iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** XII **Month of publication:** December 2025

DOI: https://doi.org/10.22214/ijraset.2025.76396

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue XII Dec 2025- Available at www.ijraset.com

Exploring the Impact of Digital Literacy on Gen Z'S E-Commerce Adoption in Tamilnadu

Dr. S. Kalaiselvi[1], R. Abinaya[2]
[1]*Assistant Professor of Commerce,* [2]*Research scholar of Commerce, Vellalar college for women (Autonomous), Erode-12*

Abstract: ***This research looks at how digital literacy influences e-commerce adoption among Generation Z in Tamilnadu, where rapid digital growth is reshaping consumer habits. Focusing on key aspects of digital literacy - such as information handling, technical skills, communication abilities, and online security awareness - the research explores how these competencies affect Gen Z's trust, confidence, and willingness to shop online. Utilizing information from structured surveys distributed across urban, semi-urban, and rural areas, the study analyses how digital literacy relates to online buying frequency, platform preferences, payment choices, and perceived risks. Results show that higher digital literacy significantly encourages e-commerce use, as digitally skilled youth are more capable of navigating platforms, judging product reliability, and using secure payment methods. Awareness of online security also strongly influences trust, which has a significant part in purchase decisions. However, rural respondents still face challenges due to lower exposure and infrastructural limitations. The study concludes that improving digital literacy and promoting safe online behaviour can substantially enhance Gen Z's participation in e-commerce, and it recommends targeted efforts by educators, policymakers, and businesses to reduce digital skill gaps and support an inclusive digital economy.***

Keywords: Digital Literacy, Gen Z, Consumer habits, Online buying, Purchase decisions, E-Commerce.

I. INTRODUCTION

The rapid expansion of the digital economy in India, operated by increased internet penetration and affordable smartphones, has created a dynamic landscape for e-commerce. This shift is particularly evident in Tamil Nadu, a state with a significant youth population that is speedily adapting to digital lifestyles. Within this demographic, Generation Z (individuals born between 1997 and 2012) stands out as a critical consumer group, characterized by their "digital native" status and distinct online behaviours. They represent the future consumer market, and their preferences are set to shape the trajectory of digital commerce.

While Gen Z is often assumed to be naturally proficient with technology, mere access does not automatically equate to robust digital literacy. Digital literacy involves a comprehensive set of skills, including the ability to evaluate information sources, protect personal data, avoid online scams, and engage with digital content critically. This capability gap is a crucial area of study, as a lack of adequate digital literacy, or "digital illiteracy," can expose this highly engaged demographic to significant risks, such as financial fraud and identity theft, despite their frequent online transactions.

This study, titled "Exploring the Impact of Digital Literacy on Gen Z's E-Commerce Adoption in Tamil Nadu," seeks to bridge the research gap by analysing how varying levels of digital literacy influence the e-commerce adoption patterns and purchase decisions of Gen Z consumers in the region. Precisely, the research focuses on understanding the extent to which digital skills affect their perception of online shopping's effectiveness and ease of use, ultimately shaping their engagement with e-commerce platforms. The findings will provide valuable insights for businesses, marketers, and policymakers to develop targeted strategies that enhance digital inclusion, build consumer trust, and foster a secure and sustainable digital marketplace in Tamil Nadu.

II. STATEMENT OF THE PROBLEM

There is little knowledge about how digital literacy specifically influences the adoption of e-commerce among Generation Z in Tamilnadu, despite the fact that numerous studies have looked at digital literacy and technology usage among younger generations in India. Most existing research focuses broadly on internet usage patterns, general consumer behaviour, or digital literacy in educational contexts, without examining its direct influence on online purchasing decisions. Additionally, previous studies often view Gen Z as uniformly digitally skilled, overlooking regional variations within Tamil Nadu, particularly the differences between urban, semi-urban, and rural areas. There is also an absence of focused research on how individual components of digital literacy such as security awareness, information evaluation, and technical proficiency-impact trust and risk perception in online shopping.

