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TOY SAFETY AWARENESS AND SUSTAINABLE TOY PREFERENCES AMONG INDIAN PARENTS: A QUANTITATIVE STUDY

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Abstract
In the age when environmental sustainability and the well-being of children are becoming more of a priority, the safety and environmental friendliness of toys become an issue that parents are concerned about. The research behind this quantitative research paper examines the extent to which Indian parents understand the current standards of toy safety and the preferences of parents towards sustainable materials in toys. The survey involved the use of a structured survey program online amongselected respondents, which collected demographic information (age, gender-related questions, safety-checking behaviours, materials). This research also examines the Awareness of Indian parents about toy safety and regulations. The objectives of this study are to focus on the choice of different shapes of toys, the material of the toys (wooden, plastic, metallic, terracotta, fabric),to ensure that these are chemical-free or biodegradable. As per the health guidelines, do they check the hygiene and physical quality of toys before buying, and are they careful about environment-friendly toys? The mentality of Donation-Acceptance of reused toys.SPSS methodology allows recognizing measurable patterns and associations between demographic groups on the pages of SPSS-like statistical procedures. Chi-square tests were used tounderstand the correlation between the socio-economic status and the tendency to check the safety of toys as well as the correlation between age category and preference in materials. The results indicate a prominent awareness-action gap in parental awareness regarding Indian parenting practices and suggest the necessity of awareness measures being raised, enhanced labelling policies, and marketing sustainable types of toys in the market, corresponding to current safety standards.

Keywords: toy safety, sustainable toys, Indian parents, eco-friendly materials

Introduction

The wellbeing and the sustainability of the toys that children play with in these days have become the focal point of parent, teachers and government leaders all around the world. Blazing globalization and mass production in the past decades resulted in the flow of low price toys, most of which are toys whose materials are non-biodegradable, chemical-pollution prone, or synthetic. As important aids in children development, toys come with their fair share of concerns regarding their design and composition which pose serious questions with respect to their long term implications on the health of the children and the sustainability of the environment. Safe handling of choking hazards and toxic paints, wholesome plastics harmful to hormones, unusual durability actions have induced most countries to set up cautionary toys protection principles. But compliance and diffusion of these standards are not equally in force in most developing nations where India is one.India is a land of children and the fastest growing consumer market in the world. Many children present a great challenge to multicultural approach to toys, bringing about a clash of traditions and modernity within the same context. On the one hand, the traditional materials such as wood, terracotta, and cloth have been preferred due to their cultural and environmental friendliness(Karpagam and Yathishchandra 2024). Meanwhile on the other side, current manufacturing and globalization

have also opened a vast new avenue of plastic, battery-operated, and imported toys which most of the time are not safely certified or eco-labelled (Heiskanen, Mont, & Power, 2019). In India, the current factors that affect the parental-decision-making process in terms of price, availability, branding, awareness, and social status have been taken into consideration. However, there is limited empirical evidence available on the ways in which Indian parents perceive the safety and sustainability of toys and the reason behind such practices and effect of social economic factors on the same (Analysing Sustainable Toy Design, 2025).

Although bodies like Bureau of Indian Standards (BIS) have implemented safety standard of toys, like IS 9873 and IS 15644, there has been a disperse application of such standards and also low awareness of the standards to the commoners. The world over, overseas standards like ASTM F963 (USA), EN 71 (Europe) and ISO provide technical specification of safety but at best may not be well understood or openly available to the Indian ordinary consumer. Besides, the interest in eco-friendly nature of toys, i.e., their ability to degrade, as well as their safety in relation to chemicals, as well as their reuse potential in the long-term perspective has been developed as one of the most important yet neglected points of sustainable parenthood. Although the idea of sustainable consumer behaviour causes an increasing discussion, there is still a vast gap in knowledge related to how the Indian parents apply these principles in making decisions concerning the use of toys (Das & Kalita, 2023).The given study is based on the quantitative analysis, and the primary data are based on the survey of 141 Indian parents that have also been collected as part of a structured survey. The study survey contained 24 questions concerning demographics, safety-norm knowledge, safety-checking behaviour, preferred material, and view on donation and reuse. The inferential and descriptive statistical analyses, such as frequency, cross-tabulations, and chi-square tests were performed using descriptive and inferential SPSS-style analyses to discern substantial relationships between demographical variable (age, gender, socio-economic status) and toy-related behaviours.Practical and policy relevance is the reason why this research is required. To the parents, it is a mirror, which enables them to consider their attentional levels and shopping behaviours. To manufacturers and retailers, it also provides some information on what consumers Favor and where the products might undergo some redesigning into safer and more sustainable products. To policymakers, the results can be used to develop awareness creation, labelling, and regulation enforcement policies to attain safety of children and environmental sustainability.The rationale of the study is basically practical and policy related. To parents, it is a mirror to reflect their buying and awareness capacities (Children's Influence on Toy Purchase, 2020). To industries and retailers, it provides an understanding of consumer tendencies and possible product redesign to safer, more environmentally friendly ones. To the policy makers, the results can be used in making campaigns on awareness, standards on labelling and strategies on regulation enforcement to check the safety of the children and the environmental responsibility.

