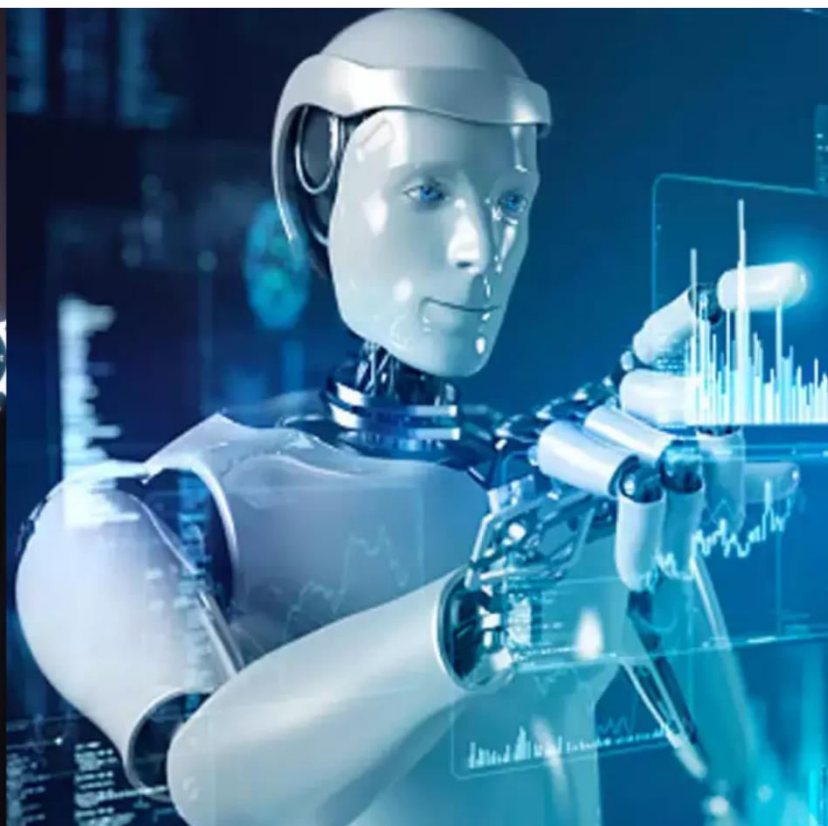




International Journal of Innovative Research in Science Engineering and Technology (IJIRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 8.699

Volume 14, Issue 7, July 2025

A Study on Perception of E- Grocery Platforms

Dr. K.S. Usman Mohideen, Janani D, Nijesh R

Associate Professor, Sri Sairam Institute of Management Studies, Sri Sairam Engineering College, Chennai, India

Scholar, Sri Sairam Institute of Management Studies, Sri Sairam Engineering College, Chennai, India

Scholar, Sri Sairam Institute of Management Studies, Sri Sairam Engineering College, Chennai, India

ABSTRACT: This study explored how online and in-store grocery shopping behaviors are influenced by socio-demographic factors, household attributes, and personal attitudes, using survey data from over 2,000 Florida residents. Through a bi-directional structural equation modeling approach, it found that while online grocery shopping had no significant impact on in-store shopping frequency, in-store shopping reduced the frequency of online purchases, indicating a substitution effect. Positive attitudes toward online shopping, preference for alternative travel modes, and tech savviness encouraged online shopping, while cost consciousness and enjoyment of physical shopping promoted in-store visits. The findings underscore the importance of collaboration between retailers and transport planners to address the evolving travel implications of e-grocery trends.

I. INTRODUCTION

Consumer perception encompasses individuals' awareness, impressions, and opinions about a business, its products, or brand, shaped by various interactions. In today's dynamic marketplace, consumers are considered central, especially with the rise of online shopping. The COVID-19 pandemic accelerated this trend in India, driving people toward digital platforms for essential purchases like groceries. E-grocery platforms such as Big Basket, Amazon Pantry, and Jio Mart saw rapid growth as lockdowns limited physical store access. Factors like urbanization, increased digital literacy, and consumer trust in options like "cash on delivery" have fueled the sector's expansion, making online grocery shopping a convenient and widely accepted norm.

