An Empirical Study of Market Potential of Digital Advertisement in Automation Sector with Special Reference to Pune City (India)

Rohan Dahivale[1] and Dr. Vikas Inamdar[2]

[1]*Research Scholar, IMCC, Mayur Colony, Kothrud, Pune*
[2]*Director, IMCC, Mayur Colony, Kothrud, Pune*

Abstract: This research paper gives an overview of the extent to which use of digital advertising can influence the industry; especially, the medium scale industries involved in the business of industrial automation in India. It gives an insight of the information available about digital marketing, its acceptance in India, the challenge what the automation industry is facing, finds the gaps, gives food for thought for the industry to enter the digital advertising (in a big way) and also to companies involved in business of digital marketing services to look into automation industry as a prospect to enhance their customer base. The main idea is to find out if the use of all the vital tools of digital advertising like mailers, promotion through SMS, online advertisements, popping up of the product information in customers' most visited site, can bring about the solutions which the automation industry is looking for.

The research narrows down the focus to the medium size automation companies in India. The author, through this study, finds out the pain areas for marketing faced by customers in this industry and whether the option of using digital platform is good for them. By use of digital advertising, will the industry overcome the issues of cost which they are facing today on conventional marketing?

Keywords: Digital Advertisement, Automation Sector, Market Potential

Introduction: Automation Industry in India

India industrial automation industry is expected to reach INR 197 billion by 2020 with growth driven by rapid adoption of modern technology backed by cost saving features.

Future growth of India's industrial automation is expected to be led by increasing industrial growth which has led to growth in demand for sustainable and energy efficient products.

Table 1: Total Media, Digital Advertisement and Mobile Advertisement Spending in India (Figures in USD Billion)

Year	Total Media Advertisement Spending	Digital Advertisement Spending	Mobile Internet Advertisement Spending
2013	5.56	0.57	0.03
2014	6.11	0.74	0.08
2015	6.4	0.94	0.17
2016	7.03	1.17	0.35
2017*	7.49	1.46	0.59
2018*	7.94	1.78	0.94
2019*	8.53	2.17	1.23

Source: http://www.emarketer.com

*Data for year 2017 to 2019 are forecasted using moving average and exponential method.
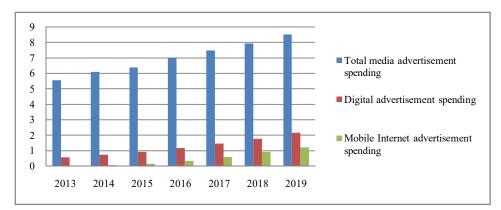
Fig. 1: Total Media, Digital Advertisement and Mobile Advertisement Spending in India (2013–19)
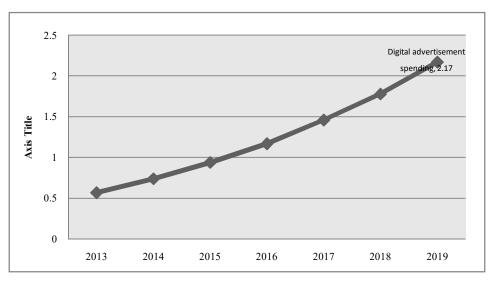

Fig. 2: Digital Advertisement Spending in India (2013–2019)

From the graphs, we can see a sure growth consistently rising as increasing scope for digital advertisement in India.

Objectives of the Study

1. To study basic concepts and growth of digital advertisements in India.

2. To understand external forces (Porter's Five Forces) for digital advertisements in Pune City (India).

3. To compare traditional versus digital advertisements in automation sector.

4. To analyze market potential in automation sector.

Research Problem

In India, automation sector is growing with fast pace but majority of the companies are using traditional ways for advertising their products and services. Thus, they are unable to reach to the exact target customers and they may lose impact of advertisements. Digital advertisements have huge potential and may help them to reach the target market. There is a need to find and analyze the market potential of digital advertisements in automation sector. There is a need to analyze the gap between implementation of traditional versus digital advertisements in automation sector in India.

Research Design

Table 2: Research Design

S. No.	Parameter	Description
1	Type of research	Descriptive and Exploratory Research
2	Research Instrument	Structured Questionnaire
3	Survey period	15 July to 15 October 2017
4	Method of data collection	Sample Survey Method
5	Population	Automation Companies in Pune City (India)
6	Sample Frame	List of Automation Companies in Pune City
7	Sample Size	90
8	Sampling Method	Non-Probability Snowball Sampling
10	Primary sources	Structured Questionnaire and Interview
11	Secondary sources	Books, Journal, Magazines, Websites
12	Measurable scale used	Nominal and Interval Scale
13	Question Type	Multiple Responses, Differential Scales
14	Rating Scale	Likert Scale
15	Data interpretation	Though Graphs, Descriptive Statistics
18	Statistical software Package	Ms Excel and SPSS

