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"Impact of E-Payment Systems on Customer Satisfaction"

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Abstract: ***Everything has shifted online since the outbreak of the pandemic, from education to full-time jobs to health check-ups. What's important to remember here is that the majority of our day-to-day activities increasingly include making payments online. Although e-payment and e-banking solutions have been available for some time now, the pandemic has effectively compelled a huge portion of the urban and rural populations to use them. This research study aims to find out how widely e-payment and e-banking systems are used and how they affect the user experience. Researchers have often been drawn to digital payment systems since they are a relatively new concept (the first digital payment system was only established in the 1990s). Over time, researchers have attempted to characterize the value of digital payment systems and what they represented for modern e-commerce, consumer personal finance, and economies around the world. According to the literature analyzed from many articles and research papers, digital payment is significantly more convenient than traditional paper currency. There has been a lot of studies done on the problems with digital payment systems (such as serious security issues and inaccessibility to these systems owing to low internet penetration), which pushes developers to keep working on these systems for the purpose of safer and faster transactions. According to several studies, online payment technology can cut costs, increase the number of consumers for a firm, improve customer-company interaction, and improve the company's image. This necessitates businesses providing a frictionless payment experience to their customers. In this research paper, a large amount of secondary data, as well as primary data acquired via survey, was utilized to highlight the paper's aims, type, and, most importantly, to analyze and interpret the data in order to better address the problem statement. We've come to the conclusion that electronic payment solutions have a huge impact on client satisfaction. Customers are increasingly turning to e-payment systems as a result of the pandemic's regular lockdowns, which have limited access to banks and conventional ATMs. While making online payments, consumers look for offers, rewards, discounts, and other incentives, which distinguish them from cash on delivery payments. Businesses (large and small) should make sure that their customers have a variety of ways to pay for goods and services (debit cards, credit cards, digital wallets, UPI, prepaid cards).***

Purpose & Summary of Study

1) Purpose

- ***To ascertain the extent to which e-payment systems are employed.***
- ***To examine the impact of e-payment systems on customer satisfaction.***
- ***To discuss issues surrounding e-payment systems.***

2) Summary: The goal of this study is to find out how widely e-payment and e-banking technologies are used and how they affect the user experience. For the purposes of this study, a large amount of related literature, as well as primary data acquired by survey, was evaluated. Concerns about e-payment systems have also been raised. We noticed that the pandemic has driven a big number of people to utilize e-payment systems and that having a functional and seamless online payment experience is critical to attracting customers to all types of enterprises. Despite security concerns and a lack of access to faster internet connections, Indians are beginning to embrace online payment solutions.

Keywords: E-payments, Credit Cards, Online Transactions, Cash Payment, E-Commerce, Customer Satisfaction, Debit Cards, Google-Pay, UPI Apps, Internet Banking

I. INTRODUCTION

An electronic payment system (e-payment system) is a technique of making transactions or paying for goods and services without using checks or currency. It's also known as an *online payment system* or an *electronic payment system.*

Owing to the growing popularity of internet-based banking and shopping, the electronic payment system has evolved significantly in recent decades. Electronic payment systems and payment processing devices are becoming increasingly common as the world progresses with technological advancement. The outbreak of the pandemic has also increased the number of people who use electronic payment systems.

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Credit payment systems and cash payment systems are the two types of e-payment systems. Credit and debit cards are one of the most widely used payment methods on the internet. Alternative payment options, such as bank transfers, electronic wallets, smart cards, and so on, are also available.

A. Credit Payment System

1) *Credit Card:* A type of e-payment system that requires the cardholder to use a card issued by a financial institution to make payments online or via an electronic device instead of cash.
2) *E-wallet:* A type of prepaid account that keeps a user's financial information, such as debit and credit card information, in order to facilitate online transactions.
3) *Smart Card:* Sometimes known as a chip card, is a plastic card with a microprocessor that may be loaded with cash and used to make transactions.