II. REVIEW OF LITERATURE

Sharma and Joshi (2016) – Explored the role of social influence in consumer behavior within the online grocery shopping sector in the United States. Employing a qualitative approach, they examined how social media and peer recommendations influenced purchase decisions. Their study revealed that consumers often turned to social networks for product recommendations and reviews.

Grewal et al. (2017) – Conducted a cross-sectional study in Canada to investigate the role of trust in influencing consumers' choices in the online grocery shopping domain. They argued that trust-building mechanisms, such as secure payment gateways and transparent return policies, significantly impacted consumers' trust and, subsequently, their purchase behavior. The study's findings emphasized the importance of establishing trust in e-commerce platforms to encourage repeat purchases and brand loyalty.

Chen and Riggins (2017) – Conducted a longitudinal study in the United Kingdom, focusing on brand loyalty and its evolution in the online grocery shopping sector. Initial choices were influenced by brand familiarity, but as consumers gained trust and familiarity with the online platform, brand loyalty became more fluid, subject to factors like product quality, pricing, and delivery efficiency.

Anitha N (2017) – Examined the preference of women PG students towards online shopping in Coimbatore city. Studied the shopping factors feel comfortable to buy 24*7, convenient and save time, price discount available, ease and fast, trusted shopping, mode of payment etc. will satisfaction level. Study identified the barriers the customer face during the online purchase. Reduce the problems and improve the level of satisfaction.

Wang and Kim (2018) – Investigated the impact of delivery efficiency on consumer behavior in online grocery shopping in China. Their study, based on surveys and order data analysis, revealed that consumers were more likely to

return to platforms that consistently provided timely and error-free deliveries. This study emphasized the critical role of logistics and delivery management in e-grocery success.

III. NEED OF THE STUDY

The need for this study on e-grocery buying behavior arises from the rapid growth and adoption of online shopping platforms, particularly in the domain of grocery retail, in India. As e-grocery continues to gain traction, understanding consumer behavior in this context becomes paramount for both retailers and policymakers. By conducting this study, we aim to fill the existing gap in knowledge regarding the factors influencing consumers' decisions to shop for groceries online. Furthermore, by identifying the aspects of e-shopping experiences that consumers appreciate or find lacking, we can provide valuable insights to e-grocery retailers to enhance their offerings and customer satisfaction levels. Ultimately, this study seeks to contribute to the ongoing discourse surrounding the evolution of retail and consumer behavior in the digital age, particularly within the dynamic landscape of e-grocery in India.

IV. OBJECTIVES OF STUDY

PRIMARY OBJECTIVES

- To investigate the factors that influence consumer's intention to purchase groceries online.

SECONDARY OBJECTIVES

- To identify the demographic characteristics that affect online grocery buying behavior.
- To examine the role of website Quality, product variety and price competitiveness in influencing E-Grocery purchasing decisions.
- To analyze the impact of convenience, flexibility and delivery options on consumers online grocery shopping behavior.

SCOPE OF THE STUDY

It aims to identify what factors influence customers to choose online platforms, including website elements that drive purchasing decisions. The study seeks to understand whether people enjoy and prefer buying groceries online and to evaluate the key elements affecting this choice. With the rapid growth of the e-grocery industry in India, the research also explores the potential of online grocery shopping to become more popular and possibly surpass traditional in-store shopping. It highlights the growing opportunities for innovative services in the evolving e-commerce landscape.

V. RESEARCH METHODOLOGY

RESEARCH DESIGN

This study adopts a descriptive research design to capture a comprehensive view of on e-grocery buying behavior will adopt a mixed-method approach, combining both quantitative and qualitative methods to provide a comprehensive understanding of the phenomenon.

DATA COLLECTION

In this study both primary and secondary data are used

Primary data: The primary data is collect through these questionnaire serve as a cornerstone of the study's analysis, capturing the wide range of perspective and experience.

Secondary data: In addition to primary data, secondary sources such as magazines, books and websites are consulted. These sources complement the primary data by providing additional information and background context related to e grocery buying behavior.

QUESTIONNAIRE

The primary data was collected using a structured questionnaire. The structured questionnaires that were framed and designed consists of

- Likert 5 point scale

- Multiple choice question
- Ranking question

SAMPLE DESIGN

The study focuses on individuals who are consumers of e-grocery services. The primary objective is to assess their level of satisfaction with these platforms. A random sampling method was employed, and a total of 68 respondents participated in the survey. Additionally, a convenience sampling technique was used to select participants who were easily accessible and willing to respond.

