



The Email Marketing Effect of Seniority Based on Retention of Online Shoppers in Vijayawada

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ABSTRACT :

Email remains one of the cheapest ways for online retailers to stay in touch with customers, but its pull may not be the same for every shopper. This review paper examines how marketing emails influence the retention of online shoppers in Vijayawada, and whether the effect differs with shoppers' seniority, defined here as age group and years of online shopping experience. Primary data were collected through a structured Google Form from 50 online shoppers using convenience sampling. The data were Email remains one of the cheapest ways for online retailers to stay in touch with customers, but its pull may not be the same for every shopper. This review paper examines how marketing emails influence the retention of online shoppers in Vijayawada, and whether the effect differs with shoppers' seniority, defined here as age group and years of online shopping experience. Primary data were collected through a structured Google Form from 50 online shoppers using convenience sampling. The data were tests, chi-square and correlation. Most respondents receive marketing emails (86%), and agreement with the effectiveness statements was positive (index mean 3.75 out of 5). Retention differed significantly across age groups ($F = 4.44$, $p = .008$): shoppers aged 18-20 scored highest (4.05) and those aged 21-25 lowest (3.17). Perceived effectiveness differed by online shopping experience ($F = 4.25$, $p = .020$), with shoppers of up to two years' experience the least convinced. Email frequency is the clearest risk, as 78% agree that too many emails reduce their interest in a brand. Retail brands should therefore cap email frequency and tailor content by shopper seniority.

Key words: email marketing; customer retention; online shoppers; seniority; age group; online shopping experience; Vijayawada

1. Introduction of the study

Online shopping has moved from an occasional convenience to a regular habit for many urban Indians. Once a customer has been acquired, the commercial question becomes whether that customer returns. Retaining existing customers is generally cheaper than winning new ones, and this is why e-commerce companies invest in direct, owned channels such as email, SMS and app notifications.

Email marketing is attractive because it is low-cost, measurable and easy to personalise. A marketing email can announce a discount, recommend a product based on past purchases, remind a shopper of a festival sale or reward loyalty. Yet the same email can also irritate a shopper if it arrives too often or has no relevance to them. Whether an email builds loyalty or erodes it depends partly on who receives it.

This study uses the word seniority for two characteristics of the shopper: how old the shopper is, and how long the shopper has been buying online. A first-year college student who has shopped online for a year and an experienced professional who has shopped online for a decade may read the same email very differently. Vijayawada, a fast-growing commercial city in Andhra Pradesh with a large young and working population, is a useful setting to examine these differences.

2. Research gap

Much of the available discussion on email marketing is framed at national or metropolitan level and treats online shoppers as one uniform group. The focus is usually on message design, such as subject lines, offers and personalisation, and on short-term outcomes such as open rates and clicks. Little attention appears to have been paid to retention, meaning the shopper's willingness to continue buying from the same brand, and to how this varies with the shopper's age and online shopping experience, particularly in a mid-sized city such as Vijayawada. This study addresses that gap.

3. Objectives of the study

1. To study the profile and online shopping behaviour of shoppers in Vijayawada who receive marketing emails.
2. To examine how shoppers open, respond to and perceive the effectiveness of marketing emails.

3. To assess the influence of marketing emails on brand retention among online shoppers.
4. To compare the effectiveness and retention effect of email marketing across age groups and levels of online shopping experience (seniority).
5. To suggest measures that online retailers can use to improve retention through email marketing.

4. Hypotheses

All hypotheses are stated in the null form (H₀), with the alternative in brackets.

- **H1:** There is no significant difference in the retention index across age groups. (Alternative: the retention index differs by age group.)
- **H2:** There is no significant difference in the retention index across levels of online shopping experience. (Alternative: it differs by experience.)
- **H3:** There is no significant difference in the perceived effectiveness index across levels of online shopping experience. (Alternative: it differs by experience.)
- **H4:** There is no association between how often shoppers open marketing emails and whether they have purchased after receiving one. (Alternative: there is an association.)
- **H5:** There is no relationship between the perceived effectiveness index and the retention index. (Alternative: there is a relationship.)

5. Research methodology

Research design. The study is descriptive and analytical in design. It describes the behaviour and opinions of online shoppers and then tests whether these differ by seniority.

