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DECODING FEAR IN ADVERTISING: A CONSUMER RESPONSE STUDY ON LIC'S INSURANCE CAMPAIGNS

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ABSTRACT
This study investigates the psychological impact of fear-based advertising in India's insurance sector, examining Life Insurance Corporation of India (LIC) campaigns through a neuromarketing lens. While traditional neuromarketing employs costly neuroimaging techniques, this research adopts an accessible survey-based approach to measure emotional responses and purchase intentions among Indian consumers. A quantitative cross-sectional study was conducted with 250 participants aged 25-60, selected through stratified random sampling. Participants viewed three fear-based LIC advertisements and completed validated instruments: Fear Appeal Effectiveness Scale (perceived severity and vulnerability), Self-Assessment Manikin (emotional valence and arousal), and Behavioral Intention Scale. Data analysis employed descriptive statistics, Pearson correlations, regression analysis, and ANOVA using SPSS. Results demonstrated that fear appeals generated moderate-to-high emotional arousal and negative valence. Strong positive correlations emerged between fear appeal intensity and emotional arousal and purchase intention. Multiple regression analysis revealed emotional arousal and perceived vulnerability as significant predictors of insurance purchase likelihood, explaining 24% of variance (R^2 = 0.24). Age-based analysis showed participants aged 31-40 exhibited highest purchase intentions, indicating demographic-specific effectiveness patterns. Findings confirm that fear-based advertising generates meaningful emotional and behavioral responses measurable through cost-effective survey methods, validating neuromarketing principles without expensive neuroimaging.
KEYWORDS: *Neuromarketing, Fear-based advertising, Emotional arousal, Consumer decision-making, Insurance marketing*

1. INTRODUCTION

The insurance industry has long relied on emotional appeals to communicate the importance of financial protection and risk mitigation (Sheth & Mittal, 2004). Among various advertising strategies, fear appeals have emerged as a particularly potent tool for motivating consumer behavior, leveraging psychological mechanisms that trigger immediate attention and concern (Hastings et al., 2004). Fear-based advertising operates on the fundamental premise that consumers will take protective action when confronted with potential negative consequences of inaction (Witte, 1992).

The Life Insurance Corporation of India (LIC), as the country's largest life insurer, has extensively employed fear-based messaging in its advertising campaigns to emphasize the financial vulnerabilities faced by families in the absence of adequate insurance coverage (Singh & Kumar, 2018). These campaigns typically feature scenarios depicting family hardship, financial distress, and emotional turmoil following the loss of a breadwinner, thereby creating a sense of urgency and perceived vulnerability among viewers.

The theoretical foundation for understanding fear appeals in advertising stems from multiple disciplines, including psychology, marketing, and more recently, neuromarketing. The Extended Parallel Process Model (EPPM) proposed by Witte (1992) suggests that fear appeals are effective when they create both perceived threat (severity and susceptibility) and efficacy (response efficacy and self-efficacy). When consumers perceive high threat and high efficacy, they are more likely to adopt the recommended protective behavior.

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Neuromarketing, an interdisciplinary field that applies neuroscience principles to marketing research, has provided valuable insights into how emotional stimuli in advertisements affect consumer decision-making processes (Plassmann et al., 2015). Traditional neuromarketing studies employ sophisticated neuroimaging techniques such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG), and galvanic skin response to measure physiological responses to advertising stimuli (Ramsøy, 2015). However, the high costs, technical complexity, and limited accessibility of these methods have restricted their widespread application, particularly in emerging markets like India.

The Indian insurance market presents a unique context for studying fear-based advertising effectiveness. With a growing middle class increasingly aware of financial risks and a cultural emphasis on family security, Indian consumers may be particularly receptive to fear-based insurance messaging (Krishnan & Kumar, 2017). Moreover, the dominance of LIC in the Indian market, with its extensive advertising campaigns, provides an ideal setting for examining the impact of fear appeals on consumer behavior.

Despite the widespread use of fear appeals in insurance advertising, there remains a significant gap in empirical research examining their effectiveness in the Indian context. Most existing studies have focused on Western markets or have employed neurophysiological measurement techniques that are not readily accessible for broader research applications (Poels & Dewitte, 2006). This study addresses this gap by employing a survey-based approach grounded in neuromarketing theory to examine how fear-based LIC advertisements affect emotional responses and purchase intentions among Indian consumers.

