iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 12 **Issue:** VIII **Month of publication:** August 2024

DOI: https://doi.org/10.22214/ijraset.2024.63913

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 12 Issue VIII Aug 2024- Available at www.ijraset.com

A Conceptual Study on Usage of Cloth and Glass package for the Reduced Plastic Footprint Which Arises due to Impulsive Buying in E-Commerce Platforms

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Abstract: ***E-commerce platforms have proliferated, revolutionising consumer purchasing behaviour and enabling more convenient shopping from any location at any time. But because of its ease, there has been a marked increase in impulsive purchases, which has greatly increased the amount of plastic waste. This study investigates the relationship between the rise in plastic waste that occurs from impulsive purcphasing on e-commerce platforms. The purpose of this study is to demonstrate the negative environmental effects of the current e-commerce ecosystem and offer viable solutions to reduce plastic waste by examining consumer behaviour, packaging standards, and waste management concerns. The relationship between impulsive purchasing on e-commerce platforms and the rise in plastic waste is examined in this qualitative study. The study attempts to determine the reasons behind through in-depth interviews and thematic analysis.***

Keywords: Inpulsive buying behaviour, on line purchase, safety of goods, alteration for plastic, cloth and glass packing materials, reverse logistics etc.,

I. IMPULSIVE BUYING BEHAVIOUR OF CUSTOMERS IN E-COMMERCE PLATFORMS

A. Impulsive Buying Behaviour

Impulsive buying behavior describes the urge to make unplanned purchases driven by emotions rather than reason. People might engage in impulsive buying due to sudden desires triggered by feelings like excitement or boredom, or by enticing marketing tactics. These purchases often lack prior consideration of factors like price or need, and can lead to regret later. Common triggers include appealing promotions, emotional states, social pressures, and the ease of online shopping. While impulsive buying can be tempting, understanding its triggers and employing strategies like budgeting and taking time to reflect can help individuals make more mindful purchasing decisions.

B. Impulsive Buying Behaviour in e-commerce platforms

Online sales are increasing both in volume and value. Indeed, the value of global e-commerce sales is expected to exceed $7 trillion by 2024. Numerous factors are driving this expansion, such as the popularity of subscription services, the growth of social media, and the rise of mobile shopping. Shopping habits have undoubtedly changed as a result of the epidemic, with more individuals going to the internet to purchase anything from groceries and food to clothes and other necessities. According to some research, customers' immersion in the shopping process may increase and their online impulsive buying behaviours may be positively impacted by a positive (i.e., enjoyable, addictive, and satisfying) online customer shopping experience (OCSE) (Anshu et al., 2022).

C. The Four Types Of Impulse Purchases

There are four defined types of impulse purchases. These four categories also help better understand the process that happens before the act of purchasing.

1) Pure impulse buying: This type of impulse buying is the most common and is characterised by someone acting on impulse because they are feeling a particular way. An illustration would be purchasing a sweet from the checkout section of a store because, upon seeing it, you get an intense want for something sweet.

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2) Reminder impulse buying: You see an item or remember a certain thing that reminds you that you need a separate item. For example, you go to the grocery store to buy some bread, but when you walk past the toothbrushes, you remember that you're out of toothpaste so you buy some.
3) Suggestion impulse buying: This one stems from a more rational place where our mind creates the need for an item. This is usually when you're convinced to buy something due to a marketing message. For instance, you're out to lunch and instead of ordering your regular soda, you decide to try sparkling water because you heard it has fewer calories.
4) Planned impulse buying: Although planned impulse buying sounds like an oxymoron, it mostly involves items you had already considered purchasing, discounts, and promotions. For instance, you are strolling through your nearby gadgets store and see a DVD you had contemplated purchasing half a month prior, see that it's currently half off and buy it.

From the above types, we understood that pure impulse buying motivates the people to buy without any previous idea and it is the outcome of emotional imbalance.