B. Cash Payment System

1) *Direct Debit:* A financial transaction in which an account holder asks his bank to electronically withdraw a certain amount of money from his account to pay for products or services.
2) *E-check:* A computerized counterpart of an old paper check is known as an e-check. It's an electronic money transfer from a bank account, usually a checking account, that doesn't require the usage of a paper check.
3) *E-cash:* E-cash is a form of electronic payment system in which a predetermined amount of money is stored on a customer's device and made available for online transactions.
4) *Stored-value Card:* A card with a predetermined amount of money that can be used to make a purchase at the issuer's store. Gift cards are a common form of stored-value cards.

➢ *Pros*

E-payment systems are designed to make accepting electronic payments for online transactions easier. With the rise in popularity of online shopping, e-payment systems have become a must-have for online shoppers who want to make purchasing and banking easier.

It has numerous advantages, including :

- More customers from around the world are reached, resulting in increased sales.
- Transactions that are more effective and efficient It's because transactions may be completed in a matter of seconds (with a single click), saving customers time. It's quick and easy to use.
- An e-commerce website allows customers to pay for things at any time and from any location. All they require is a device that can connect to the internet.
- Transaction costs are smaller, as are technology costs.
- Customers can keep track of their expenses because they may access their virtual account at any time and see their transaction history.
- It's now so simple to integrate payments into a website that even a non-technical individual can do so in minutes and begin accepting online payments.
- Payment gateways and payment providers provide sophisticated security and anti-fraud capabilities to ensure that transactions are safe and secure.

➢ *Cons*

Not everything is perfect, everything has its own share of drawbacks. Following are the cons of using e-payment systems:

- E-commerce fraud is increasing at a rate of 30% every year. There should be no problems if you follow the security guidelines, but if a merchant picks a payment system that is not extremely secure, there is a chance of sensitive data breach, which might lead to identity theft.
- The lack of anonymity – For the most part, this isn't a problem, but keep in mind that some of your personal information is saved in the payment system's database.
- The necessity for internet access – As you might expect, if your internet connection goes down, you won't be able to execute a purchase, access your online account, or do anything else.

In this day and age, when everything is going online and more leaps are being made in the domains of e-payment and m-payment systems, it is critical for businesses (both large and small) to recognize the necessity of offering a seamless payment experience to their customers.

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II. REVIEW OF LITERATURE

Books reviewed in various papers suggest that digital payments are much easier to compare with traditional paper money. This payment method is 24x7 available anywhere. Such transactions can be made by anyone with an Internet connection and do not have to wait in line or visit banks. Given the importance of time, in everyone's life, so the most important role played by a time-saving and highly secure digital payment system. or money, they save time and are a quick way to transition on a regular basis. It has also been shown that demon possession by mail has had a profound effect on a country like India where a large proportion of people who are starting to use the digital payment system are demanding paperwork and saving time. Given that the government has taken the initiative to make India a moneyless country that sends demons to be made hopeful and we can also see in the midst of this crisis that because of Covid-19 we all make heavy use of the digital payment system, all e-commerce or all online food or other trade. online don't need cash, they all accept prepaid payments that can be made with various digital payment systems.

We see in various articles that over the past 20 years there has been a emergence of digital payments that have begun to gain a slower attraction for users, researchers as they bring change to modern e-commerce. As it attracted the researcher he began to interpret it in different ways focusing on different fields namely business, IT, accounts and finance. According to Briggs and Brooks (2011), digital payment is a type of payment facilitated by banks that connects individuals and banks through digital transactions. According to Peter and Babatunde (2012), digital payment is a type of payment, transaction, or transfer of money via internet assistance. Adeoti and Osotimehin (2012) refer to digital payments as an online payment method or elsewhere using the digital term in the same context. According to Kaur and Pathak (2015), digital payments are payments made for the purpose of e-commerce in which money is exchanged digitally.Based on the preceding definition, we can deduce that digital payment is a payment mechanism that incorporates the use of multiple digital platforms or software to operate.