2. LITERATURE REVIEW

2.1 Theoretical Foundations of Fear Appeals

Fear appeals in advertising have been extensively studied within the framework of persuasion theories. The fear drive model, one of the earliest theoretical frameworks, suggests that fear creates an unpleasant emotional state that motivates individuals to reduce this tension through attitude or behavior change (Hovland et al., 1953). The Protection Motivation Theory (PMT) developed by Rogers (1975) advanced the understanding of fear appeals by identifying cognitive appraisal processes that mediate the relationship between fear stimuli and behavioral responses. PMT proposes that individuals evaluate both the threat (vulnerability and severity) and their coping abilities (response efficacy and self-efficacy) when exposed to fear appeals. Building upon PMT, Witte's (1992) Extended Parallel Process Model (EPPM) provides a comprehensive framework for understanding fear appeal effectiveness. EPPM distinguishes between two cognitive processes: danger control (adaptive responses aimed at reducing the threat) and fear control (maladaptive responses aimed at reducing fear emotions).

2.2 Fear Appeals in Insurance Marketing

Insurance companies use fear-based marketing because insurance products are intangible and consumers struggle to evaluate their value until experiencing a loss (Eisingerich & Bell, 2008). Fear messaging transforms abstract risks into concrete, immediate threats, increasing perceived vulnerability and motivating protective behavior (Zhao et al., 2011). Research shows mixed effectiveness for fear appeals in insurance advertising. Williams (2012) found moderate fear levels in life insurance ads more effective than high-intensity approaches for generating positive attitudes and purchase intentions. Thompson and Hamilton (2006) demonstrated optimal results when fear appeals combined with rational arguments highlighting coverage benefits. Recent meta-analysis by Tannenbaum et al. (2015) concluded fear appeals effectively promote intentions and behaviors when increasing fear arousal and perceived threat while enhancing response and self-efficacy.

Contemporary neuroimaging research by Palomares et al. (2018) using fMRI revealed effective fear-based advertisements activate both emotional processing regions (amygdala) and cognitive evaluation areas (prefrontal cortex), providing neurobiological support for dual-process models of fear appeal effectiveness in insurance marketing.

2.3 Cultural Context and Fear Appeals

Cultural factors significantly influence fear appeal effectiveness, with different societies varying in emotional tolerance, risk perception, and coping mechanisms (Murray-Johnson et al., 2001). In India, cultural values emphasizing family responsibility and security enhance fear-based insurance messaging effectiveness (Hofstede, 2001). Indian consumer behavior research indicates emotional appeals are particularly effective due to collectivistic societal values and family welfare importance (Sharma & Sharma, 2009). Chen and Zhang (2020) found collectivistic cultures, including India, show stronger emotional activation when fear appeals emphasize family consequences rather than individual risks, suggesting family protection themes optimize insurance advertising effectiveness.

Digital transformation has impacted cultural advertising preferences. The 2025 Accenture Insurance Consumer Study revealed 67% of Indian consumers conduct online research before purchases, with 45% comparing providers digitally. This evolution requires adapting traditional fear appeals for digital environments while maintaining cultural relevance. Generational differences exist within cultural contexts. Gupta and Malhotra (2023) discovered younger Indians (25-35) respond better to immediate financial consequence appeals, while older consumers (40-60) prefer long-term family security messaging.

COVID-19 has heightened risk perceptions, with Sharma et al. (2022) finding 78% of Indian consumers reporting increased awareness of health and financial vulnerabilities. This enhanced risk awareness may boost fear-based insurance appeal effectiveness, though ethical considerations about exploiting pandemic anxieties remain important.

2.4 Research Gaps and Study Rationale

The literature review reveals several gaps that this study aims to address. First, there is limited research on fear appeal effectiveness in the Indian insurance market, despite its size and growth potential. Second, most neuromarketing studies have employed expensive neuroimaging techniques, limiting their accessibility for broader research applications. Third, few studies have examined the relationship between demographic characteristics and fear appeal effectiveness in insurance advertising.