D. Emotions: The Powerful Driver of Impulsive Online Shopping

There are a couple of primary reasons that individuals will generally yield to their motivation purchasing propensities, the first being their feelings. Retail treatment is genuine, and individuals will frequently encourage buys to make themselves. Like doing numerous things that satisfy individuals, shopping can deliver dopamine so there's a genuine compound explanation that individuals love shopping similarly as they would a rollercoaster.

Yes, emotions play a pivotal role in impulsive buying behavior on e-commerce platforms. While convenience and ease of shopping certainly contribute, it's the emotional connection that often seals the deal. Surprise and enjoyment, which were the most significant emotions when making product choice, were influenced by the level of emotional arousal (50–55 % of cases). Consumer experiences a wide range of emotions of different valence and intensity, while in most cases they are guided by what is familiar to them. (Olga B. Yarosh, Natalya N Kalkova, Viktor E. Reutov, 2021)

1) Positive Emotions:

- Excitement and Happiness: Positive emotions induced by product features, discounts, or personalized recommendations can trigger impulsive purchases.
- FOMO (Fear of Missing Out): Limited-time offers or scarcity tactics can create a sense of urgency and excitement, leading to impulsive decisions.

2) Negative Emotions

- Boredom and Frustration: Online shopping can be a form of escapism, with impulsive purchases serving as a temporary mood lift.
- Stress and Anxiety: Emotional shopping can be a coping mechanism, leading to impulsive purchases as a form of self-reward or distraction.

3) Emotional Connection

- Brand Loyalty: Emotional attachment to a brand can influence impulsive purchases, especially when new products are released.
- Social Proof: Positive reviews and user-generated content can evoke emotional responses and drive impulsive buying.

In essence, emotions provide the underlying motivation for impulsive online shopping. E-commerce platforms effectively leverage these emotions to create compelling shopping experiences that encourage spontaneous purchases.

Impulse buying in e-commerce is driven by factors like emotional appeal, instant gratification, and perceived value. Several product categories lend themselves particularly well to this behavior.

- Fashion and Accessories
- Electronics and Gadgets
- Beauty and Personal Care
- Home and Living
- Food and Beverages
- Books, Music, and Entertainment

E-commerce retailers are also more likely to overpackage the aforementioned products because they have to protect them from a variety of damages. The packaging industry's success is largely attributable to the rapid expansion of online shopping.

Excessive packaging is a serious resource waster. Pressing materials utilized for internet shopping are typically a few times the ordinary pressing prerequisites and incorporate wood containers, bubble packs, tape, stick, and so on we can see that over the top bundling is a serious misuse of assets. According to Khalid Saleh, CEO and co-founder of Invesp, "84% of all shoppers have made impulse purchases, and 40% of which happened online." This threat affects the entire planet, and the world is slowly losing its standard of living. Such 40% of procurement make more harm climate because of plastic bundling. Dependable residents can stop drive buy as it isn't satisfying the essential necessities of individuals.

II. ALTERNATIVES FOR PLASTIC PACKING – CLOTH AND GLASS

A. *Usage of Cloth wrappers instead of Plastic wrappers*

"In order to transform e-commerce into Green commerce, companies need to invest in packaging innovation and sustainable supply chain mechanisms including reverse logistics system to promote reuse and recycling, while consumers also need to display sustainable consumption behavior" (Chuamuangphan, P. Kashyap & C. Visvanathan, 2019).

using cloth wrappers instead of plastic for online goods is definitely feasible and a more sustainable option. Using cloth instead of plastic for packaging in e-commerce trade is a sustainable alternative that can be applied to a wide range of products.