Sample design. The population is online shoppers living in Vijayawada. A non-probability convenience sampling method was used, and 50 shoppers formed the sample. For group comparisons, age groups 31-35 and 36-40 were combined into one group (31-40, $n = 16$) because only three respondents were in the 36-40 band. Online shopping experience was grouped as up to 2 years ($n = 12$), 3-5 years ($n = 18$) and 6 years or more ($n = 20$).

Data collection. Primary data were collected through an online structured questionnaire shared as a Google Form. Secondary data were drawn from journals, articles and websites on email marketing and customer retention to frame the study.

Questionnaire preparation. The questionnaire has 20 questions in three sections: (1) respondent profile: name, age, gender, occupation and years of online shopping; (2) online shopping and email marketing behaviour: shopping frequency, receipt of marketing emails, purchase after an email, frequency of opening emails and the most attractive type of email; and (3) email marketing effectiveness: nine statements on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) and one yes/no/maybe item on personalisation. The full questionnaire is in Annexure A.

Measures. Two indices were built as the average of Likert items. The **Effectiveness Index (EI)** averages six statements on usefulness, relevance, product discovery, subject lines, usefulness of recommendations and the pull of discounts. The **Retention Index (RI)** averages two statements: email offers encourage me to continue shopping from the same brand, and I prefer brands that send useful and relevant emails. The statement on too many emails is analysed separately because it is worded negatively. The personalisation item is analysed as a categorical question.

Tools of analysis. Frequencies and percentages, mean and standard deviation, pie charts and bar graphs, one-way ANOVA with Tukey HSD, Kruskal-Wallis test, chi-square test, Pearson and Spearman correlation, and one-sample t-test against the neutral score of 3. A 5% level of significance was used.

6. Data analysis

6.1 Profile of respondents

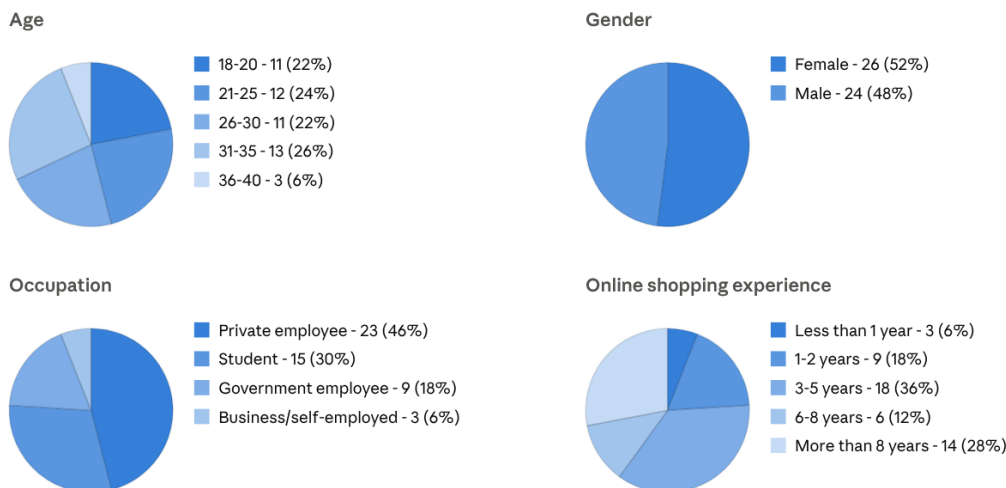
Table 1 and Figure 1 show the respondent profile. Respondents are spread across the age bands, with the largest group aged 31-35 (26%). Women are slightly more numerous (52%). Private employees form almost half the sample (46%), followed by students (30%). More than three-quarters of respondents (76%) have shopped online for three years or more, and 28% for more than eight years.

Table 1: Profile of respondents (n = 50)

Variable	Category	Respondents	%
Age	18-20	11	22
	21-25	12	24
	26-30	11	22
	31-35	13	26
	36-40	3	6
Gender	Male	24	48
	Female	26	52
Occupation	Private employee	23	46
	Student	15	30
	Government employee	9	18
	Business / self-employed	3	6
Online shopping experience	Less than 1 year	3	6
	1-2 years	9	18

Variable	Category	Respondents	%
	3-5 years	18	36
	6-8 years	6	12
	More than 8 years	14	28

Profile of 50 respondents: balanced by age and gender; 76% have shopped online for 3+ years