This study contributes to filling these gaps by employing a survey-based approach grounded in neuromarketing theory to examine fear appeal effectiveness in LIC advertising campaigns. The research provides empirical evidence for the Indian market while demonstrating the viability of accessible measurement techniques for neuromarketing research.

3. METHODOLOGY

This study employed a quantitative, cross-sectional survey design to examine the impact of fear-based advertising on consumer emotional responses and purchase intentions. The research was conducted in accordance with ethical guidelines for human subject research, with all participants providing informed consent before participation.

The study sample comprised 250 Indian participants aged 25 to 60 years, selected through stratified random sampling to ensure representation across different demographic segments. The age range was chosen to capture the primary target audience for life insurance products, as individuals in this age group typically have significant financial responsibilities and are most likely to consider insurance purchases.

3.1 Stimulus Materials

Three LIC television advertisements recognized for fear-based messaging were selected as experimental stimuli through systematic content analysis. Two independent coders rated potential advertisements on fear appeal intensity using established criteria from fear appeal literature. Inter-coder reliability was assessed using Cohen's kappa ($\kappa = 0.87$), indicating strong agreement.

Selected Advertisements

1. Advertisement 1 - "Family Security" (Duration: 75 seconds): Features family struggling financially following breadwinner's sudden death, emphasizing children's education concerns and spouse's financial vulnerability.

2. Advertisement 2 - "Medical Crisis" (Duration: 85 seconds): Depicts middle-aged man experiencing medical emergency with insufficient treatment funds, highlighting healthcare cost vulnerabilities.

3. Advertisement 3 - "Retirement Insecurity" (Duration: 90 seconds): Shows elderly couple discussing financial dependence on children and dignity concerns, focusing on retirement planning fears.

All advertisements were broadcast on major Indian television channels within two years prior to data collection and represented authentic marketing communications rather than researcher-created stimuli. Advertisements were presented in randomized order to control for sequence effects.

3.2 Measurement Instruments

3.2.1 Demographic Profile: A structured questionnaire collected information on age, gender, education level, occupation, annual income, marital status, and current insurance ownership. This data was used for sample characterization and subgroup analysis.

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3.2.2 Fear Appeal Effectiveness Scale: Based on Witte's (1992) EPPM framework, this scale measured two key dimensions:

- **Perceived Severity**: Five items measuring the perceived seriousness of the risks depicted in the advertisements (α = 0.87)
- **Perceived Vulnerability**: Five items measuring participants' perceived susceptibility to the risks shown (α = 0.84)

All items were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2.3 Self-Assessment Manikin (SAM): The SAM scale (Bradley & Lang, 1994) measured emotional responses along two dimensions:

- **Valence**: Ranging from 1 (very unpleasant) to 5 (very pleasant)
- **Arousal**: Ranging from 1 (very calm) to 5 (very excited/aroused)

The SAM uses pictorial representations rather than verbal descriptions, reducing cultural and linguistic biases in emotional assessment.

3.2.4 Behavioral Intention Scale: Purchase intention was measured using a four-item scale adapted from Spears and Singh (2004), including items such as "I intend to purchase LIC insurance in the near future" and "I am likely to consider LIC insurance for my insurance needs." Items were measured on a 5-point Likert scale (α = 0.91).

3.3 Data Analysis Method

Data analysis was conducted using SPSS 28.0, employing multiple analytical approaches to address research objectives comprehensivelyMeans, standard deviations, and frequency distributions were calculated for all variables to characterize the sample and response patterns. Pearson correlation coefficients were computed to examine relationships between fear appeal dimensions, emotional responses, and behavioral intentions. Multiple regression analysis was conducted to identify predictors of purchase intention, with emotional arousal, valence, perceived severity, and perceived vulnerability as independent variables. One-way ANOVA was performed to examine differences in response patterns across demographic groups, particularly age categories. : Repeated measures ANOVA examining differential effectiveness across three advertisements Cronbach's alpha coefficients were calculated for all multi-item scales to ensure internal consistency reliability.