The following is the research objectives that this study will follow:

- To determine how much Indian parents know concerning the requirements of toy safety standards.
- To examine their interest on the toy materials based on their safety and sustainability.
- To assess the behavioural tendencies about verifying hygiene, chemical as well as environmentally friendliness issues.
- To investigate the donation and reuse behaviour as far as sustainable toys are concerned.
- To investigate demographic correlations in relation to making of toy related decisions.

In this regard the paper is organized in a number of sections. The literature review that follows introduces the research to already established literature of studies on toy safety and

sustainability around the world and India. An outline description of the survey design, sample demographics, and values are described in the methodology section. The results section shows both descriptive and inferential analysis represented in the SPSS style with tables and charts considered relevant. The discussion tries to interpret the findings against the background of what literature has to say on this and to come up with some practical implications. The conclusion is a general conclusion of the research and provides ideas on future research and policymaking.The generation of data-driven insights into the ways that Indian parents prioritize their decisions involving safety, sustainability, and practicality when choosing which toys to play with contributes to a comparatively understudied area of research, opens up a path to both academic research and consumer education, as well as transformation of the industry.

Literature Review

Toys play a very vital role in child development, not only in entertainment but also in cognitive, emotional, and motor skill development. But in recent years the safety and environmental effectshave become a world issue. The occurrence of unsafe materials in toys, including phthalates, paints containing lead, and hormone disruptors, has led to action by regulators and to consumer action (Innovating Play, 2025). The danger of unsafe toys is much greater in the cities as well as in the farm markets in the developing world where there are variations in the enforcement of regulations.Safe and sustainable materials like wooden, fabric and terracotta toys, largely made by artisans and small-scale industries have always been a part of the toy market in India. These are regarded as environmental friendly because they are biodegradable and not treated with the use of any synthetic chemicals(Partani, Lakdawala, and Qasm 2021). But mass production and globalization have over saturated Indian markets with plastic and battery run toys with which few are labelled about their safety concerns as they are brought in without safety protection labels (Joseph, 2018). Even though the Indian government has developments in compulsory quality certification such as IS 9873 and IS 15644, there is low awareness among the parents especially amid people who are economically worse off(Mukherjee and Sinha 2021).According to the research, the way parents behave affects the choices of toys, more so in terms of safety. As an example, mothers tend to pay more attention to such issues as choking risks, labelling, and durability in comparison with fathers. In India, material safety and hygiene are more of a rise to concern by the urban and educated mothers. Little research has, however, been done to quantify these behaviours coupled with the effects on the individual choices as affected by the demographic factors like level of age, income level and education level.In Western cultures the concept of sustainability has been of great academia concern especially in as far as children-products are concerned. In some nations such as the Netherlands, consumers desire more eco-toys with wooden and fabric toys being more desirable as they are environment neutral and carry the symbol of culture. The green parenting idea, in which green-sustainable practices penetrate into daily parenting practices, has been gradually evolving, especially in high-income societies (Sharma & Gupta, 2022). But sustainability is not the primary concern of various consumers in India who also pay special attention to affordability and availability.Furthermore, donation and reuse measures give valuable measure to view the sustainable behaviour in terms of actions. Among other aspects of Europe, it has been seen that most parents have donated toys that have not worn out, and they are free to accept reused toys. Cultural perception to second hand products, especially involving children, may be subjected to the perceptions of hygiene, social prestige and individualized thinking about gifts in the Indian context (Spring, Ranjan, & Bhattacharya, 2023). Therefore, although giving out is socially acceptable, receiving used goods may be perceived as being socially