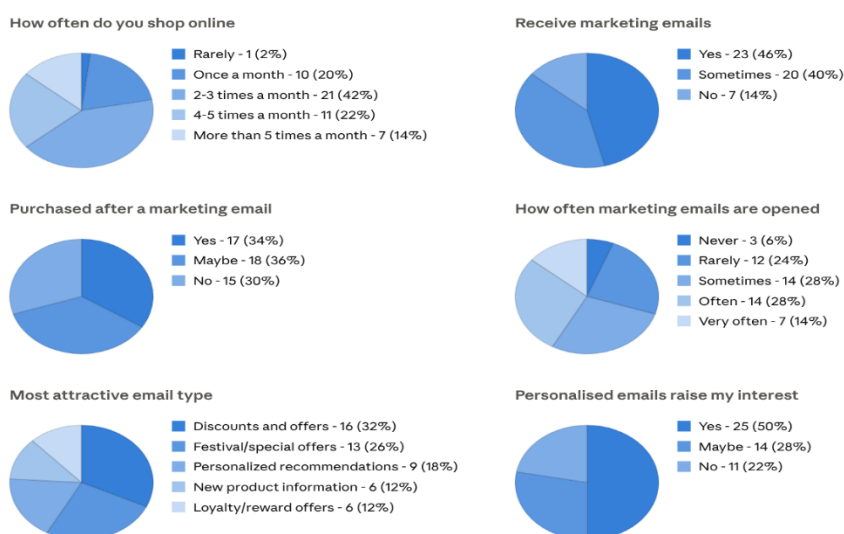
Google Form survey, 50 respondents, Vijayawada

Figure 1: Pie charts of respondent profile

6.2 Shopping and email habits

Figure 2 summarises shopping and email behaviour. Only 7 respondents (14%) say they receive no marketing emails, while 46% receive them regularly and 40% sometimes. Opening is moderate: 42% open emails often or very often, 30% rarely or never. The link from email to purchase is real but uncertain, as 34% have purchased after an email, 36% are unsure and 30% have not. Price-led emails attract most: discounts and offers (32%) and festival or special offers (26%) together draw 58% of respondents, ahead of personalised recommendations (18%).

86% receive marketing emails; 42% open them often; discounts and festival offers attract 58%



Google Form survey, 50 respondents, Vijayawada

Figure 2: Pie charts of shopping and email habits

6.3 Perceived effectiveness of marketing emails

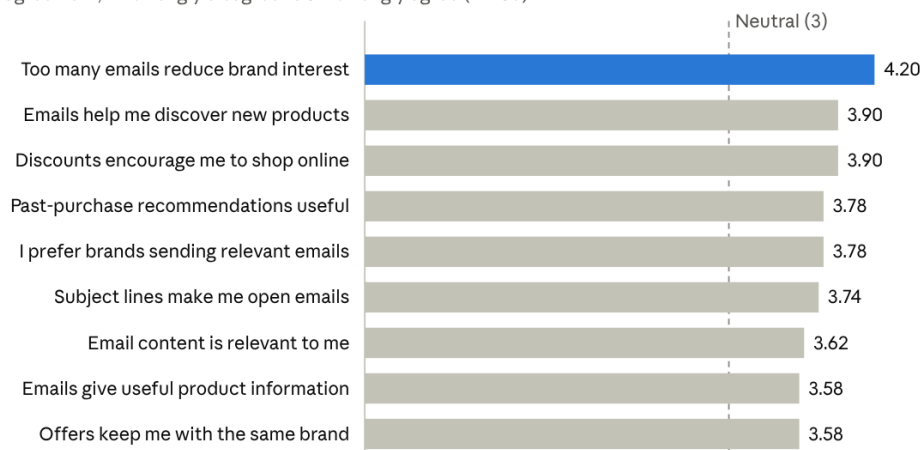
Table 2 gives the distribution of responses to the nine Likert statements. Every statement has a mean above the neutral value of 3, and between 54% and 78% of respondents agree or strongly agree with each. Personalisation received a clear but not overwhelming endorsement: 50% said personalised emails increase their interest, 28% said maybe and 22% said no.