4. RESULTS

4.1 Demographic Profile and Sample Characteristics

Table: 1 Demographic profile of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Age Groups	25-30 years	63	25.2
	31-40 years	68	27.2
	41-50 years	71	28.4
	51-60 years	48	19.2
Gender	Male	130	52.0
	Female	120	48.0
Education Level	High School	28	11.2
	Diploma/Certificate	52	20.8
	Bachelor's Degree	98	39.2
	Master's Degree	58	23.2
	Professional Degree	14	5.6
Annual Income	Below ₹5 lakhs	85	34.0
	₹5-10 lakhs	105	42.0
	Above ₹10 lakhs	60	24.0
Marital Status	Single	58	23.2
	Married	180	72.0
	Divorced/Separated	8	3.2
	Widowed	4	1.6
Current Insurance	Yes	145	58.0
	No	105	42.0
Occupation	Government Employee	45	18.0
	Private Employee	98	39.2
	Business Owner	42	16.8
	Professional/Consultant	35	14.0
	Student	18	7.2
	Homemaker	12	4.8

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Table 1 presents comprehensive demographic characteristics of the study sample (N = 250), demonstrating successful stratified sampling across target demographic categories.
Source: Primary Data

The final sample of 250 participants demonstrated good demographic representation across the stratified categories. The mean age was 39.2 years (SD = 10.8), with relatively equal gender distribution (52% male, 48% female). Educational attainment was high, with 68% of participants holding bachelor's degrees or higher. Income distribution showed 34% earning below ₹5 lakhs annually, 42% earning ₹5-10 lakhs, and 24% earning above ₹10 lakhs. Approximately 72% of participants were married, and 58% already owned some form of life insurance.

4.2 Descriptive Analysis and Scale Reliability

Table 2 presents descriptive statistics for all measured variables across the 3 advertisements, including reliability coefficients for multi-item scales.

4.2.1 Emotional Response Patterns

Analysis of emotional responses revealed that LIC's fear-based advertisements generated significant emotional activation among participants. The mean emotional arousal score across all three advertisements was 3.9 (SD = 0.8) on the 5-point SAM scale, indicating moderate to high emotional activation. Emotional valence scores showed a mean of 2.1 (SD = 0.7), reflecting predominantly negative emotional experiences, which is consistent with the fear-inducing nature of the advertisements.

Table 2: Descriptive Statistics for Key Study Variables

Variable	Mean	SD	Min	Max	Skewness	Kurtosis	Cronbach's α
Emotional Responses							
Emotional Arousal (Overall)	3.90	0.78	1.67	5.00	-0.31	-0.42	-
- Advertisement 1	4.21	0.89	2.00	5.00	-0.45	-0.28	-
- Advertisement 2	3.82	0.84	1.67	5.00	-0.22	-0.51	-
- Advertisement 3	3.67	0.92	1.33	5.00	-0.18	-0.58	-
Emotional Valence (Overall)	2.13	0.71	1.00	4.17	0.88	0.34	-
- Advertisement 1	1.98	0.76	1.00	3.67	1.02	0.45	-
- Advertisement 2	2.15	0.69	1.00	4.17	0.79	0.28	-
- Advertisement 3	2.27	0.73	1.00	4.00	0.72	0.19	-
Fear Appeal Dimensions							
Perceived Severity (Overall)	3.84	0.91	1.40	5.00	-0.45	-0.18	0.87
- Advertisement 1	4.12	0.83	2.20	5.00	-0.58	-0.12	0.85
- Advertisement 2	3.78	0.88	1.60	5.00	-0.38	-0.21	0.88
- Advertisement 3	3.62	0.95	1.40	5.00	-0.31	-0.25	0.89
Perceived Vulnerability (Overall)	3.21	1.08	1.00	5.00	-0.12	-0.67	0.84
- Advertisement 1	3.34	1.02	1.20	5.00	-0.18	-0.58	0.82
- Advertisement 2	3.16	1.11	1.00	5.00	-0.09	-0.72	0.85
- Advertisement 3	3.14	1.12	1.00	5.00	-0.08	-0.71	0.86
Behavioral Intentions							
Purchase Intention (Overall)	3.52	0.93	1.00	5.00	-0.23	-0.34	0.91
- Advertisement 1	3.87	0.89	1.50	5.00	-0.34	-0.29	0.90
- Advertisement 2	3.49	0.85	1.25	5.00	-0.18	-0.31	0.92
- Advertisement 3	3.21	1.05	1.00	5.00	-0.12	-0.42	0.89

Source: Author Compilation and Generated Through SPSS

Individual advertisement analysis showed Advertisement 1 (family financial struggle) generated the highest emotional arousal (M = 4.2, SD = 0.9), followed by Advertisement 2 (medical emergency) with M = 3.8 (SD = 0.8), and Advertisement 3 (elderly insecurity) with M = 3.7 (SD = 0.9). These differences were statistically significant ($F(2,749) = 12.4$, $p < .001$), suggesting varying emotional impact across different fear scenarios.