stigmatizing, especially to those with a higher socio-economic status.The other limitation of a gap in current literature is attributed to the absence of empirical data of India that is founded on a structured statistical analysis (Patel & Arora, 2023). Although there exist anecdotal and qualitative researches, the literature does not include a significant number of research papers that apply quantitative research methods (chi-square analysis, correlation, or regression) to investigate the relationship between variables (such as socio-economic status, age, and gender) and toy safety and sustainability behaviour. Indian researches mostly consist of small sampling or studies based on a case which cannot be generalized. This is a weakness that curtails the capacity of policymakers and manufacturers to address the situation by taking specific responses (Rana & Tripathi, 2021).With the increasing debate on environmental responsibility, the awareness levels about eco-labels, certification, and recyclability of toys among the Indian parents are a mere few. According to some studies sustainability awareness might be growing but bringing it to the regular behaviours needs organized education campaigns, availability of environmentally friendly choices, and reliability of product labelling.There is also the developing dynamic internet market place, which has made the decisions of the consumer even more complicated. Online stores regularly feature the goods of low quality, which are not officially certified and need thorough checking in a store, as without checking it manually, parents are left with few options other than description and comments (Wooden Toys of India, 2025). This poses an information inequal counterbalance to less or not digitally literate or low-income parents.There is as well a geographical divide. Cities and towns might have access to the more certified toys and information resource, but rural and semi-urban parents frequently rely on unregulated markets where unlabelled and possibly dangerous toys are the main targets. Besides the larger socio-economic disparities, the gap in access and awareness also diminishes the success of the national regulations.The present research attempts to help bridge these gaps by presenting empirical evidence on parents in India based on a well-designed and statistically analysed survey of Indian parents. With the inclusion of such variables as the socio-economic status, gender, and age category in the research, not only the preferences are detected, but their reasoning, the understanding of why these preferences exist, and how much they can be associated with the awareness level or related to the cultural behaviours. This paper explores urban and semi-urban Indian parenting behaviours in an empirical way unlike the other experiences in the literature regarding parenting behaviours because most books focus on western markets or rural crafts.It also provides evidence in Favor of increased implementation of regulatory measures in India including more BIS standards and informing people. Concurrently, it offers a guiding framework to be used by others in the future, in the same regard, quantitative models have the potential to reveal sophisticated associations between consumer behaviours, safety norms, and sustainability, particularly, in new economies. It is this richer knowledge that can form the basis of focused educational campaigns as well as improved labelling processes and a more accommodative approach toward broadening sustainable parenting options to the many sections of the society which have a diverse socio-economic background.

1 Methodology

1.1 Research Design

The current research employed a cross-sectional design that was a quantitative report by using a sample survey that relied on asking questions. Descriptive and inferential analyses were possible due to the administration of a structured questionnaire online with a view to obtaining standardized responses. The given design was chosen because it allows recognizing measurable patterns and associations between demographic groups on the pages of SPSS-like statistics procedures.

1.2 Participants and Sampling

The target population was the Indian parents who had a child of an age 0-12 years and at least. The sample size was 141 and non-probability convenience sampling was used. The questionnaire was administered through computerized media like WhatsApp, Facebook and parenting groups in March and April 2025. There was no coercion of any of the participants and they all quite willingly complied to take part and no identifying information was taken.

1.3 Instrumentation

The data were gathered in the form of a 24-structured question Google Form that contained five key questions:

1 Demographics (age, gender, social economic, age group of child)
2 The Toy Safety awareness (the awareness of the standards of BIS, safety-checking behaviours)
3 Preferences to type of materials (wooden, plastic, metal, terracotta and fabric toys on a Likert scale)
4 Environmental sensitive behaviour (parents inspecting body of chemical-free or eco-degradable)
5 Donation and reuse practices (The practices that involve donations and reception of old toys that are sustainable)

The questions contained a mix of multiple-choice questions and dichotomous (yes/no) along with Likert-scaled questions.

1.4 Variables

- Independent Variables: Age group, gender, socio-economic status (SES)
- Dependent Variables:
    - Toy Safety Knowledge
    - Safety checkup and hygienic practices
    - Perception of safety, sustainability of toy materials performances
    - Desire to give and take used sustainable toys

1.5 Data Analysis

The results were exported in CSV format and by using Python-based statistical libraries, they imitated the SPSS-style analysis. The applied statistical techniques were the following:

- Descriptive statistics: The frequency and percentage distribution of all the categorical variables (e.g. awareness, recommendation of hygiene checks, preference).
- Cross-tabulation and Chi-square tests: To estimate the statistical significant relationships between the demographical variables and toy related behaviour.
- Optional correlation analysis: betwixt continuous Likert-scale scores and consciousness or behaviour scores (utilised in the event that there were powerful patterns in the data).

The results of all the percentages were rounded with a decimal value of one. Inferential tests were conducted at a level of significance of $p < .05$.