Here are a few instances:

- Clothes and Accessories: Cloth bags, as opposed to plastic covers, can be used to wrap clothes, shoes, and accessories.
- Books and Stationery: Books, notebooks, and other stationery goods can be packaged with cloth pouches or wraps.
- Devices: For protection, small devices such as phones, tablets, and accessories can be placed inside cushioned fabric bags.
- Cosmetics & Personal Care Products: Reusable cloth bags can be used to package products like shampoos, soaps, and cosmetics.
- Jewellery: Decorative fabric bags can be used to wrap jewellery and other small accessories.
- Toys: Cloth bags can be used to package small playthings and plush toys.
- Home Décor Items: Fabric can be used to package textiles such as cushions, tablecloths, and other textiles in place of plastic
- Food Products: You can carry non-perishable food products in canvas bags, such as Spices, dry fruits and snacks

Cloth packaging is a flexible choice for a range of items because it can be altered in terms of size, style, and branding. Furthermore, it elevates the whole client experience by incorporating a hint of elegance and environmental sustainability.

1) *Pros and Cons of cloth wrappers*

a) *Advantages of Cloth Wrappers:*

- Eco-friendly: Cloth greatly reduces plastic waste because it is reusable and biodegradable.
- Versatile: Suitable for a range of product sizes and types.
- Sturdy: Able to tolerate repeated use, minimising the need for frequent replacements.
- Customisable: For marketing purposes, it can be branded or personalised.
- Upcycling potential: Used clothing and materials can be repurposed.

b) *Challenges and Considerations:*

- Cost: Initially, putting in place a cloth wrapper system may cost more than using plastic.
- Cleaning and upkeep: Cloth wrappers require routine cleaning, which calls for more time and resources.
- Product protection: Adding more layers or padding may be necessary to ensure that fragile objects are adequately protected, which could raise expenses.
- Consumer acceptance: It may be important to inform customers about the advantages of using cloth wrappers and to encourage their return or reuse.
- Hygiene: To preserve hygiene, appropriate cleaning and sterilisation methods need to be followed.

All things considered, the switch to cloth wrappers is a step in the right direction towards lowering plastic waste and encouraging sustainability in e-commerce. Even though there are obstacles to overcome, the potential rewards make the effort worthwhile. A practical option is to use cloth packing materials, especially when shopping online. For many products, reusable fabric pouches or wraps can be used in place of plastic wrap to cushion and protect the goods while they are being transported. This minimises the environmental impact of online transactions by reducing the quantity of packing overall and the amount of plastic waste produced. We may strive towards a more environmentally friendly future for e-commerce and beyond by adopting cloth packaging materials.

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All things considered, the switch to cloth wrappers is a step in the right direction towards lowering plastic waste and encouraging sustainability in e-commerce. Even though there are obstacles to overcome, the potential rewards make the effort worthwhile.

B. Using glass containers rather of plastic ones

However, certain items, including oil and other liquids, cannot be packaged in fabric. Plastic wrappers and containers can be swapped out for airtight glass jars and containers. A big step towards sustainability has been made in e-commerce with the switch from plastic to glass packaging. But it's crucial to balance the difficulties with the possible advantages.

1) Pros of Glass Packaging

a) Environmental Impact: Glass is infinitely recyclable and doesn't contribute to microplastic pollution. While glass production requires energy, the overall environmental impact can be lower than plastic, especially when considering recycling and energy efficiency in the manufacturing process. Glass is inert, meaning it doesn't interact with the product inside, preserving taste, aroma, and freshness.

b) Consumer Perception: Glass packaging frequently projects an impression of luxury and higher end, which may raise the perceived worth of the product. Customers are prioritising safety and health more and more. Glass is typically thought to be safer than plastic.

2) Cons of Glass Packaging

a) Fragility: Glass is brittle and can break in transit, increasing the expense and risk of product returns. needs stronger packaging materials to keep the glass safe, which could raise the price.

b) Weight and Cost: Glass weighs more than plastic, which increases the cost of shipping. Glass containers are typically more expensive to produce than plastic ones.

Glass can be used by e-commerce platforms in place of plastic for packaging, and there may be a number of effects if they put in place a mechanism to retrieve the glass containers.