4.2.2 Fear Appeal Effectiveness

Participants reported moderate to high levels of perceived severity across the three advertisements (M = 3.8, SD = 0.9). The perceived vulnerability scores were somewhat lower (M = 3.2, SD = 1.1), indicating that while participants recognized the severity of the depicted risks, they felt somewhat less personally susceptible to these scenarios.

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Advertisement 1 generated the highest perceived severity ratings (M = 4.1, SD = 0.8), while Advertisement 3 produced the highest perceived vulnerability scores (M = 3.5, SD = 1.0). These patterns suggest that different fear scenarios resonate differently with consumers based on their perceived relevance and personal applicability.

4.3 Correlation Analysis

Pearson correlation analysis revealed several significant relationships between key variables. A strong positive correlation was found between fear appeal intensity and emotional arousal ($r = 0.62$, $p < .01$), supporting the theoretical expectation that fear-based messages generate emotional activation.

Table 3: Pearson Correlation Matrix

Variable	1	2	3	4	5	6	7	8
1. Age	1.00							
2. Emotional Arousal	.18	1.00						
3. Emotional Valence	-.12	-.45	1.00					
4. Perceived Severity	.23	.58	-.29	1.00				
5. Perceived Vulnerability	.31	.52	-.31	.67	1.00			
6. Fear Appeal Intensity	.28	.62	-.38	.84	.76	1.00		
7. Purchase Intention	.15	.48	-.34	.39	.51	.57	1.00	
8. Income Level	.45	.08	-.03	.12	.19	.16	.22	1.00

Source: Author Compilation and Generated Through SPSS

Note: Fear Appeal Intensity = composite of Perceived Severity and Vulnerability

The correlation analysis revealed several theoretically meaningful relationships. The relationship between fear appeal intensity and purchase intention was also significant and positive ($r = 0.57$, $p < .01$), indicating that higher levels of fear in advertisements were associated with increased likelihood of insurance purchase consideration. Emotional arousal showed a moderate positive correlation with purchase intention ($r = 0.48$, $p < .01$), while emotional valence demonstrated a negative correlation with purchase intention ($r = -0.34$, $p < .01$), suggesting that more negative emotional experiences were associated with higher purchase intentions.

Perceived vulnerability exhibited stronger correlation with purchase intention ($r = .51$, $p < .001$) compared to perceived severity ($r = .39$, $p < .001$), suggesting that personal threat relevance may be more influential than threat magnitude in motivating protective behavior. The negative correlation between emotional valence and purchase intention ($r = -.34$, $p < .001$) indicates that more unpleasant emotional experiences were associated with higher insurance purchase likelihood.

4.4 Regression Analysis

Multiple regression analysis was conducted to identify the most significant predictors of purchase intention. The overall model was statistically significant ($F(4,245) = 19.7$, $p < .001$) and explained 24% of the variance in purchase intention ($R^2 = 0.24$, adjusted $R^2 = 0.22$).

Table 4: Multiple Regression Analysis Predicting Purchase Intention

Model Summary				
R	R^2	Adjusted R^2	F	Sig.
.49	.24	.22	19.73	< .001

Coefficients	B	SE B	β	t	Sig.	95% CI	Collinearity
						Lower - Upper	Tolerance - VIF
(Constant)	0.67	0.31		2.16	.032	0.06 - 1.28	
Emotional Arousal	0.38	0.08	.34	4.82	< .001	0.23 - 0.53	.72 - 1.39
Perceived Vulnerability	0.24	0.06	.29	4.12	< .001	0.12 - 0.36	.65 - 1.54
Perceived Severity	0.18	0.07	.18	2.59	.010	0.04 - 0.32	.58 - 1.72
Emotional Valence	-0.14	0.09	-.11	-1.61	.109	-0.31 - 0.03	.78 - 1.28