VI. STATISTICAL TOOLS

- Chi-Square Test
- U- test
- Chi- Square

1. Chi-Square Test (χ^2 Test)

Used to test the relationship between two categorical variables. It compares the observed frequencies in each category to the expected frequencies (based on the assumption of no relationship between the variables). When analyzing survey responses in the form of counts (e.g., gender vs. e- grocery preference). To determine if differences in proportions are statistically significant.

Example: Is there a significant association between age group and frequency of using e-grocery apps?

2. Mann-Whitney U Test (U Test)

A non-parametric test used to compare differences between two independent groups, especially when data is not normally distributed. When comparing medians between groups (e.g., frequency of e- grocery use between men and women). Suitable for ordinal data or non-normally distributed continuous data.

Types:

- Independent t-test: Two different groups.
- Paired t-test: Same group at two different times.

3. Weighted Average

Calculates an average where some values are more important or frequent than others. When survey responses have different importance levels. For example, calculating overall satisfaction by assigning higher weight to “Strongly Agree” than “Agree”. Provides a more realistic average when not all values contribute equally.

VII. STATISTICAL ANALYSIS

SHOWING THE WEIGHTED AVERAGE FOR RANKING

ITEMS	NO. OF RESPONDENTS	MEAN RANK
Price and Discount	68	2.40
Product variety	68	3.04
Delivery speed	68	3.40
Brand trust and reputation	68	3.46
Ease of use and Convenience	68	2.72

INTERPRETATION

The factor ranked most important by respondents is Price and Discount (mean rank = 2.40), indicating high price sensitivity. Ease of Use and Convenience follows as the second most important factor. Product Variety is moderately important, reflecting a desire for options without being a top priority. Delivery Speed and Brand Trust received the

highest mean ranks, showing they are less influential in decision-making. Overall, practical and cost-related factors outweigh brand perception for the respondents.

VIII. SHOWING THE CHI- SQUARE TEST FOR INCOME AND MONTHLY PROVISION OF THE RESPONDENT0053

NULL HYPOTHESIS

There is no significance between the income and monthly provision of the respondents.

ALTERNATIVE HYPOTHESIS

There is a significance between the income and monthly provision of the respondents.

TEST	VALUES	df	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi- square	10.146 ^a	9	0.339
Likelihood Ratio	13.519	9	0.140
Linear-by-Linear Association	0.501	1	0.479
No. of valid cases	68		

a. 11 cells (68.8%) have expected count less than 5. The minimum expected counts is 44.

INTERPRETATION

The Pearson Chi-Square p-value = 0.339, which is greater than 0.05. This means there is no statistically significant association between the two categorical variables tested. The Likelihood Ratio p-value = 0.140, also greater than 0.05, supports the same conclusion. The Linear-by-Linear Association p-value = 0.479 suggests no significant trend or linear relationship between the variables if one or both are ordinal. Since all p-values are > 0.05, we fail to reject the null hypothesis.

IX. SHOWING THE AGE AND MULTIPLE DELIVERY OPTIONS OF THE RESPONDENTS

NULL HYPOTHESIS

There is no significance between the Age and Multiple delivery options of the respondents.

ALTERNATIVE HYPOTHESIS

There is a significance between the Age and Multiple delivery options of the respondents.

MULTIPLE DELIVERY OPTIONS	NO. OF RESPONDENTS	MEAN RANK
Strongly agree	32	32.28
Agree	20	31.00
Neutral	7	38.29
Disagree	5	42.50
Strongly disagree	4	53.13
Total	68	

TEST STATISTICCS a,b

TEST	AGE
Kruskal Wallis H	7.671
Df	4
Asymptotic Significance	0.104

INTERPRETATION

The test shows no statistically significant difference in responses regarding multiple delivery options across age groups ($p = 0.104 > 0.05$). While mean ranks suggest that disagreement levels tend to be slightly higher among certain groups (e.g., those who strongly disagree have the highest mean rank of 53.13), the variation is not large enough to conclude a meaningful age-based difference. Therefore, perceptions on delivery options appear relatively consistent across age categories.