©IJRASET: All Rights are Reserved

The relationship between these specific digital skills and e-commerce adoption remains underexplored. Moreover, limited attention has been given to the contextual factors unique to Tamil Nadu, such as regional language preferences, state-level digital initiatives, and infrastructural disparities. This gap indicates the need for a comprehensive study that connects digital literacy levels with e-commerce adoption behaviour among Gen Z in Tamil Nadu, providing deeper insights for businesses, policymakers, and educators to design targeted interventions.

A. *Objectives of The Study*

1) To assess the general level of digital literacy among Tamilnadu's Generation Z.
2) To investigate how Gen Z's inclination to shop online is influenced by perceived risks.
3) To assess Gen Z's level of e-commerce adoption.
4) To examine how trust in e-commerce platforms is affected by awareness of digital security.
5) To compare the adoption of e-commerce and digital literacy in Tamilnadu's rural, semi-urban, and urban areas.
6) To offer suggestions to legislators, educators, and e-commerce businesses in order to improve digital literacy and encourage Gen Z to shop online.

B. *Scope of The Study*

1) The study looks at how digital literacy influences e-commerce adoption among Gen Z (18–25 years old) in Tamilnadu.
2) Assessing digital literacy levels among Gen Z in Tamilnadu.
3) Examining the relationship between digital literacy and e-commerce adoption.
4) Identifying challenges and opportunities for e-commerce growth in Tamil Nadu.
5) Providing recommendations for e-commerce platforms and policymakers to enhance digital literacy and promote e-commerce adoption.

C. *Limitations of The Study*

1) The study is limited to Tamil Nadu, India, which may not be representative of other regions or countries.
2) The study focuses on Gen Z, which may not capture the experiences and behaviors of other age groups.
3) The study may rely on self-reported data, which can be subject to bias.
4) The study's measurement of digital literacy may not be comprehensive or universally accepted.
5) The digital landscape is constantly evolving, which may impact the study's findings and relevance.

III. REVIEW OF KEY RESEARCH WORKS FOR THE STUDY

1) According to Kim & Stoel (2005) due to complex market scenario and ever-changing consumer dynamics sustainability is sceptical. Dash & Akhtar (2012): In their study have said that in order to tackle competition and ensure sustainability e-retailers have to create, propose and deliver extraordinary value to their customers. This shall lead to positive brand image and loyalty among buyers.
2) According to Klaus and Macklan (2013) online customer service experience can be explained as shopper’s perception of the communication between the e-retailer and other customers, expressed through the facets of functionality and psychological factors.
3) According to Leggatt (2016) around 90% customers abandon their e-shopping carts because they are sceptical about online retailers.
4) Singh, Panackal, et al., (2016): In their study have expressed that consumerism, empowerment of the youth and digital media have emerged as the most important factors in modern-day marketing.
5) Catherine Giunta (2020): In the study, the researcher summarised results of a longitudinal study of generation Z and their use of digital marketing platforms. The author considered the generation Z as niche market. The study also showed perceptions of marketer’s use of social and consumer digital marketing ramifications.
6) Costinel, Anca-Maria Milovan., et al., (2021) in their paper titled “Social Media Marketing and Luxury Brands: The Millennials and generations Z perspective”. Since the users of social media is more, the brands can use this platform to communicate and satisfy in better way for their followers. The study showed that due to the social media applications as marketing channels the luxury brands are having more competition among the millennial’s and generation Z.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

A. *Advantages Of E-Commerce*

1) Convenience: E-commerce allows customers to shop from anywhere, at any time, and from any device with internet access. This means that customers can shop 24/7, without having to physically visit a store.
2) Increased Reach: E-commerce enables businesses to reach a global audience, expanding their customer base and market share. This means that businesses can now sell their products or services to customers in different parts of the world.
3) Cost Savings: E-commerce reduces overhead costs, such as rent, inventory, and staffing costs, which can lead to lower prices for customers. Additionally, e-commerce businesses often offer special deals and discounts to customers.
4) Personalization: E-commerce websites use data and analytics to provide personalized shopping experiences, including product recommendations and targeted marketing. This means that customers see products that are relevant to their interests and preferences.
5) Time-Saving: E-commerce websites offer quick and easy checkout processes, saving customers time and effort. Customers can also save time by not having to physically visit a store.
6) Access to Information:E-commerce websites provide customers with detailed product information, reviews, and comparisons, enabling them to make informed purchasing decisions.
7) Flexibility: E-commerce allows customers to shop at their own pace, without pressure to buy. Customers can also easily return or exchange products if they are not satisfied.
8) Environmentally Friendly: E-commerce reduces the need for physical stores, which can lead to a reduction in carbon emissions and other negative environmental impacts.