Source: Author Compilation and Generated Through SPSS

Emotional arousal emerged as the strongest predictor of purchase intention ($\beta = 0.34$, $t = 4.8$, $p < .001$), followed by perceived vulnerability ($\beta = 0.29$, $t = 4.1$, $p < .001$). Perceived severity showed a weaker but significant relationship ($\beta = 0.18$, $t = 2.6$, $p < .01$), while emotional valence was not a significant predictor in the multivariate model ($\beta = -0.11$, $t = -1.6$, $p = .11$).

These findings suggest that emotional activation and personal threat perception are the primary mechanisms through which fear appeals influence purchase intentions in insurance advertising.

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4.5 Demographic Differences

4.5.1Age Group Differences

Table 6: One-Way ANOVA - Purchase Intention by Age Group						
Source	**SS**	**df**	**MS**	**F**	**Sig.**	**η^2**
Between Groups	18.47	3	6.16	8.34	< .001	.09
Within Groups	181.23	246	0.74			
Total	199.70	249				

Post-hoc Comparisons (Tukey HSD)

Age Group	Mean	SD	25-30	31-40	41-50	51-60
25-30 years (n=63)	3.23	1.02	-	-.57	-.17	.12
31-40 years (n=68)	3.80	0.87		-	.40	.69
41-50 years (n=71)	3.40	0.83			-	.29
51-60 years (n=48)	3.11	1.08				-

Source: Author Compilation and Generated Through SPSS

Significant age-related differences emerged in purchase intention responses ($F(3,246) = 8.34$, $p < .001$, $\eta^2 = .09$). Participants aged 31-40 years demonstrated significantly higher purchase intentions ($M = 3.80$, $SD = 0.87$) compared to all other age groups. This finding suggests that individuals in their thirties, typically facing peak family and financial responsibilities, may be most receptive to fear-based insurance messaging.

4.5.2 Gender Differences

Table 7: Independent Samples t-test - Gender Differences						
Variable	**Male (n=130)**	**Female (n=120)**	**t**	**df**	**Sig.**	**Cohen's d**
	M (SD)	M (SD)				
Emotional Arousal	3.72 (0.81)	4.09 (0.73)	-3.89	248	< .001	0.49
Emotional Valence	2.21 (0.69)	2.04 (0.73)	1.95	248	.052	0.24
Perceived Severity	3.79 (0.95)	3.90 (0.86)	-0.98	248	.328	0.12
Perceived Vulnerability	3.08 (1.12)	3.36 (1.02)	-2.13	248	.034	0.27
Purchase Intention	3.46 (0.96)	3.59 (0.89)	-1.14	248	.256	0.14

Source: Author Compilation and Generated Through SPSS

Note: Equal variances assumed based on Levene's test

Gender differences emerged primarily in emotional processing rather than behavioral intentions. Female participants demonstrated significantly higher emotional arousal ($M = 4.09$ vs. $M = 3.72$, $p < .001$, $d = 0.49$) and perceived vulnerability ($M = 3.36$ vs. $M = 3.08$, $p = .034$, $d = 0.27$) compared to male participants. However, purchase intentions did not differ significantly between genders ($p = .256$), suggesting that while women experience stronger emotional responses to fear appeals, this does not translate into differential purchase likelihood.

4.5.3 Income Level Analysis

Table 8: One-Way ANOVA - Purchase Intention by Income Level						
Source	**SS**	**df**	**MS**	**F**	**Sig.**	**η^2**
Between Groups	7.23	2	3.62	4.68	.010	.04
Within Groups	190.89	247	0.77			
Total	198.12	249				

Post-hoc Comparisons (Tukey HSD)

Income Level	n	Mean	SD	Below ₹5L	₹5-10L	Above ₹10L
Below ₹5 lakhs	85	3.31	1.01	-	-.39**	-.13
₹5-10 lakhs	105	3.70	0.85		-	.26
Above ₹10 lakhs	60	3.44	0.83			-

Source: Author Compilation and Generated Through SPSS

Income-based analysis revealed significant differences in purchase intentions ($F(2,247) = 4.68$, $p = .010$, $\eta^2 = .04$). Middle-income participants (₹5-10 lakhs annually) exhibited the highest purchase intentions ($M = 3.70$), significantly higher than lower-income participants ($M = 3.31$, $p = .010$). This pattern suggests that fear appeals may be most effective among consumers with moderate disposable income who can afford insurance premiums while still experiencing financial vulnerability concerns.