Research: Sustainable growth of online payment
Year Published: 2011
Author's name: Briggs and Brooks

Kevin Foster, Scott Schuh, and Hanbing Zhang (2010) examined consumer payment methods in respect of debit and withdrawal payments that have been declining since 2010 There was an increase in the card payment system around 2009 in 2010, which resulted in less paper spending. Since 2010 there has been an increase in debit and credit card usage compared to a slightly lower cash transaction which reduced prepaid payments. Singh.A et al. (2012) examined how secure the internet network should be to provide smooth transactions for all participants and vendors in their study. Systems are developed in such a way that no fraud occurs, allowing customers to use their cards to trade safely while ensuring that no data is revealed. People generally conduct digital e-commerce transactions, however they find the internet to be insecure. To maintain the security of transactions and the protection of information, strict laws and regulations must be observed. Nitsure (2014) in his study highlighted the challenges faced or perceived in a developing country like India in the use of the e-payment system caused by the low spread of internet and technology. The paper focused on major issues such as security, legislation, etc. In a country like India there is a great danger where the poor are given the opportunity to be informed about these institutions even if they are not given that information.

Rakesh H M & Ramya T J (2014), in their study examined the factors that led to the adoption of online banking in our country. It was found that the apparent reliability, practical use and practical use were the main reasons for the adoption or use of online banking.

NAME OF RESEARCH PAPER: International Journal of Education and Science Research
Year Published: 2014
Authors: Nitsure, Rakesh HM & Ramya TJ

The benefits of making an online payment system online payment offer many benefits to the organizations that use it. The technology can improve financial management and operational efficiency, increase the company's participation in the customer acquisition process, balance the company's business cycle and strengthen the company's relationships with its business partners.

(Ratna singham 1998). Online payment technology is also said to be able to reduce costs, increase the number of corporate customers, increase customer-company relationships and improve company image. What matters is the increase in revenue and as a result the profitability of the company. Perhaps the most interesting advantage of online payment is the ability to pair it with an online payment system or electronic payment system (e-billing). E-Billing systems use both delivery and payment sides of the payment cycle for all online transactions (Radecki and Wenninger, 1999). E-billing eliminates the conversion of computer information to and from paper and replaces physical document delivery.

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Typically, this includes the use of computer networks, the Internet and digital pricing systems and the electronic payment system is a means of paying for goods or services electronically, instead of using cash or check, in person or by post. Hundreds of electronic payment systems are designed to provide secure Internet transactions. Electronic payment systems are generally divided into four categories: credit cards and bank cards; electricity bills; micropayment systems; and procedures at the session level for secure communication. In India, the Reserve Bank of India has stated its intention to ensure that payment and accommodation systems are secure, efficient, co-operative, authorized, accessible, inclusive and compliant with international standards. The idea is to actively promote the electronic payment system to bring low-income people to India.

The regulation seeks to promote innovation and competition in order to help the payment system reach international standards. The various initiatives undertaken by the Reserve Bank of India, in the mid-eighties and early eighties, have led to the provision of technological solutions. The need arose to provide an effective cost.

III. RESEARCH METHODOLOGY

A. *Type of Research*

The research is quantitative. Primary data is the source of information.

B. *Data Collection*

A questionnaire for the survey was created. It consisted of 20 questions related to the impact of e payment systems on customer satisfaction.

C. *Sampling Plan*

The sample design consists of the use of a questionnaire to which a sample size of 100 was collected and the type of sampling design used is “Convenience sampling”. Convenience sampling is a form of non-probability sampling in which the sample is taken from a subset of the population that is nearby. It is a useful data source for researchers.