B. *Limitations Of E-Commerce*

1) Limited Personal Interaction: E-commerce transaction are typically impersonal, which can make it difficult for customers to get the same level of service and support as they would in a physical store.
2) Security Concerns: It's transaction involve the transfer of sensitive information, such as credit card numbers and personal data, which can be vulnerable to cyber attacks and data breaches.
3) Technical Issues: E-commerce websites can experience technical issues, such as slow loading times, crashes, and payment processing errors, which can frustrate customers and lead to lost sales.
4) Return and Refund Policies: It's return and refund can be difficult and time-consuming, which can be a drawback for customers who are used to being able to return or exchange products easily in a physical store.
5) Lack of Tactile Experience: It's customer can't touch or try out products before buying them, which can lead to disappointment if the product doesn't meet their expectations.
6) Dependence on Technology: E-commerce requires a reliable internet connection and working technology, which can be a barrier for some customers.
7) Limited Product Range: E-commerce websites may not offer the same range of products as physical stores, which can limit customer choices.
8) Delivery Times: It's delivery time can be slow, which can be frustrating for customers who are used to getting products instantly.
9) Environmental Impact: E-commerce has an environmental impact, including packaging waste, carbon emissions from delivery, and the return of unwanted products.

IV. CONCLUSION

E-commerce has transformed the retail landscape, offering unprecedented opportunities for businesses to reach a global audience and for customers to shop from the comfort of their own homes. However, as we've discussed, e-commerce is not without its limitations. From security concerns and technical issues to environmental impact and logistical challenges, there are several hurdles that businesses and customers must navigate. Despite these limitations, e-commerce is here to stay, and it's up to us to make the most of it. By prioritizing customer experience, security, and sustainability, businesses can build trust and loyalty with their customers. By being aware of the limitations and taking steps to protect themselves, customers can enjoy a seamless and secure online shopping experience. As technology continues to evolve, we can expect e-commerce to become even more sophisticated, with advancements in areas like artificial intelligence, augmented reality, and blockchain. These innovations will likely address some of the current limitations, but they will also bring new challenges and opportunities. Ultimately, the future of e-commerce will depend on the ability of businesses and customers to adapt and innovate together. By working together, we can create a more efficient, secure, and sustainable online shopping experience that benefits everyone involved.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