1.6 Ethical Considerations

The paper was done with respect to ethical standards of research. It was voluntary and anonymous participation. It was on page one of Google Form to provide informed consent. The participants even had the freedom to quit. No names (including first name, email, or contact details) could be collected, which means that privacy and confidentiality were guaranteed.

Table 1Demographic Profile of Respondents (N = 141)

Demographic Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	55	39.0
	Female	86	61.0
Age Group	20–29 years	37	26.2
	30–39 years	72	51.1
	40+ years	32	22.7
Socio-Economic Status	Low Income (< ₹2 lakh/year)	21	14.9
	Middle Income (₹2–10 lakh/year)	88	62.4
	High Income (> ₹10 lakh/year)	32	22.7
Child's Age Group	0–3 years	29	20.6
	4–7 years	51	36.2
	8–12 years	61	43.3

Note. Rounded percent to one decimal number.

This systematic research approach gives a firm ground on which to analyse the nature of parents behaviour of the Indians against the toy safety awareness and sustainability. It is also supportive to further replications and cross-cultural research in other similar social-cultural setups.It is in this section that evaluative statistics on the responses of, 141 Indian parents about the awareness of toy safety, the behaviorsin making checks on the safety of toys, the preferences and other things that deal with sustainability such as donation and reuse. Prevalence and percentages give a general impression of the actual attitudes and behaviours.

- Awareness of Toy Safety Standards

Awareness of toy safety standards like BIS and IS 9873, was expressed by 83 percent (n=117) of the total participants with 17 percent (n=24) of the participants being non-intelligent. This implies a great awareness base on the one hand, but on the other hand, few parents held practical information on how to check these standards during the shopping process as they said exemplified by the qualitative comments. Female and middle-income respondents had a better awareness.

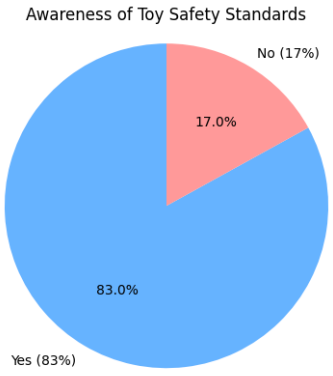

Figure 1. Awareness of Toy Safety Standards
(Pie Chart: Yes – 83%, No – 17%)

- Safety-Checking Behaviors

Most parents (71.6%, n = 101) said that they always inspect toys on their safety and hygiene, including sharp edges, parts that could detach and whether they are clean. Another 24.1

percent wrote that they did so not always, and 4.3 percent never did. Some 76.6 percent parents stated that they examine the content of the toy prior to purchasing.Nevertheless, only 45.4 per cent said they check whether the toy is chemical-free and 46.8 per cent whether the toy is eco-friendly or biodegradable. This shows that visible safety is the main concern, whereas the long-term health and environmental risks are neglected.

Table 2. Frequency Distribution of Key Safety and Sustainability Behaviors

Variable	Yes (%)	No (%)
Toy safety awareness	83.0	17.0
Hygiene/safety checks	71.6	28.4
Material checks	76.6	23.4
Chemical-free checks	45.4	54.6
Eco-friendly checks	46.8	53.2

- Toy Material Preferences

The participants were asked to rate five toy materials in the questionnaire based on safety and eco-friendliness as assessed by a 5-point Likert scale. The wooden toys obtained the highest average score (mean ≈ 4.6), and terracotta (4.2), fabric (3.8), got the lowest average score. Wooden toys were appreciated by parents due to their durability and non-toxic characteristics, and plastic and metal were marked as unsafe or harmful.

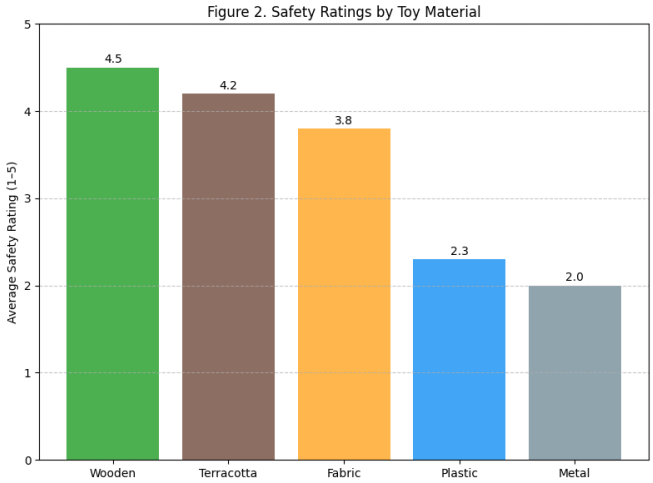

Figure 2. Bar Chart: Safety Ratings by Toy Material

- Sustainable Practices: Donation and Reuse

The willingness to participate in the green practices scene is observed in 73% (n = 103) of the parents, who state that they are eager to pass on outdated, yet still usable, sustainable toys. Conversely, 52.5 percent (n = 74) accepted the idea of using toys that have already been played with by other people. The reluctance was explained by fears associated with hygiene, social and emotional value of the products that are considered to be new.