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4.7 Advertisement-Specific Analysis

Individual advertisement analysis provided insights into which fear scenarios were most effective. Advertisement 1 (family financial struggle) generated the highest overall purchase intention scores (M = 3.9, SD = 0.9), followed by Advertisement 2 (medical emergency) with M = 3.5 (SD = 0.8), and Advertisement 3 (elderly insecurity) with M = 3.2 (SD = 1.0).

Table 9: Repeated Measures ANOVA - Advertisement Comparison

Variable	Advertisement 1	Advertisement 2	Advertisement 3	F	Sig.	η^2
	M (SD)	M (SD)	M (SD)			
Emotional Arousal	4.21 (0.89)	3.82 (0.84)	3.67 (0.92)	12.40	< .001	.05
Purchase Intention	3.87 (0.89)	3.49 (0.85)	3.21 (1.05)	18.73	< .001	.07
Perceived Severity	4.12 (0.83)	3.78 (0.88)	3.62 (0.95)	9.87	< .001	.04
Perceived Vulnerability	3.34 (1.02)	3.16 (1.11)	3.14 (1.12)	1.84	.161	.01

Source: Author Compilation and Generated Through SPSS

Advertisement comparisons revealed significant differences across multiple outcome variables. Advertisement 1 (family security) consistently produced the strongest responses across emotional arousal, purchase intention, and perceived severity measures. Pairwise comparisons using Bonferroni correction indicated that Advertisement 1 differed significantly from both other advertisements on all measures except perceived vulnerability.

5. DISCUSSION

This study provides compelling evidence for the effectiveness of fear-based advertising in the Indian insurance market, while demonstrating the viability of survey-based approaches for neuromarketing research. The findings align closely with established theories of fear appeal processing, particularly Witte's (1992) Extended Parallel Process Model, while offering new insights into the cultural and demographic factors that moderate these relationships.

The strong positive correlation between fear appeal intensity and emotional arousal ($r = 0.62$) supports the fundamental premise of fear appeal theory that threatening messages activate emotional processing systems. More importantly, the significant relationship between fear appeals and purchase intention ($r = 0.57$) demonstrates that this emotional activation translates into meaningful behavioral responses in the insurance context.

The regression analysis results highlight the central role of emotional arousal as a mediator between fear stimuli and behavioral responses. The finding that emotional arousal was the strongest predictor of purchase intention ($\beta = 0.34$) supports neuromarketing research showing that emotional activation is a key driver of consumer decision-making processes (Plassmann et al., 2015). The prominence of perceived vulnerability as a significant predictor of purchase intention ($\beta = 0.29$) provides important theoretical insights. The stronger correlation between perceived vulnerability and purchase intention ($r = 0.51$) compared to perceived severity ($r = 0.39$) suggests that personal relevance of the threat may be more important than threat magnitude in driving behavioral responses. This finding supports the EPPM proposition by Witte (1992) that both threat dimensions are necessary but extends understanding by suggesting that vulnerability may be more directly linked to personal motivation in insurance contexts. This result is consistent with recent research by Williams (2012), who found that moderate levels of fear combined with high personal relevance were more effective than high-intensity fear appeals in generating positive attitudes toward life insurance. Our findings extend Williams' work by providing quantitative evidence for the relative importance of vulnerability versus severity in the Indian market context.

The demographic analysis reveals nuanced patterns in fear appeal effectiveness. Participants aged 31-40 showed the highest response rates, likely reflecting peak family and financial responsibilities that heighten vulnerability perceptions. While female participants demonstrated higher emotional arousal ($M = 4.1$) compared to males ($M = 3.7$), consistent with established gender differences in emotional processing, the absence of significant gender differences in purchase intention suggests that behavioral outcomes depend more on perceived vulnerability and life circumstances than emotional processing variations.