Data Analysis

Sample Size Calculation

$$\text{Sample Size} = \frac{\dfrac{z^2 \times p(1-p)}{e^2}}{1 + \left(\dfrac{z^2 \times p(1-p)}{e^2 N}\right)}$$

Where

Population Size = N, Margin of error = e, z-score = z

In this survey,

Population Size = 117

Confidence Level (%) = 95 %

Margin of error = 5 %

Thus, in this survey: **Sample Size = 90**

The following analysis is done after collection of the entire distributed questionnaire. (QN 1 to QN3 are Name, Address and Contact details of the responders)

QN 4: Position in the organization

Table 3

S. N.	Particulars	Response	Response (%)
A	Department Head (Advertisement/ Sales)	47	52.22
B	Marketing Manager	29	32.22
C	CEO/ Board of Director / Owner	14	15.56
	Total	90	100.00

QN5: How long have you been doing the business in automation sector?

Table 4

S. N.	Particulars	Response	Response (%)
A	Less than 1 Year	18	20.00
B	1 to 5 Years	35	38.89
C	More than 5 Years	37	41.11
	Total	90	100.00

QN 6: How much is the annual turnover of your organization?

Table 5

S. N.	Particulars	Response	Response (%)
A	Less than Rs. 10 Cr	57	63.33
B	Between Rs. 10 Cr. to Rs. 100 Cr	25	27.78
C	More than Rs. 100 Cr	8	8.89
	Total	90	100.00

Note: For next section, researcher has designed questions in Likert Scale from 1 to 5 (Strongly Agree to Strongly Disagree) as shown.

Table 6

Likert Scale	Strongly Agree		Agree		Neutral			Disagree		Strongly Disagree	
Weight	1		2		3			4		5	
QN	Questions				1	2	3	4	5	Total	
							Response				
QN 7	I heard that 'digital advertisement' is the emerging concept in India				19	46	21	3	1	90	
QN 8	Currently we are using digital advertisements to reach our clients				8	16	8	22	36	90	
QN 9	For automation industry, digital advertisements are more suitable than traditional ways				38	47	3	1	1	90	
QN 10	In future we will use digital advertisements to gain high returns on investments				52	21	14	2	1	90	

Fig. 3: Graph for QN 7 to 10

Table 7

SPSS Report				
	Digital Advertisements: Emerging Concept	**Currently Using Digital Advertisements**	**Automation Industry: Digital Advertisements Suitable**	**In Future: We Will Use Digital Advertisements**
Mean	2.12	3.69	1.67	1.66
N (Sample)	90	90	90	90
Std. Deviation	0.819	1.387	0.703	0.901
Median	2.00 (Agree)	4.00 (Disagree)	2.00 (Agree)	1.00 (Strongly Agree)
Variance	0.670	1.925	0.494	0.813
Skewness	0.648	-0.660	1.565	1.308
% of Total N	100.0%	100.0%	100.0%	100.0%

Traditional Versus Digital Advertisements

Lowest Neutral Highest						
-3	-2	-1	0	1	2	3
(Please tick √ in front of your opinion)						

Table 8: Response (Traditional *vs* Digital Marketing)

QN	Traditional Advertisements							Parameter	Digital Advertisements						
	-3	-2	-1	0	1	2	3		-3	-2	-1	0	1	2	3
Q11	13	9	32	19	8	6	3	Reduced Cost	2	5	8	12	23	29	11
Q12	18	25	12	11	15	7	2	Real Time Results	4	8	7	11	17	34	9
Q13	16	29	15	14	6	9	1	Brand Development	1	5	6	9	24	17	28
Q14	8	42	13	8	14	3	2	More Attention	3	7	11	8	41	12	8
Q15	7	38	21	15	5	4	0	Higher Exposure	2	5	9	8	11	42	13
Q16	27	12	25	19	6	1	0	Higher Engagement	11	13	17	19	22	6	2
Q17	32	21	19	5	8	2	3	Quicker Publicity	1	2	4	7	13	44	19
Q18	27	36	11	6	7	3	0	Suitable for Automation Business	0	1	3	3	16	52	15
Q19	31	14	19	12	8	5	1	Easy to Analyze	2	2	1	4	14	47	20
Q20	6	21	16	18	13	9	7	Deeper Reach	7	15	16	27	12	9	4
Q21	5	9	11	17	12	28	8	Simple Process	17	35	11	9	8	4	6
Q22	3	6	9	13	16	34	9	Local Reach	12	32	17	13	6	8	2
Q23	19	27	21	9	13	1	0	More Impact	8	9	14	17	32	9	1
Q24	5	3	12	8	39	14	9	Personal Reach	11	14	22	15	8	11	9
Q25	18	33	21	15	3	0	0	Better Image	0	2	3	8	11	42	24