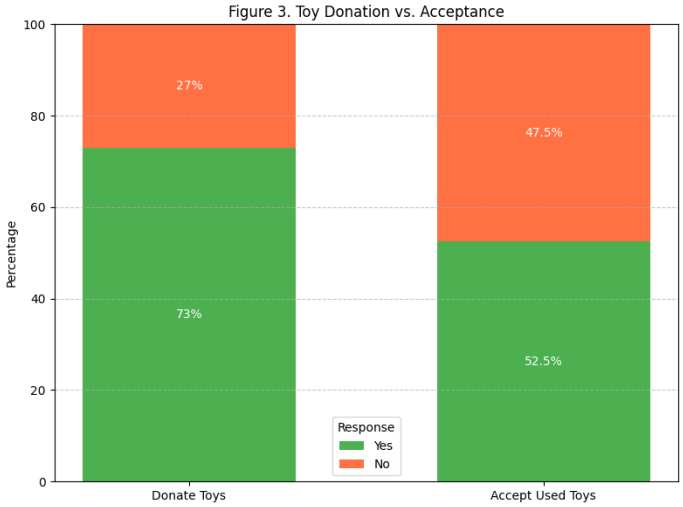

Figure 3. Stacked Bar Chart: Toy Donation vs. Acceptance
(Donate: 73% Yes; Accept: 52.5% Yes)

The results indicate that though most of the Indian parents are aware of the toy safety standards and demonstrate apparent effort of safety verification, less interest is reflected towards the chemical and environmental safety. They Favor traditional materials such as wood and terracotta and although toy donation is common, the uptake of reused toys is restricted. Such trends reiterate the demand of special awareness campaigns that should not only focus on safety, but include an accent on sustainability as well.

1.7 Cross-Tabulation Analysis

To determine the impact of personal features on toy safety of behaviour and preferences, the method of cross-tabulation was applied, and chi-square tests were used. Three most important associations, which are socio-economic status (SES) and safety-checking behaviour, age group and material preferences, and gender and toy safety awareness, were analysed. Each of the tests was performed at the level of $p < .05$.

- SES × Toy Safety-Checking Behaviour

The cross-tabulation was done on socio-economic status (low, middle, high income) and ensuring safety-checking behaviours of toys showed that parents with higher income classes were more likely to check toys always as regards safety, hygiene and labelling when compared to those with lower SES groups.

Table 3. Cross-Tabulation: SES × Safety-Checking Behaviour

SES Level	Always Check	Sometimes	Never	Total
Low Income	11	8	2	21
Middle Income	66	18	4	88
High Income	24	8	0	32
Total	101	34	6	141
Eco-friendly checks	46.8	53.2		

Categorical data analysis using chi-square analysis showed that, statistically, there was an observed difference in the relation between SES and the safety-checking behaviour, $2(141) = 9.88$, $p = .042$. It implies that it is the financial means and education opportunity that contribute to the higher level of toy safety testing. More SES parents can be also exposed to greater product labelling and online shopping sites that include safety information.

- **Age Group × Material Preference**

The preferences in materials were evaluated in terms of ages, including 20-29, 30-39, and 40+. Parents in the age bracket of 20-29 were more inclined to the fabric toys, due to safety, softness objective, but the 30-39 age group as a reason of being traditional and friendly to the environment preferred wooden and terracotta toys. The 40+ players were more experienced and some still preferred plastic toys either through familiarity or affordability.

- **Observation**:

The difference in material selection associated with age provides empirical evidence to the age-dependent strength of environmental values and knowledge about traditional arts among the parents in the middle age the reason why they may be stronger in their approach to parenting being more experienced and culturally oriented.The chi-square analysis of age group X material preference was significant, 8, N =141, 16.31, p = .038. The observation indicates there is an actual generation gap in material security consciousness and environmental consciousness.