The income-level analysis revealed that middle-income participants (₹5-10 lakhs annually) showed the highest purchase intentions, which aligns with recent consumer behavior research indicating that middle-income segments represent the primary growth opportunity for insurance companies (Deloitte, 2024). This finding suggests that fear appeals may be most effective among consumers who have sufficient disposable income to act on their concerns but still feel vulnerable to financial risks.

The overall effectiveness of fear appeals in this study may be enhanced by cultural factors specific to the Indian context. The collectivistic nature of Indian society, with its emphasis on family responsibility and security, may amplify the impact of fear-based insurance messaging (Hofstede, 2001; Sharma & Sharma, 2009). The superior performance of Advertisement 1, which focused on family financial security, supports this interpretation and aligns with recent cross-cultural research by Chen and Zhang (2020), who found that collectivistic societies showed stronger emotional activation and behavioral intentions when fear appeals emphasized family and social consequences rather than individual risks.

Our findings are particularly relevant given recent research by Sharma et al. (2022), who found that Indian consumers' risk perceptions increased significantly during the COVID-19 pandemic, with 78% reporting heightened awareness of health and financial vulnerabilities. This heightened risk awareness in the current context may enhance the effectiveness of fear-based insurance appeals, though it also raises ethical considerations about exploiting pandemic-related anxieties, as discussed by Roberts and Chen (2021) in their ethical framework for emotional advertising.

This study makes important methodological contributions to neuromarketing research by demonstrating the effectiveness of survey-based emotional measurement as an alternative to expensive neuroimaging techniques. The significant correlations between SAM ratings and behavioral outcomes support the validity of self-report measures for capturing emotionally-driven decision processes, consistent with validation research by Bradley and Lang (1994) and recent confirmatory studies by Mehta and Purvis (2022).

Our findings are particularly relevant in the context of digital transformation in insurance marketing. Recent industry analysis indicates that 69% of insurance consumers conduct online searches before making decisions, and over 50% of searches are performed on mobile devices (Invoca, 2023). The effectiveness of fear appeals demonstrated in our study suggests that these emotional strategies can be successfully adapted for digital environments, though the shortened attention spans and multi-device consumption patterns may require modifications in message delivery and timing.

5.1 Practical Implications for Insurance Marketing

The research offers several practical insights for insurance marketing. The effectiveness of moderate fear intensity suggests calibrated approaches are more effective than extreme appeals. The importance of perceived vulnerability indicates advertisements should emphasize personal relevance and individual risk exposure rather than general threat severity. Age-related response patterns suggest targeted messaging strategies, with the 31-40 demographic representing a priority target for fear-based campaigns. The superior effectiveness of family-focused scenarios confirms that cultural alignment remains crucial for fear appeal success in the Indian market.

5.7 Limitations and Future Research Directions

Several limitations should be acknowledged. The cross-sectional design limits causal inferences, and reliance on self-report measures may not capture all emotional processing aspects. The focus on LIC advertisements limits generalizability to other insurance companies. Future research should examine long-term effects of fear appeal exposure, investigate cultural variations across Indian regions, and explore individual difference variables in moderating fear appeal responses. Combining survey methods with accessible physiological measures could provide more comprehensive emotional assessment while maintaining cost-effectiveness.

6. CONCLUSION

This study provides robust evidence for fear-based advertising effectiveness in India's insurance market, demonstrating that accessible research methods can yield meaningful neuromarketing insights. The findings confirm that appropriately calibrated fear appeals generate significant emotional arousal and increase purchase intentions when personally relevant to consumers. The research contributes theoretically by supporting established fear appeal models while revealing cultural and demographic moderators. Methodologically, it proves survey-based approaches can deliver valuable neuromarketing insights without neurophysiological measurement. Practically, it offers evidence-based guidance for insurance marketers seeking optimization strategies. The key finding that emotional arousal and perceived vulnerability drive insurance purchase intention extends beyond insurance to risk-related products in financial services, healthcare, and security industries. This study advances neuromarketing recognition as a valuable consumer behavior framework, even without traditional neuroscientific techniques. This research affirms fear-based advertising as viable for Indian insurance marketing while emphasizing proper calibration, cultural sensitivity, and ethical implementation, opening new avenues for diverse neuromarketing applications.

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