 | 0.269 | 0.841 | 0.409 | 0.027 | 0.223 |
| PR 4 | 0.134 | 0.352 | 0.332 | 0.902 | 0.362 | 0.098 | 0.292 |
| PR 5 | 0.252 | 0.28 | 0.398 | 0.878 | 0.335 | 0.194 | 0.352 |
| PR 6 | 0.069 | 0.177 | -0.036 | 0.447 | 0.108 | 0.116 | 0.128 |
| PK 4 | 0.307 | 0.673 | 0.361 | 0.346 | 0.924 | 0.269 | 0.399 |
| SN 1 | 0.454 | 0.368 | 0.412 | 0.228 | 0.353 | 0.393 | 0.838 |
| SN 2 | 0.463 | 0.258 | 0.372 | 0.183 | 0.181 | 0.484 | 0.79 |
| SN 3 | 0.53 | 0.424 | 0.539 | 0.385 | 0.499 | 0.399 | 0.667 |
| SN 4 | 0.516 | 0.352 | 0.444 | 0.273 | 0.351 | 0.467 | 0.858 |

**Table 4: Heterotrait-Monotrait ratio**

| | Attitude | Perceived behavioural control | Perceived benefit | Perceived risk | Product knowledge | Purchase intention |
|---|---|---|---|---|---|---|
| Attitude | | | | | | |
| Perceived Behavioural Control | 0.453 | | | | | |
| Perceived Benefit | 0.798 | 0.531 | | | | |
| Perceived Risk | 0.196 | 0.45 | 0.434 | | | |
| Product Knowledge | 0.373 | 0.788 | 0.509 | 0.468 | | |
| Purchase Intention | 0.868 | 0.489 | 0.715 | 0.224 | 0.356 | |
| Subjective Norms | 0.716 | 0.522 | 0.671 | 0.375 | 0.508 | 0.669 |

## 4.2 STRUCTURAL MODEL

**Figure 2: Structural Model**




The study's goals were met by examining the association between several variables and PI. The path coefficient and "p" value were taken into account to verify the hypothesis. Following hypothesis were designed for the study:
H1. The purchase attitude toward refurbished goods affects the consumers' purchase intention towards refurbished electronics.

H2: *The subjective norms affect the purchase attitude of consumers towards refurbished electronics*.

H3: *The subjective norms affect the purchase intention of consumers of refurbished electronics*.

H4: *The subjective norms affect the purchase intention of consumers towards refurbished electronics with attitude as the mediator*.

H5. *Perceived behavioural control affects the purchase attitude of consumers towards refurbished electronics*.

H6. *Perceived behavioural control affects the purchase intention of of consumers refurbished electronics*.

H7. *Perceived behavioural control affects the purchase intention of of consumers refurbished electronics with attitude as the mediator*.

H8. *Perceived risk affects the purchase attitude of customers towards refurbished electronics*.

H9. *Perceived risk affects the purchase intention of customers towards refurbished electronics*.

H10. *Perceived risk affects the purchase intention of customers towards refurbished electronics with attitude as the mediator*.

H11. *Product knowledge affects the purchase attitude of customers towards refurbished electronics*.

H12. *Product knowledge affects the purchase intention to buy refurbished electronics*.

H13. *Product Knowledge affects the purchase intention of customers towards refurbished electronics with attitude as the mediator*.

H14. *Perceived benefits affect the purchase attitude of the customers towards refurbished electronics*.

H15. *Perceived benefits affect the purchase intention to buy refurbished electronics*.

H16. *Perceived benefits affect the consumers' purchase intention to buy refurbished electronics with attitude as the mediator*.