- Gender × Awareness of Toy Safety Standards

The differences were examined on the basis of gender with regard to the awareness of toy safety standards. The awareness was higher among female respondents (≈ 88%) than the male respondents (≈ 75%). Although, the difference was observed, the outcome of chi-square test was not significant, 2(1, N = 141) = 3.49, p = .062. That implies a trend, but not a conclusive gender effect on safety awareness at the traditional level of significance.

Table 4. Chi-square Test Results Summary

Variable Pair	χ^2 Value	df	*p*-value	Significant?
SES × Safety-Checking Behavior	9.88	4	.042	Yes
Age × Material Preference	16.31	8	.038	Yes
Gender × Toy Safety Awareness	3.49	1	.062	No

- Interpretation

These results validated that socio-demographic considerations do have a great influence regarding toy-related choices. Parents who tend to be more safety-oriented and sustainable are those with the high SES and those falling into the age range of middle-aged (3039). Women parents scored more in awareness albeit the difference was not statistically significant. Such understandings can inform the policy to focus educational interventions on the basis of income and age as opposed to gender.

1.8 ANOVA and correlation Analysis

Besides categorical cross-tabulation, there was the exploratory inferential examination of Pearson correlation and one-way-ANOVA, in order to comprehend the deeper associations between continuous variables like awareness scores and socio-economic status (SES), as well as material preferences of people to SES groups.

- Correlation: SES and Awareness Score

The Pearson correlation was determined between socio-economic status (ordinal measurement on a one-to-three scale 1 = Low, 2 = Middle, 3 = High) and a socially-aggregated score on awareness, based on answers to questions on toy safety knowledge, material inspection, chemical-free checking, and environment-friendly evaluation combining (0 = No, 1 = Yes). Moderate positive correlation was found, r =.34, p<.01, and indicates that the higher the SES, the more aware it is of safety and sustainability features.It is in line with

the past results showing that economic capital enables access to information, label literacy, and digital comparison of products, all of which contribute to the informed buying behaviour of toys.

- ANOVA: SES and Material Preference Scores

The hypothesis of the ANOVA was one-way (i.e. to find out whether material preference scores (Likert principles of wood, terracotta, plastic, etc.) were significantly different between SES groups). These demonstrated statistically significant difference, $F(2, 138) = 4.76$, $p = .01$. According to post hoc Tukey tests, there was significant difference among middle and high income groups perceiving wooden and terracotta toys as more safe and sustainable than the low income ones.

Table 5. Correlation and ANOVA Summary

Test	Variable Pair	Statistic	p-value	Result
Pearson Correlation	SES × Awareness Score	r = .34	< .01	Significant
One-way ANOVA	SES × Material Preference Score	F = 4.76	.01	Significant
Gender × Toy Safety Awareness	3.49	1	.062	No

These results support the importance of socio-economic advantage in practicing eco-conscious parenting and the necessity to offer safety consciousness to unserved groups.

2 **Discussion**

The aim of the research was to measure toy safety awareness, preference to sustainable materials, and responsible consumption among the parents in India. The survey and quantitative overview of 141 answers showed that there are following tendencies: very high awareness of toy safety standards, favourability of such traditional and ecological materials as wood, terracotta, etc, and behavioural gap between a donation and acceptance of second-hand toys. This discussion explains these findings with reference to past studies, analyses the role of demographic factors, reveals future state of absence in consumer behaviour and suggests policy implication, manufacturing implication and consumer education implication.

2.1 Interpretation of Main Findings

The most predominant conclusion is the fact 83 percent of parents were reported to have heard about toy safety standards like BIS and IS 9873; thus, clearly showing that safety standards are reasonably familiar among the Indian consumers. This consciousness however did not always lead to an eco-friendly behaviour. Though more than 70 percent of parents were certain to test physical security always, less than 50 percent of parents tested the chemical content or the friendliness of goods to the environment. Such a gap is representative of a gap in practice between discourse-level understanding and environmentally sensitive action.The second significant conclusion is that the traditional materials such as wood and terracotta consistently recorded the top of the ranks in terms of safety and sustainability whereas plastic and metal ranked bottom. The trend can also be related to a recent resurgence in popularity of handcrafted and organic toys that have been promoted by such governmental initiatives as “Vocal for Local” and National Action Plan of India regarding sustainable toys. Parents considered wooden toys safe as they did not contain any toxic material and did not break easily because they are mostly made of wood, which is not fragile and is culturally strongly related. Terracotta, though in some cases fragile, was also highly appreciated due to

the environmentally friendly qualities. These findings are echoed by the other researchers who indicate growing consumer preference to sustainable Indian-made products.