D. *Survey Instrument*

A questionnaire was utilized to collect data for this study. A questionnaire with 20 questions was sent to 100 people. A questionnaire is a sort of research instrument that consists of a series of questions or other forms of prompts designed to elicit information from a responder. This was accomplished through the use of an online questionnaire. Respondents are provided the questionnaire via online means in this case. This approach is typically less expensive and less time-consuming.

E. *Plan for Analysis*

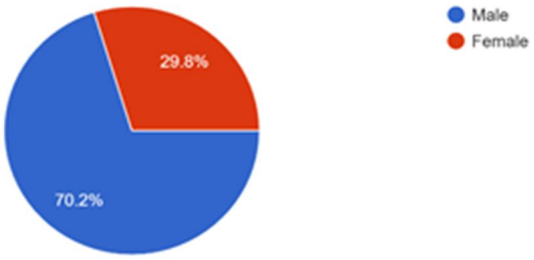
After the collection of responses, the data is converted into pie charts to pictorially represent it for easy interpretation and comparison.

IV. ANALYSIS AND INTERPRETATION

Since it was a collective sampling method – only people having a Bank Account and are above age 18 were chosen . The majority of findings are based on the interpretations of various cross-tabulations and analysis carried out

A. *Demographic Analysis*

The questionnaire was initially emailed to 100 people out of which 6 were biased and had to be eliminated 70.2% were Men and 29.2% were Females Maximum no. of respondents were from the 18-25 age group (57 respondents) followed by age 26-40 group(22 respondents) . And a Majority of Peoples were from City (91 respondents) and rest Village(9 respondents).



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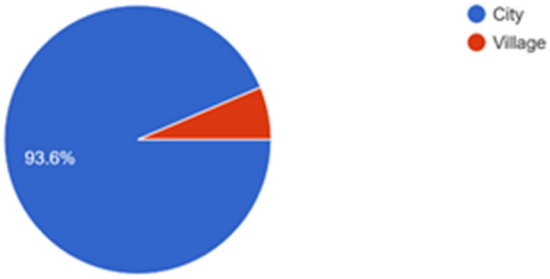


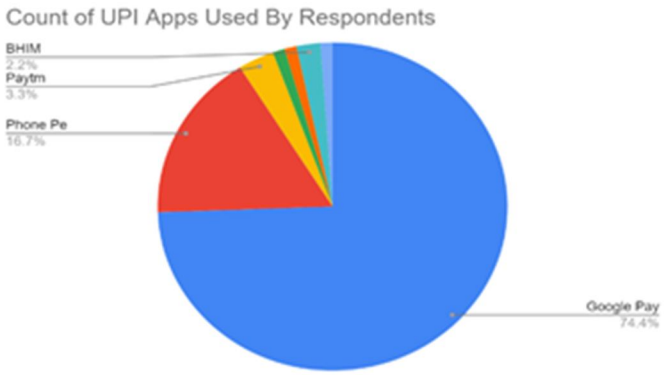
B. User of Online Transaction

With regards to a cross-tab between users of online transactions and Education. A majority of 80 respondents were Regular users out of which 41 Respondents were graduates followed by 12 doing Diploma and 11 respondents doing masters. It was followed by 10 Respondents who prefer conventional method followed by 4 respondents who don't use online transaction

COUNTA of User of online transaction	*User of online transaction*			
Education	Not user	Prefer Conventional Method	Regular user	Grand Total
Class 12	1	2	11	14
Diploma		1	12	13
Graduate	3	6	41	50
Masters		1	11	12
Phd			1	1
Undergraduate			4	4
Grand Total	**4**	**10**	**80**	**94**

C. UPI Apps used by Respondents

A majority of (67 Respondents)use G-pay, followed by (41 Respondents) use Phone-pe and (36 respondents) using Paytm and a total of (12 respondents) use other apps like Amazon app ,BHIM ,Debit card, and Net banking