**Table 5: Direct Effects**

| | | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values | Hypotheses |
|---|---|---|---|---|---|---|---|
| H1 | Attitude ->Purchase Intention | 0.656 | 0.645 | 0.081 | 8.052 | 0 | Accepted |
| H2 | Subjective Norms ->Attitude | 0.326 | 0.328 | 0.068 | 4.77 | 0 | Accepted |
| H3 | Subjective Norms ->Purchase Intention | 0.295 | 0.3 | 0.093 | 3.171 | 0.002 | Accepted |
| H5 | Perceived Behavioural Control ->Attitude | 0.128 | 0.128 | 0.065 | 1.97 | 0.049 | Accepted |
| H6 | Perceived Behavioural Control ->Purchase Intention | 0.232 | 0.233 | 0.089 | 2.607 | 0.009 | Accepted |
| H8 | Perceived Risk ->Attitude | -0.153 | -0.132 | 0.077 | 1.99 | 0.047 | Accepted |
| H9 | Perceived Risk ->Purchase Intention | -0.123 | -0.103 | 0.088 | 1.404 | 0.16 | Rejected |
| H11 | Product Knowledge ->Attitude | -0.084 | -0.088 | 0.073 | 1.149 | 0.251 | Rejected |
| H12 | Product Knowledge ->Purchase Intention | -0.128 | -0.13 | 0.079 | 1.61 | 0.107 | Rejected |
| H14 | Perceived Benefit ->Attitude | 0.588 | 0.58 | 0.065 | 9.05 | 0 | Accepted |
| H15 | Perceived Benefit ->Purchase Intention | 0.459 | 0.449 | 0.081 | 5.679 | 0 | Accepted |

**Table 6: Specific Indirect effects**

| | | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values | Hypotheses |
|---|---|---|---|---|---|---|---|
| H4 | Subjective Norms ->Attitude ->Purchase Intention | 0.214 | 0.21 | 0.046 | 4.685 | 0 | Accepted |
| H7 | Perceived Behavioural Control ->Attitude ->Purchase Intention | 0.084 | 0.083 | 0.045 | 1.980 | 0.049 | Accepted |
| H10 | Perceived Risk ->Attitude ->Purchase Intention | -0.1 | -0.085 | 0.05 | 1.999 | 0.046 | Accepted |
| H13 | Product Knowledge ->Attitude ->Purchase Intention | -0.055 | -0.058 | 0.049 | 1.122 | 0.262 | Rejected |
| H16 | Perceived Benefit ->Attitude ->Purchase Intention | 0.385 | 0.374 | 0.063 | 6.092 | 0 | Accepted |

We have performed 5000 bootstrapping procedure to test the hypotheses of the study as suggested by Hair et al. (2016). This procedure is considered necessary for measuring the path coefficients (Giao 2020). In order to decide if a hypothesis can be accepted or rejected, the following three rules were followed: the beta coefficient has to be compatible with the hypothesis, the T Statistics has to be greater than 1.96, and the P-value has to be less than 0.05 (5%). Table 5 displays the outcomes of the hypothesis test. The current study has Eleven (11) direct hypotheses and five (05) indirect hypotheses. The Eight direct hypotheses (H1, H2, H3, H5, H6, H8, H14 & H15) and Four indirect hypotheses (H4, H7, H10 & H16) were accepted as the P-value was less than 0.05 and t-statistics was above 1.96.

## 5 CONCLUSION AND DISCUSSION

The current study empirically tested the relationship between the factors of TPB along with some external variables like PK and PB that impacts the PI of Generation Z towards refurbished electronic goods. Our study concluded that PBC, PA and SN are significant indicators in predicting the PI of young consumers from Generation Z towards refurbished electronics which supports the earlier literature which is in line with TPB model (Ajzen, 1991; Wang, & Li, 2018, Tunji-Olayeni, P.2024). SN significantly impacts the PI, with attitude as the significant mediator for refurbished goods. This finding supports the previous literature by Mhatre et al. (2019) and and Bulsara et al. (2022), which indicated the considerable effect of SN on the millenial's PI towards refurbished smartphones. The current research also reveals that PI is positively and directly associated with attitude towards the refurbished goods and green products, which aligns with the study of Yadav & Pathak (2016) and Kamalanon et al. 2022.

The current research revealed that PK does not impact the PI of Generation Z consumers for refurbished electronic goods. This finding contrasts previous studies (Rao & Monroe, 1988; Saleem et al., 2018; Wahjudi et al., 2018; Ansu-Mensah, P. (2021)). This indicates that mere knowledge provision regarding the refurbished goods is not enough to trigger the

intention of Gen Z consumers to purchase the refurbished goods; other factors such as price, trust, performance of the goods and credibility regarding the refurbished electronics by providing certifications and warranty, are also required. Other factors such as limited availability of the products make them inaccessible to the buyers impacting the PK and thereby impacting their intention to purchase. Therefore it is imperative to focus on enhancing the product awareness and trust factor among Generation Z to boost the demand.