FINDINGS

- 49% of respondents are satisfied and 13.7% are highly satisfied with the quality of e-groceries, indicating a generally positive reception.
- 37.7% of respondents hold a neutral opinion, showing no strong dissatisfaction but also highlighting areas for potential improvement.
- Home delivery is the most influential factor, with 66.7% of respondents preferring it, highlighting convenience as the key driver.
- 9.6% of respondents prefer e-grocery due to lack of time, emphasizing how online shopping suits busy lifestyles.
- Comparative pricing (8%) and product customization (5.9%) are less significant factors, showing they are secondary to convenience and time-saving.

SUGGESTION

- Investigate key factors like convenience, product variety, pricing, delivery options, customer service, and how demographics (age, income, location) influence satisfaction levels across different platforms.
- Analyze the role of user experience design, mobile app features, online reviews, ratings, social media, and influencer marketing in shaping consumer perceptions and purchasing decisions.
- Examine how promotional offers, loyalty programs, delivery speed/accuracy, and ethical or sustainable practices influence consumer satisfaction and repeat purchases in the e-grocery sector.

X. CONCLUSION

The analysis of consumer satisfaction with e-grocery buying behavior reveals a strong preference for convenience, particularly through home delivery services, which is the most significant factor influencing consumer choices. The majority of consumers are satisfied or highly satisfied with the quality of e-groceries, with no respondents reporting dissatisfaction. However, a considerable portion remains neutral, indicating some room for improvement. Price and product customization are less influential but still relevant considerations. Overall, e-grocery platforms are meeting consumer expectations primarily through convenience and satisfactory product quality, though continuous enhancements could further boost satisfaction.

REFERENCES

1. Sharma, A., & Joshi, M. (2016). Role of social influence in online grocery shopping. [Qualitative study on peer and social media impact].
2. Grewal, D., Roggeveen, A. L., & Nordfält, J. (2017). Building trust in online grocery platforms: Secure payments and transparent policies. [Study conducted in Canada].
3. Chen, L., & Riggins, F. (2017). Brand loyalty in online grocery shopping: A longitudinal UK study. [Tracked consumer evolution over time].