Table 2: Responses to the Likert statements (n = 50; SD = strongly disagree, D = disagree, N = neutral, A = agree, SA = strongly agree)

Statement	SD	D	N	A	SA	Mean	Std. dev.	% agree
Receiving too many emails reduces my interest in the brand	1	3	7	13	26	4.20	1.03	78
Marketing emails help me discover new products	1	3	10	22	14	3.90	0.95	72
Discounts and offers encourage me to shop online	1	5	8	20	16	3.90	1.04	72
Recommendations based on previous purchases are useful	2	4	10	21	13	3.78	1.06	68
I prefer brands that send useful and relevant emails	0	6	12	19	13	3.78	0.97	64
Attractive subject lines encourage me to open emails	3	5	8	20	14	3.74	1.16	68
The content of marketing emails is relevant to my interests	4	4	10	21	11	3.62	1.16	64
Marketing emails provide useful information about products	5	4	11	17	13	3.58	1.25	60
Email offers encourage me to continue shopping from the same brand	1	3	19	20	7	3.58	0.88	54

Too many emails hurt brand interest most (4.20 of 5); every statement scores above neutral

Mean agreement, 1 = strongly disagree to 5 = strongly agree (n = 50)



Google Form survey, 50 respondents; means from Table 2

Figure 3: Mean agreement with each statement

The strongest agreement is with the statement that too many emails reduce interest in a brand (mean 4.20). The weakest items concern the usefulness of the information (3.58) and email offers keeping shoppers with the same brand (3.58); for the latter, 38% of respondents were neutral.

Overall, the Effectiveness Index has a mean of 3.75 (SD = 0.42) and the Retention Index a mean of 3.68 (SD = 0.66). Both are significantly above the neutral value of 3 (EI: $t(49) = 12.82$, $p < .001$; RI: $t(49) = 7.28$, $p < .001$). The internal consistency of the items within each index was low (Cronbach's alpha below 0.70), so the indices are treated as descriptive summaries, and the individual items in Table 2 should be read alongside them.

6.4 Seniority and retention

Table 3 compares the indices by seniority. The retention index varies clearly with age (Figure 4), while the effectiveness index varies with online shopping experience (Figure 5).

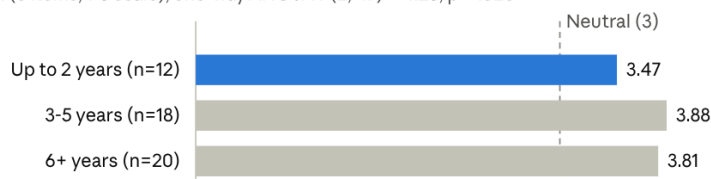
Table 3: Mean index scores by seniority group

Group	n	Retention Index	Effectiveness Index
Age 18-20	11	4.05	3.86
Age 21-25	12	3.17	3.81
Age 26-30	11	3.77	3.64
Age 31-40	16	3.75	3.72
Experience up to 2 years	12	3.83	3.47
Experience 3-5 years	18	3.78	3.88
Experience 6+ years	20	3.50	3.81

Retention is highest at ages 18-20 (4.05) and lowest at 21-25 (3.17)Mean Retention Index (2 items, 1-5 scale); one-way ANOVA $F(3, 46) = 4.44$, $p = .008$ 

Google Form survey, 50 respondents; age 31-35 and 36-40 combined

Figure 4: Retention Index by age group

Shoppers with up to 2 years online rate email effectiveness lowest (3.47)Mean Effectiveness Index (6 items, 1-5 scale); one-way ANOVA $F(2, 47) = 4.25, p = .020$ 

Google Form survey, 50 respondents; experience grouped as up to 2, 3-5 and 6+ years

Figure 5: Effectiveness Index by online shopping experience**6.5 Testing of hypotheses****Table 4: Summary of hypothesis tests**

Hypothesis	Test	Result	Decision
H1: RI by age group	One-way ANOVA; Kruskal-Wallis	$F(3, 46) = 4.44, p = .008$, eta squared = .22; $H = 11.66, p = .009$	H0 rejected
H2: RI by online shopping experience	One-way ANOVA; Kruskal-Wallis	$F(2, 47) = 1.28, p = .288$; $H = 3.31, p = .191$	H0 not rejected
H3: EI by online shopping experience	One-way ANOVA; Kruskal-Wallis	$F(2, 47) = 4.25, p = .020$, eta squared = .15; $H = 6.61, p = .037$	H0 rejected
H4: Opening frequency and purchase after email	Chi-square (opening grouped as low, medium, high)	chi-square(4) = 2.14, $p = .710$, Cramer's V = .15	H0 not rejected
H5: EI and RI	Pearson and Spearman correlation	$r = -.002, p = .988$; $\rho = -.03, p = .831$	H0 not rejected