Negative correlation exists between the risk perception of the consumers towards refurbished goods and their PI with attitude as a mediator, which means that the more the consumers perceive the risks associated with the refurbished products, the lower the positive attitude and, thus, the PI Previous literature supports that Indian consumers perceive that they are environmentally responsible and are worried about it (Chaturvedi et al., 2020; Khare & Kautish, 2020; Kumar & Singh, 2022). This research can also act as a stimulator by the marketers in boosting the PI of the young generation by adding the various factors of environmental benefits in their marketing communications.

## 6 IMPLICATIONS

### 6.1 Practical implications

The current findings of the research helps in providing the valuable insights to marketers regarding the various factors such as lack of product knowledge, attitude towards the product etc. that can influence the PI of Generation Z for the emerging refurbished electronic goods in the market, thereby boosting sustainable production and consumption. This information can help marketers and businesses understand the various perceptions, motivations, preferences and decision-making processes of this demographic segment of Gen Z. The research can also act as an essential tool to leverage their marketing strategies such as mass advertising depicting the values associated with refurbished goods to reach the various categories of targeted generation Z consumers effectively. Since the earlier research literature shows that Generation Z is known for being more socially, environmentally conscious, and sensitive, the current research can guide the government and other decision-making agencies in highlighting the importance of sustainability while purchasing refurbished electronic goods. Businesses and marketers can also identify the various market and knowledge gaps using the present study. Therefore, they can develop different innovative solutions and targets such as the use of enhanced technology and software which can make refurbished goods more attractive and performance-oriented to meet the needs and preferences of this young generation. The policymakers can also contribute the promotion of these green products by emphasizing the various benefits associated with the products such as environmental benefits in the form of reducing electronic waste and the price benefits which make them budget and pocket-friendly which can motivate Generation Z's PA and PK for the products. The government can also help in enhancing the product awareness about their availability, and sustainability benefits by engaging and collaborating with communities and educational organisations to build trust among the youth.

### 6.2 Theoretical Implications

The current research is an addition to the existing body of knowledge available on consumer behaviour, especially within the landscape of the Generation Z segment, which helps in understanding the various social, environmental and psychological factors that can shape their PI for this new emerging refurbished electronic goods market. The current research findings can also contribute to the practical and theoretical understanding of the circular economy concerning the PI of Generation Z. Also, the focus of research aligns with the sustainable principles of reducing electronic waste and promoting sustainable consumption and production patterns by the marketers, which aligns with sustainable development goal 12.

## 7 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The paper seeks to encompass the behavioural intentions of Gen Z consumers but the study was restricted to Gen Z consumers of one metropolitan city involving undergraduate and postgraduate students thereby limiting the possibility of generalization. For the future, a wide area and all sections of the population with different demographics could be included. The paper only utilized the quantitative data to study the intention whereas an integrated approach using qualitative study along with quantitative study can give a much more comprehensive study for future research. There is a gap between product knowledge and PI; future research can be conducted to fill this gap. This study only considered a direct relationship with PI so, in future studies may include a moderation effect. Future studies can also examine factors such as price, eco-certification, brand, trust etc. to broaden the study's scope and provide valuable insights into the consumers' complex behaviour.

## References

Abbasi, G. A., Jagaveeran, M., Goh, Y. N., & Tariq, B. (2021). The impact of type of content use on smartphone addiction and academic performance: Physical activity as moderator. *Technology in Society*, 64, 101521. https://doi.org/10.1016/j.techsoc.2020.101521.

Ansu-Mensah, P. (2021). Green product awareness effect on green purchase intentions of university students: an emerging