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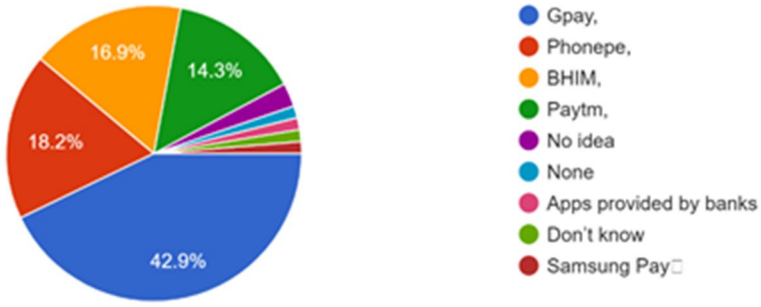
D. Problems Causing Delay in UPI apps

When asked about which app has takes time to process payment and cause delay a majority of(33 respondents)choose G-pay followed by(14 respondents)choose Phone-Pe , (13 respondents) choose BHIM, and (11 respondents) choose Paytm



E. Most Rewarding UPI app

When asked which app provides the most rewards and offers a majority of 48 respondents) choose G-pay , followed by (20 respondents) Paytm (11 respondents) Phone-Pe. And others use net banking or other apps

COUNTA of Which one would you rather prefer to make online payments for your purchases?	*Problems*						
Rewards	BHIM,	Gpay	No Response	None	Paytm	Phonepe	Grand Total
Gpay	10	21	3	1	7	9	51
No Response			5	4			9
Paytm	4	6	1	1	3	4	19
Phonepe	1	10	1		1	1	14
Grand Total	**15**	**37**	**10**	**6**	**11**	**14**	**93**

When a cross tab was done for the problems causing apps and the most Rewarding app a majority of (37 respondents) choose google for for delay in payment and processing issue followed by (15 respondents) BHIM,(14 respondents)Phone-Pe,(11 respondents)Paytm out of this 21 respondents still prefer G-pay because the rewards and coupons the Company offers to customers

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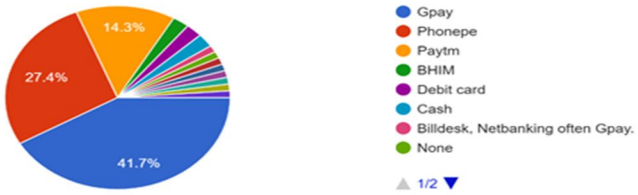
F. Which app is used to Pay bills ?

When asked about which app is used to pay bills a majority of(35 respondents) choose G-pay, followed by (23 respondents) Phone-Pe, (12 respondents) Paytm. The main reason this could be user friendly interface and the rewards and coupons provided by the app to the customers



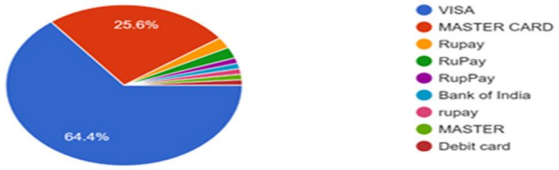
G. Occupation and User of Online Transaction

When doing a cross tab between occupations a majority of (44 respondents) students are regular users followed by government service workers (23 respondents). A total of (10 respondents) preferred Conventional method and 4 respondents were not a user of online transaction

COUNTA of User of online transaction	User of online transaction			
Occupation	Not user	Prefer Conventional Method	Regular user	Grand Total
8		1		1
Advocate			1	1
Bank			1	1
Government Service	1		23	24
House wife		1		1
Insurance		1	1	2
IT and Telecom			2	2
Retired Person		2	4	6
Self Employed		1	3	4
Student	3	4	44	51
Work for an mnc			1	1
Grand Total	**4**	**10**	**80**	**94**

H. Card Providers

When asked about Card Provider a majority of 58 respondents use VISA , 23 respondents use MASTER CARD and the rest use Ru pay cards and Debit Cards.