3) Impacts of returning back the glass containers

a) Environmental Impact

- Reduction in Plastic Waste: Glass containers cut down on plastic waste, which is good because plastic pollution is a big problem for the environment. Glass can be recycled endlessly without losing quality, while plastic takes hundreds of years to break down.
- Resource Use and Recycling Glass requires a lot of energy to produce, it is completely recyclable. When recycling glass containers instead of making new glass from scratch, less energy and raw materials are used.
- Waste Management: Implementing a return system for glass containers encourages recycling and responsible waste management. It can reduce landfill use and promote a circular economy.

b) Economic Impact

- *Cost of Implementation*

Return policy and logistics infrastructure are required for the collection of glass containers, initial expenses may be higher. Because glass is heavier than plastic, shipping costs may go up.

- *Long-Term Savings*

The expense of making plastic containers on a constant basis may eventually surpass the cost of recycling and reusing glass containers. Purchases of raw materials and disposal of trash could result in cost reductions.

- *Customer Incentives*

By providing discounts or refunds of deposits for returned glass containers, you may increase consumer loyalty and involvement in the recycling program.

c) Operational Impact

- *Logistics and Handling*

Glass is more delicate and heavier than plastic, extra care must be used when packing and shipping it to avoid shattering. Better handling procedures and stronger packaging materials may be required as a result.

- *Storage*

Storage and transportation might require more space and effort due to the weight and fragility of glass containers compared to plastic.

C. Consumer Perception on using glass containers

1) Brand Image

Employing glass instead of plastic can help a business stand out from the competition and attract eco-aware customers by projecting a more ecologically conscientious image.

2) Consumer Convenience

If glass container returns are not made simple and are not encouraged, some customers may find it inconvenient.

D. Effects of Increase in Weight because of glass containers

The weight of packages will probably increase if glass containers are used instead of plastic ones. Indeed, there may be a number of effects from this move on employment prospects, vendor costs, and e-commerce platform expenses**.**

1) Increased Demand for Delivery Personnel

In particular, if weight constraints per delivery person or vehicle are reached sooner, heavier goods would require more delivery persons to handle the same amount of shipments. This might result in the hiring of more delivery drivers, which would open up more job prospects.

2) Logistics and Handling Staff

Given the increasing complexity of packing, shipping, and returning glass containers, more personnel may be required in the logistics department. This covers positions in logistics management for returns, sorting, and warehousing.

3) Recycling and Cleaning Facilities

If a return policy for glass containers is put in place, jobs in recycling facilities and establishments that specialise in cleaning and preparing glass containers for reuse may be generated.

III. BALANCING COSTS AND BENEFITS OF USING CLOTH AND GLASS PACKAGE MATERIALS

A. .Cost Management

Managing logistics and routing effectively can help offset some of the higher expenses. You may cut down on fuel use and delivery time by partnering with logistics experts and streamlining delivery routes.

B. Pricing Strategy

Costs can be somewhat reduced by changing your pricing tactics. The extra costs associated with ecologically friendly packaging may be partially offset by consumer willingness to pay more for it.

C. Incentive Programs

Putting in place incentive schemes, such discounts or deposit reimbursements, for returning glass containers can boost customer involvement and lower the total cost of buying new containers.

D. Long-Term Savings

When compared to continuously buying new plastic containers, the reusable nature of glass containers can eventually result in financial savings. These savings can be increased even further with effective recycling and reuse procedures.

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IV. IMPLEMENTATION OF SUSTAINABLE PACKAGING RETURN PROGRAM

It is possible to collect glass packing materials and returned fabric from clients if the proper procedures and infrastructure are in place. Here are some considerations and potential approaches:

1) Reverse Logistics System: putting in place a reverse logistics system that will allow clients to return glass and used clothing packaging with their subsequent orders or at specified drop-off locations. Customers must be informed of the procedure in detail, and returns must be encouraged—possibly with loyalty points or discounts.
2) Design for Reuse: Make sure the glass and textile packing materials are long-lasting and multipurpose. Customers are urged to return them for reuse as opposed to disposal by doing this.
3) Cleaning and Sanitization: Establish procedures for sanitising and cleaning materials from returned packing to make sure they adhere to hygienic standards and may be used again.
4) Logistics and Transportation: Create a logistics plan that takes into account things like storage, sorting facilities, and the cost of transportation in order to efficiently collect returned packing.
5) Communication and Education: Inform clients of the advantages of returning packaging materials and give them precise guidelines on how to do so in an ethical manner.
6) Collaboration with Retailers: Work together with e-commerce sites and retailers to properly include the return procedure into their business processes.
7) Incentives and Rewards: Provide discounts, loyalty points, or charitable donations to support environmental issues as rewards for customers who take part in the return program.
8) Return back the packing material cost: Customers may receive a reimbursement for the cost of packing materials upon returning the items.
9) Regulatory Compliance: Make sure all local laws pertaining to the disposal, recycling, and gathering of packaging materials are followed.

By implementing these strategies, businesses can effectively collect back cloth and glass packaging materials from customers, promoting a circular economy and reducing environmental impact associated with packaging waste.

V. FINDINGS AND SUGGESTION

Impulsive buying online can be both advantageous and disadvantageous. On the positive side, it offers convenience, immediate gratification, and the opportunity to discover new products and special deals, sometimes resulting in savings. However, it also has significant downsides, such as financial strain from unnecessary spending, the likelihood of buyer's remorse, overconsumption, and potential negative impacts on mental health. But how many of us know that impulsive buying behavior of the people in e-commerce platforms, cause huge damage to the environment? Yes, impulsive online purchases can contribute to increased plastic waste due to several factors. These include excessive packaging materials such as plastic bags, bubble wrap, and other protective elements that accompany frequent deliveries. Many items are packaged in single-use plastics, which are discarded immediately after use. Additionally, impulsive purchases are more likely to be returned, resulting in more packaging and shipping materials being used. This behavior also leads to overconsumption, where people buy more than they need, contributing to greater plastic waste. This study paves way for thinking about cloth and glass package instead of plastic which also has their own advantages and disadvantages. But, considering the global warming issue and pollution, we can step towards the usage of cloth and glass as it can be recycled and returned. This study can lead to the further research on reverse logistics if glass and cloth are used in e-commerce purchase.

VI. CONCLUSION

Many impulsive purchases come with excessive packaging, often made of plastic or other non-biodegradable materials. This packaging adds to the overall waste stream, leading to landfill accumulation and potential environmental pollution. Each impulsive purchase involves transportation, which contributes to carbon emissions. Rapid and frequent purchases increase the demand for transportation services, resulting in higher fuel consumption and greenhouse gas emissions. Switching from plastic to cloth and glass packing materials presents a pivotal opportunity to combat environmental pollution. Cloth and glass offer sustainable alternatives that significantly reduce plastic waste accumulation in our oceans and landfills. By opting for these materials, we decrease our dependence on fossil fuels used in plastic production, thereby conserving natural resources and lowering carbon emissions. Implementing systems to collect and reuse cloth and glass packaging fosters a circular economy, promoting resource efficiency and minimizing environmental impact.

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Furthermore, these alternatives generally pose fewer risks to ecosystems and human health compared to plastics, aligning with consumer preferences for sustainable practices. Embracing cloth and glass packing materials not only mitigates environmental pollution but also strengthens brand reputation and demonstrates a commitment to environmental stewardship, ensuring a healthier planet for future generations. The transition from plastic to cloth wrappers and glass packaging in e-commerce represents a pivotal step towards a more sustainable future. While it demands initial investment and operational adjustments, the long-term environmental and brand reputation benefits are substantial. Although challenges like increased costs and potential product damage exist, innovative solutions, such as reusable packaging models and improved packaging designs, can mitigate these issues. The increase in cost due to the usage of cloth and glass packing containers instead of plastic can be distributed among several stakeholders like consumers, business, supply chain partners and Government depending on the business model and market dynamics. The potential for positive environmental impact, coupled with opportunities for brand differentiation and consumer loyalty, makes the adoption of cloth wrappers and glass packaging a strategic imperative for forward-thinking e-commerce businesses. Ultimately, the decision to prioritize sustainability through packaging choices extends beyond environmental responsibility; it is a reflection of a company's commitment to a healthier planet and a brighter future.