market's perspective. *Future Business Journal*, 7(1), 48.
Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T
Biswas, A., Singh, S. G., & Singh, S. G. (2020). E-waste management in India: Challenges and agenda.*Centre for Science and Environment*, 1–58.
Bulsara, H. P., & Vaghela, P. S. (2022). Millennialsą, Online Purchase Intention Towards Consumer Electronics: Empirical Evidence from India. *Indian Journal of Marketing,* 52(2), 53-70. https://doi.org/10.17010/ijom/2022/v52/i2/168154
Chaturvedi, P., Kulshreshtha, K and Tripathi, V. (2020). Investigating the determinants of behavioral intentions of generation Z for recycled clothing: an evidence from a developing economy. *Young Consumers*. https://doi.org/10.1108/YC-03-2020-1110
Chen, M. F., & Tung, P. J. (2014). Developing an extended theory of planned behaviour model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36, 221–230. https://doi.org/10.1016/j.ijhm.2013.09.006
Cheng, S., Lam, T., Hsu, C.H., 2006. Negative word-of-mouth communication intention: an application of the theory of planned behavior. *J. Hospit. Tourism* Res. 30 (1), 95–116. https://doi.org/10.1177/1096348005284269
Conner, M. and Armitage, C.J. (1998), Extending the theory of planned behavior: a review and avenues for further research, *Journal of Applied Social Psychology*, 28(15), 1430–1464. https://doi.org/10.1111/j.1559-1816.1998.tb01685.x
CPCB | Central Pollution Control Board. (2022, May 19). CPCB | Central Pollution Control Board. Retrieved August 25, 2023, https://cpcb.nic.in/e-waste/CPCB Central Pollution Control Board. (2015, June 10).
CPCB | Central Pollution Control Board. Retrieved August 25, 2023, from https://cpcb.nic.in/e-waste/
Cronan, T. P., Mullins, J. K., & Douglas, D. E. (2018). Further understanding factors that explain freshman business students' academic integrity intention and behavior: Plagiarism and sharing homework. *Journal of Business Ethics*, 147(1), 197–220. https://doi.org/10.1007/s10551-015-2988-3
Denyse, M., & Bhagat, D. (2018). Examining the role of intention and perceived behavioral control on purchase of ethical products in Rwanda. *Indian Journal of Marketing*, 48(5). https://doi.org21-35.10.17010/ijom/2018/v48/i5/123442
Featherman, M.S. and Pavlou, P.A. (2003), "Predicting e-service adoption: a perceived risk facets perspective", *International Journal of Human-Computer Studies*, 59(4), pp. 451–474.https://doi.org/10.1016/S1071-5819(03)00111-3
Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA, pp. 420-438.
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50.
Forsythe, S.M. and Shi, B. (2003), "Consumer patronage and risk perceptions in internet shopping", *Journal of Business Research*,56 (11), pp. 867–875.https://doi.org/10.1016/S0148-2963(01)00273-9
Gaur, J., Mani, V., Banerjee, P., Amini, M., Gupta, R., 2018. Towards building circular economy: a cross-cultural study of consumers' purchase intentions for reconstructed products. *Manag. Decis.* https://doi.org/10.1108/MD-07-2018-0728
Giao, Ha. (2020). A Model of Organizational Culture for Enhancing Organizational Commitment in Telecom Industry: Evidence from Vietnam. 10.31219/osf.io/7v6da.
Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, *18*(1), 185-214.
Grewal, D., Gotlieb, J. and Marmorstein, H. (1994), "The moderating effects of message framing and source credibility on the price-perceived risk relationship", *Journal of Consumer Research*, Vol. 21 No. 1, pp. 145–153.https://doi.org/10.1086/209388
Ha, J. W., Jeon, E. C., & Park, S. K. (2023). Status of environmental awareness and participation in Seoul, Korea and factors that motivate a green lifestyle to mitigate climate change. *Current Research in Environmental Sustainability*, *5*, 100211.
Haenlein, M., & Kaplan, A. M. (2004). A beginner's guide to partial least squares analysis. *Understanding statistics*, *3*(4), 283-297.
Hair, Joe & Hult, G. Tomas M. & Ringle, Christian & Sarstedt, Marko. (2016*). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd edition.
Hamzaoui Essoussi, L., Linton, J.D., 2014. Offering branded remanufactured/recycled products: at what price? *Journal of Remanufacturing* 4 (1), 9. https://doi.org/10.1186/s13243-014-0009-9
Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*, 115–135.
Henseler, J., Hubona, G. and Ray, P.A. (2016), Using PLS path modeling in new technology research: updated guidelines, *Industrial Management & Data Systems*, Vol. 116 No. 1, pp. 2–20. https://doi.org/10.1108/IMDS-09-2015-0382
Henseler, J. (2017). *Partial least squares structural equation modeling. Handbook of Marketing*. https://doi.org/10.1007/978-3-319-05542-8_15-1
Hini, D., Gendall, P., Kearns, Z., 1995. *The link between environmental attitudes and behaviour.* Market. Bull. 6 (3), 22–31.
Hsiao, K. L., Shu, Y., & Huang, T. C. (2017). Exploring the effect of compulsive social app usage on technostress and academic performance: Perspectives from personality traits. *Telematics and Informatics*, 34(2), 679–690. 34. https://doi.org/10.1016/j.tele.2016.11.001.
Infographic: Global Refurbished Smartphone Market | 2021. (2022, May 5). Counterpoint Research. Retrieved August 25, 2023, from https://www.counterpointresearch.com/refurbished-smartphone-market-2021-infographic/
Irland, L. C. (1993). Wood producers face green marketing era: Environmentally Sound Products. Wood Technology, 120(2),