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V. CONCLUSION

The objective of this study was to assess the relationship between the service quality of the e-payment system and the e-payment users' satisfaction. According to the results, not all respondents agreed with all items. The results showed that most of the respondents disagreed with the tangible item focusing on the fact that "security number or CVC code of bank cards is not clear and difficult to read." The information on the bank cards important to the e-payment system, and the disappearance of this information causes the inability to use the e payment system. It indicated the existence of a problem faced by the respondents.

The finding of this study shows that despite of many advantages of online banking, people still consider it as an alternative for analyzing their banking records. Although after the outbreak of the pandemic people have started to switch to more cashless alternatives. Going through the survey the main problem observed is that customers still have a fear of security issues concerning their bank accounts and thus do not opt for internet banking.

Banks are trying their best by providing the best security options to the customers with respect to internet banking and e-payment options, They are providing free internet banking services to incentivize customers to use e-banking and e-payment methods. On enquiring two bank employees we discovered that most of the customers that avail e-banking and e-payment systems are youth and businessmen. E-Banking is an innovative tool that is fast becoming a necessity, especially in the midst of a pandemic where customers are unable to visit banks in person and using cash to make payments may be unsafe due to obvious reasons.

There are still considerable concerns about security issues while using e-payment and e-banking methods. Banks and companies that provide e-payment services should address these concerns by trying to eliminate possible security issues in order to encourage more people to turn to e-payment and e-banking systems. They should also work on building their apps and websites with better User-Interface (UI) systems to provide a better, easier and seamless user experience.

Overall, all of the e-payment channels should continually improve their e-payment services to meet the expectations of consumers .A competitive environment has to be maintained by the banks and online transaction facility providers to do continuous innovation to foster new services and products and also to reduce the costs of transactions for customers and businesses. The results of the study allow the users of e-payment systems and adopting organizations to understand the quality dimensions impacting on e-payment system users' satisfaction .

VI. ASSUMPTIONS OF THE STUDY

The assumptions that will guide the procedure for the study include;

A. Electronic banking was assumed to be important means of enhancing customer satisfaction.
B. That the elements that will make up the case study corporate with the research by filling and returning the questionnaires that will be administered.
C. That the respondents that will be selected for the study have adequate knowledge and information about manpower planning process.
D. That the information that will be supplied by the respondents will be assumed to remain constant through the period of the study.

VII. LIMITATIONS OF THE STUDY

A. As a research is based on a sample, therefore, the finding may not reveal the factual information about the research problem, though an utmost care will be taken to select a truly representative sample.
B. There may be some bias in the responses of the respondents which cannot be ruled out fully.
C. Sudden change in the e- banking practices during the course of research can affect the results.
D. The sample size of only 100 was taken from the large population for the purpose of study, so there can be difference between results of sample from total population.
E. People were reluctant to give details because of their busy schedules.
F. Merely asking questions and recording answer may not always elicit the actual information sought.

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VIII. SUGGESTIONS AND RECOMMENDATIONS

A. As per the customer, the few of banks have a complicated process to use the online payment system, so that banks need some changes to make their online payment service in the financial market, banks should adopt better strategies to attract more customers.
B. Internet banking facility must be made available in all branches of bank.
C. Prompt dealing with permanent custom As a research is based on a sample, therefore, the finding may not reveal the factual information about the research problem, though an utmost care will be taken to select a truly representative sample.
D. There may be some bias in the responses of the respondents which cannot be ruled out fully.
E. Sudden change in the e- banking practices during the course of research can affect the results.
F. The sample size of only 100 was taken from the large population for the purpose of study, so there can be difference between results of sample from total population.
G. People were reluctant to go in to details because of their busy schedules.
H. Merely asking questions and recording answer may not always elicit the actual information sought.
I. Fair dealing with the customer. The staff should be cooperative, friendly and must be capable of understanding the problems of the customers.
J. Give proper training to customer for using Online payment system or E- Banking.
K. Create a trust in mind of customer towards security of their accounts.
L. Provide a platform where the customers can access different account at single time without extra charge.