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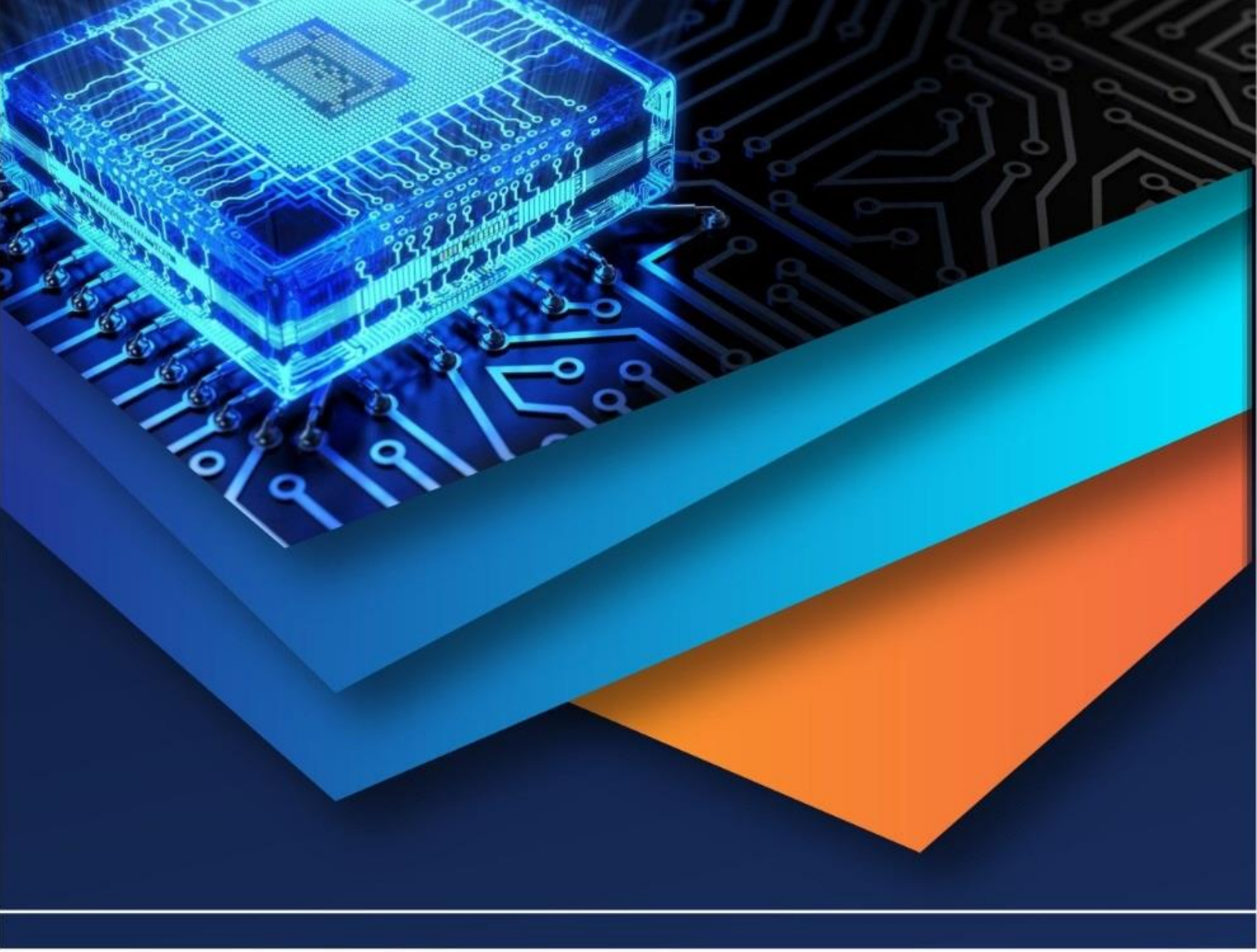

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