REFERENCES

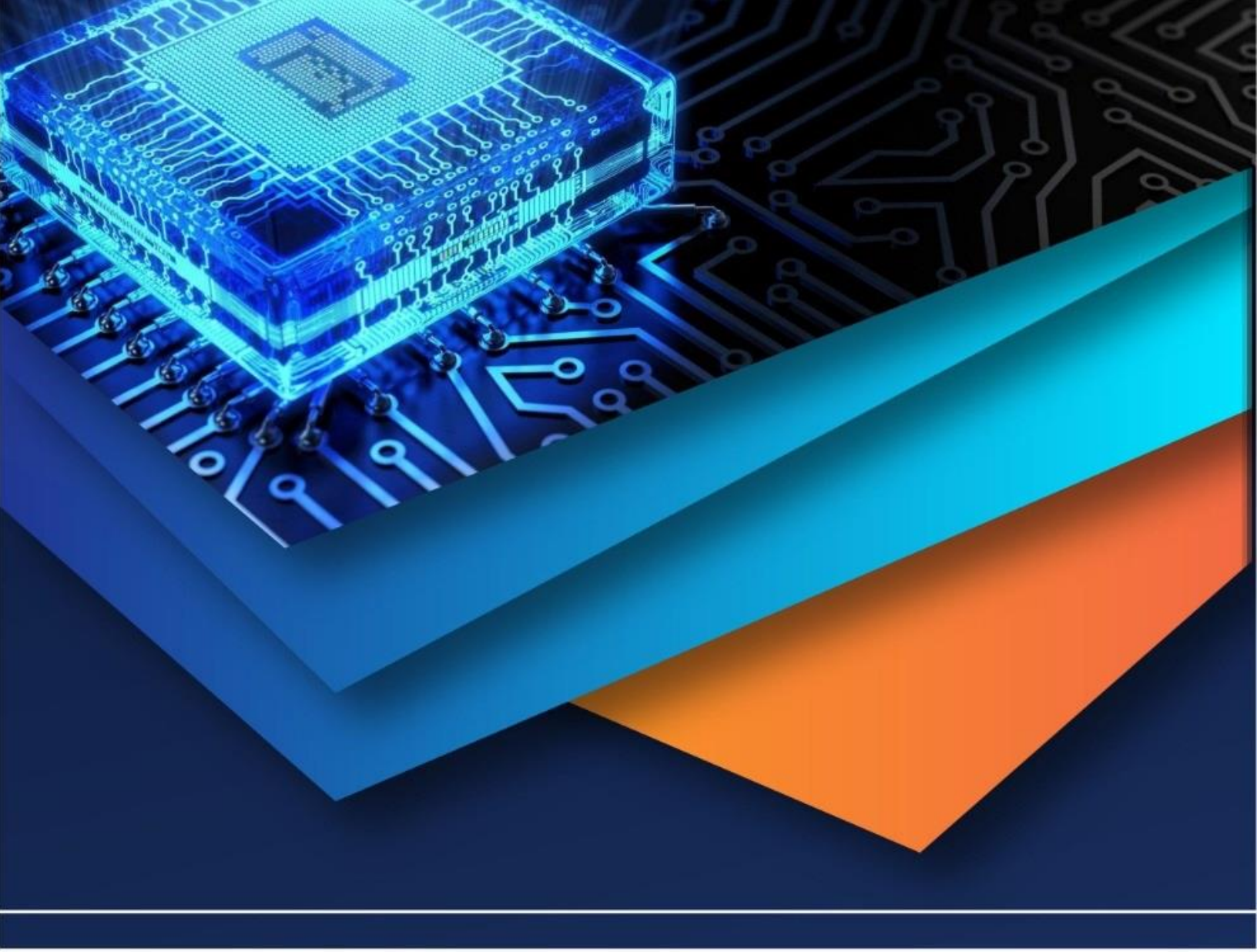
Books

[1] Kothari, C.R. (2004). Research Methodology: Methods and Techniques. New Age International Publishers.
[2] Research Methods: The Essential Knowledge Base" by Janice M. Morse and Lyn Richards (Sage Publications).
[3] Research Methodology: A Step-by-Step Guide for Beginners" by R. Panneerselvam (Pearson Education).
[4] Research Methods for Business: A Skill-Building Approach" by Uma Sekaran and Roger Bougie (Wiley).
[5] "E-Commerce: Business, Technology, Society" by Kenneth C. Laudon and Carol Guercio Traver (Pearson Education)
[6] "Digital Marketing: A Practical Approach" by Dave Chaffey and PR Smith (Routledge)
[7] "E-Commerce and Digital Marketing" by S. Shyam Sundar (Oxford University Press)
[8] "The E-Commerce Book: Business Advice for Making Money Online" by Steve Strauss (Entrepreneur Press)

Articles

[1] The Impact of E-Commerce on Consumer Behavior" by A. K. Sharma (Journal of Electronic Commerce Research, 2018)
[2] "Digital Literacy and E-Commerce Adoption" by M. A. Khan (International Journal of Electronic Commerce, 2019)
[3] "The Role of Trust in E-Commerce" by S. K. Sharma (Electronic Commerce Research and Applications, 2020)
[4] "E-Commerce and Digital Marketing: A Review of the Literature" by J. K. Lee (Journal of Digital Marketing, 2020)
[5] The Future of E-Commerce: Trends and Opportunities" by P. K. Kannan (International Journal of Digital Marketing, 2021)

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)