4. Dinesh Kumar S, Soundarapandian K, Meera S, Sentience of Career Opportunities and Career Development using Social Media – a Study with reference to Tamil Nadu, Journal of Big Data Technology and Business Analytics, Volume-1, Issue-1 (January-April, 2022), pp: 7-14.
5. Maran, K., Priyadarshini, P., Senthilnathan, C. R., Manikandan, M., Kumar, R. G., & Ramu, M. (2024, October). Impact of Artificial Intelligence on Global Healthcare Sector Performance. In 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (pp. 1-5). IEEE.
6. Dinesh Kumar S, Hemanth Kumar V, Mediation of attitude toward advertisements in the relationship between advertisements and purchase intention, Indian Journal of Public Health Research & Development, February 2018, Vol.9, No. 2, pp: 411-417
7. Kumar R G & Lokeshkumar S, How Effective is Influencer Marketing Compared to Traditional Forms of Advertising, International Journal of Innovative Research of Science, Engineering and Technology, 13(12), December 2024, E-ISSN: 2319-8753, P-ISSN: 2347-6710, Impact factor: 8.5,
8. Venkatesh, P., Manikandan, M., Murugan, K., Krishnamoorthi, M., Ramu, M., & Senthilnathan, C. R. (2024, October). The Pivotal Role Of Digital Marketing In The Global Market: A Comprehensive Overview. In 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (pp. 1-5). IEEE.
9. Keerthana, B., & Karan Kumar, B. (2024). Role of content marketing in forming business strategies. International Journal of Research in Management, 6(2), 433–437
10. V. Anitha and Dr. A. R Krishnan, Situational factors ascendant impulse purchase behavior of Private label brands with special reference to modern trade retail outlets in Chennai, International Journal of Management, 11 (4), 2020, pp. 178-187.
11. Dr R S Anantharajan, Venkata Krishnan “Consumer Preference towards Perfumes” International Journal of Multidisciplinary Research in Science, Engineering and Technology - DOI: 10.15680/IJIRSET.2024.0712245 ISSN NO 2582-7219
12. Krishnamoorthy, Murugan & K V, Dinesh. (2023). A STUDY ON CONSUMER PERCEPTION ON EFFECTIVENESS OF SOAP ADVERTISEMENT WITH REFERENCE TO CHENNAI CITY. 9. 559-572.
13. Suresh, R., & Pooja, S. (2024). Evaluating the impact of brand equity on stock market valuation: A cross-industry analysis of global brands. International Journal of Multidisciplinary Trends, 6(12), 137–143. <https://doi.org/10.22271/multi.2024.v6.i12b.549>
14. Selvakumar, V., Dhayalan, V., Sivagami, & Venkatesh, P. (2024, July). A study on effect of branding on customer buying behaviour with reference to Vellore. In AIP Conference Proceedings (Vol. 2965, No. 1, p. 060012). AIP Publishing LLC.
15. Usman Mohideen KS, Sindhu RU. A study on customer attitude towards multi brand retail. Int J Literacy Educ 2024;4(2):270-275. DOI: 10.22271/27891607.2024.v4.i2d.237
16. Balamurugan, J., & Jeyalakshmi, R. (n.d.). A study on exploring the role of neuromarketing in enhancing brand loyalty with reference to Bikerz Yamaha. Transtellar. (Year: 2022)
17. K.Murugan, A Study on NRI’s Attitude towards Real Estate Industry in India” ISSN :1943-023X,15-Special Issue, PP 697-700, November 2017.
18. V. Muthukumar, Study on consumer buying behavior towards e-commerce, ISSN: 0972-0766, Vol. XCIX, No.03, 2023, P-85
19. Digital assets for digital natives: Exploring familiarity and preference for cryptocurrency among millennials and Gen Z R. S. Lekshmi1, K. Jawaharrani1, S. Vijayakanthan2, G. Nirmala1, K. Dheenadayalan3, S. Vasantha4, Journal of Autonomous Intelligence (2024) Volume 7 Issue 3 doi: 10.32629/jai.v7i3.1054.
20. Sarulatha, N., Vanitha, V., & Usha, S. (2025). Investigating trust and buying decisions in social commerce sales campaigns. Academy of Marketing Studies Journal, 29(5), 1-9 1528-2678-29-5-223
21. Venkatesh, P., Murugan, K., Ramu, M., Manikandan, M., Senthilnathan, C.R., Krishnamoorthi, M.: A comprehensive investigation to examine the preferences and satisfaction levels of outpatients in relation to the quality of services provided by hospitals in the vellore district. In: 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS), Chennai, India, pp. 1–4 (2023)
22. Suresh, V., Maran Chitra, and K. Maran. "A study on factors determining social media on cosmetic product." Journal of Pharmaceutical Sciences and Research 8.1 (2016): 1.
23. Usman Mohideen K S, A Study on Impact of Social Media on Online Shopping Behavior of Youngsters, Ilkogretim Online – Elementary Education Online Vol.19, Issue: 2, pp: 1914-1925, doi: 10.17051/ilkonline.2020.02.696776
24. Jeyalakshmi, R et al. (2024). The role of artificial intelligence in improving human resource management practices in marketing companies. Educational Administration: Theory and Practice, 30, 320–325.