Calculation of Means

Table 9: Calculated Mean (Traditional *vs* Digital Marketing)

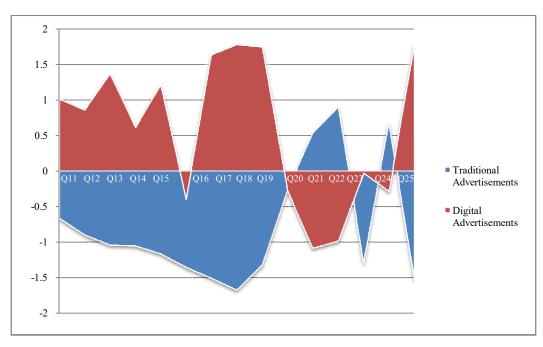| QN	Parameter	Traditional Advertisements Calculated Mean	Digital Advertisements Calculated Mean
Q11	Reduced Cost	−0.667	+1.011
Q12	Real time results	−0.900	+0.856
Q13	Brand development	−1.044	+1.367
Q14	More attention	−1.056	+0.611
Q15	Higher Exposure	−1.167	+1.211
Q16	Higher Engagement	−1.356	−0.400
Q17	Quicker Publicity	−1.511	+1.633
Q18	Suitable for Automation Business	−1.678	+1.778
Q19	Easy to Analyze	−1.322	+1.744
Q20	Deeper Reach	−0.267	−0.278
Q21	Simple Process	+0.533	−1.089
Q22	Local Reach	+0.900	−0.989
Q23	More Impact	−1.300	−1.033
Q24	Personal Reach	+0.678	−0.289
Q25	Better Image	−1.533	+1.788

Fig. 4: Area Graph of Calculated Mean (Traditional *vs* Digital Marketing)

Data Interpretation (QN 11 to QN 25)

Table: 10 Data Interpretation (Traditional *vs* Digital Marketing)

QN	Parameter	Traditional Advertisements *vs* Digital Advertisements	Winner
Q11	Reduced Cost	Traditional advertisements ways (advertisements in newspaper, magazines, radio, big hoardings, pamphlets, direct mail etc. are much costlier than digital advertisements.	Digital Advertisements
Q12	Real time results	Digital advertisements provide better real time results, which will be helpful for companies. Clients' orders can be immediately taken, when the client is under the influence of the advertisement.	Digital Advertisements
Q13	Brand development	Digital advertisements directly indicate technological advancement of the organization. Thus shows positive in brand development and brand image of the company.	Digital Advertisements
Q14	More attention	Clients will show more attention towards digital advertisements as one can use various effects, popping the news, embossing of the key points and usage of the audio and videos etc.	Digital Advertisements
Q15	Higher Exposure	Digital advertisements certainly have better and higher degree of exposure towards growth of the business.	Digital Advertisements
Q16	Higher Engagement	Clients' engagement and involvement will be more in digital ways than traditional ways. Digital ways ensures quick two-way communication process	Digital Advertisements

Table 10 (Contd.)...

...Table 10 (Contd.)

Q17	Quicker Publicity	With faster technology and communication devices and high speed internet facilities available to almost everyone, the publicity will be quicker for digital advertisements.	Digital Advertisements
Q18	Suitable for automation Business	The response from this key question from responders is important as automation industry and digital advertisements complement each other.	Digital Advertisements
Q19	Easy to analyze	Two ways communication process is faster in digital and thus easy to analyze the impact of advertisements in terms of sales/ profit and newly generated orders.	Digital Advertisements
Q20	Deeper Reach	Digital advertisements can reach to the exact target client. This will enhance chances of the success.	Digital Advertisements
Q21	Simple Process	The fact is both process are simple in nature, but responders feel traditional is simpler because they are used to the process.	Traditional Advertisements
Q22	Local Reach	Traditional advertisements are here for very longer period and have their impact and local reach to clients as well as in rural areas, but slowly this will shift toward digital.	Traditional Advertisements
Q23	More Impact	Than traditional advertisements, digital ways will have better and more impact on clients. The impact in terms of brand image, quicker response and order generation etc.	Digital Advertisements
Q24	Personal Reach	Traditional advertisements may involve face to face communication/ interaction or personal selling. Here traditional advertisements have more advantage than digital. But soon, with advanced technology, the scenario may change.	Traditional Advertisements
Q25	Better Image	Digital advertisements will build better image in clients mind about the organization. This may lead to order generation and growth of the business.	Digital Advertisements

Data Interpretation of Five Forces

(Question: In the context of 'Digital Advertisements for Automation Sector' mark your opinion for following forces)