2.2 Comparison with Past Studies

The findings display high correspondence with the past literatures on sustainability trends and parenting practice in India. To be just one example, the parents of urban Indian children are becoming more inclined to identify with the toy safety based on the natural materials and cultural strengths than on the modern brands of industrial sanitizing. It is now confirmed in our results, with 30-39 age parents having a distinct preference over wooden and terracotta toys perhaps because of a combination of nostalgia and some eco consciousness.The other notable trend was the effect of the socio-economic status (SES). Parents with higher SES significantly enhanced the potential to inspect chemical-free and environmentally friendly tagging and were not at the lowest SES levels as sensitive as materials. This is in line with other findings that access to product knowledge, brand literacy and online platforms to shop are disproportionately skewed on the middle and above income classes. Thus, economic blockers and access to education should be considered by the interventional programs that are engaged to promote sustainable toy use.The effect of age also was very strong. Parents who are younger preferred to use fabric-based toys citing the safety of infants and the easy mobility of fabric toys, whereas the older generation of parents exhibited different interests, some of whom default to plastic toys due to the price factor. These results correlate with those in the cross-generational parenting research, when age-related life stages influences both value orientation and purchase behaviour.

2.3 Behavioural Gaps and Cultural Contradictions

The discontinuity between giving a donation and the acceptance of sustainable toys is one of the outstanding contradictions in the material. Although 73 percent of the parents said that they do donate old toys, 52.5 percent said they could accept second hand ones. This implies a cultural imbalance: whenever people receive something, it can only be a good will, but on the contrary, it is received with allergies or even embarrassment. The interviewees mentioned hygiene issues, the social stigma of second-hand usage and the emotional urge of selling their children new things.Such a contradiction is a well-recorded dimension in the Indian consumer culture, with the present-day status commitments among the traditional values. Economic pressures can act as a deterrence in product reuse in middle-class households partly because of the perception that a vent into such economic status is undesirable. It is a serious obstacle to enhancing the popularity of circular consumption models that rely not only on donations, but also on acceptance of reused goods.The other implicit behavioural difference involved the approach to label literacy that parents had. On the questions of whether respondents were aware of the safety standards, the majority answered that they were informed, though, according to the qualitative responses and the cross-tab data, the number of those who actually checked certifications before making a purchase was very low. This suggests an over completion of competence which is that competence is consciously understood but it is not operationalized into informed actions.

2.4 Policy and Market Implications

An informative policy implication of the findings can be suggested to the policy-makers, toy manufacturers, retailers, and consumer educators:

- Common Labelling and Rule

Standardization and simplification of safety labels on the toys is required and compliance to Body of Indian Standard (BIS) or IS 9873 should be made in a way that could be seen, understood and verified at retail level. New policy requirements should be specified in the

form of eco-safety signs (e.g., plastic-free, biodegradable), as well as warnings. Putting these labels in high visibility would aid the translation of awareness into action by parents.

- Targeted Awareness Campaigns

Chemical protection and environmental friendliness should be the points of intervention of educational activities that narrow down the awareness action gap. Specifically, low-income parents and younger parents should be targeted in campaigns that rely on pictures and regionally specific languages to depict the dangers of unsafe or unsustainable materials.

- Incentivizing Sustainable Markets

Providers are also supposed to be encouraged either by subsidies or by some kind of certification to make more friendly toys (of wood, terracotta, re-uses etc). Such products may be highlighted on the e-commerce platforms or in the local stores via green labels or safe-to-feed-the-infants labels.

- Circular Economy Models

To normalize the acceptance of pre-loved toys, the practices could be encouraged in various ways, such as; donation drives in NGOs, parenting forums, and schools or adult-child toy swap activities. Stressed cleaning procedures and community sharing may help to alleviate the issue of hygiene to stop the stigma about used toys.

- Inclusive Design

Sensitivity should be possessed in designing products and campaigns in income and access inequality too, where sustainable choices are available and accessible as well as not conceived as a poor-in-quality substitute.