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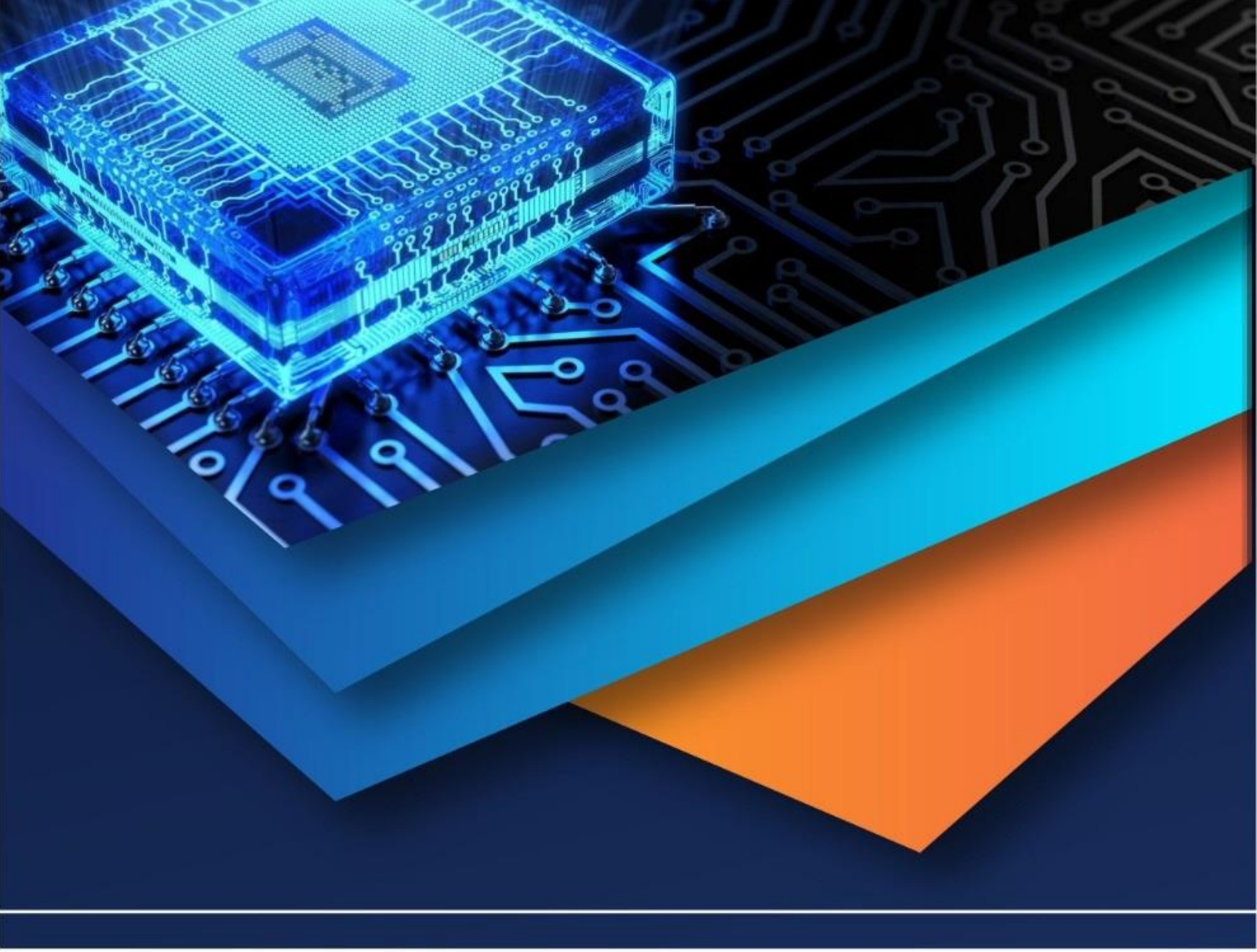

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