QN	Forces	Lowest				Neutral					Highest
		1	2	3	4	5	6	7	8	9	10
Q26	Bargaining power of buyers	0	3	2	1	3	3	6	21	34	17
Q27	Bargaining power of suppliers	9	13	42	7	11	4	2	1	0	1
Q28	Rivalry amongst existing competitors	1	0	2	4	5	11	34	22	5	6
Q29	Threat of new entrants	0	0	1	3	3	6	13	17	39	8
Q30	Threat of substitute products	82	4	2	1	0	1	0	0	0	0

Source: Primary Dataop

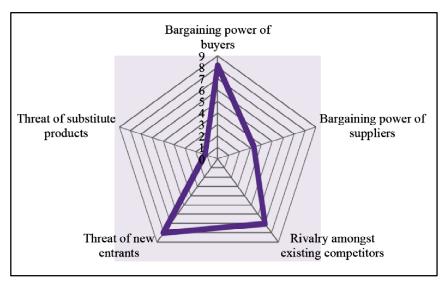| QN	Forces	Calculated Mean
Q26	Bargaining Power of Buyers	8.17
Q27	Bargaining Power of Suppliers	3.33
Q28	Rivalry Amongst Existing Competitors	7.03
Q29	Threat of New Entrants	8.04
Q30	Threat of Substitute Products	1.18

Fig. 5: Porter's Five Force Model

Findings

1. The advertising industry in India has had some drastic changes in the past few years as now the Indian advertising industry has become a large scale industry as compared to the small scale industry they were, a few years ago.

   In Asia, the second fastest growing advertising industry after China is the Indian advertising industry. It is said that by the year of 2018, the Gross Domestic Product (GDP) will be somewhere at 0.45 per cent for the share of the advertisement spend in India.

2. Researcher compared traditional versus digital advertisement in automation industry. The opinions of 90 experts are collected and researcher found that digital advertisements are better as much reduced cost, provides real time results, better image and brand development.

   Digital advertisement provides more attention to clients, quicker publicity of the services more impact and higher client engagement. In the research conducted researcher found that for automation industry, digital advertisements are more suitable than traditional.

3. From the study researcher found that there is huge market potential for digital advertisements in automation sector in India. There is a consistent and rapid growth in digital advertising and wide and deeper spread of digital advertisements in India. There is still usage of traditional advertisements than digital advertisements in automation companies in Pune City but in future the sector will use digital advertisements to gain high returns on investments.

4. While analyzing competition of a business using Porter's five forces model, researcher found that there is high threat of new entrant in the competition and there is almost no

threat as of the substitute services for digital advertisements in automation sector. The bargaining power of automation industries is more than digital advertisement companies and bargaining power of supplier is less. There is higher rivalry amongst existing competitors.

Conclusion

There is a desperate need for automation industries in India to start entering into the usage of digital platforms for their business. This also opens up a big untapped market for the service providers of digital advertising companies.

The research can be of help to most of the marketing mangers of industry to find out various options available with them suiting to their requirements.

References

[1]   Russell, S.W. (2008). Marketing Management (3rd ed.), Derling Kindersly.
[2]   Leon, G.S., Kanak, L.L. and Ramesh Kumar, S.P. (n.d.). Consumer Behaviour (3rd ed.), Dorling Kindersley Pvt. Ltd.
[3]   Foundation, I.I.B.E. (2017). Advertising and Marketing Industry in India. https://www.ibef.org/industry/advertising-marketing-india.aspx
[4]   Alexander, L. (2016). What Is Digital Marketing?
[5]   Scott, S. (2017). Examples of Digital Advertising. http://smallbusiness.chron.com/examples-digital-advertising-10662.html
[6]   Gupta, N. (2017). How Digital Advertising Industry Is Growing in India. http://www.iamwire.com/2017/06/digital-advertising-industry-growth-india/154069
[7]   Bunskoek, K. (2017). 10 Steps to Email Automation Success.
[8]   OECD (2017). Key Issues for Digital Transformation in the g20. https://www.oecd.org/g20/key-issues-for-digital-transformation-in-the-g20.pdf
[9]   Rumelt, R.P., Schendel, D. and Teece, D.J. (1991). Strategic Management and Economics, *Strategic Management Journal*, Vol. 12, pp. 5–29.
[10] Robinson, R. (2005). Charity Village.
[11] KEN RESEARCH (n.d.). http://www.news.kenresearch.com
[12] Kothari, C.R. (2004). Research Methodology: Methods and Techniques (rev. ed.), Jaipur: New Age International.
[13] Porter, M.E. (1979). How Competitive Forces Shape Strategy, *Harvard Business Review*, 59(2), pp. 137–145.