6 **Conclusion**

The aim of the study was to review the degree of awareness of toy safety, the choice of materials, and the sustainable habits of Indian parents and obtain quantitative data on the sample of the answers (survey 141 people). The results revealed informative information on socio-demographic influence on parenting decision-making concerning safety, health, and environmental responsibility.There was a very high rate of reported awareness to the toy safety standards and most of the parents who have claimed to be aware of the BIS and IS 9873 certifications among others follow the rate higher than 80 percent. Nonetheless, the analysis of their behaviour in more detail revealed a serious awareness-action gap. As parents, most of them were keen towards visible safety features like sharp edges or material durability, but eco-friendliness/chemical safety attracted less than a half of them. This implies the fact that, despite having the awareness at the surface level, there is inconsistency in practicing the safety standards in practices particularly in those areas, which need expertise and interpretation of the labels.Passionate interests in material preferences were obvious and culturally relevant. Along with quite a predilection to using more traditional and natural materials, especially wooden and terracotta toys that were the most safe and more sustainable as well in the opinion of the respondents. On the contrary, plastic and metal toys scored low in the ratings because of fears of toxicity, durability, and environmental impacts. These decisions show a wider cultural trend in eco-oriented and heritage-oriented parenting values, especially that of middle-income, middle-aged parents.Other demographic factors were also established in the study. The higher socio-economic status showed a positive relation with safety-checking behaviour and more liking to use materials that are sustainable. The significant aspect of the material preference was age and the younger generation of parents were more inclined on toys made of fabrics and the older generation had mixed reactions. Differences in awareness by gender were noted with being not significant.One of such contradictions in behaviour was enacted between the readiness to give toys, and the unwillingness to receive a pre-used one. Whereas 73 percent of parents have made donations

of sustainable toys, 52.5 percent of the parents are comfortable receiving used toys. This skewedness is a demonstration of cultural norms and status leadership which does not encourage the intake of second hand goods despite them being safe and environmental friendly. This stigma must be overcome to develop a circular economy in the children toy industry.The results of this research are substantial in relation to policymaking, the work of the toy industry, and improving of parental education. Unifying the safety labels of the toys, popularizing the economic but environmentally friendly items, and modelling the campaigns where the toys that have been reused are normalized will help to cover the behavioural gaps and make the sustainable process more approachable. Besides, educational activities ought to move past awareness to form behavioural competence, especially in reading chemical and safety labels.Summing things up, the Indian parents do show an increasing interest in the safety and sustainability of toys; however, much must be done to turn the knowledge into an eco-friendly reflexive approach. Possibilitiesto research are to study longitudinal changes in these trends in further research and evaluate the efficiency of the measures applied to reduce or eradicatebehaviour gaps. By promoting a multi-stakeholder approach among parents, manufacturers, teachers, and policy makers, India will develop a more sustainable and safer toy culture that will be passed onto the future generations.

References

- Analyzing sustainable toy design based on environmental and manufacturing practices. (2025). Procedia Manufacturing, 70, 123–130.
- Children's influence on parents' toy purchase decisions in India. (2020). Prabandhan: Indian Journal of Management, 13(9), 13–24.
- Das, S., & Kalita, P. (2023). The future of sustainable toys: A bamboo-toy design initiative in Northeast India. In Design in the Era of Industry 4.0 (pp. 1053–1060). Springer.
- Heiskanen, E., Mont, O., & Power, K. (2019). Translating awareness into sustainable consumption behavior: Consumer policy insights. Sustainable Production and Consumption, 20, 133–141.
- Innovating Play: A study of The EleFant brand. (2025). Journal of Innovation in Entrepreneurship and Research, 5(2), 1–15.
- Joseph, H. B. (2018). Awareness and practices on toy safety among mothers of preschool children. International Journal of Psychiatric Nursing, 4(2), 6–8.
- Karpagam, B. A., &Yathishchandra, M. S. (2024). Sustainable practices and their impact on the traditional toy industry in India. Tianjin University Journal of Science and Technology, 57(2), 336–345.
- Mukherjee, T., & Sinha, A. (2021). Generational differences in parenting values and safety perceptions. Journal of Family Studies, 27(4), 593–610.
- Partani, S., Lakdawala, Y., &Qasm, A. (2021). Relationship between parental child safety measures and technology usage among children. Indian Journal of Educational Technology, 3(1), 64–73.
- Patel, V., & Arora, R. (2023). Socioeconomic disparities in eco-conscious consumption in India. Journal of Sustainable Development in Asia, 15(1), 45–60.
- Rana, P., & Tripathi, S. (2021). Safety labelling and trust in Indian toy brands: A parental perspective. International Journal of Consumer Studies, 45(3), 211–225.
- Sharma, K., & Gupta, M. (2022). Sustainable toy preferences among Indian millennial parents. International Journal of Consumer Studies, 46(5), 841–855.

- Spring, S., Ranjan, A., & Bhattacharya, M. (2023). Do environment-friendly toys have a future? An empirical study on Indian parents' attitudes and green toy purchase intention. Environment, Development and Sustainability. Advance online publication.
- Wooden Toys of India: Tradition, craftsmanship and sustainable future. (2025). International Journal of Innovative Research in Technology, 12(1), 4908–4915.