34-36. Irland, L.C., 1993.
Jiménez-Parra, B., Rubio, S., Vicente-Molina, M.A., 2014. Key drivers in the behaviour of potential consumers of remanufactured products: a study on laptops in Spain. *J. Clean. Prod.* 85, 488–496. https://doi.org/10.1016/j.jclepro.2014.05.047
Kamalanon, P., Chen, J. S., & Le, T. T. Y. (2022). "Why do we buy green products?" An extended theory of the planned behavior model for green product purchase behavior. Sustainability, 14(2), 689.
Kashyap, H., Lal, M. ., & Makhija, S. . (2019). Consumers' Usage intention towards Mobile Healthcare Applications (MHA): A study of select cities in India. *Ramanujan International Journal of Business and Research*, 4(1), 79–99. https://doi.org/10.51245/rijbr.v4i1.2019.165
Khare, A. and Kautish, P. (2020). Cosmopolitanism, self-identity, online communities and green apparel perception. *Marketing Intelligence & Planning*. 0263-4503 https://doi.org/10.1108/MIP11-2019-0556
Khor, K. S., & Hazen, B. T. (2017). Remanufactured products purchase intentions and behaviour: Evidence from Malaysia. *International Journal of Production Research*, 55(8), 2149–2162. https://doi.org/10.1080/00207543.2016.1194534
Kumar, N., Garg, P., & Singh, S. (2022). Pro-environmental purchase intention towards eco-friendly apparel: Augmenting the theory of planned behavior with perceived consumer effectiveness and environmental concern. *Journal of Global Fashion Marketing*, 13(2), 134–150. https://doi.org/10.1080/20932685.2021.2016062
Lee, P., Calugar-Pop, C., Bucaille, A., & Raviprakash, S. (2021). Making smartphones sustainable: Live long and greener. *Deloitte Insights*. Retrieved August 25, 2023, from https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions/2022/environmental-impact-smartphones.html
Lestari, E. R., Hanifa, K. P. U., & Hartawan, S. (2020, June). Antecedents of attitude toward green products and its impact on purchase intention. In *IOP Conference Series: Earth and Environmental Science* (Vol. 515, No. 1, p. 012073). IOP Publishing.
Ma, L., Su, X., Wang, C., Lin, K., & Lin, M. (2017). Consumers intention to purchase remanufactured electronic products: An empirical study in China. In 2017 *International Conference on Service Systems and Service Management* (pp. 1–6). IEEE. https://doi.org/10.1109/ICSSSM.2017.7996179
Mhatre, P., & Srivatsa, H. S. (2019). Modelling the purchase intention of millennial and Generation X consumers, towards refurbished mobile phones in India. *International Journal of Green Economics*, 13(3–4), 257–275. https://doi.org/10.1504/IJGE.2019.104512
Mitchell, V.W. and Boustani, P. (1994), "A preliminary investigation into re- and post-purchase risk perception and reduction", *European Journal of Marketing*, 28(1), 56–71.https://doi.org/10.1108/03090569410049181
Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61, 404–414. https://doi.org/10.1016/j.chb.2016.03.030.
Park, H. J., & Lin, L. M. (2020). Exploring attitude–behavior gap in sustainable consumption: Comparison of recycled and upcycled fashion products. *Journal of Business Research*, 117, 623–628. https://doi.org/10.1016/j.jbusres.2018.08.025
Patel, H. R., Sharma, M., & Purohit, R.(2022). Role of Organic Certification and Trust in Organic Food Buying Intention: Attitude as a Mediator. *Ramanujan International Journal of Business and Research*, 7(2), 46–55. https://doi.org/10.51245/rijbr.v7i2.2022.324
Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. *Journal of Marketing Research*, 13(2), 184–188. https://doi.org/https://doi.org/10.1177/002224377601300210
Rao, A. R., & Monroe, K. B. (1988). The moderating effect of prior knowledge on cue utilization in product evaluations. *Journal of Consumer Research*, 15(2), 253–264. https://doi.org/10.1086/209162
Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. *Bido, D., da Silva, D., & Ringle, C.(2014). Structural Equation Modeling with the Smartpls. Brazilian Journal Of Marketing*, *13*(2).
Saleem, M. A., Wasaya, A., & Zahra, S. (2017). Determinants of frozen food purchase intentions: Insights from a developing country. *Indian Journal of Marketing*, 47(7), 47–59. https://doi.org/10.17010/ijom/2017/v47/i7/116476
Schenarts, P. J. (2020). Now arriving: surgical trainees from generation Z. *Journal of Surgical Education*, 77(2), 246–253. https://doi.org/10.1016/j.jsurg.2019.09.004
Seemiller, C., & Grace, M. (2018). *Generation Z: A century in the making*. Routledge. https://doi.org/10.4324/9780429442476
Singhal, D., Jena, S. K., & Tripathy, S. (2019). Factors influencing the purchase intention of consumers towards remanufactured products: a systematic review and meta-analysis. *International Journal of Production Research*, 57(23), 7289–7299. https://doi.org/10.1080/00207543.2019.1598590
Smith. (2022). Refurbished Consumer Goods Market Revenue by Category 2022–2026 | Statista. Statista. Retrieved August 25, 2023, from https://www.statista.com/statistics/1337509/refurbished-goods-market-revenue-by-category/
Sondhi, N., & Chawla, D. (2020). Materialistic consumption amongst young Indians: an ethnographic approach. *International Journal of Indian Culture and Business Management*, *21*(4), 507–532.
Srivastava, C., & Mahendar, G. (2018). Intention to adopt sustainable energy: Applying the theory of planned behaviour framework. *Indian Journal of Marketing*, 48(10), 20–33. https://doi.org/20-33.10.17010/ijom/2018/v48/i10/132325
Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment. *Journal of Retailing*, 75(1), 77–105. https://doi.org/10.1016/S0022-4359(99)80005-0
Taylor, S., & Todd, P. (1995). An integrated model of waste management behavior: A test of household recycling and composting intentions. *Environment and Behavior*, 27(5), 603–630. https://doi.org/10.1177/0013916595275001
Thierry, M., Salomon, M., Van Nunen, J., & Van Wassenhove, L. (1995). Strategic issues in product recovery management. *California Management Review*, 37(2), 114–136.