25. K. Murugan, "VIRAL MARKETING OF DIGITAL PRODUCTS USING SOCIAL MEDIA", ISSN: 2319-9016, online ISSN: 2319-9024, Volume. 2, PP. 120-125 (Jan. to Mar. 2013).
26. Anitha, V., & Krishnan, A. R. (2022). Customer Intention Towards E-Grocery Shopping Apps Using TAM And UGT. *Special Education*, 1(43).
27. Dinesh Kannaa KV and Nivedha SD. Communication about environmental policy and its effects on public perception. *Int. J. Res. Manage.* 2024;6(2):459-464. DOI: 10.33545/26648792.2024.v6.i2e.246
28. K. Dheenadhayalan (Sri Sairam Engineering College, Chennai, India), Joel Jebadurai Devapitchai (St. Joseph's College of Engineering, India), R. Surianarayanan (SA Engineering College, India), and S. Usha (Sri Sairam Engineering College, India) Source Title: Machine Learning and Modeling Techniques in Financial Data Science. 10.4018/979-8-3693-8186-1.ch008.
29. Suresh, Vetriselvi, K. Maran, and Shanmuga Priya AR. "A study on impact of an affiliate marketing in e-business for consumer's perspective." *SP AR-International Journal of Engineering and Technology* 10.2 (2018): 471-475.
30. Dinesh Kumar S, Hemanth Kumar V, Celebrity Endorser & Attitude towards Celebrity results in Purchase Intention – A study with reference to Chennai City, *Scholedge International Journal Of Management & Development*, 2(10), pp: 1 – 8, DOI: 10.19085/journal.sijmd021001
31. Maran, K., J. Badrinarayanan, and P. Kumar. "A study on branded apparels customers purchase behavior with reference to India." *International Journal of Applied Business and Economic Research* 15.21 (2017): 215-221.
32. Devapitchai Joel Jebadurai (St. Joseph's College of Engineering, OMR, Chennai), K. Dheenadhayalan (Sri Sai Ram Engineering College, India), S. Usha (Sri Sairam Engineering College, India), K. Madhumitha (St. Joseph's College of Engineering, OMR, India), M. Manikandan (SRM Institute of Science and Technology, India), and S. Karunakaran (St. Joseph's Institute of Technology, India) Title: Practical Applications of Self-Service Technologies Across Industries. Copyright: © 2025 | Pages: 34 DOI: 10.4018/979-8-3373-4667-0.ch001.
33. Revathy, S & K V, Dinesh. (2025). THE IMPACT OF DIGITAL MARKETING ON CONSUMER BEHAVIOUR. *International Research Journal of Modernization in Engineering Technology and Science*. 6. 2582-5208.
34. Kumar, S. D., Kumar, V. M., Kumar, R. G., & Ramu, M. (2024, April). Elucidating Big Data Analytics by Using Marketing Mix Components for Business Intelligence. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6).
35. K. Murugan, "Patients Satisfaction Towards the Services of The Hospitals with Reference to Vellore District, Tamil Nadu" ISSN: 0090-5674, Volume 13, Special Issue 8, November 2022.
36. Jeyalakshmi, R., & Sagarika, V. (2024). A study on reverse logistics in customer satisfaction through sustainable supply. *International journal of multidisciplinary research in science, engineering and technology*, 7, 18987-18994, DOI: 10.15680/IJMRSET.2024.0712232
37. Kootattu, Jayarajan, et al. "Customers Perception On Branded Apparels–An Empirical Study with Reference to Indian Men's Garments–Indian Market." *NVEONATURAL VOLATILES & ESSENTIAL OILS Journal* | NVEO (2021): 8174-8180.
38. Usman Mohideen K S, Suresh R, Comparative Study on Consumer Satisfaction Towards Select Branded Quick Service Outlets with Special Reference to Chennai City, *International Journal of Engineering & Management Research*, Vol-6, Issue-6 November - December 2016. pp: 81 – 86,
39. Jeyalakshmi, R., & Kuralarasan, N. (n.d.). Assessing the impact of e-commerce growth on logistics efficiency in India. *International journal of innovative research of science, engineering and technology*, 13(12), 20615-20620
40. K. Murugan "A STUDY ON EFFECTIVENESS OF DIGITAL MARKETING IN FMCG WITH REFERENCE TO WEBBOOMBAA" ISSN NO: 2394-3114; Volume 40, Issue: 40(s1), January 2020, 185-190
41. Usman Mohideen B. Venkateswara Prasad, R. Suresh An Investigation of Departments of Customer's Shopping Behaviour Towards Select Hypermarket – An Empirical Study with reference to South India" *International Journal of Management Studies*, Volume IV, Special Issue 3, November 2017, Pp 77-83.
42. Maran, K., et al. "Data analysis on mobile payment technology with reference to users' behaviour of retail goods in India." 2021 4th International Conference on Computing and Communications Technologies (ICCCT). IEEE, 2021.
43. Usman Mohideen, B. Venkateswara Prasad, R. Suresh, An Analytical Study Consumers Buying Behavior towards Men's Brand Apparel' *Purakala UGC Care Journal* ISSN 0971 -2143, Vol 31, Issue 21- May, 2020, pp 967-971



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  ijirset@gmail.com



www.ijirset.com

Scan to save the contact details