Tukey post-hoc comparisons show that, for H1, the retention index of shoppers aged 18-20 (4.05) is significantly higher than that of shoppers aged 21-25 (3.17), $p = .005$; other age pairs do not differ significantly (the 21-25 group is also lower than the 26-30 and 31-40 groups, but only at $p = .088$ and $p = .066$). For H3, shoppers with up to two years of experience (3.47) rate email effectiveness significantly lower than those with 3-5 years (3.88), $p = .020$, and the gap to those with six or more years (3.81) is borderline, $p = .058$. The chi-square test for H4 has some cells with expected counts below 5, so it should be read with caution. In addition, the effectiveness index did not differ significantly by age group ($F = 0.64, p = .596$), and the retention index did not differ between men and women (Mann-Whitney $p = .668$).

7. Interpretations

- Email reaches most shoppers, but attention is only moderate.** With 86% receiving marketing emails and 42% opening them often, email is established as a channel, yet 30% rarely or never open them. Reach is not the constraint; engagement is.
- Price and occasion drive attention.** Discounts, offers and festival offers attract 58% of respondents, far more than personalised recommendations (18%) or new product information (12%). Shoppers in Vijayawada appear to open emails mainly when there is something to save on.
- Personalisation helps, but half the shoppers are not yet convinced.** While 68% find recommendations from past purchases useful, only 50% say personalised emails raise their interest outright, and 28% are undecided. Personalisation seems to work best when it is visibly relevant.
- Retention depends on age (H1: H0 rejected).** The youngest shoppers (18-20) show the strongest tendency to stay with brands that send relevant emails, whereas the 21-25 group is the least retained. A possible reason is that shoppers in their early twenties are more price-sensitive and compare more brands, though this study did not test the reason.
- Newer online shoppers are less persuaded (H3: H0 rejected).** Those with up to two years of online experience judge emails less useful and relevant than more experienced shoppers. They may still be building trust in online brands and may not yet see emails as a source of value.
- Experience alone does not change retention (H2), and opening an email does not predict purchase (H4).** In both cases H0 is not rejected. Retention appears to be shaped by age and by the quality of the offer rather than by years of shopping alone. The lack of a link between opening and buying suggests that emails often work as reminders rather than as direct triggers.
- Perceived effectiveness and retention are not linked in this sample (H5: H0 not rejected).** A shopper who finds emails useful is not necessarily more loyal to the brand. Together with the low internal consistency of the indices, this suggests that effectiveness and retention are separate ideas in the minds of respondents and should be managed separately.

8. **Frequency is the main risk.** Seventy-eight per cent agree that too many emails reduce their interest in a brand, the highest agreement of any statement.

8. Findings, suggestions and conclusion

Findings

1. The sample is balanced by gender and age, with private employees (46%) and students (30%) forming most respondents, and 76% having three or more years of online shopping experience.
2. Marketing emails reach 86% of respondents; 42% open them often or very often and 34% have definitely purchased after an email.
3. Discounts and festival offers are the most attractive email types (58% combined).
4. All nine effectiveness statements have means above 3; email is rated best for product discovery and for discounts (mean 3.90 each).
5. Retention differs significantly by age: 18-20 (4.05) is highest and 21-25 (3.17) is lowest.
6. Perceived effectiveness differs significantly by online shopping experience, with shoppers of up to two years the least convinced (3.47).
7. Opening frequency is not significantly associated with purchase after an email, and effectiveness is not significantly correlated with retention.
8. Too many emails reduce brand interest for 78% of respondents.

Conclusion

Email marketing is an accepted and moderately effective channel among online shoppers in Vijayawada, particularly for discovery and discounts. Its effect on retention is not uniform: it varies with the age of the shopper, and perceived usefulness varies with how long the shopper has been buying online. Brands that treat all shoppers alike, and that send emails too often, risk weakening the loyalty they hope to build. Retention-focused email programmes should therefore be segmented by seniority, limited in frequency and anchored on relevant, value-adding offers.

Limitations and scope for further research. The sample of 50 respondents was drawn by convenience from one city, subgroup sizes are small, and the responses are self-reported attitudes rather than recorded purchases. The internal consistency of the indices was low. Future studies could use a larger probability sample, include other cities, measure actual repeat purchases and test the reasons behind the age differences.