Thorn, B.K., & Rogerson, P. (2002). Take it back. *Iie Solutions, 34*, 34–40.
Tunji-Olayeni, P., Kajimo-Shakantu, K., & Ayodele, T. O. (2024). Factors influencing the intention to adopt green construction: an application of the theory of planned behaviour. *Smart and Sustainable Built Environment*, 13(2), 291–308.
Wahjudi, D., San, G. S., Anggono, J., & Tanoto, Y. Y. (2018). *Factors affecting purchase intention of remanufactured short life-cycle products* (Doctoral dissertation, Petra Christian University).
Wang, J., Wang, S., Xue, H., Wang, Y., & Li, J. ($2018_a$). Green image and consumers' word-of-mouth intention in the green hotel industry: The moderating effect of Millennials. *Journal of Cleaner Production*, 181, 426–436. https://doi.org/10.1016/j.jclepro.2018.01.250
Wang, S., Fan, J., Zhao, D., Yang, S., & Fu, Y. (2016). Predicting consumers' intention to adopt hybrid electric vehicles: using an extended version of the theory of planned behavior model. *Transportation*, 43, 123–143. https://doi.org/10.1007/s11116-014-9567-9
Wang, S., Wang, J., Yang, F., Wang, Y., & Li, J. ($2018_b$). Consumer familiarity, ambiguity tolerance, and purchase behavior toward remanufactured products: The implications for remanufacturers. *Business Strategy and the Environment*, 27(8), 1741–1750. https://doi.org/10.1002/bse.2240
Wang, Y., Wiegerinck, V., Krikke, H., & Zhang, H. (2013). Understanding the purchase intention towards remanufactured product in closed-loop supply chains: An empirical study in China. *International Journal of Physical Distribution & Logistics Management*, *43*(10), 866–888. https://doi.org/10.1108/IJPDLM-01-2013-0011
Wallner, T. S., Haslbeck, J. M., Magnier, L., & Mugge, R. (2024). A network analysis of factors influencing the purchase intentions for refurbished electronics. *Sustainable Production and Consumption,* 46, 617–628.
Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732–739. https://doi.org/10.1016/j.jclepro.2016.06.120
Zhuang, W., Luo, X., & Riaz, M. U. (2021). On the factors influencing green purchase intention: A meta-analysis approach. *Frontiers in Psychology*, 12, 644020. https://doi.org/10.3389/fpsyg.2021